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ERP acquisition in small businesses

Case Helpten

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<p>The objective of this thesis was to survey which, or what kind of Enterprise Resource Planning system is most suitable for the growing small-business Helpten and to make a proposal to Helpten management on the most suitable system provider. The aim was to find a system to support business in a better way than the current system.</p> <p>Literature on ERP acquisition was studied to support the system survey. The focus was on system acquisition in small businesses. As part of the study a requirement specification for the new system was made between management and employees in the customer company. Based on the requirement specification currently available, ERP systems were surveyed for suitable alternatives and potential ERP system providers were interviewed.</p> <p>Three different systems were compared and scored based on criteria of the requirement specification. On the basis of the comparison and system presentations it could be concluded that the best system to meet the needs of Helpten could be Microsoft Dynamics NAV and Dynamics CRM. The delivery model and the functionality of the system responded to the imposed demands set by the company.</p> <p>The study also showed that large system providers also provide good system alternatives for small businesses, taking their specific needs into account. The survey also showed the challenges of information system acquisition in a small business, where similar acquisitions have not been done before. Based on the study it was found that special attention has to be put to the planning and requirement specification of the new system.</p>	
Keywords	ERP, SME, business process

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<p>Opinnäytetyön tavoitteena oli selvittää, mikä tai millainen toiminnanohjausjärjestelmä on sopivin kasvavan pienyritys Helptenin liiketoiminnan tukemiseen ja tehdä ehdotus Helptenin johdolle parhaiten soveltuvasta järjestelmätoimittajasta. Tavoitteena oli löytää nykyistä järjestelmää paremmin soveltuva järjestelmä.</p> <p>Toiminnanohjausjärjestelmän hankintaan liittyvää kirjallisuutta tutkittiin järjestelmäkartoituksen tueksi. Painopiste kirjallisuustutkimuksessa oli pienyrityksen järjestelmähankinnassa. Osana selvitystä asiakasyrityksessä tehtiin vaatimusmäärittelyä järjestelmää varten johdon sekä työntekijöiden kesken. Vaatimusmäärittelyn perusteella kartoitettiin markkinoilla tällä hetkellä saatavissa olevia toiminnanohjausjärjestelmiä ja haastateltiin potentiaalisia tietojärjestelmätoimittajia.</p> <p>Kolmea eri järjestelmää verrattiin ja pisteytettiin vaatimusmäärittelyn mukaisin kriteerein. Vertailun ja järjestelmä-esittelyjen pohjalta voidaan todeta, että parhaiten Helptenin tarpeita vastaava järjestelmäkokonaisuus on Microsoftin Dynamics NAV sekä Dynamics CRM. Järjestelmäkokonaisuuden toimitusmalli sekä sen toiminnallisuudet vastasivat yrityksen sille asettamiin vaatimuksiin.</p> <p>Näyttää myös siltä, että isot järjestelmätoimittajat tarjoavat hyviä järjestelmävaihtoehtoja myös pienyrityksille ottaen huomioon niiden erityistarpeet. Selvitys osoitti myös tietojärjestelmähankinnan haasteet pienyrityksessä, jossa vastaavia hankintoja ei olla aikaisemmin tehty. Selvityksen perusteella voitiin todeta, että järjestelmähankinnan esisuunnitteluun ja vaatimusmäärittelyyn tulee kiinnittää erityistä huomiota.</p>	
Avainsanat	Toiminnanohjausjärjestelmä, pk-yritys, liiketoimintaprosessi

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Appendix 1. System provider comparison chart

List of abbreviations

CRM	Customer Relationship Management is a concept that includes a customer-oriented mindset in the organization and its associated information systems.
ERP	Enterprise Resource Planning is an enterprise information system that integrates various functions, such as production, distribution, inventory control, invoicing and accounting.
GPRS	General Packet Radio Service is a GSM based packet-switched data service, which is mainly used for wireless Internet connection through a mobile phone.
GPS	Global Positioning System is satellite-positioning system developed and funded by the U.S. Department of Defense
HR	Human Resources is a business function that oversees an organization's human resources. This is called human resource management, HRM, or simply HR.
ISO	The International Organization for Standardization is an international standard-setting organization.
PAYD	Pay As You Drive insurance is a type of vehicle insurance where costs of insurances are based on vehicle usage and place.
SaaS	Software as a Service refers to the acquisition of the software as a service instead of the traditional license-based method. Payment of use is generally based on the scale of usage.
SME	Small and medium-sized enterprises are enterprises where the number of employees is below 50 and the yearly turnover is 50 million Euro or less.

1 Introduction

In today's business, companies continuously have to develop their own activities in order to meet the needs of rapidly changing markets and demanding customers. Companies must continuously cut their internal costs and production costs, while maintaining product quality, competitive pricing and delivery accuracy. Companies have to develop their own products and processes to meet customer requirements. ERP systems can be used to meet these needs.

ERP stands for Enterprise Resource Planning and means planning, guiding and streamlining a company's operations and resources through computer software systems. ERP systems were initially MRP systems (Material Requirement Planning), from where they evolved to ERP systems of today. ERP systems are intended to cover all the company's core operations, regardless of industry or size. Systems are designed to manage all business related activities from a shared database and they usually consist of hardware and software modules that share data with each other over a data-network. This enables the modification of the module-configuration needed, while maintaining the basic integrity of data in the central database. The database can be centralized or decentralized.

In order for a system to be called an ERP system, it must include at least two different functional parts, which can be CRM (Customer Relationship Management) and SCM (Supply Chain Management). Through these systems all operational parts of the company can be linked together with one single information system. Warehousing, production and logistics can all be linked to ERP system, but in addition also HR (Human Resources) and finance functions can be connected. ERP systems seek to combine the company's internal processes into a single entity. In this way, the processes can be processed individually. And since the information is stored in a database, every individual department of the business has the opportunity to access data produced by another.

ERP systems are used in all internal departments of a company because they all need up to date real-time data concerning business, be it orders of the moment or stock

level, everything is available from the information system. Nobody needs all the data available, but it is still possible depending on how the organization is defined in the system. To maximize productivity, distribution of information should be up to date and automated.

Implementation of a new ERP system may produce not only substantial cost-benefits but also major improvement in operations of a company through routine of operations. Coordination of information is usually easiest if all modules are acquired from the same provider. The companies' own level of professionalism is a key element in integration and implementation of the system because the company itself has the best knowledge of which modules and what kind of data is needed in order to manage business operations. When acquiring an ERP system, close attention has to be paid to what information is most crucial for the company and what is not. ERP software can be very expensive and the implementation itself requires a lot of time and money. But when the system has been introduced successfully it can be used as a tool to review various processes with a critical eye because the system allows for measurement of performance. And when performance can be measured, it can also be improved.

1.1 Background

The client of this thesis is Helpten Ltd, a Finnish driving-data service provider. As I myself have been working at this company, I have seen the challenges and also the possibilities of improving business operations to enable the growth of the company and its services. I became interested in the idea of writing my thesis on ERP acquisition when I was analyzing the current situation in my own and other people's daily work and also the scenarios of increased workload in growing business. I was also interested in how a new ERP system could improve daily operations. The outline for this thesis was agreed on together with Helpten management, who had also seen the need for a new information system to support growing business.

Because of the growing number of business related information, Helpten is looking for a new information system to replace the one used at the moment. Business growth of the company has been very rapid in the last two years and now the company is

reaching a critical situation when it comes to handling business related data, such as order handling, warehouse management and accounting. At the moment this data is managed through different applications not integrated to each other, which is causing a lot of unnecessary work for all departments of the company. In addition, all data handled is not real-time and as such, it does not give a clear view of the company's current situation. Because the company's growth is so rapid, implementing a new information system is seen as a crucial measure and also a strategic action order to enable business growth.

1.2 Objective and structure of the thesis

The objective of this thesis is to clarify which, or what kind of an ERP system is the most suitable for Helpten. To achieve this objective, different ERP systems currently available on the market will be surveyed. Based on the systems analysis, the management of Helpten will be presented with a suggestion on the most suitable system for the company. Once this suggestion is approved, Helpten-management is able to start the implementation process of a new ERP system with the selected system provider.

There are many aspects to cover when selecting an ERP system to be used as business support. Some of these aspects are presented in chapter 2, where general issues regarding an ERP system acquisition and the special characteristics of this in a small business will be presented.

The most suitable system will be chosen based on a requirement specification, which will be presented later, in chapter 4.1. These specifications will be defined based on Helpten's business strategy and business processes. The current offering of ERP systems for SME's on the market has been evaluated, but business growth and new business markets have also been taken into consideration when choosing system providers for evaluation.

The outline for this thesis is to survey potential ERP system vendors and their system offering for small companies with plans for rapid expansion like Helpten. The selection

criteria of the system will be based on Helpten's current business strategy and business processes. This thesis covers phases 1 and 2 of the ERP implementation lifecycle, which will be presented in chapter 2.3. These phases are the survey of business objectives and the requirement specification for the system. Phases 3 and 4 of the lifecycle model deal with implementation and development, which due to the timeframe needed for implementation, will not be covered in this thesis. An ERP system implementation may take months, even in a small business.

1.3 Research method

This thesis includes a theoretical part based on existing research literature on ERP system acquisition in Small and Medium sized Enterprises (SME). The theoretical part covers ERP system acquisition from business strategy to system selection. The theoretical part is followed by an empirical study of the acquisition process in the case company - Helpten.

The theoretical structure is based on literature on information system acquisition. The aim is to get a deeper understanding of the subject. The theoretical information regarding business process management, general information on ERP systems and the acquisition of these systems has been used to support the selection process. The empirical part of the thesis presents the ERP acquisition process as it was done in the case company.

2 Enterprise Resource Planning systems (ERP)

An ERP system is usually one of the largest information-system entities in a company. The role of this system is to act as an integrated and continuous system, where the same information is available to all individual business units and serves them in different functions. The basic internal functions of a company, such as logistics, production and financial administration are usually controlled with an ERP-system.

2.1 History and development of ERP systems

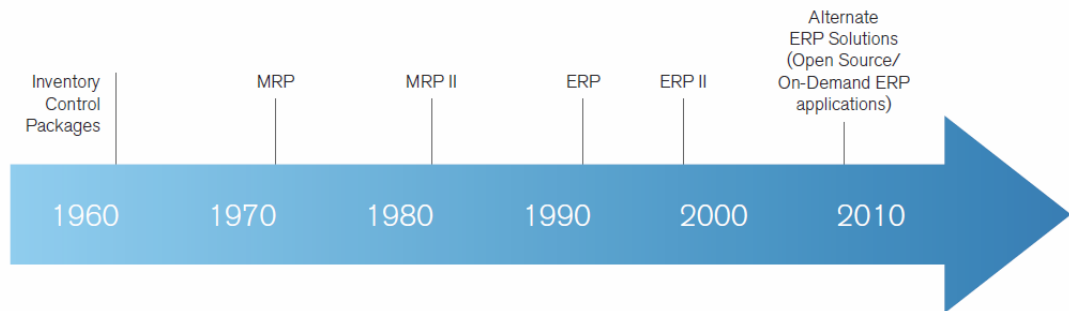
The history of ERP systems can be traced back to the 1960s, when software for warehouse tracking was developed. These systems were mainly used to follow up on warehouse articles. The development of systems supporting production-activities was started in the 1970s. These were called MRP systems, and they were meant to produce material requirement-calculations to support warehousing and procurement. The 1970s were also the time when standardized software started to be developed, instead of the customized software used before.

The 1980s were the start of MRP II systems, which were based on the earlier MRP systems. The new MRP II systems had the major functionalities of the earlier systems, but in addition they also included functions for control of floor-level functions and distribution. The development and distribution was supported by the development of the PC. [1,46-47.] MRP II was seen as a method for effective planning of all resources of a manufacturing company.

Systems were further developed in the 1990s when different parts of business, earlier separate software from MRP were added to the entirety. These functions were project management, financial administration and human resources management. The result, when these functions were added to MRP-systems, is the ERP-concept of today. [1,47.]

The progress of the Internet was strong in the 1990s, which boosted the e-business functions of ERP systems. The systems have grown since then and now integrate most parts of businesses. It is not unusual for companies to integrate their own systems

with their subcontractors' systems. In some cases companies have even required their subcontractors to use ERP systems, which integrate to their own in case of a strategic partnership.



Source: Focus Research analysis

Figure 1. Evolution of ERP systems [2]

Figure 1 shows the timeframe of ERP system evolution from the 1960s to the systems of today. The systems have evolved from company-specific inventory control packages to on-demand solutions.

2.2 ERP system acquisition

ERP implementation is a challenging project, because the company's business must be able to continue without disruption while the new system is implemented. This places high demands on project planning and implementation. Given that the current ERP systems are often extensive software-packages made to cover all business functions, they are also relatively inflexible. Customized software customization is expensive and makes it difficult to maintain and that is why it is especially important to choose software that is best suited to the company's individual approach. [3,7-8.]

An ERP procurement process has its own special characteristics in the case of SMEs. Based on costs, standardized systems with very low level of customization are favored. Smaller companies do not have the resources in the same way as larger organizations, and therefore not as much time can be used for project planning and preparation. The

risk impacts are also significant in the case of SMEs. As there often are very large differences in business-models of SME's, they also have significant company-dependent requirements for the system. This is why SMEs prefer choosing flexible and adaptive options. [3,8-9.]

The development of ERP systems has been based on the needs of large companies, from where the trend has moved more toward small businesses. The activities of a small company are mostly defined by its sales, of which the company lives. The operative functions in a small company produce the outcomes of sales. It is not uncommon for one person to be involved in product development, sourcing and even production at the same time. This can be a completely natural way of working, because one function rarely employs a person entirely. Even if work phases were clearly determined, the input and progress required for these work phases still remain unspecified and therefore actions are not controlled as an entirety. [1,41-42.]

How a company builds and controls its own functions depends not only on the size of the company, but also on the range of products and services, customers and markets. All the elements listed affect the structure of the company's organization and its business processes. Some companies may start off as subcontractors for larger companies. At this time the focus is on manufacturing customer-specific products. Know-how is focused on production and operative functions are concentrated on as strategic planning stays in the background. Productivity and operational excellence are emphasized, which leaves planning the long-term approach unattended. [1,43.]

2.3 ERP implementation lifecycle

The ERP lifecycle model from the end-user point of view is presented in figure 2. As the figure shows, there are four different stages in an information system project.

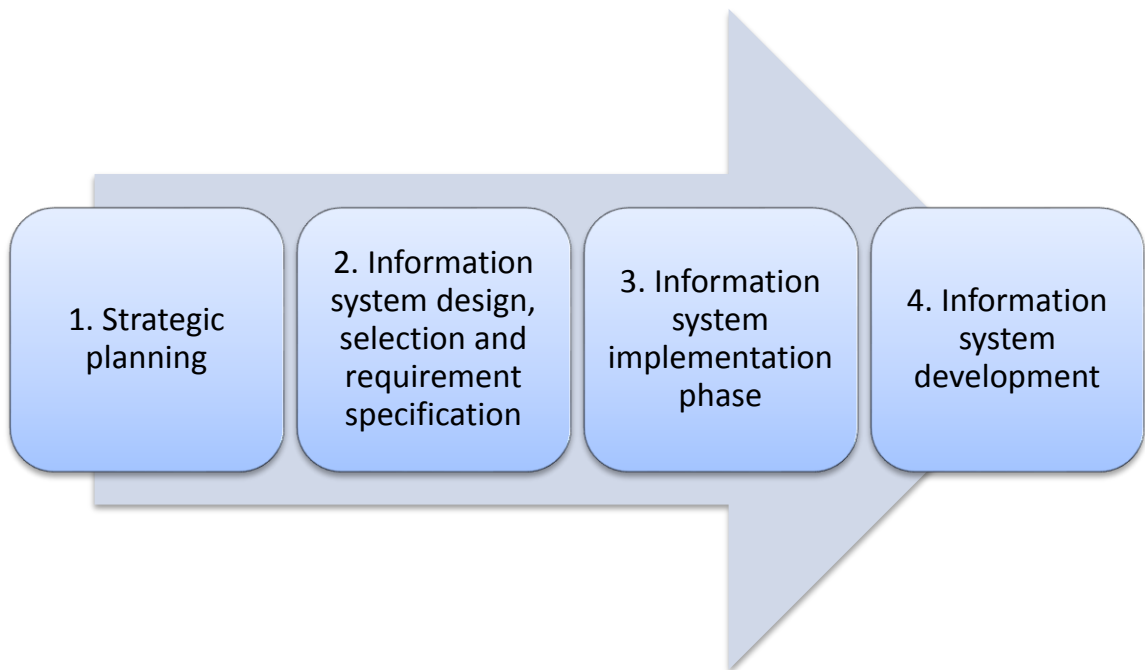


Figure 2. ERP project lifecycle model [1,24]

1. **Strategic planning** is the foundation for business operations and it also defines the role of information technology in a company. This is where mapping of the company's business objectives and thus system conditions are made. Due to the fact that the lifecycle of an information system can be a relatively long-term project, there are many different factors, which have to be taken into account when aligning business strategy with IT-strategy.
2. **Information system design, selection and requirement specification** is the second phase of the project. These actions are pre-planning actions before the implementation-phase. The requirement specification made by a company is seen as the foundation for information system selection. The desired result can be achieved only through a requirement specification that takes different processes and functions into account. By doing this, a deeper understanding between end-user and system provider can be achieved.
3. **Information system implementation phase** is the third phase of the project lifecycle. This phase includes training, customization and possible data

migration from old information systems. The implementation is usually much easier if the whole organization and personnel participates. A critical phase of the implementation is when the new system is taken into production use. This includes planning of operations to fit the new information system.

4. **Information system development** is the fourth and final phase of the project. This phase includes up keeping and improvement of IT-skills. Development of the personnel's skills is also a very important part of this phase. Constant improvement of the information system also helps the company to improve its own processes and possibly even exploit the information system at a new level.

2.4 Requirement specification

The requirement specification and the organizing of these specifications are the key for a successful implementation of ERP acquisition. A common challenge for SMEs is that they usually cannot specify their own operational processes, which leads to an insufficient requirement specification. Insufficient specifications will lead to the company acquiring an ERP system, which does not meet the company's needs. [1,53.]

The requirement specification is made to outline what is required from the system, but not yet how this is to be done. The requirement specification is seen as a key point in system implementation because it affects the outcome of the operational system. Incorrect or inadequate specifications may lead to not getting the full benefits of a new system or great additional costs for the end user. [1,124-125.]

Requirement specifications are mainly based on needs of the users. In the specification-phase these needs have to be recognized, gathered and then put them into order by importance. Many of these needs are guided by technical or financial factors. Some requirements are seen as "must have" and some are "nice to have". The execution of these requirements often has to be a compromise of financial and technical matters. [1,124-125.]

Information systems can be roughly divided into three main categories. The differences in the architectures of these systems guide the structure and the contents of the requirement specification. [1,128.] Customized systems are individual personalized systems made based on customer specific needs, whereas preconfigured and standard systems are mainly the same regardless of customer.

1. **Customized systems** are made purely based on customer needs. Here requirement specification is emphasized because there is no complete solution to build on. The good side of these systems is that the company gets the system exactly as it wants it. There are also negative sides to these kinds of system implementation. Development and maintenance of customized systems requires a lot of resources from both customer and system supplier. The risks of delay and failure are great in a customized option.
2. **Preconfigured and parameterized systems** are one of the most common types of ERP procurement. These are a standard-suite that is fit to customer needs through configuration. This involves choosing modules to be used from a modular system and also setting up the user interface to match customer needs.
3. **Standard systems** are difficult to distinguish from preconfigured systems. Standardized systems are delivered similar every time. These systems are mainly used to support very limited business-functions.

As can be seen above, there are many different kinds of systems to choose from. The decision between systems has to be made on basis of the company's own processes and objectives. It is not uncommon for SMEs to be fooled by an information system provider. It is useful for a company to test different systems with its own data and also to assess references. A small company may feel powerless when facing the strongly dictated tools and delivery-processes of a large systems provider. [1,130.]

Understanding what type of business a company is and what it wants to be is one of the most crucial aspects when choosing an ERP system. It is not realistic for a company to expect that an ERP system would fit its business 100%. A successful

selection and implementation of a new ERP system requires motivated and committed employees. The implementation of a new system is for improving the performance of a company. Implementing a suitable system the wrong way can be as damaging to the company as if it would have chosen an unsuitable system. [4,249-251.]

Implementation of ERP systems in SMEs is a demanding task, because the systems are usually designed for larger enterprises and they support differentiation of functions and hierarchy of leadership. Small businesses rarely have differentiation and specialization of functions, because of the low number of employees. [1,45.]

There are three major aspects, which have to be taken into consideration when it comes to ERP-system acquisition and implementation. [1,8-10.]

1. Commercial ERP systems are usually built for large enterprises and they are rarely suitable for the informal and constantly changing operating-environment of SMEs.
2. SMEs rarely have an IT-strategy to support large new projects. SMEs are at a disadvantage compared to large systems vendors who are aggressive and professional in their marketing.
3. SMEs lack the know-how of system-implementation. The tools for development projects and implementation of a new system are usually missing.

All these aspects have to be taken into consideration at Helpten to make the ERP-implementation a successful project. There are also other aspects that have to be taken into account when starting an ERP-project. These are personnel resources, continuity of business, customer requirements and customer service. The project will affect major parts of the business, and simultaneously the company has to upkeep normal day-to-day operations. A successful project will however provide for major improvements in Helpten's operations and customer satisfaction.

3 Helpten

3.1 Helpten today

Helpten is a Finnish driving-data operator that supplies its customers with services related to driving and the movement of vehicles. The company was founded in 2007 and is owned by private investors. Helpten now has over 300 corporate customers and these customers are served from offices in Finland and Germany. The service itself can be used in 33 countries in five different languages.

According to definitions by the European Commission, Helpten is still a small company. By definition, a small company is a company that employs 50 people or less and the turnover is 10 million Euro or less [5]. Helpten employs 11 full-time employees and a few part-time employees. In addition to the own personnel there are also a number of sales representatives and retailers. These partners now operate mainly in Finland and Germany, but partner activity has increased also in other European countries. The expanding network of international sales also sets requirements for the new ERP system to support these business partners around the globe.

Helpten provides driving data services with the slogan "Smarter Driving". Through its services, Helpten aims to increase efficiency and lower harmful emissions in today's vehicle traffic. The driving-data service helps customers to improve profitability of its customer business through systematic management of driving related data. The service is web-based and does not require additional software purchasing or installations. The driving-data service can be used to manage all business related vehicles in different countries; commercial vehicles, company cars and also the employees' own cars.

Emissions caused by vehicles have to diminish, and this cannot be achieved only by producing vehicles with lower emissions or by building a more effective road network. As is with any performance indicators, if they can be measured they can be improved. The same can be said for driving and the information linked to it. How can you decrease the kilometers driven if you do not know how much you are driving at the

moment? Helpten driving-data services encourage people to safe, cost-effective and environmentally friendly driving.

The current potential for vehicle telematics is very large. There are 800 million vehicles in Europe alone, of which 85% are passenger cars. The main income for Helpten at the moment is from commercial vehicles, but this will soon shift to private vehicles through new models in insurance payments and road charging.

There has been general discussion about the subject of PAYD (Pay As You Drive)-models in vehicle insurances and possible road charging, and this is also seen as a major business opportunity. The PAYD model is usage based insurance, where motor insurance costs are dependent of type of vehicle used, measured against time, distance, and place. This type of insurance payment model attempts to differentiate and reward "safe" drivers, giving them lower insurance fees. The Finnish Ministry of Transport and Communications has also set up working groups to map out the possible solutions for a road charging system in Finland [6]. There has also been debate about the congestion charging in the Helsinki area, which has been studied further. A satellite-based system is seen as an alternative [7]. This is a major opportunity for Helpten if the satellite-based system is chosen.

3.2 Helpten driving-data service

Helpten provides driving-data services for both private customers and businesses. Private customers mainly use the driving data as a personal driver's log, based on which they charge their employers for driven kilometers. Business customers are mainly users with larger vehicle fleets that they want to monitor. The driving data service provides for real time tracking of vehicles, so the service is also used in companies where 24/7 emergency readiness is maintained. These are for example elevator emergency call out, plumbing services or facility services. Service centers identify the service-vehicle closest to the target and save a lot of time by not having to drive back and forth. By using Helpten services customers are able to measure driving related data, which can help customers to improve driving habits and save costs on fuel and maintenance costs. This is possible for all Helpten customers.

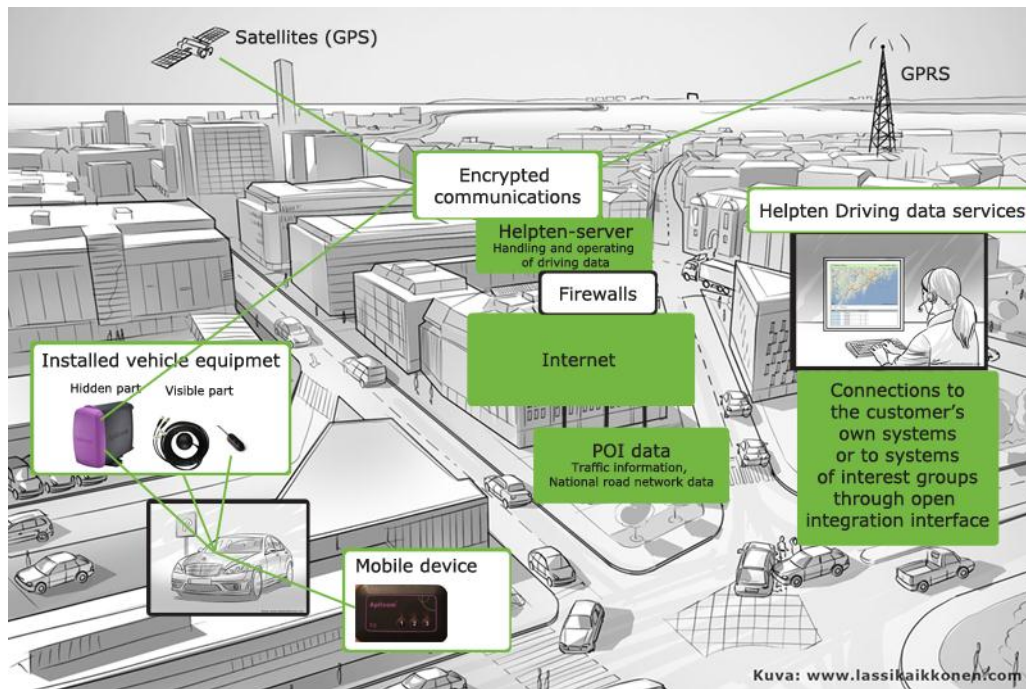


Figure 3. Helpten multiservice system

In order for the driving-data service to function, each vehicle has to be equipped with a separate in-car telematics device. This device is connected to the vehicle's own power system and tracks vehicle movement based on GPS-data. Real-time data is processed in the telematics-device and is then sent to Helpten's data server over a GPRS network. When the server has received the driving data it is processed for displaying to the customer. The customer is able to analyze this data by using a web-browser and logging in to Helpten's driving-data service. From the service, customers are able to see vehicle movement in real-time and also make usage- and taxation-reports. The Helpten service description can be seen in figure 3.

3.3 Business outlook 2020

The aim for Helpten is to be the leading brand of driving data services in Europe by the end of 2020. This goal will be achieved by creating service packages that can easily be expanded by linking them to different services and information systems, for example parking services and travel expense systems. Helpten's range of services range from

company owned commercial vehicles, leased vehicles and privately owned vehicles where driving data services are seen as commodities.

The largest boost for business will be changes in payment models in vehicle insurance. As Helpten sees it, most commercial vehicles will be equipped with some kind of devices linking vehicles to an ITS (Intelligent Traffic System) by the year 2020. New models in insurance payments and road charging will make Helpten's driving-data service a commodity for customers.

Investing in an ERP-system is a strategic action to increase competitiveness. Investing in a new ERP system is also seen as a measure to help the company grow larger.

4 Business processes

Technological progress has led to major improvements in the way companies are able to handle accounting and logistics through software systems and outsourcing of functions. This on the other hand, may cause problems with internal communication, depending on the level of autonomy of functional areas. A company may be divided into different smaller departments with their own tasks. Business processes are created in order to deal with the execution and coordination of these tasks. [8,2-4.]

According to Becker and Kahn a process is separated from a business process as follows [8,4]:

A process is a completely closed, timely and logical sequence of activities, which are required to work on a process-oriented business object. Such a process-oriented object can be, for example, an invoice, a purchase order or a specimen. A business process is a special process that is directed by the business objectives of a company and by the business environment. Essential features of a business process are interfaces to the business partners of the company (e.g. customers, suppliers). Examples of business processes are the order processing in a factory, the routing business of a retailer or the credit assignment of a bank.

In this chapter Helpten's core business processes will be presented. The linking of these business processes to an ERP-system will also be analyzed. As processes are, in Helpten's case tightly linked to the information system, business processes are presented from sales management to invoicing.

At the moment, Helpten's internal processes have not been documented to a sufficient level. It is, however, extremely important to design and document these processes when implementing the new ERP system. Processes and rules linking the processes have to be determined in order for them to be determined into the new system. This is the foundation of daily operations and benefits fluency of business operations. It is important for businesses to have routines in operations, but it is also important for a company not to get stuck in these routines but to strive towards a culture of constant self-improvement. Routine work can be made by computer software and people can make the decisions how these routines are to be made.

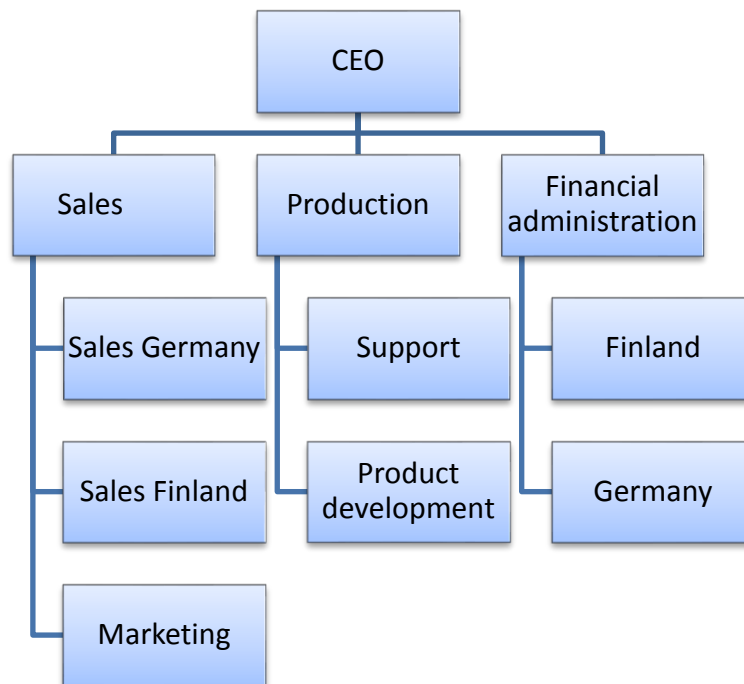


Figure 4. Helpten's organization

Core business processes in the company are sales, production and financial administration. Marketing supports sales and management gives direction for operations and supports all functions.

The current internal processes are strongly linked to the old information system and therefore these will not be presented. Some processes have to be modified in order for them to work with the new ERP. The new system will most likely be completely different by design, so it is necessary to adapt own operations to the new system, rather than customize the system to Helpten's business. Customizing a system to match Helpten's processes completely would require too much financial and personnel resources.

4.1 Sales

Sales activities at Helpten are managed and led by sales managers in Finland and Germany. They are respectively in charge of customer acquisition in target-markets;

Scandinavia and Central-Europe. Sales actions have also been pushed more towards resellers and representatives in order to gain more coverage of the target-markets.



Figure 5. Sales process at Helpten

Potential customers are surveyed through different activities. These are for example sales calls or calls to people who have visited the company's website. Various activities are also conducted at regular intervals. The activities include email-campaigns, print advertising and presentations at fairs.

Through these sales and marketing activities, possible customer opportunities are discovered and these opportunities are mostly still contacted through the company's sales personnel in order to clarify the needs and expectations of the potential customers.

These potential customers are then registered in the CRM-system as opportunities, and also the sales-projection is added to the particular customer. Through customer follow-up activities, sales can monitor the sales funnel and make propositions to management and product development on what is needed in order to close deals with these potential customers. The sales opportunities also make up a rough estimate of the probable sales amount, which is based on statistics.

When opportunities have been listed, activities like email-conversations and calls, are also entered into the CRM-system. By doing this, customer history can be monitored

and everyone is able to track different activities towards customers. The time frame from lead to contract ranges from one day to several months.

There is a need of an extensive CRM-system, which is available to all company personnel. Everyone should be able to check customer history and even make new sales orders without any problems.

4.2 Production

Production as a business process includes product development, maintaining of Helpden driving-data system and telematics-device installations for customers. Product development will not be introduced in this thesis as it is separated as an independent function developing the service and supporting other functions.

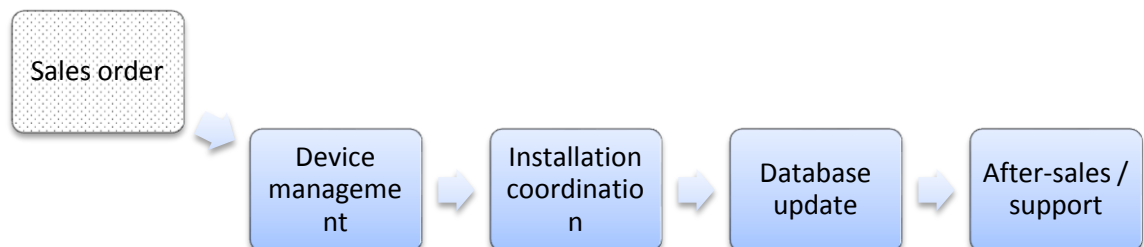


Figure 6. Production process

Production gets the input from sales orders, which include information about the customer and the services sold to the customer. It is essential to know the customers' needs and what applications the customer has ordered, because this determines the device-configuration. The telematics-unit installed in the vehicle can be equipped with different accessories that range from navigators to driver identification. These configurations have not been used in the old information system because it does not support it.

When a sales order has been made and it has been approved, production contacts the customer in order to arrange for installations of the devices. Helpten has installation partners around Finland who do the actual installations. This process is different in Germany, where customers mostly arrange for the installations themselves.

After an installation is completed, the functionality of the telematics-device is verified. After the functionality has been verified, production updates the information of the customer and the vehicles into the Helpten database. When the database update is complete, the user is able to use the service and the different applications that have been ordered. When the service has been enabled for the customer, invoicing can be done. A long delay between order and installation has been noticed, mostly because of customers and the difficulty of finding the time for device installation. This is an issue that has been noted, and that is why Helpten is improving services in order to get the installation closer to the customers and making it easier for them to get the service in use.

4.3 Financial administration

Financial administration handles the creation of invoices for customers. The process for invoicing can be seen in figure 7.

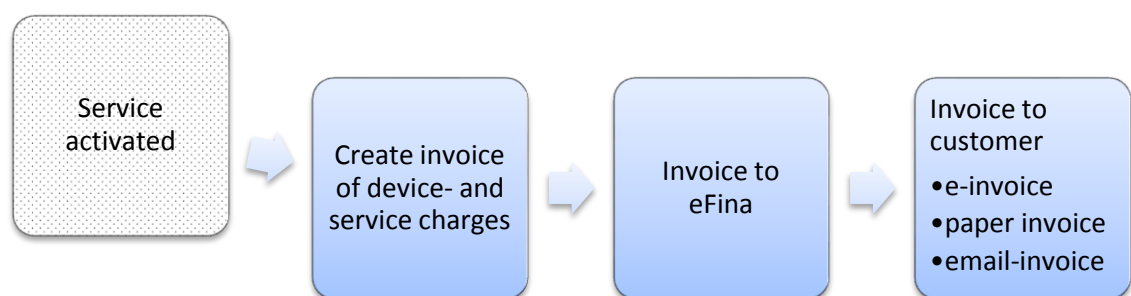


Figure 7. Invoicing process at Helpten

After the service has been activated for the customer it is ready for invoicing. There are different types of billing periods for the service, which depend on what has been agreed with the customer. They range from monthly fees to 4 year prepaid charges. There are customers who may have a fleet of up to 200 vehicles that are all invoiced on monthly basis. This has caused challenges because not all devices are installed to the vehicles at the same time, which means that the subscription fees may all start on a different date. This is why the new system has to support handling of service agreements and the billing of these based on starting date.

Accounting has been outsourced, and therefore it is essential that an interface to eFina online accounting exist. The decision of whether Helpten wants to continue the outsourced accounting is a question that has to be addressed in the near future. The cost of accounting is based on the number of performances produced, which means that the costs of accounting will grow linear with the amount of invoices made.

5 Process of system selection

In this chapter the system selection process will be presented as it was conducted at Helpten. An ERP system selection is something that had not been done before this at Helpten, which made the process more challenging. Due to limited personnel resources in a small company, the selection process was coordinated by very small group of people. A representative from sales, production or financial administration was present at all meetings held with potential system providers. Normal business operations also had to be maintained, which meant that the selection process was made alongside daily duties. All in all, the selection- and analysis-process was run effectively and enough information from the system providers was collected in order to make a decision on which system to select for implementation.

5.1 Identifying the need

The need for a new information system became current when following daily operations and communication between areas of business. Too many unnecessary emails were sent and telephone calls made just to clarify the status of a customer order.

Employees were starting to get frustrated by missing information on customers, materials and also inadequate information for invoicing. Helpten has adjusted its own processes according to the information system in use, but it was stated that a limit had been reached. In order to improve business, a system that better supports business had to be invested in.

Sales partners also wanted a solution to follow up on their customers' order statuses and the monthly sales commissions paid to them. Especially in Germany, the lack of partner access was seen as a sales barrier. Helpten was not able to provide sales partners with a simple solution, and this is why the new system had to be able to support partner access to the system.

As materials management started to increase, there were difficulties to maintain up to date information on inventory. The information on current inventory at installation

partners and also at Helpten office was managed with a separate office-application. This application was handled by a single person, which led to lack of information when this person was absent. The information system in use did not support material management, which is seen as one of the key elements of the new system. This is because device stock has to be monitored for control of stock and also for accounting.

The growing number of clients also meant that the number of invoice-items started to grow as well. Helpten's pricing consists of monthly service fees, but direct device sales and prepaid contracts are also available. The handling and invoicing of service fees can be seen as contract-management.

Together management and workforce came to the conclusion that in order to control the growing number of clients and related business information, a selection process for a new information system had to be started. The situation was beginning to get quite crucial. Investing in a new information system was seen as a turning point for Helpten.

5.2 Weighing the options

Helpten had only recently been founded when the current system was adopted into use in business operations and the acquisition process was not carried out with care. At that time there was only need for a basic CRM and for this use the current system was adequate. In recent years, Helpten's business model has developed and new requirements have come up that needed to be noted.

The current system provider gave Helpten the opportunity to start developing new modules to the system in use. The current system is designed mainly for project-oriented companies. For a company like Helpten providing services, the risk of starting a project with a company focused on project-oriented solutions, seemed to be too big of a risk.

In the end the modifications to the old system would have been too expensive and would require too much time, and at the same time the current system would still not be the optimal solution the company is looking for.

5.3 Requirement specification

The next step after identifying the need for a new system was to specify the requirements for it. This was done in collaboration between employees and management. Most of the requirements came from employees who work with the information system on a daily basis. A document where employees could list their “must have” and “nice to have” requirements was created and was made available to all employees for further comments and feedback.

On management-level some requirements were set for the new system. These were based on the company’s financial and personnel resources. The old system was based on monthly pricing depending on the amount of users. This pricing model was something Helpten wanted to continue with. By continuing with a service model, capital expenses could be replaced with operational expenses. This is why it was decided that the new system was to be acquired as service with a monthly fee depending on the configuration on the modules and number of users needed. This model is called SaaS, which stands for Software as a Service. This is a delivery model for software where data is hosted in the cloud and where it is accessible via client or web browser. This model supports Helpten’s business activities as there is no need to invest in a dedicated server, and also there is no need for own support personnel, as the software is running on the system providers’ servers. This also supports remote work, as employees are able to access the ERP from remote locations over the Internet.

The new system also had to support Helpten’s strategic plans and international business. Helpten was looking for a reliable partner that provides software, which is not going to be out-of-date because support for the software will end within the next 5 years from implementation. Investing in a new ERP system is a very big investment for Helpten, and that is why the system should be scalable and it has to be able to support international localization. The provider of the new system has to be able to train Helpten’s users, especially the new main user. When given proper training, support issues are easier to handle within the company.

Also the new system has to be as standardized as possible with minimum or no customization, and it should fit Helpten's business model. The system should be built of different modules that are needed for business operations. Helpten has to have the opportunity to add or remove modules from the system entirety if there are changes in the business environment. Internal processes will have to be adjusted to fit the new system, but complete restructuring will not be accepted.

The optimal, and also the desired situation, is to have all information in real-time, available to all. Marketing activities and the results of these activities would also have to be available for monitoring and reporting.

Helpten's requirements by departments are listed in the next sub-sections to clarify the linking of the processes to the new ERP system. These requirements are based on interviews as well as the requirements listed by the employees.

5.3.1 Sales

Customer relationship management: A comprehensive CRM is needed to maintain customer information from opportunities to contracts. Sales representatives have to be able to enter activities into the system and these also have to be available for review afterwards. Reporting on sales opportunities and the realized sales have to be available for reporting.

Cross-sell / Up-sell: An easy way to see which Helpten-applications have been sold to a customer has to be available in order to support sales and marketing functions. When campaigns are conducted, there has to be a simple way to sort customers by activated applications so that the correct target group can be reached. Contacts have to be available for exporting into email-applications or different marketing applications.

Partner extranet/ partner support: A simple solution to support sales partners' activities is needed. These partners have to be given access to the new information system either through an extranet solution or by very limited straight user access. Partners have to be able to enter customer information and they also have to be able to track the status of their orders. Sales partners are also very interested in their

monthly sales commission fee, which they have to be able to follow. This is seen as an incentive for partners.

5.3.2 Production

Device tracking: As the driving-data service requires separate in-car telematics devices installed, it is very important to be able to follow the movements of these devices from vehicle to vehicle and customer to customer. Helpten's service includes a rented device, which in some cases has to be moved from one vehicle to another. An allocation code is added to the devices by the manufacturer, and based on these codes devices are then imported into the database. Tracking of serial numbers or allocation codes is essential starting from when the devices are received from the manufacturer and taken into stock.

Warehouse management: The number of devices and accessories available for installation has to be available for all employees working in customer service as well as production. It is possible for customers to make new orders via telephone or email, and this is why up-to-date information on current stock at installation partners or central warehouse has to be available so that the customer can be informed about device availability. Warehouse management also supports production in keeping buffer stock and also purchasing activities.

Purchasing: At the moment devices and accessories are purchased from one manufacturer. The new system has to be able to track warehouse levels and make purchase proposals based on buffer stock settings, lead times and order queue.

5.3.3 Financial administration

eFina integration: Helpten has outsourced its accounting to an external accounting company using eFina, which is an accounting service built to support a fully paperless office and financial management. This is why integration to eFina is required from the new information system. There have been discussions about insourcing accounting back to Helpten, but at the moment external accounting is used. If, however accounting were to be insourced, the new ERP should have support for accounting.

Streamlined invoicing: Invoicing for customer contracts has to be made as simple as possible. A customer with hundreds of vehicles invoiced on a monthly basis can cause trouble when there are changes in the composition. Invoicing has to be based on customer contracts, where bulk discounts are automated. Streamlined invoicing also includes credit notes, e-invoicing and invoicing of prepaid-contracts as well as invoicing of customers based on cost center.

5.4 System provider survey

Alongside requirement specification, possible system providers were surveyed. Information on how these system providers and their range of products corresponded to Helpten's requirements was studied through information found on system providers' websites. If adequate information was not found, telephone-discussions were held with system providers or their partners. Based on these discussions, it was clarified which system providers had a solution that matched Helpten's needs and which had not.

Based on studies on the Internet and discussions with system providers, six different system providers were invited to meetings, where both parties were introduced and Helpten described its intent and needs. The same specifications were given to all system providers. Based on these specifications and requirements the systems providers gave their opinions and proposed solutions.

All systems chosen for closer analysis were selected based on their suitability for Helpten. The variety of systems is fairly large and they all have their own strengths and weaknesses. The systems that were not selected for closer examination all had some negative aspects that were seen as potential disadvantages when reflecting them on Helpten's strategy and processes. Some of the negative sides that were found were lack of customer references, negative reference feedback and pricing models.

Three different system providers and their solutions were then selected for closer examination and additional presentations were conducted with all three. Based on presentations and preliminary offers, it was possible to see which of the systems could possibly be chosen as the new ERP system for Helpten.

6 Potential system providers

Three different system providers were seen as possible partners and system providers in the acquisition project. The three systems represent different types of companies. One is a small "newcomer", the second is a large company operating mainly in Northern Europe, and the third is a multinational company operating all over the globe. There are positive aspects, as well as negative aspects in all of the different companies. These aspects have to be taken into account when making the decision. Information of the companies is based on information from company web sites and also presentations made by the respective companies.

6.1 Lemonsoft

Lemonsoft is a Finnish provider of ERP solutions for many different fields of business. The company was founded in 2006 and since then, its customer base has grown quite quickly, so that the amount of customers is now almost 800. The aim for Lemonsoft is to provide its customers with an automated solution of software that supports improvement of operations and different elements of profitability. Lemonsoft also aims to be the leading producer and provider of ERP systems for improving business.

Lemonsoft employs 35 people in offices around Finland and the company also has a wide partner network. Lemonsoft wants to help its customers to model and to improve business by using up-to-date technology and by being close to the customer. This includes helping users to make defined functions according to predefined processes and helping the customer in everyday operations.

The business approach for Lemonsoft is to maintain a strong partner network throughout its area of business. This includes continuous training of partners in all stages of ERP system delivery from sales and implementation to support. Lemonsoft provides services ranging from surveying customers needs to providing customization and integration of systems.

The Lemonsoft solution offers a comprehensive entirety of different modules, from which the customer is able to combine a suitable solution to fit its requirements. The

software is not targeted to any specific industry but for example production companies, wholesale businesses and accounting offices have specifically been taken into account when designing the software.

The Lemonsoft solution includes all the different modules to meet Helpten's requirements. These modules are:

- Financial Management
- Customer Relationship Management
- Supply Chain Management
- Management tools
- Document management
- Portals

Lemonsoft also provides system access for Helpten's sales partner through limited user accounts. This solution was recommended because of the limited language support of Lemonsoft extranet-solution. Lemonsoft is also possible to integrate with eFina accounting through web-service. [9.]

Lemonsoft also includes extensive built-in instructions to help users in context-sensitive situations. Up to date instructions can also be accessed over the Internet.

Positive aspects of Lemonsoft are they way they were interested in finding the optimal solution for Helpten and the interest and activity level of Lemonsoft sales personnel. Working together with a smaller system provider where balance of power would be more even, could help both companies finding a strategic partnership and to achieve larger business.

6.2 Visma Software

Visma Finland is part of the Nordic Visma Group, which employs more than 5000 experts of different fields and serves about 320.000 customers. Visma is one of the leading providers of enterprise software and service in the Nordic countries. Almost 14.000 companies trust the ERP and CRM solutions provided by Visma. Visma simplifies customers' businesses by providing enterprise resource planning, financial management and customer relationship management information systems and outsourcing of financial management services.

Visma Software employs about 160 persons in 6 different offices around Finland. Many partners around the country also support Visma Software. Visma Software Ltd is specialized in delivery of ERP and CRM systems to selected industries: wholesale and specialty goods trade, industry, property management and contracting. In addition, Visma also delivers software solutions that are independent of business field. [10.]

The presentation and quotation of the software solution was made by Aames Ltd., which is a Visma Gold Certified Partner and main partner in the Helsinki metropolitan area, where the company has been operating since 1944. Aames provides its customers with partnership and delivers software solutions, which include both software- and hardware-solutions and also the support for these.

The Visma solution consists of different modules integrated to one another. The ERP core is Visma Business to which the CRM solution Super Office is integrated.

Major functionalities of the Visma solution include:

- Accounting
- Logistics
- Sales and marketing

The ERP and CRM solutions are managed through separate applications integrated with each other. Both solutions are very extensive and provide support for Helpten's

business. Visma also provides for accounting, but the system is also possible to integrate with eFina.

6.3 Microsoft Dynamics

Microsoft Dynamics NAV is an extensive ERP solution for growing businesses. The system is easy to use and over 77.000 companies in 150 different countries rely on the functionality of Microsoft Dynamics NAV in daily operations. The system supports localization and languages of 42 different countries. The system is easy to integrate into other Microsoft products like the Microsoft Office products. [11.] This gives more value for end users in the company. Major functionalities of the Dynamics NAV system include:

- Financial administration
- Human Resources
- Supply Chain Management
- Production
- Online collaboration
- Business Intelligence

Microsoft Dynamics CRM is a fully integrated solution for customer relationship management. The solution includes tools to help improve the company's sales, marketing and customer service processes to be more efficient, and it integrates seamlessly with Microsoft Office Outlook. [12.] The Dynamics CRM supports Helpten's sales activities from marketing and sales, and even links the system to social media to give even more information.

The Microsoft solution was presented and quoted by eCraft, Finnish Microsoft Gold certified Partner, founded in 1999. The company employs 85 people in three different

locations - Espoo and Vaasa in Finland, and Malmö in Sweden. eCraft has a turnover of 10 million Euro.

The proposed solution for Helpten includes Microsoft Dynamics CRM and Microsoft Dynamics NAV. The SaaS delivery model also gives Helpten the chance of selecting additional supporting applications that are possible to integrate with Dynamics NAV and CRM for online collaboration between employees. These products include Office 365 and SharePoint, which give Helpten even more opportunities for developing business.

7 Evaluation of system providers

The three presented system providers are very different, and they all have their strengths and weaknesses. The acquisition of a new ERP system for Helpten is seen as an investment to support growing business and handling of business related data. System providers have been evaluated based on different criteria, based on Helpten's requirement specification. In every information system project there are risks that have to be taken into account before making the final decision.

7.1 Risk assessment

According to statistics, ERP implementations have a high failure rate, even though the aim for any ERP implementation is to enhance a company's competitiveness. ERP implementations are usually made alongside daily operations, which make these projects ever so challenging, especially in SME's where financial and personnel resources are slim. Failures in ERP implementations mostly result from budgets or schedules run over. [13,1.]

There are many aspects, which have been taken into account when assessing the risks of the implementation of a new ERP system at Helpten. Some of these aspects are presented below.

1. **Lemonsoft:**

The potential lack of international support is seen as a risk. Even though Lemonsoft has plans for international business, a system description in English was not available. Also, the system itself does not support multi-language. Helpten has high aims for international business, and a situation where Helpten has to pay for the system provider's internationalization is not wanted.

2. **Visma:**

The ability to provide Helpten with information about the configuration of the system and the costs of this is seen as a risk. There were also questions on the

delivery model and how this would be fitted into Helpten's requirements. The major risk here is that of implementation costs running over.

3. **Microsoft:**

The proposed solution is originally designed for much larger businesses than Helpten. The SaaS-solution is however a bit lighter. The system itself is so extensive and gives the user so many options to choose from that it is possible that the users find it hard to take the new system into use just because of extent of the system. This can possibly cause opposition from employees.

7.2 Suggested system

The suggested new ERP system for Helpten was chosen based on the system comparison table, which can be seen in appendix 1. A weighted scorecard was made based on the requirement specification made by Helpten management and employees. In order to make a clear difference between system providers, a scoring was made. 9 points were given to the strongest, 5 points for the middle one and 1 point for the weakest. This scoring was made in different sections, separating quality aspects from pricing. The pricing was given 50% of the overall scoring and 50% to quality related aspects.

As can be seen from the scorecard in appendix 1, there is a clear difference between the strongest and the weakest system provider. The scorecard was divided into quality and price aspects. Quality aspects consisted of criteria for system provider (10 %), contents of delivery (10 %) and system (30 %). Pricing criteria (50 %) were divided into first year costs, monthly costs and implementation/training costs. More weight has been given to system and pricing because these are the aspects affecting business the most.

The Microsoft solution was strongest in all other aspects besides pricing, and this negative scoring was because of the first year costs, which include implementation. Microsoft got an overall weighted score of 23,7, Lemonsoft 20,5 and Visma 11,3. Visma got the weakest points in contents of delivery and pricing.

Smaller and more affordable solutions have their own strengths, but they usually lose when compared to the functionality of the “best of breed” solutions. This is because they usually lack the experience of doing business with different kinds of companies and their solutions are targeted for a more narrow audience.

The system suggested for Helpten is the Microsoft solution proposed by eCraft. This solution in its entirety fulfills all requirements and also provides for additional features to improve business operations and online collaborations between Helpten’s employees in different countries as well as business partners. The costs for the first year are fairly high, but these costs include the implementation and training, which have been nicely packaged into very easy and simplified entities where it is possible to start with a limited configuration and then increase applications when needed. The implementation is actually seen as just an implementation, not a separate implementation project.

Through the implementation of the Microsoft solution Helpten also has the possibility to give up on current applications for email and marketing and to connect these to the ERP and CRM solution.

After this suggestion has been approved, a binding offer, including a service agreement has to be requested from the system provider. When the offer is accepted it is possible to start the implementation. The implementation has to be carefully planned, so that it is not too rapid and overwhelming to the employees.

Some of the system providers did not ask Helpten to provide more information or documents to help them make the acquisition a successful project. Most system providers mainly listened to what needs Helpten had and made their proposition based on this. There is reason for further research of the actual implementation and development of the new system. Were the objectives of both companies achieved in the implementation?

8 Conclusions

In this thesis ERP systems acquisition for SMEs like the case company – Helpten have been studied. Based on this study three best candidates were selected for closer review. Potential risks of these systems were assessed and all three systems were compared to each other. The comparison was made based on a weighted scorecard. Based on this comparison it was found that the most suitable system for Helpten is the solution from Microsoft Partner eCraft. The solution scored best on almost every part of the comparison. Only the cost in the first year was higher than with the two other system providers.

An ERP acquisition project is a very large endeavor for any company, not only small companies like Helpten. At the same time an ERP acquisition is a risky project, which in the worst case can ruin a business. The financial stakes are very high in the beginning, but this must be seen as an investment for the future. And because Helpten aims to grow business, an ERP supporting this is a “must-have”.

There are many different kinds of ERP systems to choose from at the moment, and at the same time there are also different kinds of delivery and pricing models. Large system providers are moving more and more towards a model where small companies are taken into account and they have the opportunity to choose from different combinations of modules. There are options for a small company to start with a limited amount of modules and then grow the combination when the business changes or new needs for business appear. As is with Helpten, where accounting is outsourced, there is still the possibility for Helpten to insource accounting and the new ERP supports it.

Even though commercial ERP systems are usually built for large enterprises they are now moving more and more towards the operating-environment of SMEs where business usually changes quite quickly and the business environment also expands from national to international. What was observed during the planning and surveying of system providers is that also the largest ERP system providers now have solutions to meet the needs of smaller companies. The SaaS alternative is seen as a very interesting delivery model because in this model a company pays only for usage, not directly for hardware. Capital expenses can be shifted to operational expenses.

Still, I think that SMEs are at a disadvantage when facing large system providers who are aggressive and professional in their marketing, because SMEs lack the know-how of system-implementation. The system provider is able to give the customer a vision of the proposed system, even though it would not live up to the expectations of the customer. Large system providers, however, distribute their solutions through partners, who have different scopes of clients. Through this partner network it is possible to find a suitable partner so that the balance of power is more equal.

Smaller companies don't usually have the time or financial resources for project planning and preparation compared to larger organizations. This may lead to insufficient requirement specifications and additions or other modifications to these requirements may occur during the process.

The idea of an ERP system is to support a company's business through the company's own processes, whereas the business processes of a company are lead from the company's business strategy. This means that there are no universal truths for an ERP acquisition and implementation. The requirement specifications of a company are unique, and these requirements lay the basis for a successful implementation. How is it possible to know if all aspects have been taken into account in a small company where a larger ERP system is acquired and implemented for the first time? In my opinion it is extremely difficult, especially when the acquisition is made for the first time. Learning by doing is still quite risky in ERP acquisitions and implementations. This is why great responsibility is given to the system provider that has experience in ERP implementations.

I think it is also extremely important for a system provider to be active and ask the customer about the needs and expectations of the system to be acquired. There might be issues in the acquisition and implementation that the customer has not even thought about. There is reason for further research of the actual implementation and development of the new system. Were the objectives of both companies achieved in the implementation? Thorough systematic planning and supervision of the completion can avoid the risks of these.

The planning, surveying and selection process did not affect daily operations at Helpten. This is because a very limited group of people were involved in the process and there was time for meetings with systems providers, even though daily business was quite hectic during the process. When the implementation of the new system begins, very close attention has to be paid to the resourcing of employees. Daily operations have to be maintained and at some stage there will be two systems running side by side until the new system has been taken into full daily use.

The suggested system is a type of preconfigured and parameterized system, which is one of the most common types of ERP procurement. The solution is a standard-suite, which is then fitted to Helpten's needs through configuration. This configuration then includes choosing the modules to be used and also the setting up of the user interfaces to match Helpten's needs.

The smaller the company, the more a company should focus on acquiring a standardized modular ERP system to fulfill the requirements set by the company. In my opinion, customized systems should be considered only if the business model of the company is very unique. A customized system possesses greater risks than a standardized system.

A lot of time and effort has to be put into the planning of the acquisition process and also the requirement specification. This is something, which I think could have been explored further. A very important aspect of an acquisition project, which cannot be stressed enough, is the interest and activity-level of the system provider. If a system provider does not know what the customer wants and expects of the system, the result can be devastating. The implementation phase has to be carefully planned and executed in different stages. If not carefully planned, there is a risk of an overwhelming amount of information to deal with simultaneously. This is something that has to be avoided and is a key element in the implementation.

The whole ERP acquisition project has been a huge learning process, for me and for Helpten. This is the first time an ERP system is chosen as a separate selection project at Helpten. The company is fairly young and the company faces different challenges continuously. This is why Helpten cannot afford to choose a system, which does not

support business operations or becomes too expensive to operate. The acquisition and implementation of a new ERP system marks the beginning of a new era in Helpten's business. Measuring and improving performance is something, which has to be focused on more in the future. This is the foundation for a quality system, which has to be built up. A certified quality system like ISO 9001, which sets requirements for a company to fulfill customer needs and expectations, is a necessity in an international business.

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System provider comparison chart

ERP system comparison		Lemonsoft		Visma		Microsoft Dynamics	
		score	weighted score	score	weighted score	score	weighted score
SYSTEM PROVIDER	10 %	13	1,3	17	1,7	45	4,5
references		1		5		9	
reliability		1		5		9	
innovation		5		1		9	
internationality		1		5		9	
support		5		1		9	
CONTENT OF DELIVERY	10 %	33	3,3	13	1,3	29	2,9
ease of use		1		5		9	
scalability		9		5		1	
integration		9		1		5	
share of the standard solutions		5		1		9	
amount of customization		9		1		5	
SYSTEM	30 %	8	2,4	16	4,8	36	10,8
CRM		5		1		9	
logistics		1		5		9	
financials(incl. eFina)		1		5		9	
partner support		1		5		9	
QUALITY POINTS TOTAL	50 %		7,0		7,8		18,2
PRICING	50 %	27	13,5	7	3,5	11	5,5
first year costs		9		1		5	
monthly costs		9		1		5	
implementation/training costs		9		5		1	
TOTAL	100 %		20,5		11,3		23,7
		Strongest 9p	Middle 5p		Weakest 1p		