# **CREDIT MANAGEMENT**

How to improve Tamfelt's internal credit management processes?



Bachelor's thesis

**International Business** 

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## BBA in International Business Valkeakoski

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# HÄMEENLINNA BBA in International Business Financial Management

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#### **ABSTRACT**

The commissioning company of this thesis was the Tamfelt Corporation. Tamfelt is one of the world's leading manufacturers of paper machine clothing and technical textiles. The global financial crisis has affected Tamfelt's customers. It has considerably weakened the financial performance of Tamfelt's customers especially in North America. Due to the increase in credit risk Tamfelt wants to put even more effort and focus into credit management than it has in the past.

The research question for this thesis was: "How to improve Tamfelt's internal credit management processes?" The research question was further divided into four main objectives. My first objective was to describe and analyze the current credit management processes. My second objective was to evaluate Tamfelt's political and financial risk. The third objective was to calculate the days sales outstanding (DSO) of Tamfelt and the savings that would result from being able to decrease the DSO. My fourth objective was to make development suggestions.

The theory part was done by doing desk research. The practical part was done by using my own experience and knowledge, applying the theories I learned during my desk research and also conducting a few interviews.

The development suggestions revolve around four different areas. They are as follows: committing to the responsibilities within the credit control organization, introducing new useful SAP-functions, eliminating payment terms with unclear due dates and monitoring accounts receivable more actively.

**Keywords** credit risk, credit management, credit insurance

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## TIIVISTELMÄ

Opinnäytetyön toimeksiantaja on Tamfelt Oyj Abp. Tamfelt on yksi maailman johtavista teknisten tekstiilien toimittajista. Globaali taloudellinen taantuma on heikentänyt Tamfeltin asiakkaiden taloudellista tilannetta erityisesti Pohjois-Amerikassa, ja Tamfeltin luottoriski on kasvanut. Luottoriskin kasvusta johtuen Tamfelt haluaa panostaa entistä enemmän luotonhallintaan.

Opinnäytetyön tutkimuskysymys oli "Miten parantaa Tamfeltin sisäisiä luotonhallinta prosesseja?" Tutkimuskysymys jaettiin neljään päätavoitteeseen. Opinnäytetyön ensimmäinen tavoite oli kuvata ja analysoida nykyistä luotonhallintajärjestelmää. Toinen tavoite oli arvioida Tamfeltin taloudellinen ja poliittinen riski. Kolmas tavoite oli laskea Tamfeltin myyntisaatavien kiertonopeus ja sen lyhentämisestä saatavat pääomakustannussäästöt. Neljäs tavoite oli tehdä kehitysehdotuksia.

Teoria osuus on tehty tekemällä empiiristä tutkimusta aiheesta. Käytännön osuus pohjautuu oman työkokemukseni kautta ja haastatteluista kerättyihin tietoihin sekä empiirisen tutkimuksen tuloksiin ja teorioihin.

Kehitysehdotukset voidaan jakaa neljään ryhmään. Ne ovat luotonhallinta organisaation sitouttaminen vastuualueisiin, uusien luotonhallintaa avustavien SAP-toiminnallisuuksien käyttöönotto, toimitusaikaan sidottujen maksuehtojen poistaminen ja myyntisaatavien aktiivisempi tarkkailu.

Avainsanat luottoriski, luotonhallinta, luottovakuutus

Sivut 44 s.

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#### 1 INTRODUCTION

Globalization has increased competition in the global marketplace. Companies compete for customers fiercely and try to leverage anything to their advantage, from the price of the products to all other terms of sale. Competing with payment terms is very common. In some cases, sales negotiations can be won or lost by the amount of credit that you are willing to offer compared with the competition.

Offering credit is not free and it has risks. The risks and costs need to be analysed to achieve the best possible financial result. The purpose of credit management is to manage the costs and risks associated with credit sales. Finding the optimal level of risk and reward where the company's profitability and earnings are highest is the main goal of credit management.

The costs of giving credit arise because companies need capital to make products. If they then sell them on credit, the money is tied to the products until the customer pays. The company pays interest on that capital to the bank so the longer the credit period is the more expensive it is. Selling on credit has risks as well. They arise because the time of delivery differs from the time the customer pays.

The global financial crisis has had a huge effect on businesses. The credit risks have risen substantially during the past two years because more and more companies are struggling financially. This has increased the importance of credit management and it is, therefore, a very current topic. Especially in the current economical situation, it is very important to have a clear and effective credit management function that can help in maximizing profits during these bad economical times.

The following statement sums up the importance of credit management. "Optimising cash flow and avoiding bad debts are two key objectives of any successful business. Setting up a good credit control system is the starting point for both" (Directors Briefing 2006)

#### 2 CREDIT RISK

In commodity trading, credit risk arises when time of the supply of goods differs from the time of payment. This generates a debt to the buying company and a receivable to the selling company. Credit risk is the possibility of a loss occurring due to the financial failure of the counterparty to meet its contractual debt obligations. Credit risk can be divided into two main components, financial and political risk. This is demonstrated in figure 1 below.

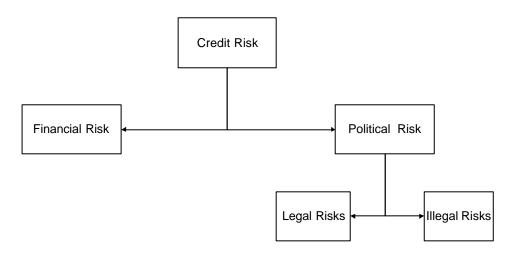


Figure 1 (Heinola 2010)

#### 2.1 Financial Risk

Financial risk is the risk associated with the customers' financial ability to pay or the customers' unwillingness to pay. The amount of financial risk involved in trading with individual customers needs to be assessed in order to avoid trading with customers that are in financial trouble and customers that have a tendency to pay late. Analysing the magnitude of the financial risk associated with a customer is difficult because there are many different factors that contribute to the total amount of risk involved. The amount of risk involved can be evaluated by looking at the customer's financial statements and credit reference information. Any historical disturbances relating to payments can be found from the credit reference information. Information on companies' financial state and historical credit reference information can also be bought from credit agencies. (Helppi & Paloheimo, 2005, 45)

### 2.2 Political Risk

Political risk is related to international trade. It is related to the risks created by the government and political environment. Political risk usually

means unexpected political events that affect the operations of a company. Political risks are categorized into two categories: legal and illegal. (Peltoniemi 2006, 10)

Legal political risks have to do with the actions of the foreign countries' governments and legislators. These actions have to do with the tax laws, currency regulations, nationalization and expropriation. (Helppi & Paloheimo, 2005, 42) Also, the societal norms such as religion, economy and the educational level are legal political risks. (Peltoniemi 2006, 10)

Illegal political risks are e.g. wars, rebellions and revolutions. Simply said, illegal political risks are disputes and conflicts that arise from societal restlessness. (Helppi & Paloheimo 2005, 42)

Assessing political risks is very complicated. It can be assessed by looking at the buying countries' economical situation, stability of the political and legal system, gearing ratio, credit standing, ability of loan repayment and accessibility to the financial market. (Helppi & Paloheimo 2005, 42) All the analysis does not have to be done by the company because it can utilise existing information. For example, Finnvera has given country ratings to all countries in the world as seen in figure 2. They are based on the countries' ability to handle foreign responsibilities, political stability, legal environment and economical growth prospects. (Talponen 2002, 78)

#### Finnvera Country Classifications (Finnvera)

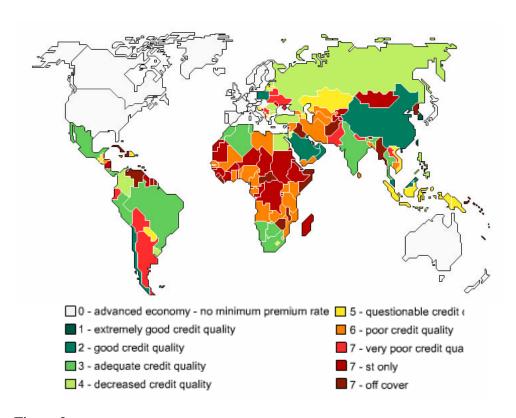


Figure 2

## 3 CREDIT MANAGEMENT

Credit management is needed to control the risks associated with credit sales. Its purpose is to manage both the financial and the political risks. Edwards says in his book that everybody from the Chief Executive downwards should understand that: "Credit means trust and trust has to be based on knowledge for it to have any real meaning." (Edwards 2004, 83) Gathering, analyzing and making decisions based on that knowledge is credit management.

The main advantage of extending credit is that it will attract additional customers and increase sales volume. Many companies feel that it is necessary for them to offer credit to their customers because they wouldn't survive if they operated on a cash only basis. For example, customers might not buy from them if required to pay cash. On the other hand, if customers are offered 30-day credit terms they might make the purchase instantly. Even though selling on credit can increase sales, it can also increase the costs in terms of bad debts and payment periods. (The Entrepreneurs Guidebook Series has published material about establishing a credit policy, 2001, 5)

The credit management process can be divided into three parts as illustrated in figure 3: activities before sale, activities during the agreed credit period and activities after the agreed credit period. Systems and tools that support the process are shown at the bottom of the figure.

Credit Management Process (Heinola 2010)

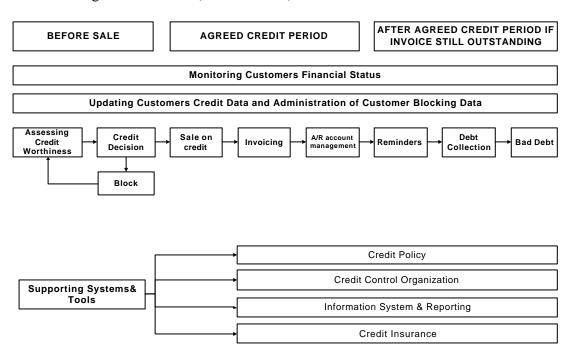


Figure 3

The activities before the sale involve assessing the credit worthiness of the customer, choosing the payment terms and setting the credit limit for the customer. During the credit period, the invoice is sent to the customer and the account receivables are monitored. If the customer has not paid within the agreed period, it is very important to instantly remind them and start the debt collection process.

Usually, it is thought that credit management's main objective is to avoid any bad debts but this is not true, especially when a company's goal is to maximise profitability and sales. The company might incur some bad debts but the additional sales would make it worthwhile to the point where the profits from the additional sales cover the bad debts incurred. If the company has not incurred any bad debts during the financial period but has refused to sell on credit several times, it can be asked that what would have been the result if the some of the credit sales would have been xcepted. In some industries, the optimal amount of risk is affected by the profits achieved from the riskier customers. For example, in the financial markets the interest marginal is higher for the riskier customers. This way the risk taker gets paid higher profits for taking the additional risk. There is no reason why this model could not be used in other industries as well. (Ijäs 2002, 25, 26) Credit management's main objective is to try and balance the risk and reward relationship. One point to consider is that customers with a high credit risk now include relatively new companies that might in the future become very good and reliable customers. (Talponen 2002, 13)

#### 3.1 Financial effects of credit management

Credit management can contribute to the financial performance of the company. Receivables tie up working capital that needs to be financed and in the worst case extending credit can lead to bad debts. Therefore, cash sale is the best possible outcome for the selling company. This way the company gets the revenue from the sale for its use immediately and does not have to deal with the costs that arise from financing the working capital tied to the sold products. (Talponen 2002, 26, 27)

Choosing the payment terms can have substantial effects on the profits; this will be demonstrated in chapter 3.5 about payment terms. The actual cost of overdue payments and the additional sales needed to cover bad debts will be illustrated in chapter 3.6 about debt collection. I will go more into details and show examples about these in later chapters.

Credit management needs to weigh the benefits of giving credit to the risks associated with it. Money costs money so there has to be benefits involved in giving credit to a customer in order to be able to manage with the costs that giving credit generates. (Edwards 2004, 19) Edwards says, "The best thing would be for everyone to be able to accept the definition of credit as being something (money) which is bought from a supplier, at a price, in just the same way as any other goods or services are bought" (Edwards 2004, 21)

#### 3.2 Effect of the financial crisis on credit management

In the current economical situation, the financial risks increase. Therefore, the importance of credit management should be emphasized. During a credit crunch and recession, every business needs to put extra effort into monitoring cash flows and analysing their customers' financial situation. If cash flows are not managed properly during these times, the companies' own success can lead to its downfall.

Euler Hermes is the world's largest credit insurer. Euler Hermes (2009) has published material about the increase in bankruptcies due to the financial crisis. The forecasts are based on a global index they have developed to monitor bankruptcies around the world. According to the material they published on 29.6.2009, bankruptcies in Finland will increase by 32% in 2009 compared to 2008. In the same material, Euler Hermes states that the increase in bankruptcies in the whole world will increase by an astonishing 35% in 2009. This means approximately 350 000 bankruptcies or company reorganisations. The highest increases according to their forecast will be in the Netherlands and Hong Kong where the increase in bankruptcies will be 70% compared to 2008. They also forecast that Norway, Spain, Great Britain, Ireland, Slovakia and Latvia would see an increase of 50%. They estimate that the growth will continue in 2010 but slow down to a 3% growth rate compared to 2009.

Furthermore, insolvency by overtrading can be a real risk in this economical situation. If a customer makes a large order, the supplying company will have to tie up a large amount of capital into the plant, extra workers and additional stock needed to fulfil the order before there is any certainty that the customer will pay. In the worst case, this might lead to the company running out of cash. (The Chartered Institute of Management Accountants has published material about improving cash flow using credit management, 25)

## 3.3 Assessing the credit worthiness of a customer

In order to avoid unnecessary bad debts and costs related to late payments, it is important to assess the credit worthiness of a customer. Edwards argues in his book that there are two main reasons for customers' credit worthiness evaluation, profit reasons and sales reasons. By profit reasons, he means possible delays in payments or bad debts that affect the profits and by sales reason he means that it is also useful to know the ability of the customer to buy your products. (Edwards 2004, 82)

The goal for determining the credit worthiness of a customer is to analyze the probability that the customer will pay the debt within the agreed time. The depth of the analysis varies a lot in different companies. Some companies make credit decisions based on very shallow information of the potential buyer. In these cases, it might be enough that they get basic information on the company to prove that it exists, a phone number or an address. Other companies do a very thorough analysis where they look at the

companies' financial statements, background information on the company executives and payment behaviour. (Ijäs 2002, 59)

One problem in executing thorough analyses on customers for large international companies can be their large customer base. They often have a worldwide customer base with thousands or tens of thousands of customers. Time and resource restrictions might make it impossible to have current up-to-date information on all customers. The Chartered Institute of Management Accountants has published a case about improving cash flow using credit management where they suggest using the 80/20 rule and prioritising the research on customer credit worthiness based on that. "The 80/20 rule suggests that 20% of your customers will generate 80% of your revenue, so it is suggestible to list accounts in descending order of value and give the top slice a full credit check on a regular basis. The smaller ones do need attention, but are a lower priority, unless monitoring reveals poor payment performance." (The Chartered Institute of Management Accountants has published material about improving cash flow using credit management 2009, 14)

#### 3.3.1 Two theories on how to assess the credit worthiness of a customer

Sami Ijäs states in his book that the total credit risk associated with a customer is determined by two factors, the value of the trade and the credit worthiness of the customer. The risk associated with a trade increases with the value of the trade. The affect of a valuable trade that turns into a bad debt is much bigger for the selling company than a small trade that is not paid by the customer. (Ijäs 2002, 50)

Different authors have written about several different ways of assessing the credit worthiness of customers. In this chapter, I will highlight two of these methods.

Ijäs states that the financial statements of a customer are the single most important information source when assessing the credit worthiness of a customer. (Ijäs 2002, 81) The financial statements give very useful information on the customers' profitability, liquidity and solvency, which are all indicators of the customers' financial state. In addition to this, Ijäs argues that the credit worthiness of a customer should be based on the following factors (Ijäs 2002, 51):

## • Industry of the customer

He argues that the industry of the customer is important because some industries have relatively more successful companies than others. Also, the current state and the future outlook of the customers operating industry are important because they vary a lot between different industries. Credit decisions should, therefore, not be made only by looking at individual customers, but also by the industries they operate in.

How much the customer wants to buy?

The risk increases as the value of the sale increases.

Duration of the debt?

A credit decision is easier to make for a short period of time.

• The total profit of the sale?

The smaller the profit margin, the bigger affect the bad debts and overdue invoices will have on the profitability of the selling company.

Talponen takes another approach for determining the credit worthiness of a customer in his book. According to Talponen, credit worthiness of a customer is based on three factors (Talponen 2002, 35):

- economic trend, financial and political situation in the buyer's country
- industry of the buyer
- financial information on the buyer
  - o profitability
  - o liquidity
  - o financial solvency

Profitability is obviously an important factor in determining the credit worthiness of a customer because it is the meter that shows the businesses ability to generate earnings compared to its costs. (Investopedia 2010)

Liquidity means the ability to pay debts. The better the liquidity the more current assets there are compared to current liabilities. Liquidity can be measured by calculating three simple ratios: current ratio, quick ratio and operating cash flow ratio.

- "The current ratio is the standard measure of any business' financial health. It will tell you whether your business is able to meet its current obligations by measuring if it has enough assets to cover its liabilities. The standard current ratio for a healthy business is two, meaning it has twice as many assets as liabilities."(Inconcert Financial Group)
- "Like the current ratio, the quick ratio (also sometimes called the acid test ratio) measures a business' liquidity. However, many financial planners consider it a tougher measure than the current ratio because it excludes inventories when counting assets. It calculates a business' liquid assets in relation to its liabilities. The higher the ratio is, the higher your business' level of liquidity, which usually corresponds to its financial health. The optimal quick ratio is one or higher." (Inconcert Financial Group)

• Operating cash flow measures how well the cash flow generated from operations covers the current liabilities. (Investopedia 2010)

Financial solvency gives a good safe basis for the business. A financially solvent company will be able to handle economic fluctuations and failures. This results in a low credit risk and easier access to additional finance. (Talponen 2002, 30)

There are many similarities in these two theories but also a few differences. Both authors take the industry and the financial information of the customer into consideration in their credit worthiness analysis. Ijäs also looks at the details of an individual trade when determining the credit worthiness. Factors such as the volume of the trade and the total profit margin of the trade affect the credit worthiness decision. Talponen takes the political risks into account when assessing the credit worthiness of a customer. Government interference, societal restlessness and societal norms are risks that could affect the international trading of a company.

#### 3.3.2 Information Sources

There are various different information sources that can help in assessing the credit risk related to a customer. Information can be found from internal and external sources. Depending on the depth of the analysis the company can use either only the easily accessible internal information or it can also utilise the external information available e.g. the financial statements of the customer or credit agency reports.

Internal information can be used when a credit decision needs to be made quickly. In these cases, there might not be time to wait for credit agencies' reports or other external information. There are many internal sources where a company can look for information to base the credit decision on.

The most important information can be found from the customers' accounts ledger. It is very important to monitor the payment behaviour and the volume of the purchases the customer makes. Monitoring payment behaviour of the customer is usually not a problem because the sales people know the biggest customers and the credit control department knows the customers that pay the slowest. Ijäs also states that it is important to know how important this company is to the customer's operations. If the role of the company is significant to the customer, it will probably notice the problems to pay debtors the latest because customers in financial difficulties tend to pay the most important suppliers first. (Ijäs 2002, 62)

Sales personnel play an important role in credit management. They are exposed to information that might help in making the credit decision. Sales personnel should be trained to know what kind of signs and information to look for. They should pay attention to the general atmosphere, inventory, owners, owner back round and owner changes in the customer company. (Ijäs 2002, 64)

Sudden increases in purchase volumes need to be noticed. The reason for the increase should be examined. The reason might be the difficulties in getting products from other suppliers because of overdue invoices. (Ijäs 2002, 63)

It is also very important to monitor the amount of claims the customer makes. The increase in claims could be the result of the customer's financial difficulties. This way the customer tries to get additional payment time for the products. (Ijäs 2002, 63)

Inventories can be a good indicator for financial difficulties. Companies try to keep inventories as small as possible to minimize the amount of capital tied to the products. If the inventories grow constantly, that might be a sign of weakening sales and as a result of that weakening cash flow which might lead to payment difficulties in the future. (Ijäs 2002, 64)

In addition to the internal information available, there is also external information that might give a more in depth look into the customers' financial situation.

Financial statements are the single most important external information source when making a large credit decision. The financial statements need to be official and audited. With a few simple calculations, you will know the profitability, liquidity and solvency of the customer. The emphasis in the ratio analysis should be put on the development of these ratios during the past few years and they should be compared to the customers' industry average. It is important to understand that the average industry ratios vary a lot between industries. (Talponen 2002, 30)

The availability of the financial statements differs from country to country In the Nordic countries, the availability is excellent whereas in Germany the financial statements are very difficult to get because only the limited liability companies have to send there financial statements to the authorities. Credit insurances are, therefore, very popular in countries where the financial statements of companies are not public because that is the only way to protect the company from bad debts. (Talponen 2002, 30)

Financial information can also be bought from credit agencies. Credit agencies sell a variety of different analyses. They can provide very thorough analyses or shallower ones depending on the price you are willing to pay. (Ijäs 2002, 66) In shallow reports, they can supply you with just the financial statements of a company and in the more thorough ones they attach their own analyses based on the financial statements and give a credit rating to the company in question.

#### 3.4 Credit Limit

Credit limit is the maximum amount of money a company allows its customers to owe it at any one time. Credit limits can be set for individual

customers, sales areas or the whole customer base. The advantages of setting a credit limit are (Credit Guru):

- It frees up time for the credit managers to focus on other tasks
- It speeds up the sales process
- It reduces the risk and improves the debt collection activities
- It serves as a account monitoring tool

Ijäs says that setting credit limits is not a way of managing credit risk but a way of controlling it. When a customer makes an order that if fulfilled, will exceed the customer credit limit, a decision needs to be made on whether to provide that particular customer with the additional limit required or not. In order to make this decision, it is necessary to evaluate the customers' credit worthiness. (Ijäs 2002, 123)

Credit limits should be built inside the company information system in a way that if orders that exceed the limit set for the customer cannot be made without increasing the credit limit. This kind of a system protects the company from mistakes made by employees and careless salespeople. (Ijäs 2002, 123)

The procedures for setting a credit limit and changing a credit limit are defined in the credit policy. The credit policy should be available for everyone so that everybody knows who is in charge of setting credit limits and how can they be flexibly changed. (Ijäs 2002, 124)

## 3.4.1 Determining a Credit Limit

According to Ijäs(2002, 124) the credit limit should be determined based on two factors:

- Estimate of customers amount of purchases during the invoicing period
- Customer credit worthiness

According to Ijäs the estimate of customers' purchases can be done based on the customers own estimate or past purchases.

There should be some additional leeway in the credit limit so that small changes will not instantly force an increase to the credit limit. According to Ijäs, a good amount could be to add 20-30% to the originally thought of limit, depending on the industry. (Ijäs 2002, 124)

Credit agencies often give their opinion on the maximum credit limit a particular company should be given. These estimates cannot fully be trusted because according to Ijäs they are often made without knowing the industry of the selling company and the amount of risk the selling company is willing to take. (Ijäs 2002, 124)

According to Talponen(2002), the maximum credit limit for customers is determined based on own turnover or share capital. The one that gives the lowest value is chosen.

	Turnover	Share Capital
Low risk	5-10 %	50-100 %
Normal risk	3-4 %	10-50 %
High Risk	1-2 %	1-9 %

### 3.5 Payment Terms

Payment term is defined as being the "conditions under which a seller will make a sale. Typically these terms specify the period allowed to a buyer to pay off the amount due, and may demand cash in advance, cash on delivery, deferred payment period of 30 days or more, etc." (Business Dictionary)

In this chapter, I will first look at what kind of an effect various payment terms have on profits and after that why it is not profitable to attract additional customers by offering longer credit terms. This chapter will also include material on the different types of payment terms and the factors that affect in choosing the payment term.

#### 3.5.1 Payment term's effect on profits

Table 1(Edwards 2004, 20) shows how different payments terms affect the net profit. All five companies have a 5% profit level when nothing is allowed in prices for credit and funds cost 12% per annum. This clearly illustrates the difference between profits related to a cash sale compared with other payment terms, for example a 90 days net credit sale. The chart also illustrates that a 30 day credit term will become cheaper than offering a 2% cash discount for a fast payment.

Payment terms effect on profit							
	Firm A	Firm B	Firm C	Firm D	Firm E		
Payment term	Cash only	Cash 2% discount	30 days net	60 days net	90 days net		
Annual Sales	12 000	12 000	12 000	12 000	12 000		
Debtors	0	0	1000	2000	3000		
Net Profit (before credit costs)	600	600	600	600	600		
Cost of credit	0	-240	-120	-240	-360		
Net Profit	600	360	480	360	240		
(Net Profit/ Sales) *100	5 %	3 %	4 %	3 %	2 %		

Table 1

### 3.5.2 Types of Payment Terms

The most beneficial situation for the seller is always making a cash sale. However, if credit is extended, the goal is to offer a credit period as short as possible to still obtain the sale. (Edwards 2004, 66) Long payment terms increase the credit risk because forecasting the customers' ability and willingness to pay is much easier for a shorter period of time. It is much easier to give a customer 14 days of credit compared to 90 days because it is much more likely that the willingness and ability of the customer to pay will change in 90 days compared with 14 days. (Ijäs 2002, 31)

An ideal situation for a company would be that it would have longer payment terms to its suppliers than it would offer its customers. Ijäs (2002, 31) gives an example where a company has 21 days to pay its purchases to its suppliers but only offers 14 days credit to its customers. This means that the company has seven days to sell the products without having capital tied up in inventories. This is a significant advantage in industries with fierce price competition. (Ijäs 2002, 31)

Payment terms can be can be divided into two main categories: payment related to delivery and payment related to time. Cash discounts and late payment interests can be added to these terms. (Edwards 2004, 66)

Edwards (2004, 67) lists the payment terms that are related to the delivery of goods. They are as follows:

- CWO: cash with order
- CIA: cash in advance
- CBS: cash before shipment
- COD: cash on delivery
- Net: payment due on delivery
- CND: Cash next delivery
- PF: pro forma, that is, cash before shipment

Edwards (2004, 67) also lists the payment terms related to time. They are as follows:

- Net 7: Payment 7 days after delivery
- Net 10: Payment 10 days after delivery

These terms that have time from "delivery" are not the best option because they will require evidence to indicate the delivery date. The due date can then be calculated from that.

• Net monthly account: Means that the goods bought this month need to be paid by the end of next month.

Other variations of this are the half-monthly credit and weekly credit.

• 30, 60 or 90 days: Payment is due by the 30<sup>th</sup>, 60<sup>th</sup> or 90<sup>th</sup> day calculated from the date of the invoice.

#### 3.5.3 Cash Discounts

The reason for cash discounts is that they should offer a benefit for both the seller and buyer. A payment term with a cash discount could be 2%/10 or net 30. This means that the customer gets a 2% discount if they pay in 10 days. If payment is not made in 10 days, the customer has to pay the whole amount in 30 days. The discount acts as an incentive for the customer to pay as quickly as possible. From the seller's point of view, there are costs in giving discount as well as giving credit. Credit ties up capital that costs money and with discount you are not getting paid the full price for the product. Edwards compares the costs of both in an example: If a seller borrows capital at 12% per annum, then giving a 2% discount costs as much as waiting 60 days for a late payment. (Edwards 2004, 68)

Edwards (2004, 68) lists the main considerations for cash discount. They are as follows:

- the seller's cost of waiting versus the annualized cost of the discount
- the seller's need for payment due to cash flow considerations
- the cost of discount taken by some customers who pay on time anyway

## 3.5.4 Late Payment Interest

Late payment interest simply means that the seller will charge some percentage of interest for the period of time the payment is late. This way the seller nullifies the costs that the late payment generates by charging interest. One counter measure to deal with the costs of late payments is including a fee for the possible late payment in the price of a product. There are two possible problems that might be faced when charging interest for late payments:

- It can be interpreted as the right to pay late and just pay extra for the additional credit days
- The costs of late payments should be collected from the specific late payers and not added in the prices and passing the costs to all customers

### 3.5.5 Choosing a Payment Term

Edwards (2004) states that various factors have an effect on the payment term a company chooses. For most companies, the following points for determining the payment terms will apply.

- The sellers strength in the market
- The payment terms the seller gets from its own suppliers
- The availability and cost of capital needed to finance sales
- The volume of sales and the range of customers
- The profit margin
- Any special payment arrangements, including longer terms and/or instalments
- Competitive pressures. If competitors offer better payment terms then you might be forced to match them
- The period the buyer will have the goods. The shorter that period, the tighter the payment term should be.
- The financial state of the customer and the risk for allowing time to pay
- Seasonal factors. Sales volume might be high during certain seasons and low during specific times of the year. One way to try increasing the sales during the low sales season is to give more time for the customers to pay. However, this has to be done so that the total risk and cost stay acceptable.
- The existence of protection for the exposure, such as a credit insurance

Payment terms need to be very clear. The seller and buyer must both understand the terms the same way. Using unclear payment terms such as payment after 15 days after receipt of invoice should be avoided because it is very hard to prove the day the customer has received the invoice. After a clear payment term has been chosen, it is in the seller's best interest to make sure that the customer keeps to the agreed terms. If a customer motices that it can pay late without any real consequences or pressure from the seller, it will continue to pay late and this will become very costly to the selling company during the whole customer relationship. (Edwards 2004, 65)

## 3.6 Debt Collection

Interest costs related to late payments go unnoticed very often because they are usually mixed in with the total bank charges. Edwards argues in his book that interest costs related to late payments can be 10 times the cost of bad debt losses. (Edwards 2004, 22) This is why clear effective debt collection processes are very important. Late payments always affect the profit if the seller has not added the additional costs of a possible late payment to the initial selling price or successfully recovered those costs by charging interest. (Edwards 2004, 21)

It is important to understand that companies send and receive thousands of invoices every day. Your invoice is just one among the many others the customer receives so it is crucial to try and make your invoice as special as possible in the customers' eyes. (Ijäs 2002, 190)

## 3.6.1 Effect of overdues on profits

Table 2 (Edwards 2004, 23) shows the window of time in months for overdue collection before the value of the sale becomes zero. This graph illustrates how important it is to have effective and clear debt collection processes. E.g. with a net profit of 6% and cost of borrowing at 8% the value of the sale is zero when the payment is overdue for nine months. This is because the interest costs absorb the profits. As the chart clearly illustrates the higher the net profit and the lower the borrowing costs the softer the impact and vice versa. High interest rates and low profit margins require strict and fast collection processes. (Edwards 2004, 23)

The effect of overdues on profits						
Cost of borrowing Net profit on sales						
	10 %	8 %	6 %	4 %	2 %	
5 %	24,0	19,2	14,4	9,8	4,8	
6 %	20,0	16,0	12,0	8,0	4,0	
8 %	15,0	12,0	9,0	6,0	3,0	
10 %	12,0	9,6	7,2	4,8	2,4	
12 %	10,0	8,0	6,0	4,0	2,0	
15 %	8,0	6,4	4,8	3,2	1,6	

Table 2

In addition to the interest costs the receivables decrease in value after the agreed credit period expires. This is because the older the debt is, the harder it becomes to collect it. Edwards (2004) says in his book that "many experts in the collection of debts apply percentage probabilities to the age of debt e.g.:

Age	Worth %
Current, within the terms	100
60 days overdue	80
180 days overdue	50
12 months overdue	10

#### 3.6.2 Effect of bad debts on sales

In most cases companies can clearly see the effect that bad debts have on profitability because it directly reduces the profit and loss account. Customers' refusal to pay a debt or even delay a payment can have devastating consequences on the profitability of a company and even profitable companies can become insolvent in a short period of time. (Directors Briefing 2006)

Table 3 (Edwards 2004, 23) shows how much additional sales need to be made to cover bad debt losses. As you can see the lower the pre-tax profit percentage is the more sales are needed to cover the bad debt.

The effect of bad debts on sales							
Bad Debt Pre-tax profit percentage							
£	5 %	8 %	10 %	12 %			
50	1 000	625	500	417			
500	10 000	6 250	5 000	4 170			
5 000	100 000	62 500	50 000	41 700			
10 000	200 000	125 000	100 000	83 400			
50 000	1 000 000	625 000	500 000	417 000			

Table 3

According to Edwards (2004, 189) there are four kinds of customers:

- 1. The ones that pay when they should
- 2. The ones that pay when reminded
- 3. The ones who pay when threatened
- 4. Those who don't pay

Edwards claims that the most common customer type is type 2. This type pays when they are reminded. If nobody reminds them to pay they will pay when they want to.

#### 3.6.3 Days Sales Outstanding (DSO)

The DSO is a way of measuring the effectiveness of credit management. It measures the average number of days it takes for a company to collect the revenue after the sale has been made. "Due to the high importance of cash in running a business, it is in a company's best interest to collect outstanding receivables as quickly as possible. By quickly turning sales into cash, a company has the chance to put the cash to use again - ideally, to reinvest and make more sales. The DSO can be used to determine whether a

company is trying to disguise weak sales, or is generally being ineffective at bringing money in. For most businesses, DSO is looked at either quarterly or annually." (Investopedia)

DSO= (Accounts receivable/ Total Sales) \* Number of Days

### 3.7 Credit Policy

Edwards says in the Credit Management Handbook that "the goal of every credit manager is to achieve the highest level of profitable sales, over the shortest period of time, with the minimum bad debts." To achieve this goal it is preferable that all existing customers and potential new customers are financially solvent. Unfortunately the reality in the modern, highly competitive market is that companies are competing against each other for sales growth and increased market share so it is not realistically possible to limit the sales only to the "safe" financially solvent customers. Trading with customers that have high credit risk, needs to be profitable. To make trading with these high risk customers as profitable as possible a company needs a credit control function that has clear procedures on how credit worth is checked, how customers accounts are monitored and how are overdue payment collected etc., hence a credit policy. (Edwards 2004, 36)

"A credit policy is the blueprint used by a business in making its decision to extend credit to a customer. The primary goal of a credit policy is to avoid extending credit to customers who are unable to pay their accounts." (Business Owners Toolkit) A credit policy consists of clear, written guidelines that set the terms and conditions for supplying goods on credit, customer qualification criteria, procedure for debt collection, and steps to be taken if a customer violates the terms and conditions of the contract. (Business Dictionary)

Every company has a credit policy even if they are not aware of it because not having a credit policy actually is one. In this case the policy basically is that staff makes decisions however they want depending on the situation. There are no clear procedures to follow in this case which is not recommended. (Edwards 2004, 36, 37)

For a credit policy to work it is essential that everybody is committed to it. Everyone has to know what they are doing, why they are doing it and what are the consequences if it is not done. (Edwards 2004, 37)

The extent and formality of the credit policy varies a lot between companies. Businesses size is one common factor that has an effect on the formality of the credit policy. The credit policy for some larger businesses can be very formal, including things such as: specific documented guidelines, customer credit applications, and credit checks. On the other hand credit policies for most small businesses tend to be quite informal and therefore they don't commonly include the same items as do the credit policies of larger businesses. Many small business owners tend to rely on their instincts as their credit policy.

The credit policy has a direct effect on the cash flow of the business. A credit policy that is too strict will have a negative effect, decreasing the cash inflow. It will turn away potential customers and slow sales down. On the other hand if a credit policy is too loose it might attract slow paying or even non-paying customers, increase the business's average collection period for accounts receivable, and eventually lead to cash inflow problems. A good credit policy should have a positive effect on attracting and retain good customers without having a negative impact on the cash inflow of the business. (Business Owners Toolkit)

## 3.7.1 Written Credit Policy

Talponen (2002) gives an example of what a credit policy should consist of. According to him it consists of:

Assessing the credit risk

- Every customer's credit worthiness is analyzed and a credit rating is given in cooperation with the sales organization.
- Using reliable and respected credit information and the latest financial statements to make the assessment
- Credit worthiness checks should be conducted on a regular basis, quarterly for high risk customers and yearly for low and normal risk customers.

According to Talponen (2002), the determination of customer credit worthiness should consist of the following steps:

- Determine the buyers level and development of profitability compared to the industry average
- Determine the buyers level and development of liquidity compared to the industry average
- Determine the buyers level and development of solvency compared to the industry average

### Credit risk categories

Every customer is given a credit risk class A, B, C or D in the following way:

- Category A, low risk
- Category B, normal risk
- Category C, high risk
- Category D, only cash sales

#### **New Customers**

- No sales to new customers should be made before their credit worthiness and credit risk category are determined.
- Set the credit limit according to the needs and credit worthiness of the customer
- A company can use a quick credit limit that defines the amount of credit that can be extended without checking the credit worthiness of the customer. A maximum amount for the quick credit limit should be set, for example €10 000. A credit check on the customer should still be made for future reference.

#### **Existing customers**

• The additional orders that concern customers which have invoices that are more than 30 days overdue should be given to the head of credit control to deliberate. These orders are allowed only when the more than 30 day overdue payments have been made. Orders that exceed the credit limit determined for the customer should be given to the head of credit control to consider.

#### Order confirmation

- The value of additional orders are added to the open invoices and it is checked if all of them fit under the current credit limit
- Orders exceeding the credit limit need to be accepted by the head of credit management or the credit insurer.
- Order confirmation should not be given to the customer before it is verified that the supply of the order is acceptable in terms of the credit worth given to the customer.

#### Credit management's relationship with the sales organization

- The credit manager should inform the sales manager about all changes to the customers' credit risk category or credit worthiness.
- Talponen also suggests that the sales and the credit management department should have a meeting once a month where they would exchange opinions about their experiences regarding customers. Situations with problematic customers should be discussed on a daily basis.

## 3.7.2 Modifying the Credit Policy

According to Edwards (2004, 22) the credit policy should be flexible and should take the current market conditions into consideration. It should take into account the conditions in the companies own market and the general economic situation. He recommends adapting the credit policy to the market conditions in the following way:

In normal market conditions the criteria for extending credit and setting payment terms are standard and they are defined in the credit policy. The conditions are normal when:

- The selling company is financially strong
- Stock is at a level that satisfies customer needs
- Profitability is good
- Most customers pay within 30 to 60 days, with only a few late payers
- It is expected that the business will continue similarly in the future

The payment terms and the credit worthiness requirements could be loosened and the amount of extended credit increased when the conditions are exceptional, for example when:

- Inventory level is high
- Demand has decreased
- Profit margins are exceptionally high
- Seller is planning to attack new market with new products
- Lots of effort has been put into sales
- High profits are needed to cover the increasing fixed costs
- The buyer is a risk but the contract would be very profitable
- The selling company wants to build a distribution network

It should be considered to tighten the credit policy when the situation full fills the following criteria:

- Profitability is low, which will not allow for any additional interest expenses or bad debts
- Inventories are low and demand is high
- Products are tailor-made and can not be sold else where
- Production process is very long
- Buyers have a good cash inflow

#### 3.8 Cooperation between sales and credit control

Sales and credit control departments have their own distinct roles in maximising the profitability of the company. The collaboration between these departments can lead to excellent financial results but usually some problems are faced because of the some what conflicting interests. Sales personnel often feel that credit controllers are limiting the sales volume and vice versa the credit controllers feel that the sales people are only interested in the amount of sales they make. A bad debt for a credit controller can mean a failure but to the sales person it is just a consequence of doing business. A declined credit decision on the other hand means lost money to the sales person but credit controllers think of it as avoiding risk. In order to make the co-operation between these two departments as lucra-

tive as possible it is important for both parties to understand this. (Ijäs 2002, 149, 152)

The conflicts between the salespeople and credit controllers happen because of conflicting goals and objectives. The performance of the sales department and individual salesmen are in many cases measured by (Ijäs 2002, 152):

- amount of invoicing
- amount of new customers
- customer satisfaction
- amount of lost customers

The performance of the credit control department is measured usually by the following criteria (Ijäs 2002, 152):

- amount of bad debts
- receivables turnover ratio
- amount of overdue payments from all receivables

As you can see many of the criteria by which the departments and individuals are assessed conflict with each other. A declined credit request can mean that a salesperson will not achieve the amount of sales expected. Customer satisfaction and the amount of new customers acquired might decline if the payment terms are tightened. This shows that the decisions that are made in the credit control department directly affect the results that the salesmen and sales department are evaluated on. New customers with an above average credit risk and existing customers who suddenly increase their buying volume will most probably result in more bad debts and a longer receivable turnover ratio so the actions of the sales department also have an affect on the criteria by which the credit controllers are assessed on. (Ijäs 2002, 153)

In order to have control over credit sales there has to be clear rules, objectives and procedures. The company executives, sales personnel and credit controllers need to be committed to the credit policy to make it work in practice and not just on paper. (Ijäs 2002, 24)

The sales and credit staff both need to know that all customers are changing. Their business is growing or decreasing, they are becoming more cash rich or less and they are either borrowing more or borrowing &ss. The sales staff needs to understand the following points (Edwards 2004, 83):

- not all customers are entitled to credit
- volume does not take care of minor losses
- late payments are very costly
- not all customers pay in the end
- the customer is always potentially important, but not always right

The relationship between the sales department and the credit controllers need to work seamlessly. The place of the decision making regarding credit decisions varies a lot in different organization. In some organizations the assessment of credit risk and credit decisions are made in the financial management department and in others the decisions are made in the sales organization. (Talponen 2002, 21)

There are advantages and disadvantages in both. On the other hand the sales organization knows the customers best and should therefore be able to make the best decision. The problem is that they have conflicting interests when making the credit decisions because as mentioned above the criteria by which the performance of the two departments are measured conflict. The financial management staff could make the decision without any conflicting interests but they might not always know the customer as well as the sales team.

One solution that Talponen suggests is that the head credit control would be a part of the sales organization, but the head of the financial management unit would make the most critical and toughest decisions. This way the disadvantages mentioned above would be nullified. The person esponsible for the credit decisions would have a good knowledge on the customers and he or she wouldn't have conflicting interests. This person would act as an objective unbiased middleman between the two departments and would there fore possibly face pressure from both departments.

#### 3.8.1 Extending more credit to increase sales volume or not?

Table 4 (Edwards 2004, 22) illustrates the effect that different credit terms has on profits. Like previously stated credit sales can be used to attract new customers and as a result of that increase the sales volume. The chart below displays that there needs to be a balance in giving additional credit to increase the sales volume, otherwise the profits will decrease rather than increase. Comparing situation A to situation D proves this.

Company A has a 5% profit level where nothing is allowed in prices for credit and funds cost 12% per annum. (Edwards 2004, 22) As we can se company A is currently, in situation A, able to make a turnover of £12M and a net profit of £360 000 with their normal 60 day credit term. In an effort to increase their sales volume the company decides to give an additional 30 days of credit. As we can se from the graph even though their sales increased by 33% up to £16M their net profit decreased by 11% to £320 000. This is because of the additional costs related to the additional 30 days of credit that Company A was willing to give to achieve larger sales figures. Comparing situation C to A we can see that the net profit decreases by £60 000 even though the sales increase by £3M. The most dramatic results can be seen when comparing situations D and A. The sales are 50% higher in situation D than A but the net profit is 50% lower.

The effect of different credit terms on profit						
Company A	Situation A	Situation B	Situation C	Situation D		
Sales	12 000 000	16 000 000	15 000 000	18 000 000		
Credit term (days)	60	90	90	120		
Debtors	2 000 000	4 000 000	3 750 000	6 000 000		
Net profit (before cost of credit)	600 000	800 000	750 000	900 000		
Cost of credit	-240 000	-480 000	-450 000	-720 000		
Net profit	360 000	320 000	300 000	180 000		

Table 4

### 3.9 Credit Insurance

While a clear, well communicated and properly executed credit policy will help convert sales to cash, a credit insurance will help in supporting the credit management function. (The Chartered Institute of Management Accountants has published material about improving cash flow using credit management, 15)

Credit insurance will cover either individual accounts or the entire turnover of a business, depending on what the buyer of the insurance wants. Credit insurance is most commonly used in international trading, where chasing and recovering cash from customers is much harder, but it can be applied to any situation where large amounts of credit are extended. (The Chartered Institute of Management Accountants has published material about improving cash flow using credit management, 15)

Credit insurance is one of the smallest and most complicated insurances in the world and that is why they are mainly sold by insurance companies that have specialized in them. The five main reasons for buying a credit insurance are (Talponen 2002, 65):

#### • Protect the profits of the company.

Table 3, analyzed earlier in the credit management chapter, illustrates the importance of this point. A company that has a 5% pre-tax profit percentage needs £1 000 000 additional sales to cover a bad debt of £50 000. The smaller the profits the bigger are the additional sales needed to cover the bad debts and the more important it is to be aware of the creditworthiness of your customers. (Talponen 2002, 65)

## Protect the liquidity and cash flow.

Bankruptcy of a big customer can have a massive effect on the cash flow and liquidity of the vendor. It can also cause a domino effect or have been caused by one. Domino effect means a bankruptcy wave caused by some factor in one industry. (Talponen 2002, 65)

The ability to forecast cash flows is crucial for a business. The credit insurance gives certainty to the cash inflows. Companies can confidently make big investment and other expenditure decisions when the cash inflows are secured.

#### Can focus on increasing sales

The sales department can focus on increasing the sales without having to think about the effects of bad debts. (Talponen 2002, 65)

#### • Strengthens the credit management

Credit insurance provides support for the credit controllers. They don't have to follow customer's financial statements and credit ratings constantly because the insurer does that for them.

#### Improves the warranty position

The compensation can be transferred to the financing company or bank when the credit insurance works as the guarantee for the loan. If the credit insurer has a good enough credit rating this decreases the price of finance for the company.

Obviously it is much harder and much more expensive to get credit insurance when the risks are higher. Both the credit crunch and the recession greatly increase the risk for a customer's non-payment of the debt. (The Chartered Institute of Management Accountants has published material about improving cash flow using credit management, 15)

According to the material published by the Chartered Institute of Management Accountants on improving cash flow using credit management there are a few questions that should be answered when considering buying a credit insurance. They are:

- Do you check the financial standing of all new customers before executing the first order?
- Do you periodically review the financial standing of existing customers, especially those increasing their order sizes?
- Do you incentivise sales people by cash in, rather than sales made?

- Who supervises credit decisions and research? Who makes sure of the prompt collection of overdue payments and who is responsible if the credit position gets out of hand?
- Is the performance of the risk and credit control teams measured and if so do they have incentives linked to those metrics?
- Are the credit limits accurate in terms of total indebtedness for each customer and payment period?
- Do you make your credit terms very clear in advance?

## 4 CASE TAMFELT

In this case part of my final thesis I will take a closer look at Tamfelt's credit management procedures and analyze them based on the theories of credit management I went through in chapters two and three. The end result will be development suggestions for Tamfelt. The development suggestions will answer my research question: "How to improve Tamfelt internal credit management processes?". The structure of this case study will follow the chart below. I am going to analyze the individual steps of credit sales and evaluate the supporting systems and tools established to support Tamfelt's credit management.

I will start with a company introduction and risk analysis of Tamfelt's business. The risk analysis consists of assessment of both political and financial risk. Then I will proceed to modelling and analysing Tamfelt's credit management procedures based on the theories presented in chapters two and three in this thesis. In this analysis steps in credit management are divided into three phases: before sales, during credit period, after credit period (figure 4). Also the different systems and tools established to support Tamfelt's credit management are being analysed. Finally, I will conclude the case part with development suggestions for improving Tamfelt's credit management..

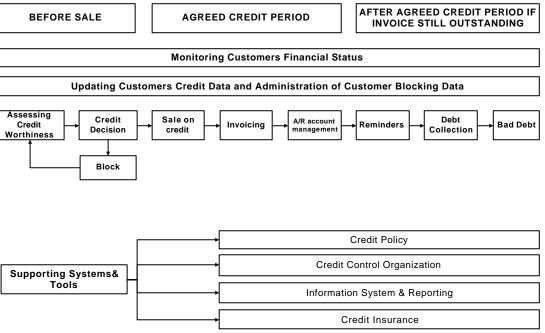


Figure 4

The information for this case study has been gathered by conducting interviews and from the information systems of Tamfelt. My main interview was conducted with the business controller of Tamfelt. I also asked specific questions from the accounting manager and the CEO of the paper machine clothing division. All numerical analyses are based on the numbers for the year 2009.

#### 4.1 Company Introduction

Tamfelt is one of the world's leading suppliers of technical textiles. The company's main products are paper machine clothing and filter fabrics. Tamfelt develops, manufactures and markets paper and board machine clothing, filter fabrics and other industrial textiles and related products and services. Tamfelt was founded in 1797 so it is one of the pioneers of the Finnish industry. Tamfelt is an international company with customers and operations worldwide. Tamfelt has 10 legal entities around the world. They are situated in Finland, Portugal, Poland, Brazil, United States of America, Canada and China. The manufacturing facilities are situated in Finland, Portugal, Poland, Brazil and China. In addition to the mills they have sales offices, service offices and agents all around the world. The operations in Finland are divided into three companies which are the parent company, paper machine clothing company and the filtration company. The parent company has no relevance in the credit insurance but all other legal entities have their own insurance.

Tamfelt's key customer groups for the paper machine clothing products are the paper, board and pulp industries. The filter fabrics main customer groups are mining, chemical, food and building and energy industries. 75% of Tamfelt's turnover comes from the paper and pulp industry. The remaining 25% of turnover comes from the mining and chemistry, dry filtration and laundry felt industries. (Tamfelt)

Like mentioned in the theory part, a credit insurance can be a good supporting function in credit management. Tamfelt has had a credit insurance from Euler Hermes since November 2007. The insurance protects Tamfelt against credit losses in both domestic and export businesses. The insurance also supports credit risk management and sales activities by helping to target the appropriate creditworthy customers. The cash flows are also easier to estimate because it is certain that you will get the money from the insured customers.

Tamfelt has used SAP as the ERP system of the company since 2001. SAP contains all the credit management information on customers like the credit limit, risk category, limit decision date and the credit insurance reference number. It also provides several reports and monitor lists that can be used for credit management purposes.

#### 4.2 Risk Analysis

In this chapter I will take a closer look at the political and financial risks that Tamfelt is facing. I will base my analysis of the political risk on the 2010 country ratings of Tamfelt's credit insurer Euler Hermes. Financial risk is assessed on the basis of the information received from Tamfelt's internal information systems.

Euler Hermes has developed a system that analyses the political and economical situation in countries worldwide. The result of the analysis is a country rating which is divided into six categories, from the safest (AA) to potentially the riskiest (D). (Euler Hermes 2010):

#### AA

- o Number of countries 35
- o % of world GDP 2006 70.8%
- O Strong economic structure and policy framework (industrialised economy or similar). Negligible risk of external I-quidity crisis. Generally sound business environment. Negligible risk of political instability. Strong capacity to espond to economic crisis.

#### • A

- Number of countries 44
- o % of world GDP 2006 4.4%
- Economic structure and policy framework generally adequate. Very low risk of external liquidity crisis. Generally

sound business environment. Negligible risk of political instability. Good capacity to respond to economic crisis.

- BB
- o Number of countries 20
- o % of world GDP 2006 7.4%
- Some signs of structural and policy weakness. External I-quidity adequate, some weaknesses in business environment and/or identified but moderate risk of political instability and adequate capacity to respond to economic crisis.
- B
- o Number of countries 27
- o % of world GDP 2006 9.2%
- A range of structural and policy weaknesses and/or vulnerable external liquidity position, some weaknesses in business environment and/or serious weaknesses in political framework with higher risk of political instability and limited capacity to respond to economic crisis.
- C
- o Number of countries 39
- o % of world GDP 2006 5.6%
- O Deep structural weaknesses and/or strong policy measures required and/or external liquidity risk is high, serious weaknesses in business environment and/or serious weaknesses in political framework with higher risk of political instability and little capacity to respond to economic crisis.
- D
- o Number of countries 76
- o % of world GDP 2006 2.6%
- Structurally very weak and policy ineffective and/or current/imminent external liquidity crisis, serious weakness in business environment and/or actual or very high risk of political instability. No capacity to respond to economic crisis.

Tamfelt has divided all its customers into risk categories. I will use the risk categories to assess the financial risk. The risk categories are:

- 1 Selected low risk customers
- 2 Customers insured by the credit insurance
- 3 Customers with Letter of Credit or payment in advance
- 4 Customers with no credit insurance approved
- 5 Small volume customers (< €5000)

Category 1 includes a couple of domestic key customers Tamfelt has classified as low risk customers and decided that it does not need insurance for these companies. Also because the cost of the insurance is 0,114% of the insured receivables it would also be pretty costly to insure all the receivables from these key customers.

Category 2 contains the customers which are insured by the credit insurance for some amount. The coverage given to customers in this group does not mean that all of the receivables from them are insured. In some cases it is possible that a customer belonging to this group might have coverage up to  $\le 10\,000$  but has receivables totalling  $\le 100\,000$ . This category can give the wrong impression. All of the receivables to customers in this category are not insured!

Category 3 includes the customers that are in financial trouble. The credit insurer has not given any coverage for these customers because of the risk associated with them so Tamfelt has chosen a payment term that guarantees payment.

Category 4 is the customer group that needs the most attention from a credit management point of view. The credit insurer has not given the customers in this group any coverage but they are still sold to on credit.

Category 5 contains the small customers that have receivables that are under five thousand Euros. Credit insurance has not even been applied for these customers.

#### 4.2.1 Political Risk

#### Sales and country ratings

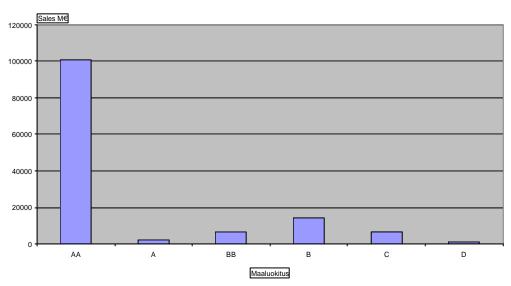


Figure 5

Figure 5 illustrates Tamfelt's political risk. The total turnover for the year 2009 has been divided into country ratings. The chart shows how much turnover came from countries that belong in different country rating categories. As we can see Tamfelt's political risk is quite small because 77% of the turnover came from countries with the best rating, AA. If we look at the three riskiest categories B, C and D we can see that only 17% of the

2009 turnover came from these countries. Taking the analysis even further we can see that only 6% of the € 131 million turnover came from the countries belonging to the two riskiest categories, C and D.

### 4.2.2 Financial Risk

#### Sales and Risk Category

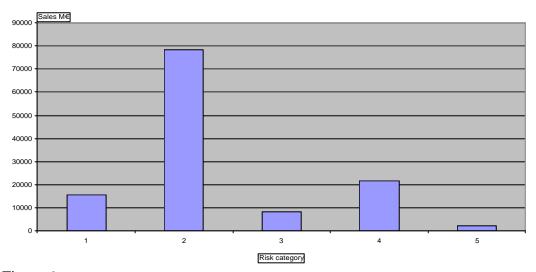


Figure 6

Tamfelt had a turnover of €131 million of which 114€ million where credit sales. This is on reason why the management of the credit risk is very important. Figure 6 demonstrates the division of the whole turnover to Tamfelt's internal risk categories. A point to note about the results is that 60% of the sales went to category two that includes customers from which receivables are insured for some amount. Category four is the one that needs the most attention because it contains the highest risk. 17% of the sales went to customers who are in this category.

Sum / Company €1000	Risk category					
Country Rating	1	2	3	4	5	Total
AA	15 494	68 865	107	14 045	1 143	99 654
A		1 547	54	331	33	1 965
ВВ		1 334	746	1 580	363	4023
В		4764	4 964	2641	575	12 944
С		1 868	2 113	2690	109	6780
D		12	474	351	27	864
Total	15 494	78 390	8 458	21 638	2 250	126 230

Table 5

In table 5 we can see how sales are divided into Tamfelt's internal risk categories and the credit insurers country ratings. Category one contains few key domestic customers of Tamfelt. Finland has an AA country rating so that is the reason why sales to category one go to countries with an AA rating. Also points to note about this chart are that the majority of sales to category three also go to countries that have a high risk rating. As we can see the total sales to customers in category three is 8,458 million euros of which 7,551 million euros go to countries with a country risk rating of B, C or D. Tamfelt has protected itself from this risk by trading with payment terms that guarantee the payment for the goods. The most common payment terms used for sales to this category are payment in advance and letter of credit.

If we look at the risk category four we can see that two thirds of the sales that are on own risk go to customers in countries with an AA rating. This means that most of the sales that are fully on Tamfelt's own risk mainly contain only the financial risk associated with the customer. The most risky sales are the ones that go to countries with a B, C, or D country rating and to customers that are in risk category four. These sales contain a high political and financial risk Gladly sales that fulfil this description are only 4,3% of the total turnover.

In this case study I will describe and analyze Tamfelt's current credit management procedures and briefly introduce the supporting systems tools that they use. Based on this I will make development suggestions.

As mentioned before 75% of Tamfelt's turnover comes from customers operating in the paper and pulp industry. This industry currently possesses a high industry risk due to decreased profitability. The industry risk has significantly increased during the past few years especially in North America.

Tamfelt also has a few very big individual customers in category four that possess a high credit risk. These customers are situated in North America. Like mentioned the paper industry in general is struggling a lot in these areas at the moment so the insurer will not give any coverage for these customers. These few customers can be classified as being high risk high reward customers. Sales volumes to these few individual customers are so significant that it is worth taking the risk.

### 4.2.3 DSO of Tamfelt Corporation

DSO is the abbreviation for days sales outstanding. The DSO is a way of measuring the effectiveness of credit management. It measures the average number of days it takes for a company to collect the revenue after the sale has been made.

DSO = (Account receivable/ Sales)\* number of days

Tamfelt Corporations DSO = (€M25/ €131M)\* 365= 70 days

Shortening the DSO with 5 days would result in capital cost savings.

65=(X/131)\*365 → X= €M 23, 3 would be the new accounts receivables. That would mean that there would be €M1, 7(25-23, 3) less capital tied to the products. Assuming a 5% interest rate the savings in capital costs would be €85000 (€M 1, 7\* 0, 05) annually.

#### 4.3 Before Sale

# 4.3.1 Assessing the credit worthiness of the customer

Tamfelt is in a position where they don't really have a lot of new customers. This is because Tamfelt operates in distinct industries where it already knows its customers. New companies in these industries are very rare, one reason for this being the high entrance costs to these particular industries.

The lack of totally unknown new customers affects the actions that go into credit management before the sale. Because Tamfelt already knows its customers they rarely need to assess the credit worthiness of totally unknown new companies.

The assessment of both the new and existing customers is done by using the credit insurer. When customer balance is expected to exceed 5000 euros a credit limit should be requested from the credit insurer. After the application is made the credit insurer assesses the credit risk associated with the customer. Based on this the insurer provides coverage for the whole applied amount, part of the applied amount or no coverage at all. This gives an indication of the financial health of the company. In case of no limit is approved the insurer also provides a short summary of the reasons behind the decision.

The credit worth assessment process/credit limit application process for customers is supposed to be dealt with in a way that does not currently work in practice. The salesmen who sell to the customers are supposed to fill a credit limit request form in the internal web of Tamfelt or send an

email with the required information before the sale is made. This request then goes to the financial management department which is then responsible for making a credit limit request to the credit insurer. Currently the vast majority of the sales personnel do not make these requests at all. The requests to the insurer are made by the responsible person in the financial management department after they notice receivables with no credit limit decision in the information system. The insurance only covers sales made after the approved limit so if the credit limit is not requested before the sale the insurance will not cover the receivables generated from the sale.

# 4.3.2 Information Systems and Reporting

In this chapter I will briefly introduce the main information systems that Tamfelt uses in credit management. SAP, a web based reporting portal and the insurers web based system are the most important supporting information systems that Tamfelt uses in credit management.

SAP has many functions that support credit management. SAP has functions such as the credit check and credit block. The credit check function automatically compares the credit limit to the receivables. The credit limit can either be an external limit, internal limit or a combination of both. The external limit is the limit given by the insurer and there fore means the amount of receivables the insurer is willing to insure from that particular customer. The internal limit, in theory, is the amount of own risk Tamfelt is willing to take with individual customers so if the coverage provided by the insurer covers none or just a part of the sales the CEO of the company will decide an internal credit limit for the customer. This amount will then be input into the credit management data of the customer and business can be conducted normally up to that limit. In practice the amount internal limit given is as much as necessary to cover the sales volume and there fore avoid the customer of going into credit block. This means that no specific assessment of customer's financial state is made. Currently the internal credit limit has no real meaning of how much credit can really be given to a customer.

Credit block is a function where SAP basically locks the customer until it is released. Customers go into credit block for two reasons, either they have 45 days overdue payments or the credit limit in SAP is exceeded, meaning that they have more open receivables than they have credit limit. When a customer is in a credit block no new orders for that customer can be made and no products to the customers can be sent. This should mean that a new assessment of the financial state of the customer should be made because sales exceeding the limit are on Tamfelt's own risk. In practice no new assessment is conducted. From some customers the payment of overdues is demanded before new products are delivered but for others the common practice is just to release them from the credit block so that new orders can be made and products delivered.

The credit block can also be utilised as a monitoring tool. Tamfelt has so many customers that when the limit is exceeded, the amount of receivables for specific customers comes to the attention of the senior management. Unfortunately at the moment the credit block is mainly a monitoring tool and customers are released from it most of the time without further inspection of their financial state. One reason for this is that Tamfelt does not have the power in the customer relationships. This is because there is tough competition in the supplier market in the paper manufacturing industry. Many suppliers compete aggressively against each others with prices and other terms of sales. This puts the customer in a very powerful position in the customer relationship. This also has an effect in the payment term selection which I will look at closer in chapter 4.3.3. This means that if Tamfelt starts demanding late payments aggressively the customer might get irritated or be insulted and that can lead to the end of the customer relationship.

At the moment an internal limit is given to all customers that need it for three reasons:

- To avoid an information system chaos
- Because it acts as a monitoring tool
- Because Tamfelt can not really say "no" to any sales in the current financial situation

The question is that is it more important to have the internal limit as a monitoring tool where it brings the amount of receivables or the amount of overdue payments customers have to the attention of senior management or to give all or at least some customers an internal limit big enough that the customer would never go into credit block and therefore sales and deliveries could be made without any obstacles such as the credit block.

Tamfelt also uses a web based reporting portal where different kind of reports made by the financial management department can be viewed. As mentioned before there is a report for monitoring the receivables and overdue payments from customers.

The credit insurer also has a web system where the actual credit limit requests are made. Data relating to the insurances, like the decision history and individual limits, can also be exported from the system and analysed in Excel.

# 4.3.3 Choosing the payment terms

Tamfelt has a long list of payment terms it uses. The list of payment terms has approximately 80-90 different options. They include both payment terms related to delivery and time. Even though the payment terms that should be avoided are clearly stated in the credit policy dated 28.9.2005 they are still used.

The competition for profitable, long-term customer contracts is fierce. In most cases the customer is in a very powerful position and can basically determine the payment term according to their wants and the suppliers have to accept it.

However, this is not always the case, in smaller value contracts the competition is not always so fierce and that might in some cases leave room for the negotiation of the payment term. In these cases Tamfelt tries to negotiate payment terms such as 30 days net. This is because experience has shown that use of shorter payment periods will result in lots of late payments just because the customers' bureaucracy of handling and paying invoices will not be able to act in a shorter period of time. If customer wants a longer payment term such as 90 days net Tamfelt will offer a price which has taken the interest costs of capital tied to the products into account for that period of time.

Tamfelt also uses cash discounts and payment terms such as 30 days/ 2% or 60 days net. Like mentioned in the theory part this means that the customer will get a 2% discount if they pay within 30 days, if not they will pay the whole amount within 60 days.

Tamfelt states that it will charge 9,5% late payment interest in the invoices but in practice it has never collected them. To this date it has only been a way of pressuring as many customers as possible to paying as agreed in the terms of contract. The problem is that this might work for some time but eventually the customer will notice that Tamfelt is not really collecting those late payment interests.

### 4.4 During the agreed credit period

### 4.4.1 Invoicing

The invoices are made automatically for all customers. To some customers the invoice is sent electronically and to others it is still sent in paper format. This depends on whether there is an electronic connection with the customer or not. The invoices are made and sent to the customer when the goods are dispatched. Some of Tamfelt customers have consignment stocks. In this case of consignment stock the invoice is made when the customer takes the goods to use. At the end of each month it is checked that all of the delivered orders have been invoiced.

### 4.4.2 A/R Monitoring

Tamfelt uses a web based reporting portal to display different reports. A report that has all the overdue payments of customers is available. It shows all the overdue invoices and how much they are overdue. All of the sales people have access to this report but generally it can be said that it is

not used very actively. SAP sends a report of customers that have invoices that are over 30 days overdue every week to salesmen and sales assistants.

Salesmen should be responsible for monitoring the payments of their own customers. This is displayed very clearly in the credit control organization chart in chapter 4.6.2. Very few of the salesmen monitor the payments of customers that are on their responsibility. This leads to inefficiencies in debt collection and that generates additional unnecessary costs.

# 4.5 After Agreed Credit Period

### 4.5.1 Debt Collection

Tamfelt has the same debt collection process for all customers. The most common practice is to send reminder letters but in some domestic cases the debt collection is handled by calling the customer. Debt collection from Chinese customers is handled by a Chinese employee of Tamfelt who is situated in China.

Tamfelt sends its customers a maximum of three reminders. Reminder letters are sent according to list of customers with overdue payments. List is generated from SAP every two weeks and the reminders are sent by the responsible person in the financial management department.

The first reminder is sent when the payment becomes 15 days overdue. A copy of the original invoice is attached to the first reminder letter. This is because sometimes the customer has not got the original invoice or has got it and lost it. Also some customers might try to buy themselves more payment time by saying that they have not received the original invoice. The second reminder is sent when the payment is 30 days overdue. After the second reminder letter has been sent the sales assistants are also notified about the late payments. After that the sales assistants start to investigate why the payment is late and should take necessary actions. The third reminder is sent when the invoice is over 45 days overdue. After the payment becomes more than 60 days overdue the debt collection is transferred to the credit insurer which uses external debt collection agencies to collect the debts. Currently there is no notification of the transfer to the external debt collection in the reminder letters but Tamfelt is planning to include this type of "warning" into the reminder letters in the future.

It is very common that always the same customers have payments that are more than 45 days overdue. Usually these customers are in Spain or Portugal where it is part of the business culture to always pay late.

Customers can be put to dunning block in SAP so that reminder letters can not be sent to them. The main reasons for putting a customer into dunning block are in cases of claims, refunds, or ongoing sales negotiations.

When a customer makes a claim about the product the claim dispute needs to be settled before the customer is required pay. The customer is put to dunning block so that unnecessary reminders are not sent. SAP counts the due date of the payment according to the payment term and invoice date so when SAP creates the dunning list every two weeks it will generate a list of customers that have overdue payments. If a customer that has made a claim is not put into dunning block for the time it takes to settle the dispute it will appear on the list and an unnecessary reminder will be sent to the customer.

Unnecessary reminder letters are a problem. They are a result of the division of responsibilities between the sales organization and the financial management organization. The reminders are sent by the financial management department but it is the responsibility of the sales assistants to activate and deactivate the dunning block in SAP. There are cases where a customer has not been put to dunning block even though there is an ongoing claim dispute. The financial management department does not know and does not need to know about these disputes because it is the sales assistant's responsibility to put a customer to dunning block in these cases. The financial management department has sent reminder letters to the customer according to the agreed debt collection processes. Only after the second reminder letter is sent and the sales assistant notified about the late payment the financial management department is told about the claim dispute. In these cases the reason for the unwarranted reminder letters are in the neglection of responsibilities by the sales assistants. Also a problem is customers that are left in the dunning block even after the claim dispute has been settled. This means that debt collection processes will not start until the customer is released from the dunning block.

Customers with which there are ongoing sales negotiations are also put to dunning block so that the customer is not being irritated by unnecessary reminder letters.

### 4.6 Support Functions

## 4.6.1 Credit Policy

Tamfelt has a written credit policy that has all of the procedures and responsibilities involved in credit management.

The credit policy contains the following topics: general principles when selling on credit, procedures with new customers, procedures with existing customers, procedures with customers in credit block, invoicing, debt collection and reporting.

The general principles of credit sales include topics that deal with the procedures when selling on credit. These include the determination of pay-

ment terms, late payment interest and protective warrants. It contains clear instructions on what kind of payment terms should be used and what kind of payment terms should be avoided.

The credit policy also clearly states the steps that need to be taken when selling on credit to new customers, existing customers and customers that are in credit block.

# 4.6.2 Credit control organization

# **Credit Management Board**

(CEOs, CFO, Accounting Manager)

Credit decisions

- Credit limits
- Terms of payment
  - Risk Category
- Releasing credit blocks

# Sales managers

Monitoring open accounts

Monitoring of customer's financial status

Credit Limit Requests

# Sales representatives

Monitoring open accounts

Figure 7

Figure 7 shows the responsibilities of different parties in credit management. The financial management department is also actively involved in the credit management procedures. They are responsible for sending the reminder letters, sending overdue receivable information to the insurer, making the credit limit requests to the insurer, inputting the credit information data to the information systems and producing various types of reports from the credit management information.

### 4.6.3 Credit Insurance

The total estimated insurable turnover in the new credit insurance policy is M€ 108. There is a broker in between Euler Hermes and Tamfelt which

helps in finding a suitable insurance solution, acts as a middleman in regotiations and assists in administration of the insurance policy.

The credit insurance covers receivables up to the limit the insurer has granted. The insurance does not cover any new deliveries to customers who already have overdues more than 60 days. This rule is inapplicable if the overdue is caused by dispute, e.g. sales claim about the quality of delivered goods. In addition to the open invoices, the limit will also cover open orders that are under production process with 30 days or less to the delivery.

The insurer requires certain procedures to be taken in order to be eligible for debt collection through the insurance. They set limits to the payment terms Tamfelt can offer its customer. The maximum payment term eligible for coverage is 180 days normally, 240 days for exports to South Korea and 30/60 days in Brazil. The maximum liability the insurance covers is M€6,5.

The credit limit needs to be applied for the company/legal entity whose customer is in question. Some customers buy products from more than one company so the insurance need to be applied for to both company insurances.

The credit insurer constantly assesses the changes in the credit worth of the customers it has given coverage for. They can decline or cancel the credit limit at any given time if they see that the credit worth of the customer has declined. One concern at the moment for Tamfelt is that because of the financial crisis many customers credit worth has declined. This has lead to the credit insurer declining and cancelling credit limits for many customers. The whole point of having a credit insurance is to insure the receivables from risky customers. If the risky customers are not insured what is the point of having a credit insurance. In that case only the receivables from the good financially stable customers who pay in any case are insured. If their financial state weakens the insurer will again either cancel the whole credit limit or decline it. Therefore it can be questioned that what the real value of the credit insurance is for Tamfelt. The only reason that they have the credit insurance is that the cost is small compared with the benefit it brings if one big customer does not pay. It is really the case that if receivables from one big customer can be collected from the insurance at some point it makes having the whole insurance for many years worthwhile.

The credit insurance policy period ended 30.11.2009. Tamfelt decided to continue the use of the credit insurance and renew the contract. The major change in the new terms is that the price of the insurance increased substantially. The price is a % of the insurable turnover. In 2009 the cost of the insurance was about €0 000. According to the new terms of contract the price is 0,00114% of the €108 million estimated insurable turnover. This gives a yearly price for the insurance of approximately €123 000.

## 5 DEVELOPMENT SUGGESTIONS

# 5.1 Responsibilities

In a presentation dated April 2006 about the implementation of the credit control procedures it is pointed out that the organization of credit management procedures has been scattered so far and clear responsibilities have not been set. The current situation is that the responsibilities have been set and the parties involved in credit management have been informed. Unfortunately to this date the whole organization is not committed to the credit policy and the responsibilities are often neglected. This is the main problem in the current credit management process of Tamfelt. Especially the sales managers and representatives are neglecting their responsibilities. Currently the financial management department takes care of most of the responsibilities assigned to the sales managers and sales representatives in figure 7.

As Edwards (2004) says 'For a credit policy to work it is essential that everybody is committed to it. Everyone has to know what they are doing, why they are doing it and what are the consequences if it is not done." The problem in the case of Tamfelt is that there are no consequences for reglecting responsibilities. Even though the sales department has neglected the responsibilities nothing has been done about it and everybody has just learned to live with it.

The solution to this problem is simple. The sales area managers would be responsible for monitoring and making sure those individual salesmen in their sales areas act according to the credit policy. The sales area managers would then be accountable to the sales department manager. The sales department manager would then answer to the companies CEO about the whole sales departments' commitment to the credit policy. The only thing this requires to work is that the CEO at the top of the hierarchy makes sure that everyone commits to the credit policy. If the agreed goals are not met or procedures followed the CEO needs to take necessary actions to make sure everybody starts acting according to the plan.

Monthly meetings could be held where all layers of the hierarchy would be represented. This would mean that sales area managers, sales department manager, accounting manager, CFO and CEOs attend these meetings. The purpose of these meetings would be to discuss and solve credit control issues such as late paying customers, overdues, internal credit limits and other current issues. Commitment issues should also be addressed in these meetings. Having these meetings that focus only on credit control issues on a monthly basis would increase the whole organizations commitment to the credit policy.

One specific problem that has arisen because of the neglection of responsibilities is the application of a credit limit for new customers. For new customers the credit limit application process is as follows. Before the sale and before the assessment of the credit risk the salesmen are responsible for making the credit limit request in the intra web. This request is forwarded to the financial management department where they make the limit request for the insurer. The insurer makes a decision and that is used as the assessment of credit worth. The decision is attached to the customers credit master data in SAP. Based on this a credit decision is made. This kind of process is for new customers. Even though this process is simple and responsibilities clear the responsibilities are neglected by the salesmen. They do not make the initial request in the intra web even though it only takes few minutes. They also have the option of sending an email to the financial department but this is only done by very few sales men. The result is that the financial management department makes the requests to the insurer when they find over €000 receivables with customers that do not have a credit limit decision from the insurer.

The solution to this could be that new customer accounts could not be opened in SAP before a credit limit has been applied for. It is crucial that this change would be made as soon as possible because Tamfelt is currently targeting new areas, more specifically South America, in search of new customers. This means that in the near future Tamfelt might engage in an unusually large amount of new customer relationships in a short period of time. Because of this it would be very important to make the limit request process work in practice. This solution is only applicable to the credit limit requests for new customers that do not have an existing customer account in SAP.

The sales department in general needs to start taking the responsibilities that they have been assigned to do regarding credit control if the credit management system Tamfelt has designed is ever going to work. The salesmen in particular need to be more active in applying credit limits, monitoring the A/R accounts of their customers and collecting the debts immediately when they become overdue. The sales assistants need to be more accurate in the use of the dunning block.

#### 5.2 SAP functions

SAP has a function for credit management that assesses the payment history for customers. This function in SAP counts the average number of days the payments have been late for a certain period of time. Tamfelt has not activated this function yet. Using this would enable the analysis of customers that have a tendency to pay late. Like I already mentioned Tamfelt has such a large customer base that knowing for example the 50 customers with the worst payment behaviour over the past three to five years is virtually impossible without this kind of data. Without this kind of data additional efforts can not be focused on these customers. Having this data

would give Tamfelt two options. Either they could clearly put more efforts and focus into collection the debts from these customers that have bad payment behaviour or when new sales negotiations are held with these customers the prices for products should be set taking the payment behaviour into account. As proved in table 2 overdue payments decrease the profits and eventually when the payment is enough overdue the profit of the sale has been nullified by the capital costs. The cost of capital that is tied to the products for the average amount of days overdue could then be added to the price of the product. This might not work in practice for all customers because of long group contacts and fierce pricing competition but it could be used when possible.

# 5.3 Payment terms

Like Edwards (2004) points out in his book payment terms related to delivery are not good because it is hard to prove the delivery date and therefore the due date. This makes the start date of the debt collection process hard to determine.

Even though the payment terms that should be avoided are clearly stated in the credit policy dated 28.9.2005 some of them are still used. The policy was not implemented to practice in 2005 and in April 2006 Tamfelt decided to define and specify the credit management procedures in more detail because of the high number of overdue payments from its customers. Again in this document it is clearly stated that payment terms related to delivery should be avoided because of the unclear due date. Currently Tamfelt still uses a few payment terms that should be avoided. Luckily these are used with very few customers. They are:

- direct payment after receiving goods/documents,
- payment upon receipt of goods ./. 3%
- 180 days from the arrival of goods.

One very common payment term used is "upon receipt of this invoice". This should also be avoided when possible, especially in cases where the invoices are not sent electronically.

Getting rid of these payment terms would clarify the due date of the invoice. This would mean that the debt collection processes would have a clear start date. Also in some cases unnecessary reminder letters would not be sent.

#### 5.4 Monitoring A/R

The accounts receivables should be monitored more actively and the timing of debt collection should be sharpened. This is because as mentioned in the theory part the interest costs related to late payments are rarely monitored.

ticed because they are included in the total bank charges. As Edwards (2004) stated these costs can be 10 times the cost of bad debt losses.

The solution is that the sales department starts taking the responsibilities assigned to them in the credit policy. This would mean that the salesmen would monitor the payments of their own customers. The first reminder to the customer is sent when the payment becomes 15 days overdue. The salesmen should be very active in collecting the debt before this. If the customer has not paid according to the contract by the due date the salesman should immediately contact the customer about the payment. This kind of action would also reduce the amount of unnecessary reminders sent to customers.

Monitoring the accounts receivable during the credit period would also lead to fewer customers going into credit block. If the salesmen notice that the customer will soon have invoices that are over 45 days overdue or that the receivables will exceed the credit limit in the near future they should take necessary action. In case of overdue payments they should try collect the debt before it becomes 45 days overdue and in case of receivables exceeding the credit limit they should make the credit limit request. If the insurer does not give any coverage the internal limit could be applied for before the customer goes into credit block.

In general, the monitoring of the accounts receivable during the credit period needs to become more proactive than reactive. Problems should be noticed before they happen and they should be dealt with accordingly.

In addition, an important point to note is that as mentioned in the theory part the invoice of your company is one of very many others that the customer receives. It is important to make your invoice as important as possible in the customers' eyes. One way of doing this is increasing the activity of debt collection.

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