IT University of Copenhagen

Business Processes and Organisation

Business Case for DANX

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noget text før

$$50\frac{\text{request}}{\text{week}} \times 52\frac{\text{week}}{\text{year}} \times 5\frac{\text{minute}}{\text{request}} \times \frac{1}{60}\frac{\text{hour}}{\text{minute}} \times 200\frac{\text{kroner}}{\text{hour}} \approx 43,333\frac{\text{kroner}}{\text{year}}$$

noget text efter

$$5\frac{\text{hour}}{\text{employee}} \times 8 \text{ employee} \times 200 \frac{\text{kroner}}{\text{hour}} = 8,000 \text{ kroner}$$

mere text efter

$$6\frac{\text{hour}}{\text{employee}} \times 8 \text{ employee} \times 200\frac{\text{kroner}}{\text{hour}} = 9,600 \text{ kroner}$$

endnu mere text

$$\left(6\frac{\text{hour}}{\text{employee}} \times 8 \text{ employee} + 20 \text{ hour}\right) \times 200\frac{\text{kroner}}{\text{hour}} = 9,600 \text{ kroner}$$

$$50\frac{\text{request}}{\text{week}} \times 52\frac{\text{week}}{\text{year}} \times 14\frac{\text{minute}}{\text{request}} \times \frac{1}{60}\frac{\text{hour}}{\text{minute}} \times 200\frac{\text{kroner}}{\text{hour}} \approx 121,333\frac{\text{kroner}}{\text{year}}$$

næsten slut

$$50\frac{\text{request}}{\text{week}} \times 52\frac{\text{week}}{\text{year}} \times 7\frac{\text{minute}}{\text{request}} \times \frac{1}{60}\frac{\text{hour}}{\text{minute}} \times 200\frac{\text{kroner}}{\text{hour}} \approx 60,666\frac{\text{kroner}}{\text{year}}$$

slut

$$1\frac{\text{analysis}}{\text{week}} \times 52\frac{\text{week}}{\text{year}} \times 1\frac{\text{hour}}{\text{analysis}} \times 300\frac{\text{kroner}}{\text{hour}} = 52,840\frac{\text{kroner}}{\text{year}}$$

$$50\frac{\text{request}}{\text{week}} \times 52\frac{\text{week}}{\text{year}} \times 0.5\frac{\text{hour}}{\text{request}} \times 200\frac{\text{kroner}}{\text{hour}} \times 0.02 = 5200\frac{\text{kroner}}{\text{year}}$$

Appendices

Appendix A

Project charter

A.1 Introduction

The project is being undertaken for learning purposes in order to simulate the actual work done in the MUST method for the course Business Processes and Organisation, Fall 2013, at the IT university of Copenhagen. The project will not produce any final products other than a business case and associated appendix. The project will be supervised by Nina Boulus-Rødje and Elisabeth Broe Christensen.

A.2 Purpose of project charter

The project charter defines the objective of the project and what work has to be done to reach this objective, as well as which resources the project team needs from DANX and which deliverables the company will receive. The project charter serves as a contract between the project team and DANX, such that everyone involved in the project has the same view of the vision, assumptions, planning, resource consumption and boundaries of the project.

A.3 Premise

Background

A.3.1 Assignment and Objective

The employees of DANX can not access error reports from a specific customer, because some of the reports are not documented and the current system does not allow reports to be retrieved within a satisfactory time frame.

This hinders potential evaluation of support given to a customer. How can employees of DANX access documentation for customer support?

A.3.2 Critical success factors

The problem is solved if the following goals are reached.

- It is possible for at least one employee to retrieve documentation for customer support.
- The customer support documentation provides data to evaluate how fast it is done, who it is done by, and who receives it.
- The solution does not decrease the service level of the customer support.

A.3.3 Scope

The scope of the project includes internal communication, not communication with customers and others outside of DANX. In other words this means that customers will still have the same high degree of service and availability from all IT-staff, because the proposed solutions do not seek to change the way customers communicate with the employees of DANX. The regional departments outside denmark will not be considered for the problem or the solution.

A.3.4 Methods

A solution to the problem is proposed based on research including interviews of certain employees and observations of activities relevant to the problem.

A.3.5 Background

DANX is a Nordic logistics company. They specialize in express delivery the following day within 7 AM. DANX operates in Denmark, Sweden, Norway, and Finland, and is managed by DANX Nordic.

A.3.6 SWOT

Strengths and weaknesses are internal in the company, where opportunities and threats are external factors.

Strengths	Weaknesses
Lots of failover backup plans, resulting	Lots of internal programs.
in 99.5% on-time delivery	
Lots of PUDOs and FLS.	The IT-developent department
	has to spend time on IT-support
	tasks
Opportunities	Threats
Go to other ELSA companies, and ob-	Restricted access to customer IT-
tain know-how	system APIs

As seen on the SWOT table the IT-development department has to spend time on IT-support tasks. This time could have been spent on developing integration for a client, which eventually could leave to more income.

Appendix B

Strategic alignment report

The following section covers the strategic information on DANX. First it covers the strategic goals of DANX, their target group, their value propositions, and the rest of the business canvas.

The report contains information about the environment and presents the assessment in the form of a SWOT and competitor analysis. This is used as a basis for the in-depth analysis report.

Additionally it describes the work domains and the different departments affected by our solution.

B.1 Business strategy

In this section business strategy of DANX is analyzed. It contains information about key values, goals and challenges.

DANX has a general business strategy aimed at ensuring their customers get their spare parts fast and on time, and also ensure good support whenever there is a problem.[?][?][45]

B.1.1 Canvas

See section D.1 for the business canvas.

Fast delivery, overnight delivery and guaranteed pre 7 am[1] delivery are key values of DANX in order to keep their customers satisfied and keep growing. [65][?][?] These values are only possible to their extent because of the key resources of DANX, Field Stock Locations and Pick-up/Drop-off locations, which greatly help DANX drivers to deliver fast and on time, and it allows customers to even pick up spare parts themselves. Companies which require fast and/or reliable delivery or just need external storage of

spare parts are those that DANX focus on and will try to acquire.

DANX also has key values of fast and efficient IT support, as well as fast implementation of new customers into the IT systems of DANX, and even if new customers have not yet been integrated into the IT systems of DANX, they will start delivering from the day the new customers' former contract expired.[41] These values are more focused on good customer service which is an important resource for DANX. Even though the customer relationships are not personal, it is a good customer resource when possible customers can receive recommendations from current customers.[24]

B.1.2 Goals

DANX has a general growth strategy ie. they want to gain 25-30 customers each year. Starting this year DANX is focusing on profit. Last year they had a profit of 10 million danish kroners, and a revenue of 250 million DKK. This year, It is expected that the revenue will increase to at least 300 million DKK and the profit to 20 million DKK. The overall goal is to have a revenue of at least 500 million DKK and a profit of eight to ten percent within 3-4 years. [65]

Since one of the key selling points of DANX is their pre 7 am delivery, they strive to deliver plus 99% of the packages before 7 am.

B.1.3 Values

Reliability, Equality, Quality, Flexibility, Creativity, Availability and Pride are the seven values that DANX operate with.[65]

- **Reliability** DANX keeps their promises, correct their mistakes and proactively informs their customers.
- **Equality** Customers, partners and colleagues are all equals and treated with the same respect.
- Quality Customers are not taken for granted. 100% is strived for in everything that is done. This ensures that customers of DANX can live up to their customers high expectations.
- **Flexibility** All employees and partners are expected to have a flexible mindset.
- **Creativity** As pioneers DANX has to think outside the box to create solutions for the needs of their customer. DANX is constantly looking for ways to improve.

Availability DANX ensures the availability of all their customers spare parts through each employee's personal care

Pride DANX takes pride in in everything they do. They are proud of their customers, company and their people.

B.1.4 Challenges and problems

It is cumbersome for the management of DANX to analyze the problems the customers request help with and how often a certain problem occurs.[11] Furthermore it is difficult to collect information about a certain customer, e.g. how often they request help with a problem and what type of problems they need help with. No documentation for customer support means that it is impossible for DANX to track how many requests they receive, how fast they are resolved, and how much support the individual customer requests.[10][11] This makes it hard to detect any weaknesses in the customer support which is crucial for the service level.

The structure of requests for help regarding internals at DANX is non existent, which leads to Lasse using up to several minutes identifying the actual problem. [43] If the requests for help follows a predefined and clear structure, it would be easier to identify the actual problem.

Since DANX customers all have different systems, DANX needs to use a lot of different systems when accessing customer databases.[?] This leads to a lot of manuals for the employees at DANX, and getting to know all the systems for a new employee can be a slow process.[29] If DANX strived to centralize all systems, this could result in a loss in flexibility towards customers.

Documentation of the work being done by the IT department is at an absolute minimum [40] making it impossible for managers to check what is actually being done, if the work is being done on time etc. It can also be a problem if a system is developed and needs to be changed 3 months later. This can result in a complete re-written module for that system. [30]

Neither the IT department nor the operational department have any KPIs[10], making it difficult to asses whether or not things are going as planned. It can also serve as a de-motivating factor to the employees as they do not know if they are doing good or bad. It also makes it hard to figure out why it is going good or bad in the individual department.

Many of the companies DANX are delivering spare parts to, have their main storage department in either Holland[1] or Germany[2]. When a customer orders a spare part with pre 7 am delivery, the spare part is picked up at their

storage department by DANX and shipped to where the customer needs it. If the spare part is going to another country than Denmark the part is in some cases transported by plane some of the way. This is a potential challenge because the plane can be delayed or have no room for cargo.

B.2 Environment

In this section the environment is analyzed. Firstly the competitors of DANX are investigated and secondly a SWOT analysis is conducted.

B.2.1 Competitor analysis

B.2.1.1 Competitors

The main competitor of DANX is a special service within TNT called TNT innight.[54] Just as DANX, TNT innight provides delivery of items within 7 am the following day. TNT also targets some of the same segments as DANX such as:

- The car industry where they deliver spare parts to manufacturers and repair shops.
- The medical industry where they make deliveries to hospitals
- Farmers during the harvest season

Some of the advantages TNT has:

- TNT is a larger company[?]
- Their own flight routes [54] from Bruxelles to Jönköping, Helsinki, Oslo, and Billund

We assume that since TNT is a larger company, they have the ability to invest more into infrastructure and can herby possibly offer a better service for less money. Their own flight routes are a major strength as this grants a better quality compared to DANX. If one of DANX flights are canceled the goods are likely to be delayed, whereas this is less likely to happen at TNT. Some of the disadvantages TNT has:

• A slower customer integration than DANX[52]

By not having the resources or know-how on how to integrate customers within 2-3 days, TNT may lose important customers with urgent needs.

Another competitor is HIT.[27][55] HIT provides the same service as DANX namely pre 7 am delivery during the night.

One of HIT's advantages is they have a lot of companies to back them up such as posten.se and Postdanmark A/S.[55][?] This increases the capital in the company which is important, in order to keep a high level of infrastructure.

B.2.1.2 Substitution

Another competitor with a possible substitutional service would be FedEx[57]. FedEx is offering a similar service on a national basis where you can send a national priority package. It will usually be delivered within 12 am the following work day, depending on where the package is going from and to. While this is not entirely the same service as DANX provide, some customers who have a need to send national packages may choose this option, since the time may be the same as DANX if they happen to be shipping at that time. The customer is able to check the time of delivery when they request the delivery on FedEx's website [64].

B.2.1.3 New market entrants

There are already a few existing companies which in the future, might be interested in expanding their service and providing pre 7 am delivery. Some of these companies are DHL and UPS.

This would require a lot of internal restructuring of DHL and UPS, but since the only major players are DANX and TNT it should be possible to gain some of the market share. The companies would also have to change their goals to aim for a lot higher quality when delivering pre 7 am. They also have advantages in form of their size, brand, and current customer base.

B.2.2 SWOT

Strengths	Weaknesses					
Customer integration within 3 days	No documentation on customer					
[41]	support requests[11]					
Lots of PUDOs and field stock	No documentation on the work					
locations[66]	being done in the IT[40] develop-					
	ment department					
Lots of small subcontractors[66][20]	No KPIs in the operation					
	department[10]					
Direct support[45]						
Opportunities	Threats					
Gain work experience at ELSA part-	Flight routes[20]					
ners [9]						

Strengths

- Customer integration within 3 days is a lot better than their competitors. When a customer's previous contract expires they need a new one as soon as their old one expires, and if the other companies cannot provide that due to the IT solution not being ready on time, they will lose a customer to (possibly) DANX.
- PUDOs are costly to maintain. DANX has customers in Sweden that are willing to pay for this. This means DANX now can offer this service to other customers as well in order to improve their service.[22]
- Lots of small subcontractors means it is easy for DANX to remove and add new sub contractors in busy periods/seasons.
- Direct support is very important as a part of the quality and service DANX provides to their customers. This allows the customer to call or email Lasse directly with questions related to the integration between the IT systems of DANX and the IT systems of the customer.

Weaknesses

 With new customers comes new systems, leading to the training of new employees taking longer time. [29] Besides the training of new employees, the current employees must also learn the new systems. Increased training time and ongoing training of existing employees leads to increased cost when expanding. • With the rapid expansion DANX is experiencing it is difficult to asses if their high quality service is retained, if they can not measure how well a certain department is performing.

Opportunities

• DANX can gain free experience from their ELSA partners which they have not done yet. This is a way to learn more about alternate methods which may be better, and make them stand stronger on the northern market.[9]

Threats

• The lack of own flight routes means that DANX is dependent that the flights are not delayed, and that they accept their cargo. If they do not, the delivery will be delayed which causes bad reputation and quality.

B.3 Work Domains

DANX Nordic is situated in Vallensbæk, Denmark. The company has organisations in Sweden, Norway, Finland and Denmark.

Within each organisation there is a flat structure[?], where one regional director is sitting at the top, followed by an operations manager and a sales manager. At the bottom we have a number of contracted drivers responsible for the final delivery of the spare parts [21][28] - these are independent of DANX but are hired to carry out their bidding.

The nordic branch is different from the regional organisations in the sense that it has an IT-department and a marketing department. These are used by all regional organisations and the centralisation of these aligns DANX different departments both in IT as well as marketing and customer relations. For this project the important departments to consider are:

B.3.1 IT department

The IT department at DANX consists of Lasse, the head of IT development department [47], and three employees. The department develops IT systems, such as the TrackIT system [48], which is used in all of the department. They are also responsible for integration with customers systems. When DANX gets a new customer the IT department make sure that it will only take a few days before they have fully implemented the integration between IT systems of DANX and the customer's IT system. [41]

They are also using a lot of resources on handling internal and customer support related to software inside DANX[49], such as the TrackIT system and the software implemented in order to connect and communicate with customers systems. This support helps with using the systems and correct bugs when they occur. They give support by email and phone, and if it is customer support, the operational department will typically have received it first and read it through and then forwarded it to the it department afterwards[34] if it is not something they can handle themselves.[50]

The IT department is an important work domain to focus on as they are an important support for customers and internal staff regarding complications with internal systems. Lasse is a key resource for DANX as he is responsible for integrating new customers.[51] This is a very important activity for DANX and one of it's key strengths, which means that it can conflict with the business goals to gain new customers. Since Lasse is the only person able to integrate them, it either becomes a bottleneck for the business goals, or DANX could increase the time spent on creating the customer integration. Lowering the standards would mean DANX lost a strength compared to their competitors.

B.3.2 Operational department

The head of the operational department is Gert Phillipsen, the Operations Manager.

The operations department is the main department, both in regards to internal coordination of packages as well as customer support requests.[4] They propagate support requests when they are unable to fix the issues.[50]

The control tower is part of the operational department and is always open. It serves as a reliable contact for their customers and ensures that any problems that may hinder delivery of spare parts are addressed.[4]

Aside from the customer support the operation is also responsible for managing the different sub contractors, either when something goes wrong, or if a driver is insecure on how to proceed.

B.3.3 IT support department

The IT support department of DANX consist of 2 employees. Their job is to maintain internal support regarding hardware problems. They share email with the IT development department.[36]

B.3.4 Conclusion

As the IT department is a significant bottleneck for DANX it might be worth analyzing in the in-depth analysis. The problem is that the fast integration and good customer support values of DANX are dependent on Lasse because he is the only person with full insight into the IT systems that supports these values.[44] This means that as DANX grows the workload on Lasse will increase to a point where he can no longer keep up.

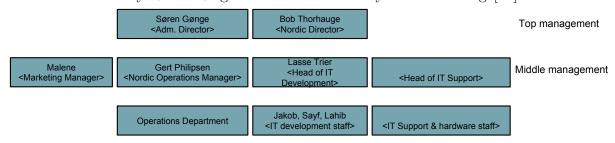
Unfortunately it is very difficult to train/employ an additional employee with the same functionality as Lasse Trier, since Lasse needs to spend time on this, that he does not have. It is not feasible to extend the deadlines of Lasse's work as customers need it right away, and that this is one of the main strengths of DANX.

Appendix C

In-depth analysis phase

C.1 Organisational setup

DANX is founded by Søren Gønge and now co-owned by Bob Thorhauge [28].



C.2 Key players

This section describes the persons that have the most significant impact on the project.

C.2.1 Lasse Trier

Lasse Trier is the head of IT development. His main responsibility is to integrate customer's IT systems and provide customer support when complications occur.[32][33]

Additionally he prioritizes and delegates the tasks of three other employees of the development department.[42] He has an important role in providing competitive advantages to DANX as described in the Strategic Alignment Report in Work Domains. His impact on the project is significant, because he provides solutions to customer problems.

C.2.2 Gert Philipsen

Gert Philipsen is the head of the operational department. His responsibility is ensuring that DANX delivers on-time by coordinating and leading the operational department. He is concerned, among other things, with optimization of the operational department[14], which makes his opinion on the project important.

C.3 Current work practices

This section describes the work practices of the operational, IT development and IT support department that are relevant to the problem. The control tower is part of the operational department.

When customers of DANX wants to report a problem to DANX, they contact the control tower in the majority of cases.[4] Customers can contact employees on other levels than the employees of the control tower.[7] Customers can contact danx through phone or email, but mostly uses email.[19] The employee that receives the request might be able to solve the problem, if not, it is propagated.

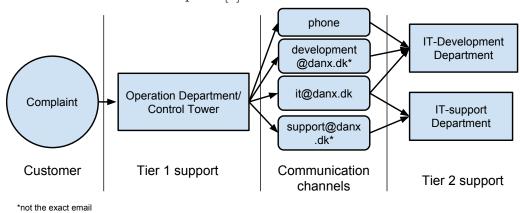
The problems that the operational department can solve highly depend on the employee that takes care of the case.[35] Certain employees have knowledge of the problems related to EDI-connection and partially understand the format of the file that is transferred, and are able to solve some of them or identify the root cause.[39] If the employee is not able to solve problem, it is propagated to the IT development department. Because some knowledge is acquired when trying to solve or identify the problem, it is in some cases propagated with a description, helping the IT development department solve it.[6][38]

The problems that are propagated to the IT departments are through the phone, email or delivered in-person.[18] At least nine out of ten support requests are from the operational department.[34] If the responsible employee of the operational department is in doubt of which department is capable of solving the problem or do not know other means of contact, the email address it@danx.dk is used[36]. Both IT development and IT support have access to and check the email address, which makes coordination between the departments necessary.[37] This coordination is avoided if the employee of the operational department has sufficient knowledge of the responsibilities of the IT departments and the problem. In such a case, the private emails(e.g. ltr@danx.dk) or phones are used.

The IT development department usually solves problems related to customer

integrations, because they make the integrations internally in the IT development department. Lasse Trier is the primary provider of support.[33] Other employees of the IT department helps integrating to some extent.[31][32] The IT support department solves problems related to hardware, for example dysfunctional PDA's.[36]

Some problems from the same customer are recurring, because the problem was not solved in the first place.[8]



C.3.1 Stakeholder Analysis

The purpose of the stakeholder analysis is to map the general interests of the key players with their role in the project.

Stakeholder	General interests	Key interests and
		role in relation to the
		project
Operations	Ensure that the deliv-	Providing effective cus-
department	ery of spare parts is un-	tomer support.[15] Pos-
	hindered, by coordinating	sibly part of the solu-
	and integrating.	tion, because employees
		have knowledge of cus-
		tomer support.
Gert Philipsen	Ensuring that the opera-	Optimizing the opera-
	tional department is func-	tional department.[14] As
	tional and optimizing it.	he leads the operational
		department his opinion
		on the project is impor-
		tant
Lasse Trier	On-time delivery of cus-	Lasse would like to docu-
	tomer integrations and	ment what customer sup-
	customer support	port he has provided.[40]

C.4 Goals, Problems and Needs

This section describes the most significant goals and the problems that can hinder reaching the goals of the selected departments, or the goals described in the Strategic Alignment Report.

C.4.1 Goals

The IT department and the operational department has to integrate customers before their old contract expires. This can be everything between 1 day and to the 1st of next month.[12][41] It is important that the IT solution is ready on time, as DANX will not wait for the IT solution before they start working with the client[41], this is to uphold the high service level. This means that if a system is not ready on time, DANX will start working with the customer without the IT system.

Not having an IT system results in additional workload because the data that the system creates and maintains automatically needs to be done manually. Fast integration is an important goal for the company because it makes the company fast in comparison to the competitors, some of which uses approximately 14 days for the integration. For reference see section B.2.1

An important factor that makes DANX competitive, and therefore can be

perceived as a goal, is that the customer can contact the IT department directly by email or phone avoiding the communication chain starting from the control tower. The problems that some customers of DANX experience can have serious consequences for their production or other practices that are hindered by the lack of a spare part.[17] Having a shorter chain of communication and therefore a shorter response time can be a valuable service.[45] These goals puts variable work pressure on the employees of the development department, because integration is a task that has to be done one time per customer, but takes at least an entire day. Customer problems are also varying.

C.4.2 Problems

There are several problems that can hinder the work practices that allows these goals to be reached. If the customer's IT department is not ready on time, the integration can not be completed and DANX is forced to work without an IT system.[41]

In some cases the submitter of a customer problem is not clearly visible from the email containing the problem description. In this case the IT department spends from 10 to 15 minutes[46] on clarifying who the submitter of the problem is.

The IT support and IT development department spent time on reading mails that should be mailed to the other department because they share it@danx.dk.[43]

Internal support requests takes longer time to solve because of lacking information. The lacking information is retrieved by additional emails or phone contact.

The operational manager, can not supervise which customer support requests that are done and how long time it is pending. With this lack of knowledge it is complicated to optimize customer support. In the current situation, the knowledge of a specific problem can only be obtained by examining emails or talking to the employees that are responsible for solving the problem. The responsibility assignments are not documented, which complicates this further.[11] The operational manager can not guarantee that a problem is solved within a given time period with no knowledge of the responsibility assignments.

With no documentation of customer support, KPIs of customer response time can not be established.[10] The bigger DANX grow, the harder it is for a single manager to maintain an overview of how well the customer support is doing. As one of the goals of DANX is to grow, this issue becomes increasingly relevant.

C.4.3 Needs

The needs of the department is based on their current work practice, problems and the strategies identified in the Strategic Alignment Report.

The most important requirement for a solution to a problem within DANX is that it supports their rapid growth, because it is a business goal.

The SWOT analysis revealed that DANX has an advantages in direct customer support and fast integration, which the solution must keep or strengthen. To keep the direct customer support, the solution can not change the way that customers contacts and communicate with DANX.

The IT development department has potential for optimization of work practices. A lot of the work that is done is information gathering that is necessary because the submitter of a problem has not included enough information, both for internal and external problems.[43]

As this increases the workload for the problem solver, providing this missing information can save time.

The solver of external problems is primary Lasse, and as he is responsible for much of the integration, support and prioritization of work, reducing his workload is a need. As DANX grows his workload will grow, because it is assumed that increasing the number of customers increases the number of support requests.

Both the IT development department and the operational department needs documentation of customer support in order to have data to base evaluation on. With no evaluation the operational manager can not know how well customer support is doing, and has no way to know where to optimize the department.

It is assumed that growth introduces additional employees and it is harder to asses an increasing number of employees' performance without documentation. To guarantee that customer support requests are answered on-time, documentation that keep track of the request and the responsible employee is needed. It is assumed that an increasing amount of employees makes the need for employee evaluation increasingly important.

C.4.4 Parallel projects

The operation of DANX is educating their staff to understand the responsibilities of the different IT departments, such that they can submit the problem to the correct department, avoiding the responsibility overlap of it@danx.dk. In the future, the employees will preferable use the department-specific email, possibly decreasing the time that both departments uses on considering the problem.[16]

C.5 Ideas for solutions and suggested priorities

When trying to specify a solution it is important to be aware of what aspect of the problem that specific solution benefits, as a problem might require several solutions in order to be fixed.

Our focus is to provide DANX with means to generate documentation in a fast, efficient and uniform way, ultimately strengthening DANXs position in regards to keeping a high degree of service towards customers.

Our first proposal is a simple software system with three main functions.

First it enables end-users(DANX employees) to keep track of support requests.

A request should contain information about the customer, description of the problem, the DANX employee handling the requests, the timestamps for when it was received, and when it was resolved.

Second it provides end-users with a filtering option to make sure that the data can be reviewed in an understandable fashion.

Third, since some support requests feature emails, it features a way to attach these to the requests.

This will give DANX documentation of how much support the IT-development department provides and how much the operations department provides, as well as the time spent providing it.

The time factor is a great addition, as this can be used to determine response times, and management is able to create KPIs eg. response time should be no greater than certain amount of days.

Furthermore the function of following up on unresolved tickets is a great tool for improving customer satisfaction.

The second proposal is in continuation of the first proposal.

It is similar to the first proposed system but it should additionally contain some extended information on the requests, particularly solutions to the problems and labels.

The labels should provide a means to group solutions into which types of problems they are.

An example of this could be the labels 'EDI integration' or 'TrackIT integration', providing end-users with a way to group possible solutions when providing support in certain fields.

When applying the second solution multiple benefits are achieved.

First and foremost, a well documented issue, which frequently occurs, might have a general solution for multiple customers, ultimately saving time spent on contacting experts within that particular field. Secondly it might illustrate a flaw in the current practices, and the documented pattern can then be used to pinpoint the exact reason for the occurrence, which would make it easy for the experts to correct the issue or proactively attempt to avoid it.

In the second solution a crucial factor to success would be the fact that end-users of the system are provided with training in using the system and identifying problem types.

This is to ensure that they have the qualifications to tag the requests with their respective labelling.

This is important since the system would not function efficiently in regards to filtering if everything is mislabeled.

A downside to the second solution is that it will affect the time spent on initially handling the requests, seeing the employee has to manually write it into the system.

If an email has been sent it is possible to associate it with the request and save some time, but nevertheless one has to create the request.

When working with both solutions the parties affected directly would be the operations department and the IT development department.

This is due to the fact that these departments have first-hand contact with customers and are solving the customers problems.

Another important thing is that the systems are not to be forced upon the customers of DANX, as this might seem as a reduction in quality for them.

The system is intended to alter the workflow for the people answering the calls and the people handling the requests, and provide a structured way to review the work of the affected departments.

As Gert Phillipsen has expressed its important that solutions to problems are a part of the new system and hence we would recommend the second solution to have a higher priority.[3]

Appendix D Figures

D.1 Business Canvas

ESLA www.esla.info ISLA www.servicelogistics.	Key Activities: Logistics pre 7am	Value Propositions: Fast delivery of spare parts	Customer relationship: The customer relationship is not personal.	Customer Segments: Organizations with a need to transport certain items to certain places in a time.
	(Venture: Outsourcing of warehousing)	Overnight delivery pre 7am delivery guarantee	Customers get access to a portal with track and trace, bookings etc.	certain places in a time critical fashion Organizations with a need to
		FSL	,	transport certain items to certain places
	Key Resources :	Fast and efficient IT support	Channels:	
	FSL PUDO	Fast implementation of new customers, or start delivering without an IT system as support	DANX Website Customers - mouth to mouth Request for quotation	
Cost Structure: (value driven)	/en)	Revenue Streams :	eams :	
PUDO - monthly expense (Sub contractors (FSL ((fixed cost) (variable cost) (fixed cost)	Logistics (trans Outsourcing of	Logistics (transport, pick-up, delivery) (Us Outsourcing of storage (Gorenje) (Le	(Usage fee) (Leasing)

Bibliography

- [1] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 24:47 vi henter jo hver dag nede i Holland og leverer i hele Danmark inden 7.
- [2] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 43:00 hente nede i Salzgitter som ligger nede syd for Hannover klokken 15:30 og så samtidig levere oppe nord for Stockholm inden 7 næste morgen.
- [3] Gert #2 2-2.3ga Time 02:17
 [...], så skal man altså også have løsningsdelen med, hvornår det er løst og sådan, før det har en værdi der. Og hvis man ikke gør det, så føler jeg at det mister meget af sin værdi.
- [4] Gert #2 2-1.3ga Time 03:10
 [...] og hvis de ringer til vores hovednummer er det control tower de får,
 så det er jo egentlig der den meste kontakt foregår
- [5] Gert #2 2-1.3ga Time 04:15 Om kontroltårnet selv løser problemer for kunder: Det kunne sagtens være, der hvor kunden siger noget, kan vi godt sige til dem, jamen prøv at hør, hvis du nu går ind på vores hjemmeside, så kan du gøre sådan og sådan
- [6] Gert #2 2-1.3ga Time 06:21 Hvis jeg får noget fra en intern eller en kunde prøver jeg på en eller anden måde at oversætte det sådan at det er mere klart defineret når det kommer til IT
- [7] Gert #2 2-1.3ga Time 03:30 (rd: om kunden) som så skyder det ind på et andet niveau her, for eksempel ved at kontakte mig eller Bob, eller et andet niveau altså

[8] Gert #2 2-1.3ga - Time 14:45

Om de får den samme support request flere gange: Hvis du får den samme forespørgsel flere gange så er det jo en rykker, enten fordi vi snakkede om det dengang eller fordi vi ikke lige har fået set på det, og det så bliver nævnt igen. Også siger vi jo det skal vi nok prøve at se på eller komme tilbage til også er vi ikke lige kommet tilbage. Interviewer: Hvad er årsagen til det? Det er fordi hvis jeg sender en mail til Lasse så er det ikke sikkert jeg husker at følge op på det, og hvis han ikke svarer, så husker jeg det først når kunden rykker på mig, så vi mangler et struktureringsværktøj.

[9] Malene(0 - 21:03), Gert(21:03 - 1:13:20) & Lasse(1:13:20 - slut).3ga - Time 1:08:10

Interviewer: Kan du fortælle lidt om ESLA?

Gert: Ja og det er også det partnerskab vi har, det er ESLA.

[...] Vi går ud og markedsfører og sammen og hvis vi får en kunde der vil bruge den samme, jamen så kan vi snart gå ud og dække en stor del af Europa med det samme tilbud.

[...] og bruge hinanden også har meget, vi vil være gode venner og vi supporter hinanden hvis der er et eller andet vi kan hjælpe hinanden med det gør vi meget for at gøre. Har meget open books, de må gerne komme op og se alt hvordan vi producerer, jeg må gerne komme ned og se hvordan de producerer, jeg har så ikke fået gjort det endnu.

[10] Gert $\#2\ 1/2.3$ ga - Time 18:05

Interviewer: Har i egentlig nogen KPIer i forhold til svartider? Gert: Nej, slet ikke, overhovedet ikke. Det har vi ikke.

- [11] Gert #2 1/2.3ga Time 18:20 Om customer support: Vi har ingen form for dokumentation på det.
- [12] Gert #2 1/2 Time 21:11 Nu her er vi blevet bekræftiget i at vi skal starte en stor kunde op i danmark og sverige og de skal starte her den første januar, jamen så integrerer vi til den første januar.

[13] Telefonopkald med Gert

Interviewer: Ved du ca. hvor mange der arbejder i operationen? Gert: I operationen og i control tower er der seks mennesker.

[14] Telefonopkald med Gert

Interviewer: Ser du en af dine primære interesser, som at være optimering af operationen? Gert: Ja, helt klart.

- [15] Telefonopkald med Gert Interviewer: Ser du en af operationens interesser som at være at give effektiv customer support? Gert: Ja, det tror jeg også at jeg vil sige ja til.
- [16] Gert #2 1/2.3ga Time 10:06

 Jamen, egentlig har det været it@, men nu har de delt dem op og de har også lavet en der hedder support@danx.dk og development, vi har bare ikke spredt rygtet om det endnu, og vi har faktisk haft et møde i dag om med de forskellige operationschefer i de forskellige lande, hvor vi havde lasse med inde for at få noget struktur over det. [...] Så det er klart at der skal være en mail kun til dem og den er vist også ved at blive fabrikeret og publiceret.
- [17] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 25:50

 Under høsten der er det jo sådan at en landmand, der ser vejrudsigten, "nu er det altså i morgen jeg skal høste", også ryger kniven på hans mejetærsker, så vil han altså have den ud og køre i morgen
- [18] Gert #2 1/2.3ga Time 08:41

 Jeg sidder jo her hvor jeg sidder, så nogle gange går jeg ind til ham(rd: Lasse), nogle gange sender jeg en mail, og det er ret sjældent jeg ringer til ham.
- [19] Gert #2 1/2.3ga Time 12:54
 Interviewer: Hvis du kunne lave et skøn, de henvendelser I får fra kunden som ikke er fra statusmøder, hvor mange af dem er skriftlige og hvor mange af dem er mundtlige? Gert: Der vil jeg tro at langt de fleste er skriftlige.
- [20] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 29:21
 Interviewer: Jeg kunne forstå i bruger fly udelukkende til blandt andet Helsinki, har i så samarbejde med flyselskaberne sådan at i sikrer at der er plads til jeres var der skal leveres
 [..] Fly selskaber vil primært transportere passagere, så uanset hvad vil der indgå en situation hvor et fly er sent på den, og så siger kaptajnen, for han vil gerne flyve til tiden, så siger han, vi tager ikke noget fragt med i dag.
- [21] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 50:47

Interviewer: Vi er interesseret i at vide noget om jeres struktur, hvilke afdelinger i har og hvordan de snakker sammen.

Gert: Hvert land har en landechef, hvert land har også en ansvarlig for operationen, og hvert land har faktisk også, undtagen Norge, en sælger, altså en der er tilknyttet vores salgsafdeling. Og det er jo klart at det er landecheferne der er ansvarlige for at deres land fungere både operationelt og administrativt og med legale, personale og alt sådan noget der og salgsmæssigt. Og så har vi alligevel valgt at have en nordisk operationsafdeling som jeg så leder [..] Så har vi en nordisk salgsafdeling. [..] Vores IT er nordisk og ligger her i vallenspæk.

[22] Malene
(0 - 21:03), Gert
(21:03 - 1:13:20) & Lasse
(1:13:20 - slut).3ga - Time 41:59

Gert: PUDO'er er sådan en ting, som er customer driven, altså kundernes behov, altså det der har fået os til at åbne måske 28 PUDO'er i sverige er fordi IBM vil have PUDO'er og HP vil have PUDO'er og [Bincoy Neson] vil have PUDO'er, så åbner vi alle de der PUDO'er er sverige

- [23] Nogle potentielle kunder vil gerne se support KPIer.
- [24] Nogle kunder kræver referencer fra andre kunder.
- [25] Dvs at vi fokusere på at vokse med ca. 25-30 om året i organisk vækst (rd: nye kunder)

Sidst eår tjene vi ca 10 mill indne skal, hvilket er for lidt ud af 250 mill i omsætning. I indeværende år (13/14) kommer vil til at omsætte plus 300 mill og et overskud på plus 20 mill før skat.

Overordnede sigter jeg mod at DANX om 3-4 år har en omsætning på plus 500 mill med et overskud på ca 8-10 procent. Det vil give en potentiel salgsværdig på + 500 mill.

- [26] Hvor meget koster det ca. at implementere en ny kunde? "Jeg vil skyde på at det koster 15000 it-mæssigt, 40000 operationelt og 30000 salgsmæssigt."
- [27] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 09:23
 [...] nogen af vores største konkurrenter er TNT og HIT
- [28] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 04:30 Søren gønge, som er ham der grundlagde firmaet, er ham der ejer mest også har Bob også en stor del af aktierne, også alle tre

- country managers der sidder i norge, sverige og finland ejer også en del af virksomheden.
- [29] "Vi har på nuværende tidspunkt en hel reol stående med ringbind til de 19 systemer som vi benytter i forbindelse med vores kundesystemer"
- [30] Lahib.3ga Time 13:00
 [...] så jeg programmerede noget 3 måneder siden og fuldstændig glemt hvordan fanden jeg havde lavet det. Så jeg skulle gå helt tilbage og justere det eller faktisk skrotte det fuldstændig og lave noget helt ny implementering.
- [31] Lahib.3ga Time 00:51 Min opgave har så været, for 3-5 kunder at få forbindelse til en ftp eller en sftp server hvor jeg kan hente filerne, arkivere dem også bagefter uploadede dem, så det er både upload og download og arkivering af filerne.
- [32] Lahib.3ga Time 17:42 Hvorimod Lasse han har direkte kontakt med kunden, hvor kunden siger "Det her, jeg har seks filer der ikke er kommet i dag, hvad er der sket, de her filer er ikke blevet importeret fra vores til jeres server." Så jeg vil sige, Lasse ja, og Jakob lidt, men mig og Safe vi får ikke så mange (rd: customer support requests).
- [33] Lahib.3ga Time 17:09 Lasse får sindsygt meget(support requests) hver dag. Jeg gør ikke, Safe gør heller ikke, Jakob gør lidt, mere end mig.
- [34] Lasse5.3ga Time 15:25 Interviewer: Hvor ofte er operationen mellemled for support henvendelser fra kunden? Lasse: Stort set altid, vi snakker 90% af gangene i hvert fald
- [35] Lasse5.3ga Time 8:27 Til om nogen fra operationen kan løse it-problemer: Det er igen lidt et tilfælde hvem der kan det og ikke kan det.
- [36] Lasse5.3ga Time 16:08

 Jeg har jo lidt et problem eller en udfordring med ved at vi har to afdelinger både en IT support og en IT development, og de sender jo bare til @it som har begge afdelinger blandet sammen så vi for jo en masse mails hvis der er for eksempel problemer med PDA'erne eller et andet hvor det sådan set ikke er min afdeling, så vi får en masse clutter-mail på grund af det her.

- [37] Lasse5.3ga Time 17:10 Hvis de andre har travlt så svarer vi jo også, vi hjælper jo hinanden (rd: IT afdelingerne)
- [38] Lasse5.3ga Time 18:30 Interviewer: Hvor de(operationen) har korrespenderet med en kunde? Lasse: Ja, men hvor de så også skriver hvad det er der er problemet.
- [39] Lasse5.3ga Time 21:35

 Jeg har jo lært for eksempel haydar(rd: ansat i operationen) at gå ind at kigge i EDI filen hvis der er fejl advisering eller et eller andet så han kan gå ind og se for vi gemmer dem et bestemt sted og han er begyndt at kunne gennemskue de fleste af dem, altså se hvordan ser denne her forsendelse egentlig ud, så han har taget meget af det jeg har siddet og gennemtrawlet og se om de har sendt den her forsendelse gennem de rigtige kanaler, er den i vores fil og i så fald hvad er der så gået galt.
- [40] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:50:38 Nogle gange kunne det være meget rart for mig at sige, prøv at se her hvor meget vi egentlig har lavet, og her kunne et ticket system jo være meget relevant.
- [41] Lasse5.3ga Time 03:13

 Hvis ikke IT integrationen er færdig, jamen så kører vi ud med pakkerne alligevel, altså så gør vi det uden. Så vi kan som regel integrere en ny kunde, hvis de er klar, inden for en til to dage.
- [42] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 02:05:38 Om hvordan arbejdet bliver struktureret Vi holder møder, jeg holder ugentlige møder, nogen gange er det hver 14 dag eller en gang om måneden, det kommer lidt an på hvor meget stress der er på, men hvor at, altså vi har ikke noget task system eller management system, så det bliver meget lister, hvor jeg siger "nu vil jeg gerne have en liste på alt det der mangler i det her system" også sidder jeg og prioriterer hvad der er vigtigt og hvad der er knap så vigtigt.
- [43] Lasse #2.3ga Time 08:30
 [...] ofte så bruger folk ikke de der 5 minutter på at skrive en mail og skrive
 præcis hvad problemet er, så det ender med en mailkorrespondance på 5
 mails frem og tilbage, for at finde ud af hvad problemstillingen er.
- [44] Lasse #2.3ga Time 20:10

 Jeg har snakket med i hvert fald 10 og det var kun inden for IT området,

- altså der var også alt det praktiske. Der er det jo smart at der er 10 mennesker der kan snakke med mig, altså jeg ved alt det 10 mennesker ved på deres side.
- [45] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:18:32 Jeg synes det fungerer rigtigt godt, jeg synes vi har en fordel i forhold til nogle af de andre firmaer, at de(rd: kunder) kan komme i kontakt til os direkte, at vi ikke har et support system og et 4 tiers call desk hvor at man skal igennem de første tre der ikke ved noget som helst, som nogle af vores konkurrenter har, og det er en fordel, og det ser vores kunder helt klart også som en fordel.
- [46] Lasse5.3ga Time 10:00 Interviewer: På ugentlig basis hvor ofte bruger du så mere end 2 minutter på at finde ud af hvilken kunde en mail kommer fra. Lasse: Måske, gennemsnitlig 2-3 gange om ugen. Interviewer: Hvor lang tid bruger du på det? Lasse: ti minutter, et kvarter.
- [47] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:14:07 Jeg står for udviklingen her
- [48] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:14:20 Vi har jo en masse systemer internt kørende og vi har jo vores eget udvikling trackit
- [49] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:18:13 jeg bruger også uendelig meget tid på mail og telefon korrespondancer med både vores egne medarbejdere men også vores kunder
- [50] Lasse
5.3ga Time 14:52 Interviewer: Du får nogle kunde problem henvendelser fra Gert, fra operationen Lasse:
 Ja
- [51] Malene(0 21:03), Gert(21:03 1:13:20) & Lasse(1:13:20 slut).3ga Time 01:14:35 Med hensyn til hvad Lasse laver: handler meget om integration af vores kunder
- [52] Interviewer: Hvor lang tid tager det typisk at integrere en ny kunde? TNT: En typisk kunde med ca. 20 servicevogne tager 14 dage at integrere.
- [53] Interviewer: Hvilken rente kan en mellemstor virksomhed få, forudsat de har ca. 50 millioner stående og pengene ikke må være låst?

 Bank: Op til én million får de 0.775%, derefter får de mellem 0% og 0.125%.

- [54] http://www.tnt.com/express/da_dk/site/home/vores_services/TNT_innight.html
- [55] http://www.postnordlogistics.dk/da/Sider/hit.aspx
- [56] http://www.posten.se/en/Logistics/InNight/Pages/home.aspx
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- [61] http://www.kayako.com/signup/download/case/
- [62] http://wiki.kayako.com/display/DOCS/Kayako+Query+Language+(KQL)
- [63] http://danx.dk/Info/Profile
- [64] https://www.fedex.com/ratefinder/home?source=gh&cc=dk&language=da
- [65] The following is a mail received from Bob Thorhauge.

Vi har generelt en vækst strategi. Se evt power point vedhæftet. Dvs at vi fokusere på at vokse med ca. 25-30 om året i organisk vækst (rd: nye kunder). I indeværende regnskabsår sætter vi også fokus på vores indtjening. Sidste år tjente vi ca 10 mill inden skat, hvilket er for lidt ud af 250 mill i omsætning. I indeværende år (13/14) kommer vil til at omsætte plus 300 mill og et overskud på plus 20 mill før skat.

Overordnede sigter jeg mod at DANX om 3-4 år har en omsætning på plus 500 mill med et overskud på ca 8-10 procent. Det vil give en potentiel salgsværdig på + 500 mill.

Det er vores egentlig målsætninger. De andre ting er mere værdier for os. Vi arbejder med nedenstående values i virksomheden:

- **Reliability** We have the integrity to keep our promises, to correct our mistakes and proactively inform our customers.
- **Equality** We are all equals, performing different roles to achieve the same goal. We treat our customer, partners and colleagues with the same respect that we want to achieve ourselves.
- Quality We never take our customers for granted. We strive for 100% in everything we do in that way we ensure that our customers live up to their customers' high expectations.

Flexibility Flexibility is our mindset. It is what we are and what we expect from all our employees and partners - nothing less.

Creativity As pioneers we think out of the box and create solutions for our customers' needs. We are never satisfied and are constantly looking for new ways to improve.

Availability We ensure our customers' availability of spare parts through each employee's personal care and availability.

Pride We are proud of our customers, our company and our people - we take pride in everything we do.

Bob Thorhauge

[66] Slide from a DANX presentation



[67] Cost benefit for tailored basic solution

Year	NPV	0	1	2	3	4
Customer loss avoidence	287.913		85.000	85.000	85.000	85.000
Faster solution to problems	0		0	0	0	C
More sale	8.960.876		2.645.503	2.645.503	2.645.503	2.645.503
Not write emails	190.112	43.333	43.333	43.333	43.333	43.333
Total benefits		43.333	2.773.836	2.773.836	2.773.836	2.773.836
Initial investment	-40.605	-40.605	0	0	0	0
Staff training	-8.000	-8.000				
Support/updates	-34.384		-10.151	-10.151	-10.151	-10.151
Additional time spent analyzis	-52.840		-15.600	-15.600	-15.600	-15.600
Additional time spent on documentation	-266.157	-60.667	-60.667	-60.667	-60.667	-60.667
Total costs		-109.272	-86.418	-86.418	-86.418	-86.418
Net cash flow		-65.938	2.687.418	2.687.418	2.687.418	2.687.418
Discounted cash flow		-65.938	2.511.606	2.511.606	2.511.606	2.511.606
NPV	9.036.914					
Company cost of capital	7,00%					

$\left[68\right]$ Cost benefit for tailored extended system

Year	NPV	0	1	2	3	4
Customer loss avoidence	287.913	0	85.000	85.000	85.000	85.000
Faster solution to problems	42.546	0	5.200	10.400	15.600	20.800
More sale	8.960.876		2.645.503	2.645.503	2.645.503	2.645.503
Not write emails	190.112	43.333	43.333	43.333	43.333	43.333
Total benefits		43.333	2.779.036	2.784.236	2.789.436	2.794.636
Initial investment	-48.726	-48.726				
Staff training	-9.600	-9.600				
Support/updates	-41.261		-12.182	-12.182	-12.182	-12.182
Additional time spent analyzis	-52.840		-15.600	-15.600	-15.600	-15.600
Additional time spent on documentation	-532.315	-121.333	-121.333	-121.333	-121.333	-121.333
Total costs		-179.659	-149.115	-149.115	-149.115	-149.115
Net cash flow		-136.326	2.629.921	2.635.121	2.640.321	2.645.521
Discounted cash flow		-136.326	2.457.870	2.462.730	2.467.590	2.472.450
NPV	8.796.705					
Company cost of capital	7,00%					

[69] Cost benefit for off-the-shelf solution kayako

Year	NPV	0	1	2	3	4
Customer loss avoidence	287.913	0	85.000	85.000	85.000	85.000
Faster solution to problems	42.546	0	5.200	10.400	15.600	20.800
More sale	8.960.876		2.645.503	2.645.503	2.645.503	2.645.503
Less time writing emails	190.112	43.333	43.333	43.333	43.333	43.333
Total benefits		43.333	2.779.036	2.784.236	2.789.436	2.794.636
Initial investment	-16.242	-16.242				
Staff training	-13 600	-13.600				
Support/updates	-22.006		-6.497	-6.497	-6.497	-6.497
Additional time spent on analysing	-52.840		-15.600	-15.600	-15.600	-15.600
Additional time spent on documentation	-532.315	-121.333	-121.333	-121.333	-121.333	-121.333
Total costs		-151.175	-143.430	-143.430	-143.430	-143.430
Net cash flow		-107.842	2.635.606	2.640.806	2.646.006	2.651.206
Discounted cash flow		-107.842	2.463.183	2.468.043	2.472.903	2.477.762
NPV	8.844.444					
Company cost of capital	7,00%					