Dissertation

The potential of factoring as part of the Working Capital Management – How far can German SME’s improve their financial management by the usage of factoring?

Benjamin Hegger

Student Number: 1797640

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Abstract

The consequences of the new bank regulation law Basel III will force German small and medium-sized enterprises to think about alternative forms of finance. In order to finance their business activities and to ensure a sufficient amount of liquidity within the company these firms could use factoring as part of their working capital management respectively their receivables management.

This dissertation shows that factoring would offer immense advantages to German SME´s concerning their liquidity management. Next to the opportunity to shorten the Cash Conversion Cycle they could also become less addicted to bank loans and their liquidity planning process could be simplified. However, it turned out that the willingness of using factoring depends on the company size. Especially smaller SME´s in Germany still deny the usage of factoring because they are afraid that the close relationship to their clients may be damaged. The study also identified a positive correlation between the average distance to the client and the willingness to use factoring. In other words SME´s which are located far away from their clients apply factoring more often than companies which are located near their clients.

Moreover it was found out that international factoring has a very high potential for small and medium-sized enterprises in Germany. In view of the growing meaning of internationalization for German SME´s, the usage of international factoring will surely increase in the future.
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1 Introduction

Over the last years liquidity has become a rising topic for companies all over the world. A sufficient amount of cash is inevitable for every company in order to survive. Even a highly profitable enterprise may get immense problems if it is not able to pay the running expenses.

Especially small and medium-sized enterprises (SME’s) often suffer from liquidity problems due to their limited range of different sources of finance in contrast to big multinational companies. Multinationals and big companies are able to use the financial markets in order to finance themselves, for example through IPO’s or bonds, whereas small and medium-sized companies often do not have these possibilities due to their limited size. So in many cases small and medium-sized enterprises are addicted to bank loans in order to finance themselves and to ensure a sufficient amount of liquidity.

Unfortunately the introduction of new bank regulation laws makes it more expensive for banks to give loans to small and medium-sized enterprises. This is mainly based on the fact that banks are forced to deposit a rising amount of (expensive) equity for risky loans.

Since loans for small and medium-sized enterprises always offer a certain risk many banks have either reduced their engagement in this business area or they have increased the interest terms. Both creates difficulties for SME’s. (Vasilescu 2014)

This automatically leads to a need of alternative ways to ensure liquidity within the company. One possible solution for small and medium-sized enterprises might be the improvement of their working capital management through the application of factoring.

Factoring means that companies sell their accounts receivables to a factoring company (called factor) in order to generate liquidity. There are several types of factoring but basically the factor adopts the accounts receivables and pays out the amount of money directly to the company before the original due date. Of course the amount of money which is paid to the company is reduced by a small risk premium which depends on the individual credit rating of the debtor. The factor’s profit is based on this risk premium.

In Germany 99.7% of all companies are small or medium-sized (Fuchs 2013) and due to this immense meaning for the national economy this study focuses on German SME’s.

In order to examine the potential of factoring as a solution for German small and medium-sized enterprises to improve their financial management this study will firstly
name and explain the research question and the hypotheses which have been tested by the analysis of a survey. This survey was spread among a sample of these companies in Germany.

This will be followed by the second chapter, which gives background information about the reasons for the funding shortfall of small and medium-sized enterprises named before. The focus in this chapter will lie on the bank regulation laws Basel II and Basel III which have influenced the finance opportunities for small and medium-sized enterprises.

After the background information are given this study will give an overview about relevant literature themes. This includes the meaning of small and medium-sized enterprises in Germany as well as Working Capital Management and, of course, factoring as an alternative source of finance.

The fourth chapter will then focus on the applied research methodology. This starts with the research design including the research philosophy, the research approach, the research strategy, the sampling choices and the time horizon of the study. These sub-chapters will be completed by paragraphs about the applied data collection instruments, relevant research ethics and the limitations to the research.

The next part will be about the data analysis process which will review the posed hypotheses. This also includes the usage of statistical tools in order to find correlations.

Finally this dissertation will discuss the findings before presenting a short conclusion to the reader.

### 1.1 Research Question

As the title of the thesis betrays this study focuses on factoring as an alternative source of finance for small and medium-sized enterprises in Germany. Therefore the focus lies on the following research question:

“The potential of factoring as part of the Working Capital Management – How far can German SME’s improve their financial management by the usage of factoring?”

As mentioned in the first paragraph small and medium-sized enterprises are in need of instruments which can help them to improve their liquidity and to finance further growth. Factoring might become such an instrument in the future, which at the same time would allow small and medium-sized enterprises to become less addicted to bank loans.
Next to the posed research question there are also four hypotheses which have been tested against the reality by applying a survey.

The four hypotheses are named and explained in the next paragraph.

1.2 Hypotheses

In order to determine the potential of factoring as an opportunity to improve the financial management of small and medium-sized enterprises in Germany this study will also examine four different hypotheses.

The four hypotheses posed by the researcher are:

1) The usage of factoring is correlated to the company size
2) German SME’s which are located near their clients do not prefer to use factoring
3) International factoring will get a growing meaning for German SME’s in the future
4) The majority of SME’s are afraid of losing the relationship with their customers by the usage factoring

The first hypothesis imputes that there is a relationship between the size of a company and the company’s attitude towards the application of factoring among German SME’s. The researcher expected that bigger firms are more open-minded concerning factoring than smaller companies.

The second hypothesis claims that there is a positive correlation between the average distance to the client and the likelihood that a company applies factoring.

The next hypothesis is about international factoring as a future option for more and more German SME’s. The researcher assumed that the demand for international factoring will strongly increase over the next years.

The last hypothesis deals with the reasons for small and medium-sized enterprises in Germany not to use factoring. The researcher expected that many SME’s are afraid that the relationship to their customers might suffer from the application of factoring.

In order to review the named hypotheses a questionnaire was spread among a sample of German small and medium-sized enterprises. The gathered data was then analysed by the usage of statistical tools and techniques in order to find results and clarify trends. The chapters Research Methodology and Data Analysis will concentrate on this process in more detail later on.
1.3 Practical relevance of the dissertation

The following study has a strong practical relevance for two different parties. These two parties are small and medium-sized enterprises in Germany on the one hand and companies which offer factoring as a service on the other one.

For small and medium-sized companies this study displays an opportunity how they could improve their financial management by using factoring as part of their working capital management. On this way they could become less addicted to bank loans in order to ensure a sufficient amount of liquidity in the company. As mentioned before more and more small and medium-sized enterprises have problems to get affordable bank loans due to growing bank regulations and so factoring might become a substitute in certain areas.

For companies which offer factoring as a service this study also offers some practical benefits. Due to the fact that the executed survey among German SME`s also asks for their attitude towards factoring and the reasons for or against the application of factoring, factoring firms will get an overview about the reputation of their service. This might help them to get a deeper knowledge about the needs of their (potential) clients. Moreover they might find possibilities to improve their services in order to further expand their business.

As it can be seen there are plenty of potential benefits for at least two important parties which automatically leads to a high practical relevance of the study.
2 Background

The second chapter of this study will give background information concerning the development of bank regulation laws which finally play an important role when it comes to the aggravated access to bank loans for small and medium-sized enterprises.

Basically this chapter will deal with the two most important bank regulation laws, namely Basel II and Basel III. In order to get a deeper insight into these two directives each of them will be explained and deconstructed over the next paragraphs. Moreover the consequences for small and medium-sized enterprises caused by the financial crisis and these regulations will be named.

2.1 Basel II

Basel II was introduced in the year 2004. Like its predecessor Basel I it was developed by the Committee on Banking Supervision which is hosted by the Bank for International Settlements located in Swiss. This committee was founded in 1974 and today members from different countries all over the world work together in order to find and develop similar standards of banking supervision. These members represent the central banks and the supervision authorities of their parent countries. Although the committee’s suggestions are not mandatory they are normally taken over by the national legislature or the European Union. (Lambrecht 2005)

As mentioned before Basel II followed on the first directive named Basel I. Basel I was strongly criticized because it did not differentiate between different credit risks. Following Basel I banks had to deposit 8% of the principal as equity regardless of the specific risk profile of the credit user. This was seen as superficial and so the Committee on Banking Supervision developed Basel II. (Federal Financial Supervisory Authority 2014)

So Basel II was invented in order to put a stronger focus on the individual validation of the credit risk. Moreover the banking supervision should be intensified and new disclosure requirements should be introduced. Therefore the Committee of Banking Supervision has built Basel II on three different pillars: minimum equity requirements, banking supervision process and enhanced disclosure. (Federal Financial Supervisory Authority 2014)

The first pillar deals with the question which amount of equity banks have to deposit for a certain loan. This pillar of Basel II is the most important one when it comes to the
influences of Basel II on credit conditions for small and medium-sized enterprises. Following the first pillar banks had to introduce a new rating system in order to determine the specific credit risk for each potential credit user. In order to fulfill this regulation banks are allowed to choose between three different rating approaches: the Standard Approach, the Internal Rating Based Approach and the Advanced Internal Rating Based Approach. The most important difference between these three approaches is that banks which follow the Standard Approach are allowed to use the ratings of external rating agencies in order to determine the minimum equity requirement whereas banks which follow the Internal Rating Based Approaches have to develop their own rating systems. These own developed rating systems must be tested and approved by the national banking supervision. (Federal Financial Supervisory Authority 2014)

The second pillar of Basel II contains standards about the supervisory review process. This forces banks to implement adequate risk management systems in order to ensure that they always provide enough internal capital in order to deal with all major risks. These risk management systems have to be controlled by the national banking supervision. The stronger focus on risk management systems therefore automatically led to more qualitative challenges for the banking supervision. (Federal Financial Supervisory Authority 2014)

The third pillar is about new disclosure standards for banks. Following Basel II financial institutions have to disclose more details about their financial situation and their risks. These regulations are based on the premise that well informed market players reward a good risk management and sanction an insufficient one. (Federal Financial Supervisory Authority 2014)

As it can be seen especially the first pillar of Basel II had/has strong influences on the conditions for bank loans for small and medium-sized enterprises. This is based on the fact that loans for smaller companies naturally offer a certain default risk which automatically leads to a lower rating. This lower rating forces banks to deposit a higher amount of expensive equity for the loan. Finally this either leads to the fact that the interest rates for a small or medium-sized enterprise strongly increase or that the bank refuses the borrowing request completely.

As the next paragraph about Basel III reveals, this problem has become even tougher after the financial crisis 2008.
2.2 Basel III

The American subprime crisis and the following global financial and economic crisis led to the fact that the biggest 19 economies of the world and the European Union decided that there is a need for further banking regulation laws. Therefore they engaged the Committee on Banking Supervision in Basel to develop the next directive, called Basel III. The new directive should improve the resistance of the financial system against similar crises. In 2010 the Committee on Banking Supervision presented this new directive. (German Chamber of Commerce 2013)

Over the next paragraphs the contents of Basel III will be explained. Basically the three pillars from Basel II were inherited for the new Basel III directive but especially when it comes to the first pillar (minimum equity requirements) some important changes become visible.

Until 2015 banks still have to deposit 8% equity for their risk weighted assets. This number is identically equal to the regulations coming from Basel II but the structure of the required amount of equity has changed. Before Basel III the necessary equity was already divided into different groups: tier 1, tier 2 and tier 3 capital. Tier 1 capital described the common equity which mainly consists out of the share capital whereas tier 2 and tier 3 capital described capital with a lower quality. After the introduction of Basel III tier 3 capital was not accepted anymore and banks had to increase the amount of tier 1 capital (common equity, CET1) from 2.5% to 4.5%. In addition to this 4.5% common equity banks can use 1.5% so called additional tier 1 capital. For the remaining 2% of equity banks are allowed to use tier 2 capital. Especially the requirements for tier 1 capital were strongly increased and so all in all the quality of the deposited equity was improved. Next to this banks are forced to build up two additional capital buffers from 2016 onwards. These buffers are called capital conservation buffer and countercyclical buffer. (Federal Financial Supervisory Authority 2014)

The so called conservation buffer of 2.5% has to be built up out of 100% common equity and should represent an additional security for potential crises. This leads to the fact that from 2019 onwards banks have to deposit at least 7% (4.5% + buffer) common equity. (Federal Financial Supervisory Authority 2014)

The second buffer (countercyclical buffer) which was introduced by the Committee depends on national economic indicators. Basically banks should build up the buffer in good economic times in order to be prepared for worse times. (Federal Financial Supervisory Authority 2014)
The following chart shows the time frame in which financial institutions have to build up the equity as described above.

![Chart showing equity buildup](image)

1 *Basel III time line (Source: Accenture 2012)*

It becomes obvious that the named changes represent an expensive development for banks because the costs for equity, especially for tier 1 capital, are very high due to the expensive dividend rights of the shareholder.

Next to the stricter equity requirements the Committee of Banking Supervision also introduced another tool, named leverage ratio. In contrast to the equity requirements which are built on the risk weighted assets this leverage ratio considers all assets of the balance sheet without any weighting. The exact definition of this leverage ratio is not for sure yet. Basically this ratio should avoid that banks extend their business too fast because this may lead to a risk for the whole system. (Federal Financial Supervisory Authority 2014)

In addition to these directives Basel III also contains new regulations concerning the liquidity situation of financial institutions. The most important feature in this area is called Liquidity Coverage Ratio.

The aim of the Liquidity Coverage Ratio is to generate a more resilient banking sector. In order to reach this objective banks have to ensure that they have a sufficient amount of liquidity in order to overcome a short time stress scenario. In more detail this means that financial institutions have to provide enough liquid assets for surviving a 30-day period of liquidity shortage. These liquid assets must represent high quality liquidity.
which can be transformed to cash very easily. (Basel Committee on Banking Supervision 2013)

As it can be seen the Basel III requirements will force banks to deposit even more equity for loans as they already had to deposit due to Basel II. Moreover the required minimum equity must be more high-grade which automatically leads to higher costs, especially for loans with a certain risk, like loans for small and medium-sized enterprises.
3 Literature Review

The third chapter of this study will focus on the existing literature concerning the dissertation topic. There are three main literature themes which will be covered over the next pages. All themes will be supplemented with additional sub themes in order to present the reader the most profound view on the topic.

The first topic of this literature review will be about small and medium-sized enterprises in Germany, including their meaning for the German economy, some historical facts, general facts and figures and their liquidity situation.

This topic will be followed by a chapter about Working Capital Management. This will include a definition as well as the latest study results.

Finally the literature review will focus on factoring. Next to the development of factoring this chapter will also focus on different forms of factoring. Moreover the reader will be informed about international factoring as an opportunity for export businesses.

3.1 SME´s in Germany

As mentioned in the introduction small and medium-sized enterprises represent a very important part of the German economy. In Germany this type of companies form the so called “Mittelstand”. Fuchs (2013) quantifies their proportion of all German companies with 99.7%. Of course Fuchs’ number is based on the fact that he understands every small bakery to be a small or medium-sized company. Although this view could be criticized it should not be forgotten that even a small bakery maintains jobs and contributes to the wealth of the national economy.

Moreover there is not a universally valid definition for the word small and medium-sized enterprise respectively “Mittelstand”. For small and medium-sized enterprises in general the European Commission has tried to introduce an upper limit of 500 employees as a definition but most German companies with more than 500 employees still belong to the so called “Mittelstand”. Therefore this study will also accept companies with more than 500 employees to count as medium-sized.

Wolf et al. (2009) emphasize the special meaning of small and medium-sized enterprises by characterizing them as “the central element of the German market economy”. Wolf et al. (2009) furthermore state that many world markets leaders, especially in technical areas, consist out of German SME´s.
The following paragraph will show some more facts and figures in order to underline the importance of small and medium-sized enterprises for the German economy.

3.1.1 Facts and figures

Pufahl et al. (2007) emphasize the meaning of small and medium-sized enterprises by considering their proportion of the total German economic output. Following them more than half of the economic output is generated by these types of companies.

This is supported by the findings of Henke (2015). Henke (2015) quantifies the share of the total economic output which is generated by German SME’s with 56.5% in 2012.

Moreover, following the latest studies of the Federal Ministry of Economics and Technology (2013), the German “Mittelstand” is also highly innovative. Between 2008 and 2010 54% of all German SME’s placed an innovation onto the market.

This might also be a reason for the high number of so called hidden champions coming from Germany. The term “hidden champions” describes enterprises which are market leaders in their business segment without being very famous for that. In 2012 Germany had 1,307 of these hidden champions, most of them from the field of industrial products or electrical engineering. (Federal Ministry of Economics and Technology 2013)

Another interesting figure, which was also published by the Federal Ministry of Economics and Technology (2013), is that more than 1.29 million of the 1.56 trainees in Germany (in 2011) received their training in enterprises belonging to the German “Mittelstand”. The fact that small and medium-sized enterprises offer such a high number of apprenticeships also positively influences the German youth unemployment rate. On this way the German youth unemployment rate is relatively low in comparison to other European countries, especially in the south of Europe. (Federal Ministry of Economics and Technology 2013)

As it can be seen, there are plenty of impressing facts about the so called German “Mittelstand”. Most of them underline the immense meaning of SME’s for the German economy.

3.1.2 History

Small and medium-sized enterprises have a very long history when it comes to the German market economy. Many of these firms exist for more than 100 years now and have survived a long period of dramatic political and economic changes.
There are also SME´s which have survived nearly 500 years and are still owned by descendants of the founder. One example for these companies is the famous gingerbread producer Lambertz. It was founded in 1688 and today it generates sales of about 500 million euros a year. Another example could be the oldest industrial company in Germany, the William Prym GmbH. This company was founded in 1530 as a producer of brass and copper. Today it has 40 subsidiaries worldwide and produces snap buttons and knitting needles. (Handelsblatt 2012)

Although these old companies represent the typical “German Mittelstand” it took many years until the word “Mittelstand” was anchored in the German constitution in 1919. As a result Article 164 of the German constitution stated that small and medium-sized enterprises must be protected against fiscal and regulatory overloads. (IfM Bonn 2014)

Following Welter (2013) this special political consideration of small and medium-sized enterprises was continued by nearly all political leaders until today. Regarding this, Welter (2013) emphasizes the work of the former minister of economic affairs and Chancellor Ludwig Erhard who has introduced many laws in order to protect and support small and medium-sized companies in Germany between 1949 and 1966. On this way the foundation stone for the success story of SME´s in the post-war era was laid. However it should not be forgotten that at least some small or medium-sized companies also have committed exploitation of Jewish employees during World War II.

Summarizing SME´s have a very long and impressive history in Germany. The next chapter will now inform the reader about some reasons for the ongoing success of this company type.

3.1.3 The success of SME´s

As the previous chapters show small and medium-sized enterprises are very successful in their business. The reasons for the sustainable success story of these companies are multisided and so it is difficult to find answers which are valid for every single case.

However, Rust (2013) identifies some explanations for the triumph of SME´s in Germany. Following him the success is mainly based on the special management style which is applied in many of these companies. Rust (2013) emphasizes that the strong focus on every single employee leads to the fact that everyone feels to be a part of the enterprise. This close relationship between the management and ordinary employees is often supported by the fact that many CEO´s of German SME´s own the company.
themselves. On this way they feel responsible for their company, including all employees, which finally leads to a very familiar atmosphere. Rust (2013) also states that the efficient decision making process in small and medium-sized enterprises positively influences their performance. Moreover many SME´s can be seen as a role model when it comes to the inclusion of every single employee to the corporate strategy. All this finally leads to the strong success.

Following Girotra & Netessine (2012) there also is another very important aspect which is responsible for the success of German small and medium-sized enterprises. Girotra & Netessine (2012) state that these companies are highly focused on one specific product. Due to this strict focus they are able to do one thing at its best. The company Jungbunzlauer represents are very good example for this. Jungbunzlauer produces citric acid for cola and has become the world market leader for this product. As Girotra & Netessine (2012) state these companies profit from immense economies of scale which allow them to produce at a reasonable cost level. On this way they are able to generate good returns although they are located in a very expensive country.

As it can be seen there are plenty of different reasons which try to explain the success of small and medium-sized enterprises in Germany. Of course not every argument from Rust (2013) and Girotra & Netessine (2012) is valid for every case but all in all these aspects surely play a very important role. Moreover, as already mentioned before, the high rate of innovations developed by German SME´s also represents an explanation for the success.

But in order to continue this success story German small and medium-sized enterprises also have to deal with certain challenges. One of these future challenges is about their liquidity situation. Therefore the following chapter will focus on liquidity as a future challenge.

3.1.4 Liquidity as a future challenge

Following the empirical study of Welter et al. (2014) financing belongs to the top 5 future topics for German small and medium-sized enterprises.

Fischl (2011) specifies these findings by stating that the major future topic for small and medium-sized enterprises is about ensuring a sufficient amount of liquidity. Following him the new bank regulation laws Basel II and Basel III are mainly responsible for this development. Hofmann and Schmolz (2014) support these findings and explain that it
Literature Review

is getting more and more difficult for small and medium-sized enterprises to get affordable bank loans in order to finance their business activities.

As it can be seen many different studies have noticed the growing importance for SME’s to think about their sources of finance/liquidity.

A short look on some numbers shows that already today the liquidity situation of German small and medium-sized enterprises is in need of improvement.

In 2012 and 2013 for example the acid test ratio for an average medium-sized enterprise in Germany was 68.4% respectively 68.9% (WGZ 2014). Following Hohberger & Damlachi (2014) an acid test ratio of 100% or above is preferable.

Based on the fact that it still takes some years until Basel III has to be implemented completely this situation will become even more critical in the future.

All this finally leads to the question how small and medium-sized enterprises could improve their situation. Therefore the next chapter will focus on Working Capital Management as a solution to improve the liquidity situation and to finance the business activities of small and medium-sized enterprises.

3.2 Working Capital Management

This chapter is about Working Capital Management. Firstly this paragraph will give a definition of Working Capital Management. This will then be followed by the advantages resulting from the application of an efficient Working Capital Management. Finally it will be shown what different aspects companies should focus on if they want to improve their Working Capital Management.

As stated by Heesen & Moser (2013) Working Capital Management describes the management of current assets and current liabilities in order to improve the financial performance of a company. Due to the short-term character of these assets and liabilities Working Capital Management can be considered as part of the operations management. Following Heesen & Moser (2013) the overall aim concerning Working Capital Management is to find and release cash which is bound in the current assets of a company.

A similar definition is given by Jain (2004) who states that Working Capital Management “deals with management of each of the firm’s current assets in such a way that it maximises the value of a firm”.

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After the definition of Working Capital Management has become clear it should be also clarified which parts of a company’s assets are relevant when talking about Working Capital Management.

Following Sagner (2014) the term Working Capital contains several different accounts. Namely these accounts are cash accounts respectively short-term investments, accounts receivables, inventory, payables and other accounts. Other accounts mainly mean prepaid expenses and accrued expenses.

By considering all these accounts different mathematical definitions of Working Capital can be made. According to Thukaram (2007) there are two possibilities to calculate the Working Capital of a company. He differentiates between Gross Working Capital and Net Working Capital. The Gross Working Capital is equal to the total amount of current assets whereas the Net Working Capital is smaller, it is calculated by subtracting the current liabilities from the current assets of a company.

In practice the Net Working Capital is normally more relevant. Moreover experts often use a Working Capital ratio by dividing the current assets through the current liabilities. This ratio should be at least 1, which means that a company is able to serve its current liabilities with its current assets. On the other side, if the ratio is strongly above 1, there could be improvement opportunities because too much cash might be bound in the current assets. (Ossola-Haring 2006)

After the previous paragraphs have focused on the definitions of Working Capital and the management of it, the next paragraph will now inform the reader about the benefits and results of an effective Working Capital Management.

3.2.1 The advantage of Working Capital Management

A professional and effective Working Capital Management offers several advantages for a company. In General, as the long-term study of Juan Garcia-Teruel & Martinez-Solano (2007) shows, Working Capital Management leads to a higher profitability. These findings were supported by other studies for example from Kieschnick et al. (2013). According to Kieschnick et al. (2013) Working Capital Management is also strongly correlated to the shareholder value of a company. They found out that cash positions are worth more than money which is bound in the inventories.

On the first view shareholder value does not seem to be the most important factor for small and medium-sized enterprises but as Wortmann (2013) emphasizes, the
shareholder value approach has got a rising meaning for small and medium-sized companies as well over the last years.

Both, Juan Garcia-Teruel & Martinez-Solano (2007) and Kieschnick et al. (2013) display the importance of a professional and effective Working Capital Management for profit orientated companies.

Due to the fact that this dissertation focuses on small and medium enterprises, this chapter will now have a short look on the study from Decman & Sever (2012) about the liquidity management of small and medium-sized enterprises.

According to Decman & Sever (2012) the typical balance sheet structure and the volatile cash flows of SME´s lead to an increasing need of Working Capital Management. They confirm that small and medium-sized enterprises often have difficulties to get access to short term finance sources. Moreover, in most cases, they are not able to claim cash charge for sold products due to their relatively bad bargaining position. Therefore Decman & Sever (2012) identify Working Capital Management as a solution to generate liquidity through the release of cash which is bounded in the current assets.

After it became obvious that Working Capital Management might help many SME´s to improve their liquidity situation the next sub chapter will present the different measurements which belong to an effective Working Capital Management.

### 3.2.2 Different aspects of Working Capital Management

As the previous chapter underlines, Working Capital Management is a very important topic. The latest study of Haghani & Rüden (2013) shows that German SME´s could generate 87 billion euro liquidity by implementing a professional Working Capital Management. Due to this immense potential this chapter will now focus on the different aspects of Working Capital Management.

Basically there are three main topics which have to be considered concerning a professional Working Capital Management.
Following Sure (2014) these focus areas are Inventory Management, Payables Management and Receivables Management.

Over the following paragraphs this sub chapter will therefore concentrate on each of these three topics in order to give the reader an overview about the different aspects of Working Capital Management and to show which measurements companies could adopt.

According to Hofmann et al. (2011) Inventory Management describes the improvement of production and storage processes. Moreover it is about the optimization of order volumes.

In practice there are several measurements to reach these aims. One example can be the just-in-time delivery. Just-in-time delivery describes a process in which goods are delivered exactly at the time when they are needed. By this high synchronization between the demand and the delivery of goods companies are able to reduce their inventory. This automatically leads to a release of cash which was bounded in the stock before. Another method to reduce the cycle time of goods is cross docking. Cross docking means that goods are handled in distribution centers without expensive interim storage. In addition to this companies could also try to optimize the order volumes by reducing the safety stocks. (Hofmann et al. 2011)

All these methods mentioned by Hofmann et al. (2011) surely offer a high potential to reduce the cash which is bounded in the stocks. However, it should not be forgotten that even the smallest confounding factors could disturb the whole production process if there are no or too less safety stocks. For example a strike in the transportation industry could evoke immense costs for companies which are addicted to just-in-time delivery.
As stated above the second big topic is about the management of accounts payable. This means to optimize the process from the purchase of goods to the payment of suppliers. In practice, companies should try to extend the date of payment. On this way, they have more time until the money leaves the company to the vendor. Another way to improve the paying conditions could be to form a middle or external purchasing syndicate in order to enforce better conditions in supply contracts. (Hofmann et al. 2011)

The last part of Working Capital Management is about managing the accounts receivables. This means to improve the process between selling products and receiving the money from the client (Hofmann et al. 2011). In order to shorten this time, companies can use several measurements. One of these measurements is factoring.

Hence, the next chapter of this literature review will now focus on factoring as part of the Working Capital Management.

### 3.3 Factoring

As the previous chapter shows there is an immense potential for small and medium-sized enterprises concerning their Working Capital Management. Factoring as part of the receivables management could become an alternative source of finance in order to finance the business activities and to ensure a sufficient amount of liquidity. Following Nienhuis et al. (2013) this is exactly what small and medium-sized enterprises need in the future.

This chapter will therefore firstly give a definition of factoring. Afterwards the development of factoring, its advantages and also different types of factoring will be presented. Finally, this part of the literature review will focus on international factoring as a special form of factoring.

#### 3.3.1 Definition

At first, it should be said that it does not exist an official definition of factoring. However, there are plenty of definitions of factoring from different authors. Following Clifford (2011) for example, factoring is “a type of financial service whereby a firm sells or transfers a title to its accounts receivable to a factoring company, which then acts as principal, not as agent”. Another, very short, definition is given by Khan (2013) who describes factoring simply with “factoring involves the outright sale of receivables at a discount to a factor to obtain funds”.

A third possible definition is presented by Muraleedharan (2014) who added another aspect to his definition. Following him factoring can be seen as a continuous process or relationship between a company and a financial institution.

On the first view the definition of Muraleedharan (2014) might sound convincing but he neglects the fact that there are forms of factoring which are not necessarily based on a continuous relationship between both partners. One of these factoring types (Single-Invoice Factoring) will be explained later on in this chapter.

After considering the definitions of three different authors factoring might be defined as a process in which companies sell their accounts receivable to a factoring company (called factor) in order to generate cash and to refinance their business activities. There are several types of factoring but basically the factor adopts the accounts receivables and pays out the amount of money directly to the company before the original due date. Depending on the type of factoring the factor also assumes the default risk. Of course the amount of money which is paid to the company is reduced by a small risk premium which depends on the individual credit rating of the debtor. For accounts receivable on clients which are seen as very solvent the risk premium is low whereas a high default risk automatically leads to a higher risk premium. The factor’s profit is finally based on this risk premium.

Since the reader is now informed about the definition of factoring, the next sub chapter will focus on the development of the factoring market.

3.3.2 Development

Factoring has a very long tradition. Already in ancient times a special form of factoring was used by the Romans and the Greeks. The development of factoring as it is known today is traceable until the colonial era of North America. At this time so called commissionaires (factors) distributed imported goods from Europe and collected the payments. Most of these goods consisted out of clothes. A little later the development of local industries and import duties aggravated this business and so only the finance function and the assumption of the default risk was left. (Breuer 2001)

As Breuer (2001) continues the development of the modern form of factoring goes back to the sixties. At this time American banks rediscovered factoring and brought it to Europe. Some of the first factoring companies in Europe were the First National Bank of Boston and the Walter E. Heller Company which transferred their knowledge about factoring to the European continent. In Europe factoring was further developed. For
example it became possible to choose between factoring solutions which assume the default risk and solutions which do not assume this risk.

After the reader is now informed about the roots of factoring it makes sense to have a look on the actual development of the German factoring market.

According to Wilke (2015) the turnover in the German factoring market is increased by more than 10% in 2014. On this way the whole market have a size of 190 billion euro now. This represents the highest amount of sales ever. Also in the previous year the market had been grown by 8.8%. But this increase is not only based on absolute numbers, also in relation to the gross domestic product the factoring market was able to grow from a stake of 6.25% up to 6.5%. Following Wilke this positive development is mainly based on new customers.

A view on the worldwide development shows that the factoring market grows nearly everywhere. As the study of Janekova (2012) shows the worldwide factoring market has nearly doubled from 2005 to 2011. With exception of 2009 it grew every year between 2005 and 2011. On this way the worldwide factoring market generated sales of about 2 trillion euro in 2011. Janekova (2012) also states that Europe represents the biggest share of the world factoring with 60.4% in 2011.

The facts above show that factoring is a future market. All over the world as well as in Europe and Germany the market shows stable growth rates over the last years.

In order to have a closer look at this interesting market the next paragraph will deal with the different forms of factoring which are available today.

### 3.3.3 Types of internal factoring

There are many different types of factoring today. In order to differentiate between those several parameters could be chosen.

Following Khan (2013) a good criterion to differentiate between the different types of factoring is the question whether the considered factoring form covers the default risk of the sold receivables or not. Khan (2013) therefore uses two different descriptions: recourse and non-recourse factoring. According to him recourse factoring means that the factor has the right to get back the money from its client in case a bought account receivable defaults. Differently spoken the factor offers the finance function but does not assume the default risk. The other factoring type mentioned by Khan (2013), non-recourse factoring, means that the factor also assumes the default risk. This logically leads to a higher commission which must be paid by the client.
Due to the fact the non-recourse factoring is much more popular than recourse factoring the next paragraphs will only focus on different forms of non-recourse factoring.

The first form of factoring is called full-service factoring. Full-service factoring includes all the functions of classical factoring. This means that it covers the financing function and the assumption of the default risk. Moreover full-service factoring also includes a takeover of the client’s complete receivables management. On this way the client is able to outsource its whole receivables management processes. (Tan 2001)

For companies which do not wish to outsource their complete receivables management Knape (2014) mentions a second form of factoring. This type of factoring is called inhouse factoring. Following Knape (2014) the characteristic of this form is that the receivables management remains by the client. This normally happens on a fiduciary way. So the factor concentrates on the finance and risk assumption function. According to Becker (2013) inhouse factoring is the cheaper alternative in comparison to full-service factoring.

Another type of factoring is single invoice factoring. As stated by Müller (2013) this means that only single accounts receivable are sold to the factoring company. Especially for companies which immediately need liquidity it may be an option to sell some single accounts receivable.

Summarizing there are plenty different forms of factoring. After the most popular forms were presented above the next chapter will now concentrate on the advantages companies can have from the application of factoring.

3.3.4 Advantages through the application of factoring

Selling their accounts receivable to a factoring company offers several benefits to small and medium-sized enterprises. Vasilescu (2010b) states the general advantages from the usage of factoring as follows:

- First of all factoring can be used as a source of finance. On this way companies can improve their liquidity situation and finance their business activities. In addition to this the cash conversion cycle, which is the time between disbursing the cash and collecting cash, will be reduced because the factor pays out the money before the original due date.
Different to bank loans the company can use the released money for every purpose. Bank loans are often bounded to single operations like buying a new machine and so factoring is much more flexible.

It is often less work to sell accounts receivable to a factor than applying for a bank loan.

Depending on the type of factoring, the company can concentrate on its key business like production and innovation of products because the whole accounts receivable management is done by the factor.

The default risk of the accounts receivable is overtaken by the factor and so the company can be sure that it receives the calculated money in time. This strongly simplifies the planning process.

Companies which use factoring do not need to demand deposits from their clients, which may be an advantage compared to their competitors.

Next to the benefits mentioned by Vasilescu (2010) there also is another very important advantage of factoring.

As stated by Grundmann (2013) companies can use factoring in order to shorten their balance sheets. By selling the accounts receivables to the factor and receiving the money the accounts receivables disappear from the balance sheets. On this way the cash position grows by nearly the same amount. This would only be an asset swap but if the cash is used in order to pay the outstanding accounts payable the company is able to shorten its balance sheet. This automatically leads to an improvement of important key ratios like the equity ratio. With a higher equity ratio the company´s credit rating increases which finally also leads to lower cost for bank loans.

Summarizing the findings of Vasilescu (2010) and Grundmann (2013) it becomes obvious that factoring can offer many advantages to small and medium-sized firms.

The last sub-chapter will now deal with a special form of factoring which can be used for export businesses: International Factoring.

3.3.5 International Factoring

Firms which are involved in export activities have to collect their outstanding accounts receivable all over the world. Depending on the specific country this can lead to immense insecurities whether the foreign client really pays the invoice. Therefore international factoring might be a suitable solution for them.
Vasilescu (2010) defines international factoring as “the sale of assignments of short-term accounts receivable arising from an international sale of goods or services”. Following Vasilescu (2010) there are two different types of international factoring: direct international factoring and international factoring with two factors. Direct international factoring is very similar to the ordinary national factoring whereas international factoring with two factors requires different factors in two different countries. One factor is located in the exporter’s country and one in the importer’s country.

Tripathy (2007) explains the process of international factoring with two factors as follows. First the importer orders goods or services from the exporter. The exporter then arranges a factoring contract with its national factor. After that the national factor contacts the factor in the foreign country and arranges another contract. This is followed by the delivery of the ordered goods. The exporter then immediately receives the money from its national factor. Afterwards the importer pays his factor within the agreed due date. Finally the factor of the importer pays the exporter´s factor and so the payment cycle is closed. Of course both factors charge a fee for their services.

On this way the exporter can be sure that he receives his money and he is not responsible for the default risk.

As the findings mentioned above show international factoring can be an immense help for companies which are (partly) involved in export businesses.

This study will also focus on the meaning of international factoring for German SME´s later on.
4 Methodology

This chapter will explain how the researcher has carried out the primary research for his dissertation. Over the next sub-chapters the reader will therefore be informed about the most important methodological aspects and choices which were made for this study.

At the beginning the research design will be presented. This includes paragraphs about the chosen research philosophy, the research approach, the research strategy, the sampling process and also the time horizon. The second big sub-chapter will then deal with the data collection instruments before finishing with the relevant research ethics and the research limitations.

4.1 Research Design

In order to explain the research design the “research onion” model from Saunders et al. will be used. This model offers a suitable overview over all aspects of the research design and so it will be the guideline for the following sub chapters. Following Saunders et al. (2009) there is not one best way to do research and so the researcher will explain why the chosen way of researching corresponds best to the topic.

![Research Onion](image)

3 Research Onion (Source: Saunders et. al. 2009)
4.1.1 Research Philosophy

The research philosophy contains assumptions about how the researcher sees the world and so each philosophy has its right to exist because depending on the research topic every single philosophy might offer the best suitable approach. There are three predominant philosophies: interpretivism, realism and positivism. (Saunders et al. 2009)

Interpretivism describes a philosophy following which the reality is based on social relationships. Interpretivists argue that the world of management and business is way too complex to be based on theoretical laws. So interpretivism is about observing the social details of a situation in order to understand the reality. (Saunders et al. 2012)

Realism means that the reality exists independent of the human mind. In other words it exists in the environment. So following this philosophy human thoughts about the reality are just attempts to describe it. (Saunders et al. 2012)

For this study the researcher has chosen the third option, a philosophy of positivism. Over the next paragraph the positivism will be explained and the reader will be informed why this philosophy was chosen by the researcher.

The philosophy of positivism was chosen because it represents the kind of research philosophy which is highly structured and mostly linked to the philosophical stance of the natural science. Following Saunders et al. (2012) its main assumption is that things are only true when they are observable. So positivism is about observing the reality in order to find out regularities. The researcher has done this by testing hypotheses about the attitude of German SME´s towards factoring against the observations and so this philosophy clearly shows up the analogy to the methods used by natural scientists. (Gill et al. 2010)

Moreover the researcher who is working under a philosophy of positivism undertakes his research in an objective, value-free way and normally it has a quantitative character (Saunders et al. 2012). Based on the quantitative character of this study the researcher refused a philosophy of interpretivism because this philosophy normally does not put a high meaning of numbers.

4.1.2 Research Approach

In general there are two different approaches to research: Deductive and Inductive. Both approaches describe different ways of reasoning but in some cases it is also possible that both styles are used (Adams 2007). A researcher who follows the
deductive approach develops hypotheses based on theory which are then tested against the reality whereas the inductive approach works the opposite way which means that the researcher develops a theory out of collected data (Collins 2010). A deductive research approach uses a highly structured methodology and is therefore often used for quantitative studies. Moreover the nature of deduction is generalization. All findings are seen as generally valid which makes it very important for the researcher to use a representative sample. (Saunders et al. 2012)

Based on the fact the researcher tested hypotheses about the application of factoring by doing a survey among German SME’s he has chosen the deductive approach. On this way hypotheses were tested against the reality as mentioned above. Moreover the researchers aim was to find general valid answers to the research question and the hypotheses about the potential of factoring among German SME´s.

4.1.3 Research Strategy

After the chosen research approach has now become clear this chapter will focus on the applied research strategy.

The research strategy can be described as the plan of how the researcher has answered the research question and how he has tested the hypotheses. The choice of the right strategy is strongly connected to the dimensions made before concerning the research philosophy and the research approach. (Saunders et al. 2012)

Following Saunders et al. (2012) there are eight different research strategies: experiment, survey, archival research, case study, ethnography, action research, grounded theory and narrative inquiry.

The researcher has chosen the survey (questionnaire) as the appropriate strategy in order to answer the research question. According to Saunders et al. (2012) a deductive approach usually leads to the application of questionnaires. Moreover the application of questionnaires offers the opportunity to systematically ask a population or a sample about certain relevant issues and to record the answers for data analysis. (Leon 2003)

Another reason why the researcher has chosen to use questionnaires is that the results are easily comparable and a high level of control over the research process is offered. (Saunders et al. 2012)

The usage of interviews was refused by the researcher because interviews can only offer a few very subjective views on a topic which often does not lead to findings which can be seen as generally valid.
4.1.4 Sampling

This paragraph will inform the reader about the sampling method which was applied in the dissertation.

Following Saunders et al. (2012) sampling is necessary when it is not possible to collect data from the whole population. In this study it has not been possible to ask every single small or medium-sized enterprise in Germany about its attitude to factoring. This logically led to a need for the researcher to use a sampling technique.

Basically there are two types of sampling techniques: probability sampling and non-probability sampling. Probability sampling means that respondents are chosen randomly and the probability of being chosen is known by the researcher. The opposite, non-probability sampling, means that not every element of the population gets the opportunity to be selected. (Hair 2011)

For this dissertation the researcher has chosen non-probability sampling. In more detail, self-selection sampling was used.

Self-selection sampling means that respondents are chosen based on their willingness to participate in the survey. Therefore the researcher publicized the need for respondents first. This has happened through sending out questionnaires to potential respondents. Afterwards the researcher collected data from all SME’s which have filled out the questionnaire. (Saunders et al. 2012)

According to Adams (2007) non-probability sampling, including self-selection sampling, is the best approach when the whole population is not known exactly. In this study it was very difficult to determine the entire population and moreover the limited time and budget made it impossible for the researcher to use a probability sampling technique. Due to the fact that the researcher relied on the respondent’s willingness to participate in the survey the self-selection sampling was obviously the best fitting sampling technique for this study. Of course there have also been some aspects of snowball-sampling because some companies might have forwarded the questionnaire to suppliers or clients.

After spreading the questionnaire among German SME’s the researcher has received 111 responses. This number should be sufficient in order to get valid results. Due to the fact that the general response rate of questionnaires is very low the researcher had sent out way more than 111 emails in order to ensure the expected response rate.
4.1.5 Time Horizon

This chapter will now inform the reader about the chosen time horizon of the research.

In general there are two possibilities: cross-sectional and longitudinal.

Cross sectional means that the study concentrates on a specific phenomenon at a specific time. In other words it can be seen as a snapshot. In contrast to this a longitudinal study is based on a longer observation period. So it is more like a series of snapshots. (Saunders et al. 2012)

For this dissertation a cross sectional time horizon was chosen. The researcher made this decision due to the limited amount of available time. Over a period of 12 weeks it is nearly impossible to conduct a longitudinal study in a profound way.

4.2 Data Collection Instruments

In this chapter the chosen data collection instrument will be presented and explained. Moreover the reader will be informed about the structure of the questionnaire and the data collection process itself.

In general there are primary and secondary data which are used in research studies. Secondary data describes information which already exist and are not gathered by the researcher himself whereas primary data are gathered by the researcher for example by using interviews or questionnaires. (Remenyi 1998)

Due to the fact that the researcher mainly influences the way how primary data is collected the next paragraph will focus on the primary data collection.

Basically there are two ways of collecting primary data. These two options are qualitative approaches on the one hand and quantitative approaches in the other one.

As mentioned before the researcher has used a quantitative method. Therefore questionnaires were used.

According to Hair (2011) questionnaires are useful to gather a relatively high number of data which finally allows the researcher to assume that the found results are valid for the whole population. Due to the fact that the amount of small and medium-sized enterprises in Germany is very big and all of them are different the researcher decides that a relatively high number of respondents were necessary in order to have representative data. Therefore the researcher used a survey instead of any other form of data collection. By doing a few interviews for example the possibility of distortion would be too high in order get reliable and generally valid results.
Following Saunders et al. (2012) there are many different types of questionnaires. This includes for example internet based, postal and also telephone surveys. For this study an internet based survey was chosen in order to ask small and medium-sized enterprises in Germany about their attitude to factoring. The researcher has decided to use an internet based survey because this option allows reaching many possible respondents in a relative short time without having high costs.

The next sub-chapter will now explain how the questionnaire was created.

### 4.2.1 Structure of the questionnaire

The creation of an appropriate questionnaire can be seen as the foundation for a successful study. Therefore the researcher has put a lot of effort in formulating a questionnaire which offers the opportunity to comprehensively examine the posed hypotheses.

For the researcher it became clear that the questionnaire must deliver rich data but at the same time it should be as short as possible in order to not deter potential respondents. Moreover it must be considered that the questions do not ask for internal information which companies would never publish. This already became relevant in one of the first questions for example which was created in order to judge the size of the participating company. Normally the annual revenue of a company would be a good measure but in Germany many small and medium-sized enterprises cannot be forced to disclose their income statement to the public. In order to be protected against competitors many SME’s would therefore not answer questions about their amount of sales. The researcher has known this and so he decided to judge the company’s size by asking for the amount of employees which are engaged in the firm.

The next paragraph will now give a short overview about the structure of the questionnaire. More details about the questions are presented in the appendix which offers an overview of the whole questionnaire.

At the beginning of the questionnaire the participant was informed about the reason and the background of the survey. Moreover he or she was informed how much time it will take to answer the questions.

This introduction was followed by the first questions about the company itself. These questions were posed in order to find correlations between the companies’ characteristics and the attitude to factoring. These answers were used in order to examine the first two hypotheses.
The next question then asked whether the company uses factoring in general. After the participant has answered this question he or she was guided to the next questions depending on his/her answer. On this way the following questions were tailored for every participant. On both “trails” the respondents were asked for their reasons for or against the application of factoring and also about assumptions about the future.

Finally the respondent was thanked for his/her participation.

The questionnaire contained both open and closed questions. This combination allowed the researcher a relatively easy analysis due to standardized answer options but at the same time it was possible to consider special answers. (Rose et al. 2014)

After the reader is now informed about the structure of the questionnaire the next chapter will give a short overview about the collection process.

4.2.2 Data collection process

In general there are two types of questionnaires during the data collection phase: self-administered and interviewer-administered. Both forms mainly differ by the amount of contacts between the participant and the researcher and also by the way how the questionnaire is administered. Self-administered questionnaires are transmitted via internet or post to the participant and are collected on the same way later on. So the participant fills out the questionnaire independently. In contrast to this interviewer-administered questionnaires are filled out by the researcher and are normally done face-to-face or via telephone. (Saunders et al. 2009)

As already stated above, the researcher has chosen to use a self-administered questionnaire (online questionnaire) due to its high practicability.

In order to create the questionnaire “Google Forms” was used. This service offers the opportunity to produce several types of questionnaires free of charge. After the user has created the survey “Google Forms” generates a hyperlink which can then be sent to possible respondents via email.

Before the hyperlink was sent out to small and medium-sized enterprises the researcher conducted a pilot test.

According to Saunders et al. (2012) this pilot testing is necessary in order to ensure that respondents do not have any problems to fill out the questionnaire. Moreover it should be tested whether the data are recorded correctly.
4. Methodology

During the pilot testing process the researcher has sent out the questionnaire to family members in order to find any errors. This was especially useful in order to check whether the respondent is correctly guided through the questions depending on his previous answers.

After the testing phase was successfully passed the researcher started to send out the hyperlink to German SME’s via email. Next to direct emails to participants the researcher was also supported by local chambers of commerce which forwarded the hyperlink to some of their member firms.

After two weeks 111 responses were recorded and so the researcher closed the questionnaire. The responses were automatically saved in an answer sheet and so the researcher was able to start the analysis which will be covered in the next main chapter of this dissertation.

4.3 Research Ethics

This paragraph will inform the reader about the ethical issues which came up during the dissertation.

Following Saunders et al. (2009) ethics is about the "appropriateness of the behavior in relation to the rights of those who become the subject of the work or are affected by it". This leads to the fact that in nearly every research process ethical topics appear. The strongest ethical aspects definitely appear when human beings are involved in the study. Due to the fact that most research is related to human participants there is a natural need to consider these ethical issues. (Saunders et al. 2012)

One important aspect is that the participant is treated fairly. Cooper & Schindler (2003) therefore state three important guidelines which should guarantee this: explanation of study benefits, explanation of rights and informed consent.

In order to ensure that all participants of the survey are treated fairly the researcher informed the participating companies, before they answered the survey, for which reason the survey was made. The participants were also informed about the fact that the gathered data are only used for this specific study and not for any other reasons. Especially for companies this was very important because the survey asked for details about their financial management. In order to fulfill all guidelines from Cooper and Schindler the participants were also informed about the duration of the survey, which is part of a fair and open dialog between the researcher and the participant.
In addition to that the researcher always had in mind that all companies participate voluntarily and that they have natural rights. For example they can refuse the cooperation at every time. (Oliver 2010)

All in the all researcher ensures that the dissertation was done in an objective way without any bias which also is a fundamental principle concerning research ethics.

4.4 Research Limitation

Naturally there also were some limitations concerning this dissertation. First of all the limited time horizon of 12 weeks was a major limitation. The researcher was aware of this limited amount of time and therefore a cross sectional time horizon was chosen. Moreover the researcher was able to overcome this limitation due to a detailed preparation and planning process.

Another limitation was the limited budget which only allowed a smaller sample for the survey. Although 111 responses to the questionnaire represent a suitable amount of data in order generate objective findings a higher amount of responses would have offered even more reliability.

The limited time and budget is also responsible for another possible limitation to the research: as mentioned before the sampling is based on non-probability sampling, in more detail self-selection sampling. This naturally leads to a certain danger of not receiving reliable data. The researcher has been aware of this limitation and by conducting the research process in the most possible objective way he tried to ensure a high reliability and validity of the gathered data.

Although the questions in the survey have been formulated very clear and comprehensible it could also be possible that in some cases participants understood questions wrong which then led to wrong answers.
5 Data Analysis, Discussion and interim Conclusions

After the previous chapters have presented an overview about the existing literature and the applied methodology, this part of the dissertation will now focus on the analysis of the gathered data.

At the beginning the researcher will shortly introduce the data analysis process itself which includes the applied statistical tools and the chosen software.

This will be followed by a presentation, analysis and discussion of the different findings. Therefore every hypothesis will be determined separately. In order to underline specific aspects numerous graphics and tables will be used.

5.1 Data Analysis Process

The most important step before analyzing the responses is to code the answers. This means that every single answer option was replaced by a number. Nearly all types of data should be coded in order to simplify the analysis process. (Hair 2011)

Since this study is mainly based on categorical and nominal data it was especially important for the researcher to rank the nominal data in order to be able to calculate correlations. The next paragraph will now introduce the statistical tools which were applied in order to examine the research question and the four hypotheses.

5.1.1 Statistical tools

Basically three statistical tools were used in this study: cross tabulation, regression and correlation analysis. The following paragraph will now give a short introduction to these three tools.

Cross tables can be used in order to show whether and how two (or more) different traits are related. By using them the frequency and/or percentages of a variable is cross-tabulated with the frequency and/or percentages of another variable. (Rubin 2010) If there is one variable which depends on the other one the first variable is normally taken as the column variable whereas the independent variable is taken as the row variable. However, this layout is not mandatory and so it is also possible to do it the other way round. (Acock 2008)
The regression analysis offers the opportunity to figure out the coherence between two variables. During this process a regression function is calculated which shows the linear coherence as a slope. This function is presented as $y = a \cdot x + b$.

A correlation analysis allows measuring the strength of a linear relationship between two variables. In order to do so the correlation coefficient (normally represented by $r$) must be calculated. This coefficient can take on a value between -1 and +1. If the correlation coefficient has a value of -1 this represents a perfect negative correlation. This means that an increase of variable A leads to a decrease of variable B. If the coefficient takes on a value of +1 this represents a perfect positive correlation which means that an increase of variable A leads to an increase of variable B. Of course the correlation coefficient can also be 0. This then shows that both variables are completely independent from each other. It should be considered that, in business research, perfect negative or perfect positive correlations are absolutely unusual. (Saunders et al. 2012)

### 5.1.2 Software

In order to create and calculate the statistical numbers mentioned above the usage of software was needed. Before starting the analysis process the researcher had a choice between two different programs. On the one hand the statistic software SPSS and on the other hand the well-known table calculation program Microsoft Excel.

The researcher has decided to use Microsoft Excel in order to analyze the answers of the questionnaires. This decision was based on the fact that, in contrast to SPSS, the researcher was already familiar with Microsoft Excel. Moreover the amount of data resulting from the survey still had an affordable size in order work with Microsoft Excel. Hence, the researcher used Excel for all steps of the analysis, including the creation of tables and charts. However, some charts or graphics were also created with Microsoft Power Point due to the superior design tools of this software.
5.2 Characteristics of the sample

Before discussing the findings for each hypothesis it makes sense to have a short look on the characteristics of the participating companies. This includes the industry affiliation as well as the company size. In order to give the reader a profound overview about the sample the next paragraph will focus on the represented industries followed by the company sizes.

As the chart above shows small and medium-sized enterprises from 21 different industries have taken part in the survey. The three biggest industry groups are Construction & Construction Elements, Services and Metal & Engineering. Together these industry sectors represent 47% of all participating industries. On the first view this high meaning of three single sectors in the sample might look irritating but by considering the whole population of all German small and medium-sized enterprises it becomes clear these three sectors have an immense meaning in Germany. Hence, it can be declared that the present sample shows a realistic picture of the industry allocation concerning SME’s in Germany.

The next chart focuses on the size of the participating firms. As already stated before, it was not possible to divide the companies by their amount of sales due to a limited willingness and duty to disclose income statements. Therefore the different sizes were divided by the number of employees which are engaged in the firms.
5.3 Factoring usage and the company size

This chapter will use the results of the questionnaire in order to determine whether there is a relation between the usage of factoring and the size of a company. This question is grounded in the following hypothesis:

“The usage of factoring is correlated to the company size”

As stated in the beginning the first hypothesis implies that there is a relation between the usage of factoring and the company size. Before the survey was conducted the researcher assumed that bigger companies would use factoring with a higher likelihood than smaller ones would do.
This hypothesis will now be determined by analyzing the results of the survey. The following cross table therefore shows the relation between the general application of factoring and the size of a company. In order to gather this data the participating companies had to answer the general question whether they use factoring or not, regardless of the factoring type. The company size was defined, as already mentioned, by the number of employees.

<table>
<thead>
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<th>Application of Factoring / Number of employees</th>
<th>0-25</th>
<th>26-100</th>
<th>&gt;100</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>0</td>
<td>12</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>no</td>
<td>42</td>
<td>21</td>
<td>21</td>
<td>84</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>33</td>
<td>36</td>
<td>111</td>
</tr>
</tbody>
</table>

6 Hypothesis 1

The horizontal line of the cross table above represents the number of employees which are engaged in the company and the vertical line shows whether the firm uses any type of factoring. As it can be seen there are 111 answers in total. 27 of these 111 small or medium-sized enterprises use a type of factoring whereas 84 answered that they do not apply factoring at all. A closer look on the allocation shows that companies who engage more than 100 employees most often apply factoring (15 answers) whereas none of the companies with 0-25 employees stated that they use factoring. For the company type in the middle, which engages between 26 and 100 employees, the survey delivered 12 answers for “yes” and 21 for “no”.

Considering all numbers from the cross table above it becomes clear that there is coherence between the size of a firm and the likelihood that it uses factoring. The bigger a company is the more often the company uses any type of factoring. Hence, the first hypothesis can be seen as confirmed.

After the survey result have pointed out that there is a relation between these two aspects the next paragraphs will now focus on possible reasons for this outcome.

As the survey results imply, the different attitudes towards factoring must be grounded in different characteristics of the particular company size. Therefore it seems useful to take a closer look on each of the mentioned firm sizes and their relation to factoring.

The first group of companies includes all firms with 0-25 employees. As the survey shows none of the participating companies in this size uses factoring. There are plenty
of possible reasons for this. First of all a significant amount of all companies in this size are small retailers. Due to their business model they generate an immense part of their sales in cash. This naturally leads to a smaller amount of accounts receivable which could be sold to a factoring company. Of course not all firms in this size are retailers and so it can be asked why these companies do also not use factoring at all. On the one hand it can be argued that most of these firms do not have a professional finance department due to their limited size which finally leads to the fact that the possibility to sell accounts receivables is just neglected. On the other hand this could also be an argument for the introduction of factoring because full service factoring for example would allow small companies to forego an own receivables management. In addition to this it might be possible that smaller firms do not apply factoring because factoring companies demand too high risk premiums due to relatively unprofessional or incomplete track records about the debtors. Another, very important, aspect which might explain the negligence of factoring among this type of companies is that small companies often have a close relationship to their clients. By using factoring many small firms might fear to lose this close relationship because the paying process is still seen as a personal process between a firm and its customers. This last argument is strongly supported by other findings which will be presented in the examination of hypothesis four. By anticipating some findings of the fourth hypothesis it turns out that more than 40% of all companies with 0-25 employees state that they do not apply factoring because they are afraid of losing the close relationship to their clients.

After some reasons for the negligence of factoring among very small firms have now become clear it makes sense to have a look on the enterprises in the middle which engage between 26 and 100 employees. In this group 12 out of 33 companies stated that they use factoring. As the survey results show they mainly use factoring in order to generate liquidity and to reduce default risks which represent the typical reasons for the general application of factoring. Interestingly enough, the named reasons against the usage of factoring have changed. Of course the fear of losing the close relationship to the client is still present but the most frequently given argument against factoring was based on the high costs of factoring. These findings seem to be logical when assuming that the relationship to the client becomes less important the bigger a company is.

By considering the participating SME’s with more than 100 employees, the amount of firms which apply factoring reaches the peak with 15 out of 36. In these cases factoring is mainly used for the generation of liquidity. The mostly named argument from the 21 firms which do not apply factoring still remains the costs of factoring.
Summarizing the findings about the first hypothesis it can be stated that the implied relation between the usage of factoring and the company size is confirmed by the results of the conducted survey.

5.4 Factoring usage and the distance to the client

The next question which should be answered is whether SME’s which are located near their clients use factoring or not. This question is based on hypothesis two:

“German SME’s which are located near their clients do not prefer to use factoring”

The second hypothesis implies that there is a correlation between the likelihood that companies use factoring and the geographic distance to their clients. The researcher assumed that companies which are located close to their customers would prefer not to use factoring whereas companies which have clients that are located far away are more open minded concerning the application of factoring.

The following cross table shows how both aspects are related to each other. In order to determine the commonness of the factoring usage, the participating companies had to answer how often factoring is applied. For this question the participants had to choose “never”, “rarely”, “often”, “regularly” or “always”. The last three options were consolidated for this part because the difference between “often”, “regularly” and “always” is based on different factoring types which cannot be ranked as superior or inferior to each other.

As the cross table above shows the application of factoring increases with the distance which exists between the participating company and its clients. None of the firms which are located near their clients (0-20km) uses any form of factoring. By widening the average distance to the client from 0-20km to 20-100km it can be seen that only one single firm rarely uses factoring. The more the average client is located away the more often factoring is applied. By considering the biggest possible distance of more than 200km it turned out that 18 firms use factoring often, rarely or always. All in all it can be
said that 81% of all participating firms which apply a form of factoring are located more than 200km away from their average client.

All these numbers clearly show a strong trend and a relation between the average distance to the client and the usage of factoring. In order to measure how strong this relation is the researcher has done a regression analysis based on these two factors. The ordinate of the following coordinate system uses 1 for “never”, 2 for “rarely” and 3 for “often”, “regularly” and “always” exactly as stated in the cross table.

The calculated trend respectively regression line clearly supports the impression delivered by the cross table above. The further analysis brought up a Pearson correlation coefficient of 0.4514 and a Spearman correlation coefficient of 0.4539. Based on the data classification the Spearman correlation coefficient should be preferred in this case. The calculated value of 0.4539 displays a medium-strong correlation between the usage of factoring and the average distance to the client. In other words, the distance to the client has a medium-strong influence of the decision whether a company uses factoring or not. The higher the average distance is the higher is the possibility that a firm applies factoring. Vice versa this also means that a small distance to the client leads to the fact that factoring is not applied. By considering that there are many different factors which may influences the decision for or against the application of factoring a medium-strong correlation for this single factor shows a clear relation between the considered aspects.

8 Correlation Hypothesis 2
All in all the presented cross table and the regression analysis above confirm the second hypothesis: small and medium-sized enterprises which are located near their clients do prefer not to use factoring.

After confirming the stated hypothesis the reasons for these results should also be discussed.

Basically there are two main reasons which can be assumed to be relevant in order to explain the detected correlation.

Firstly, similar to the findings from hypothesis one, it can be assumed that enterprises which are located near their clients naturally have a close relationship to them. As already mentioned in the discussion of hypothesis one, these types of companies often forego factoring because they are afraid of losing the good relationship to the customer. It is obvious that this aspect plays an important role here as well because companies which are located far away from their clients cannot create such a personal and close relationship to every customer and so it becomes more likely that they use factoring.

Secondly, it becomes more and more difficult for an enterprise to determine the client’s solvency when the client is located far away. Hence, factoring might become a solution in order to eliminate the default risk and to improve the liquidity situation at the same time. This topic gets more and more relevant the farther away the client is located.

Summarizing it must be stated that the examined sample displays a positive correlation between the average distance to the client and the application of factoring.
5.5 Potential of international factoring

This sub chapter will now focus on the question which potential international factoring has. The reason for this question is grounded in the following hypothesis:

“International factoring will get a growing meaning for German SME’s in the future”

In order to figure out the validity of this hypothesis the participating companies had to answer a question about their future intents. In more detail they had to answer the question whether they would apply international factoring in order to collect outstanding accounts receivable from international clients more easily under the premise that their international business activities (further) increase.

The pie chart above displays how the participating small and medium-sized enterprises have answered. It becomes obvious that more than 50% of the respondents would apply international factoring if their international business activities would increase. This would represent a massive increase for the factoring market.

It sounds comprehensible that small and mediums-sized enterprises would tend to increase their factoring usage when they have to collect their accounts receivables in foreign countries all over the world. The smaller a company is the more difficult would it be to deal with clients which maybe have another payment moral than their national clients have. It would be a massive effort to collect outstanding money in other countries and so international factoring becomes a safe and reliable alternative.

In order to determine whether the hypothesis is correct or not it must be evaluated how far the underlying premise describes the future correctly. The premise assumed that
the international business activities among German small and medium-sized enterprises increase over the next years. In order to verify this it makes sense to have a look on an up to date study about the internationalization of German SME’s. Following the up to date study of PwC (2014) 55% of them plan to (further) increase their international business activities over the next years. This expansion is mainly based on two important aspects. On the one hand internationalization offers the opportunity to enlarge the own sales market and on the other hand it also offers opportunities to reduce production costs. In order to be able to compete with the foreign competition small and medium-sized enterprises have to use these two opportunities and so for many of them further steps to internationalization are compulsory in order to survive.

Others studies support the findings mentioned above and furthermore they state that the payment moral in foreign countries belong to the top three difficulties for German SME’s which are expanding their business to other countries. (Eriksdotter 2014)

The results of both studies clearly prove the validity of the stated premise that international business activities will further grow among German SME’s. Moreover it becomes clear that international factoring has the potential to solve many problems concerning the difficult payment moral of foreign clients.

All these findings lead to the fact that the third hypothesis can be confirmed: international factoring will get a growing for German SME’s in the future.
5.6 Concerns about the usage of factoring

The last question is which concerns German SME’s have about the application of factoring. This is based on the fourth hypothesis:

“The majority of SME’s are afraid of losing the relationship with their customers by the usage factoring”

This hypothesis implies that many small or medium-sized enterprises in Germany refuse the application of factoring because they are afraid to lose the close relationship to their clients.

In order to avoid irritations it should be mentioned that some of the findings concerning this hypothesis were already mentioned during the discussion of hypothesis one.

In order to figure out whether this hypothesis is valid the respondents of the survey who stated that they do not apply any type of factoring were asked for their reasons for this decision. The following table shows the top three nominations. However, before focusing on the table, it should be said that the participants were allowed to give multiple answers if there were more than one reason.

<table>
<thead>
<tr>
<th>The top 3 arguments against the application of factoring (multiple answers were possible)</th>
<th>Nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The costs are too high</td>
<td>33</td>
</tr>
<tr>
<td>The strong relationship to the client may be damaged</td>
<td>32</td>
</tr>
<tr>
<td>The use of factoring could be seen as sign of suspicion concerning the client’s ability to pay his debts</td>
<td>29</td>
</tr>
</tbody>
</table>

The table displays that the most named reason against the usage of factoring is based on the high costs. So many SME’s are not willing to pay the risk premium to the factor. Although the high costs are the most named reason the results also show that the fear to lose the close relationship to the client plays an important role. This is also supported by the reason which was named the third most because finally it could also damage the good relationship to the client when the client feels suspicion from his supplier.

By considering the most named arguments against the application one should not forget that the answers slightly vary depending on the size of the asked company. As already mentioned before, the cost factor is more important for bigger SME’s whereas smaller SME’s have a stronger focus on the possible damage to the customer relationship.
The last two arguments against the usage of factoring show that for many German SME’s factoring still has a negative image. Based on the immense advantages of factoring presented in the literature review, the researcher had not expected this. However, many of these companies, especially the smaller ones, feel that their clients would misconceive the application of factoring.

By summarizing the findings it turns out that the fourth hypothesis is only partly valid. The most named argument against the application is about the high cost. However, there also is an immense fear that factoring might damage the customer relationship. Therefore the fourth hypothesis should be completed by the cost argument in order to be completely correct.

5.7 Other findings

After the previous sub-chapters have concentrated on the stated hypotheses, this chapter will now take a look on additional findings. Since the conducted survey also offers data which were not completely covered before, it seems useful to present some of these supplementary results at this place.

First of all the survey also asked the companies which do apply factoring about their preferred factor. On this way the researcher was able to analyze which kind of factor is mostly used when it comes to the sale of accounts receivables. As the following pie chart shows 74% of all SME’s which apply factoring use an independent factoring company.

![Pie chart showing preferred factoring companies](The preferred factoring company)

11 The preferred factor
This high meaning of independent factoring companies surely has different reasons. On one side it could be assumed that small and medium-sized enterprises prefer an independent factor in order to avoid any dependencies from banks, especially from their house bank. This assumption is supported by the fact that only 7% of the participating SME’s choose their house bank for these processes. On the other side SME’s might prefer high specialized factors which are experts for accounts receivables in the SME’s core business sector. Naturally those factors are often small and independent firms.

Another interesting result of the survey deals with the preferred type of factoring. During the survey the small and medium-sized enterprises were asked which type of factoring they use (in case they apply factoring in general).

![Which types of factoring are used in German SME’s](chart)

12 Types of factoring

The results show that full-service-factoring and inhouse-factoring are the preferred forms of factoring among German SME’s. As already presented in the literature review the difference between these two types of factoring is the complete overtake of the debitor management. By using full-service factoring the SME devolves the complete debitor management to the factor whereas inhouse-factoring describes a form of factoring in which these processes remain in the SME. The fact that inhouse-factoring still has such a high meaning could lead to the assumption that many SME’s still want to be in control of their accounts receivables. In other words they want to profit from the liquidity and default risk function of factoring but do not want to release any responsibility of core processes. One crucial aspect which also explains the high meaning of inhouse-factoring among SME’s is that this type of factoring allows the
SME to hide the usage of factoring in front of its client. This is possible due to the fact that the client still pays the invoice to the SME and not directly to the factor. On this way some SME’s might feel that their close relationship to the client is more protected. However, it should not be forgotten that this type of factoring means that the factor has to trust the SME’s debtor management.
6 Overall Conclusion

This study has now tested the stated hypothesis against the findings of the conducted survey. After it turned out that most of the hypotheses were correct this chapter will now use the findings of the study in order to discuss the research question. By using the analysis of the survey the potential of factoring for small and medium-sized enterprises in Germany will be assessed over the next paragraphs.

At the beginning of this dissertation the situation for German small and medium-sized enterprises was presented to the reader. It became clear what these types of companies are and which important part they play for the German economy. Next to explanations of the ongoing success story of many SME’s the reader was also informed about future challenges. Quickly it turned out that alternative sources of finance are one main aspect for these companies in the future. This is mainly grounded in new bank regulation laws, namely Basel II and III. These new regulations finally lead to higher interest rates for ordinary SME bank loans. In order to finance their growth, their business activities and to ensure a sufficient of liquidity in the company small and medium-sized enterprises are therefore forced to find other or at least additional sources of finance.

The following overview about factoring has displayed many advantages for the application of factoring: coverage of the default risk, simplification and optimization of the liquidity planning including the shortening of the cash conversion cycle, possible balance sheet contractions, etc.

A consideration of the entire amount of the advantages offered by the usage of factoring implied that there is an immense potential for small and medium-sized enterprises. The conducted study then examined how far small and medium-sized enterprises in Germany apply factoring today and what their attitude towards factoring is.

The analysis showed that 27 of the 111 participating small and medium-sized enterprises apply factoring. This relative low amount of companies which use factoring is mainly grounded in small firms. As the analysis of hypothesis one displayed there is a relationship between the size of a company and its willingness to apply factoring. The bigger a company is the higher is the likelihood that it uses factoring as an alternative source of finance. A similar correlation was found concerning the average distance to the client and the usage of factoring.
It turned out that small and medium-sized enterprises which tend to have a close relationship to their client prefer not to use factoring because they are afraid that this relationship may be damaged. For many of them the paying process is a personal process between the company and its client and they fear that their clients could misunderstand the usage of factoring as a sign of suspicion.

The ambivalence between bigger and smaller SME’s concerning their attitude towards factoring shows that factoring partly still has a negative image among small, mostly family owned firms.

Without any question the potential of factoring as part of the optimization of the working capital management of small and medium-sized enterprises is massive. The typical balance sheet structure of a German SME contains 25% accounts receivables. (Breuer 2001) This on the one hand and the price increase of bank loans on the other hand will force companies to use alternative forms of finance sooner or later. It seems that bigger SME’s have already noticed this and due to their less close relationship to the clients a significant amount of them already applies factoring.

The presented findings show up two things. Firstly, factoring companies should further develop their inhouse factoring solutions which allow the client to “hide” the factoring usage in front of their customers. This would allow them to also reach smaller companies which still have concerns about factoring. Secondly, also smaller companies should think about their future financial situation and try to use available alternative sources of finance in order to optimize their working capital and to become less addicted to bank loans when it comes to financing questions.

All the conclusions above were mainly focused on factoring in Germany. However, this study has also determined the potential of international factoring. As presented in the discussion of hypothesis number three the potential of international factoring among German small and medium-sized enterprises is immense. The survey showed that more than 50% of the companies would apply factoring if their international business activities (further) increase. Against the background of a strongly increasing internationalization of German small and medium-sized enterprises this result underlines the massive potential of international factoring. International factoring not only offers protection against default risks (which is especially important when talking about accounts receivables in foreign countries) it also offers the opportunity that the exporting SME does not need to demand a letter of credit from the importer which can finally represent a competitive advantage for the exporting SME.
Next to the massive potential of international factoring for small and medium-sized enterprises the factoring companies should also enlarge their activities in this sector in order to profit from the expected growth in this business sector.

All in all there is a high potential of factoring (national and international) among small and medium-sized enterprises in Germany. However, especially smaller SME´s still often have some prejudices.
7 Reflections on Learning

This last chapter of the dissertation will concentrate on the learning process of the researcher. Therefore the researcher’s way of learning will be examined by considering well established models about learning. In addition to this the own learning will be explained and appraised. This includes an overview about the different things the researcher has learned during the Master of Science program at DBS as well as during the dissertation phase.

At the beginning it seems useful to have a short look on the definition of learning. Kolb (1984) for example defines learning as “the process of whereby knowledge is created through the transformation of experience”. This definition of Kolb is widely accepted, however, it could be complemented by another definition which does not only focus on knowledge. Honey & Mumford (1996) therefore define learning as follows:

“Learning has happened when people can demonstrate that they know something they did not know before (insights and realizations, as well as facts) and/or when they can do something they could not do before (skills)”

As it can be seen this definition of Honey and Mumford is a bit wider than the first one. Nevertheless, it surely makes sense to combine both definitions in order to have a thorough definition of learning.

After it is now clarified what learning itself means the next sub chapter will focus on different models of learning and learning styles.

7.1 Learning models and styles

There are plenty of different models which try to explain how learning works. In order to present the reader a short overview about the topic the next paragraph will name and explain one of the most important and well-known learning models. This learning model is known as Kolb´s learning cycle.

In combination with his experiential learning theory David Kolb introduced his learning styles model. Today Kolb´s model is very famous and widely used by academics, trainers and teachers. It represents a fundamental concept about the understanding of human learning behavior. (Businessballs 2014)
Kolb’s model shows 4 different learning styles which are built up on his learning cycle. Before explaining the different learning styles it therefore makes sense to have a look on the learning cycle first.

The learning cycle is also known as the four-stage cycle of learning. As the term betrays, Kolb explored that the learning process can be divided into four different steps. Naturally a cycle does not have a fixed start or end point but it can be said that the first step is about concrete experiences. This means that an individual makes a concrete experience which then leads to the next step of the cycle, namely observation and reflections. After the individual has reflected the concrete experience he or she assimilates and distills these reflections and observations into abstract concepts. These abstract concepts are then used to create new implications for actions. These implications can then finally be used in order to create new experiences which lead to a closed cycle. The following diagram graphically shows how Kolb’s learning cycle works. (Businessballs 2014)
As it can be seen the model above already includes the four different learning styles which are based on the original learning cycle. Different people normally prefer different learning styles because every individual has a stronger focus, either on feeling, watching, thinking or doing. The axes in the middle of the cycle emphasize that every individual has to decide between two options. Internally people decide whether they want to do or watch and at the same time whether they want to think or feel. The fact that people have to decide for two actions automatically leads to four different learning styles. These learning styles are Diverging, Assimilating, Converging and Accommodating. Over the next paragraph each of these styles will be briefly explained. (Businessballs 2014)

Diverging represents the combination of feeling and watching. Individuals who belong to this group can look at things from different perspectives. Moreover they tend to prefer watching rather than doing. They gather information and use their imagination in order to overcome problems. In addition this they are often more sensitive. This learning style is called Diverging because those individuals normally show a higher performance concerning situations in which idea-generation is needed. An example for such a situation could be brainstorming. In general individuals who have a diverging learning style are interested in different cultures and people and like to gather information. They tend to be emotional and normally they are good in arts. All this also leads to the fact that these people enjoy group work. (Businessballs 2014)

Assimilating stands for people who prefer watching and thinking. Therefore they have a preference for logic. For them different concepts and ideas are more important than other individuals. For people who have an assimilating learning style clear explanations are very important (rather than practical opportunity). They show a high performance when it comes to the understanding of big amounts of information and are able to present them in a logical structure. Often these individuals choose a career in science and in classical learning situations they prefer lectures, readings and analytical models. (Businessballs 2014)

Converging represents those individuals who prefer doing and thinking. Those people are able to solve problems and to use their learnings to find solutions for practical issues. Normally they like technical topics and are less interested in people and interpersonal aspects. They are good at transforming ideas and theories in practical uses. So individuals who have a converging learning style prefer to test out new ideas and to work with practical uses. (Businessballs 2014)
Accommodating is the combination of doing and feeling. This learning style is characterized by a typical hands-on mentality. This means that people who have this learning style often rely on their intuition and not on logic. These individuals use the analysis of others in order to apply these findings in practice. New challenges are interesting for them and they like to carry out plans. Normally those individuals prefer team work in order to absolve tasks and like to try out different ways in order to achieve aims. (Businessballs 2014)

After explaining Kolb’s model of learning the next paragraph will now focus on the researcher himself.

During the MSc program and this dissertation the researcher was involved in a continuous process of learning. The researcher has therefore thought about the question to which learning style he belongs. Very fast it became clear that the researcher has an assimilating learning style. The experiences during the MSc program and the dissertation supported this impression. The researcher has noticed that he prefers to do analytical work and that he has a predilection for logical processes. However, the researcher has noticed that his learning style also contains some parts of Kolb’s converging learning style. Next to analytical workings the researcher also likes to apply models and theories in practice. This is for example shown in the dissertation because the researcher also used analysis from others in order to underpin his own findings. Due the fact that Kolb’s learning styles should not be seen as fixed rules the researcher therefore feels that his learning style is between the assimilating and the diverging learning style.

In order to further reflect the own learning process the researcher has also absolved the learning style questionnaire of Honey and Mumford.

This test was created by Peter Honey & Alan Mumford (1986) and offers the participant the opportunity to find out what his or her learning style is.

The learning styles of Honey & Mumford are partly based on Kolb´s learning styles, however they differ in some ways. Honey and Mumford have noticed that there are four different learning styles. These styles are named Activist, Reflectors, Theorists and Pragmatists. Activists for example are normally intuitive and open for new challenges. They enjoy new exercises and feelings are important. Reflectors do observe things and think about their impressions. This also includes the collection and analysis of data before coming to a conclusion. Theorists concentrate on logic. For them theory is very important and they try to be perfectionists. The last type is called Pragmatist.
Pragmatists are active and are willing to try out new things. They like to do something and have a foible for experiments. (Honey & Mumford 1996)

In order to discover the own learning style Honey and Mumford offer a questionnaire which shows up the own preferences. This questionnaire is available in a short version with 40 questions and a longer version with 80 questions. After the researcher had answered the 80 questions of Honey and Mumford´s questionnaire it turned out that the researcher had high scores for two different learning styles: Reflector and Theorist.

This combination fits to the impressions the researcher got from Kolb´s model. For the researcher it became clear that he learns best when he is able to think about issues in combination with either watching or doing.

Since the researcher´s learning style has been presented and explained the very last sub chapter of this dissertation will now have a look on the skills which were developed by the researcher.

### 7.2 My Learning process and developed skills

During the Master of Science Program in Management Practice at Dublin Business School the researcher was able to develop and improve several skills. The next paragraphs will therefore present and explain the development of different skills. Due to the fact that not every single skill can be mentioned at this point the next paragraphs will focus on the most important ones. This includes for example research skills, analytical skills, time management skills, etc.

The first skill which should be mentioned surely is about research. During the whole Master of Science program and of course also during the dissertation the researcher was able to further improve his research skills. Especially the research methods modules in semester one and two have helped the researcher to understand how research should be conducted. Next to content based aspects this also contained practical guidance for example concerning to the usage of the different academic databases. Due to many written assignments during the program the researcher was able to improve this skill over the time. In addition to this he learned how to use the Harvard referencing style correctly. Especially the collection of primary data, including the preparation and the accomplishment of a survey was a completely new topic for the researcher and so this part offered the highest benefit to the research skills.

Another very important skill which could be improved during the master studies at Dublin Business School was about the analytical capabilities. During several written
assignments the researcher was often faced with analytical questions but especially the analysis of the conducted survey among small and medium-sized enterprises in Germany allowed the researcher to further improve this skill. Of course the researcher was already familiar with analytical tools and software solutions before but during the dissertation some new aspects appeared which finally delivered additional knowledge. One example for the improvement of the technical analytical capabilities was that the researcher has learned a second method to calculate a correlation coefficient. Before the study the researcher was only familiar with the Pearson correlation coefficient without knowing that the Spearman correlation coefficient can be a better choice, depending in the type of data. Moreover the researcher was also able to further improve his Microsoft Excel skills for example.

Next to the analytical skills the researcher has also improved his critical thinking skills. During both, the taught part and the dissertation part of the MSc Management Practice program the researcher learned to question established models and theories. On this way he became able to find weaknesses in these concepts and also room from improvements. This way of thinking was always promoted by the lecturers which has surely enriched the learning experience. Moreover it helped the researcher to become more critical concerning models and theories he met during the dissertation phase of the program.

An additional skill which the researcher was able to improve is time management. In general it is always important to have deadlines in mind and to manage the work in the available time. Especially for big projects, like a dissertation, this becomes even more important. Due to the fact that this dissertation was the biggest project the researcher ever had he was forced to put a lot of effort on an efficient time management. Therefore he created a time plan very early. In order to do so the researcher has deconstructed the dissertation in many small steps which were then used in order to plan the needed amount of time for the whole process. In order to visualize the plan the researcher has created a road map which was similar to a GANTT chart in order to ensure that he is always in the time frame. Moreover the researcher planned to be finished at least one week before the final deadline in order to have a buffer for unforeseen events. This good time management will surely help the researcher on further projects in the future.

The last skill which should be mentioned is about team work. Although team work was not necessary at the dissertation phase of the Master of Science program it played a big role during the taught phase of the program. In nearly every course one or more
written assignments or presentations consisted out of group works. Fortunately the researcher was able to quickly find a group partner whose working style fitted to the accustomed working style of the researcher. During the whole program the researcher and his group member(s) complemented each other successfully. Of course it was a challenge for the researcher when it came to group works with students with a completely different cultural background for the first time. Due to his bachelor studies in Germany the researcher was used to group works but he had never worked with so many different cultures before. At the beginning it was therefore useful to get an understanding of the working practices from students which came from Asia for example. Although the working practices sometimes differed the group always delivered good work.

All in all it should be stated that the researcher has learned a lot during the Master of Science in Management Practice at Dublin Business School. This includes technical skills and knowledge as well as intercultural and interpersonal aspects. Moreover the researcher is absolutely confident that the knowledge about his own learning style will be an immense help in the future. Only if a person knows how he or she can learn in the most efficient way he or she will be able to understand new and complex things quickly. Nowadays this capability will surely become more and more important due to the increasing amount of available information and data which have to be filtered, analyzed and utilized.
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Appendix

Questionnaire in German and English (Which questions the participant saw was decided automatically based on his/her previous answers)

Sehr geehrter Umfrageteilnehmer,

im Rahmen meiner Masterarbeit an der Dublin Business School in Irland möchte ich den Einsatz und das Potenzial von Factoring im deutschen Mittelstand untersuchen.

Factoring beschreibt den Verkauf eigener Forderungen (gegenüber Kunden) an eine Factoringgesellschaft (genannt Factor). Der Factor übernimmt hierbei, je nach Factoringart, das Ausfallsrisiko sowie das gesamte Debitorenmanagement und zahlt die Forderung vor dem ursprünglichen Fälligkeitszeitpunkt an den Factoringnehmer aus.

Mit Ihrer Teilnahme an nachfolgender Umfrage leisten Sie einen großen Anteil an meiner Forschungsarbeit, wofür ich mich an dieser Stelle schon einmal vorab sehr herzlich bei Ihnen bedanken möchte. Die Umfrage wird ca. 5 Minuten Ihrer Zeit in Anspruch nehmen.

Selbstverständlich werden alle Angaben vollständig anonym erfasst und ausgewertet. Es erfolgt weiterhin keine Verwendung der Einzeldaten über den Rahmen meiner Masterarbeit hinaus.

Dear respondent,

as part of my master thesis I estimate the application and potential of factoring in the financial management of small and medium-sized enterprises in Germany.

Factoring describes the process of selling accounts receivables to a factoring company (called factor). Depending on the type of factoring the factor assumes the default risk and/or the accounts receivable management and pays out the invoice amount before the original due date.

By taking part in the following survey you make a big contribution to my studies for what I would like to thank you. The survey will take approx. 5 minutes.

All information will be gathered and analysed anonymously. Moreover the data will not be used in any other context than my master thesis.
1) In der welcher Branche ist Ihr Unternehmen tätig? / In which sector does your company operate?*
- Aragar & Lebensmittel / Food & Agriculture
- Bau / Bausstoffe / Construction & Construction elements
- Chemie & Rohstoffe / Chemistry & Commodities
- Metall / Maschinenbau / Metal & Engineering
- Elektronik / Electrics
- Energie & Umwelt / Energy & Environment
- Handwerk / Craft
- Finanzen, Versicherungen & Immobilien / Financial Services, Insurance & Real Estate
- Einzelhandel / Retail
- Großhandel / Wholesale
- Versandhandel / Mail-order selling
- Konsumgüter / Consumer Goods
- Dienstleistungen / Services
- Medien & Marketing / Media & Marketing
- Pharma & Gesundheit / Pharmaceuticals & Healthcare
- Telekommunikation / Telecommunication
- Hotel & Gastronomie / Hotel & Catering
- Verkehr & Logistik / Transport & Logistics
- Verwaltung / Administration
- Sonstiges: __________________________

2) Wie viele Mitarbeiter beschäftigt Ihr Unternehmen? / How many employees are engaged in your company?*
- 0-5
- 6-25
- 26-50
- 51-100
- 101-200
- 201-500
- >500

3) Wie groß ist die durchschnittliche räumliche Distanz zwischen Ihrem Unternehmen und Ihren Kunden? / How far away are your clients located from you in average?*
- 0-20km
- 20-100km
- 100-200km
- >200km

4) Nutzt Ihr Unternehmen bereits Factoring im allgemeinen? (Je nach Antwort werden Sie auf die restlichen Fragen geheilt) / Does your company use factoring? (Depending on your answer you will be guided to the remaining questions)*
- ja / yes
- nein / no
5) Mit welcher Häufigkeit nutzt Ihr Unternehmen Factoring / How often does your company use factoring? 
- selten, in Ausnahmefällen / rarely, only in special cases
- häufiger / often
- regelmäßig, gehört fest zum Finanzmanagement / regularly, it is a basic tool of the financial management
- immer, das gesamte Forderungswesen ist an eine Factoringgesellschaft ausgelagert / always, the whole debtor management is outsourced to a factoring company

7) Welche Factoring Arten nutzt Ihr Unternehmen (Mehrfachnennung möglich) / Which forms of factoring does your company use? *
- Full-Service-Factoring. Das Full-Service-Factoring umfasst neben der umsatzkongruenten Finanzierung auch eine vollständige Risikoabsicherung (für den Delkreterfall) und die Übernahme des gesamten Debtormanagements. / Full-Service-Factoring includes all the functions of factoring. That means that it covers financing, assumption of the default risk and takeover of the receivables management responsibilities.
- Inhouse Factoring. Im Inhouse-Factoring verbleibt das gesamte Debtormanagement treuhänderisch für den Factor in der Hand des Factoring-Kunden. Die Factoring-Gesellschaft übernimmt schwerpunktmäßig die Finanzierungs- und die Delkreterfunktion. / The factoring customer makes use of the financing and the receivables risk mitigation, but forgoes any further services.
- Internationales Factoring. Internationales Factoring dient maßgeblich der Absicherung von Export- oder Importgeschäften. Bei Exportgeschäften wird die Forderung beispielsweise durch den deutschen Factor beglichen, welcher zugleich das Delkrederisiko übernimmt. / International factoring is used to hedge export activities. In this case the factor pays out the receivables and takes over the default risk.
- Einzelfactoring. Hierbei werden einzelne Forderungen an eine Factoringgesellschaft verkauft. Diese zahlt den Rechnungsbetrag direkt aus und übernimmt das Delkrederisiko. / Single invoice factoring is used to sell single accounts receivables to the factoring company. The factoring company pays out the invoice amount and assumes responsibility for the default risk.
- Sonstiges: ______________________

8) Warum nutzt Ihr Unternehmen Factoring hauptsächlich? (Mehrfachnennung möglich) / What are the main reasons for your company to apply factoring? (multiple answers are possible)*
- Factoring wird zur Liquiditätsbeschaffung benutzt / Factoring is used as a source of liquidity
- Factoring wird zur Absicherung des Ausfallrisikos verwendet/ Factoring is used in order to delete default risks
- Factoring wird genutzt um das gesamte Forderungsmanagement oder Mahnwesen auszulagern / Factoring is used in order to outsource the debtor management
- Factoring wird benutzt um die Bilanz zu verkürzen / Factoring is applied in order to short the balance sheet
- Factoring macht den Verzicht auf Vorkasse möglich / Factoring allows the abandonment of pre payments
- Factoring dient der Absicherung von Exportgeschäften durch den Einsatz internationalen Factoring / Factoring is used to hedge the export business through the use of international factoring
- Sonstiges: ______________________

9) Welche Factoringgesellschaften nutzen Sie? / Which factoring companies do you work with? *
- Factoringgesellschaft der Hausbank / Factoring subsidiary or -department of your bank
- unabhängige Factoringgesellschaften / independant factoring companies
- Factoringgesellschaft einer anderen Bank / Factoring subsidiary or -department of another bank
10) Wenn Ihr Unternehmen kein Factoring benutzt, worin liegt dies begründet? (Mehrfachnennung möglich) / If you company does not apply factoring, what are the reasons for that? (multiple answers possible)

☐ Zu hohe Kosten / The costs are too high
☐ Kunden lehnen die Factoringgesellschaft als Zahlungsempfänger ab / Clients do not accept a third party in the paying process
☐ Ein Imageschaden ist möglich, da die eigene Liquiditätssituation gegenüber Kunden als fraglich erscheinen könnte / The use of factoring might lead to a negative image due to the fact that clients could imply a bad liquidity situation
☐ Factoring könnte vom Kunden als Signal des Misstrauens bezüglich seiner Zahlungsfähigkeit aufgefasst werden / The use of factoring could be seen as sign of suspicion concerning the clients ability to pay their debts
☐ Das enge Verhältnis mit dem Kunden könnte verloren gehen / The strong relationship to the client may be damaged
☐ Sonstiges: ____________________________

Sollten Ihre internationalen Geschäftstätigkeiten (weiter) zunehmen, könnten Sie sich vorstellen von internationalem Factoring Gebrauch zu machen, um Forderungen gegenüber ausländischen Kunden leichter realisieren zu können? / If your international business activities (further) increase, could you imagine to apply international factoring in order to realise these accounts receivables more easily?

☐ Ja, auf jeden Fall / Yes, definitely.
☐ Ja, wahrscheinlich / Yes, probably.
☐ Eher unwahrscheinlich / Unlikely.
☐ Nein, ausgeschlossen / No, not at all.
Declaration

I, Benjamin Hegger, declare that his research is my original work and that it has never been presented to any institution or university for the award of degree or diploma. In addition, I have referenced correctly all literature and sources used in this work and this work is fully compliant with the Dublin Business School’s academic honesty policy.

Signed: B. Hegger  Date: 19.08.2015