



Does distance matter when banks lend to SMEs?

**A Case Study of Handelsbanken AB, in the Importance of Geographical Proximity in
Credit Management by Banks**

Handelsbanken

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Abstract

Increasing globalization results in that companies are becoming more rootless and complex. In this highly evolving global environment. The majority of Swedish small and medium-sized enterprises (SMEs) are in need of borrowed capital from banks to expand and develop, which consequently requires a great skill from banks to evaluate the loan applicant's repayment ability. At the same time, the Swedish banking sector is characterized out of consolidation and reduction of bank branches. This results in that the distance between lenders and borrowers is increasing all the time as banks systematically replace the physical contact they previously had with their corporate clients, with information technology solutions.

With this in mind, I believe it is interesting to examine what factors banks are actually looking at and assessing when lending to SMEs. Subsequently I will analyze if the information in the future could possibly be obtained solely from a distance. A major concern involves whether assessment from a distance leads to the same accuracy in the credit decisions, which historically has been accomplished by geographical proximity. If not, the supply of lending capital to SMEs might be jeopardized.

The study examines the process of credit management in Handelsbanken. The bank still emphasizing the Church Tower Principle, meaning that the Handelsbanken should be able to look out over their customers, which requires geographical proximity. By analyzing why Handelsbanken still emphasizes the local presence, this study contributes to a better understanding of the relevance of geographical proximity between borrowers and lenders. The study comes to the conclusion that increased distance leads to higher risk-taking by Handelsbanken, and hence, worsen loan terms or even leads to rejections of loan applications, as it becomes more difficult for the bank to verify the information analyzed for a possible credit. However, the essay does not conclude that the increased distance and risk leads to a reduction of all banks supply of lending capital available to small and medium-sized businesses, as the essay is written from one bank's approach and thus, the statement becomes difficult to generalize.

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Introduction and Background

In this section an introduction to this thesis and the chosen company for the case study are presented. Subsequently, the problem that arises with increased distance when banks are lending to SME is discussed, and the purpose of this thesis is presented including how the research distinguishes from previous researches. Finally the research questions and the limitations are stated.

In Sweden, as much as 95% of all businesses are classified as SMEs¹ (Small or Medium sized Enterprises) (Bruns, 2003). SMEs are therefore an important part of the Swedish business community as they play a vital role in the country's employment and for the economic growth. The most common financing option for SMEs is bank loans. In order to be granted a bank loan, the banks go through various factors of credit assessments, which they utilize to evaluate the suitability of the borrower. Hence, credit management is about how to select credit proposals and monitor the credit worthiness of the customer. The lending process must work as efficient as possible, in order to be able to grant credit to those companies that have the ability to pay interest, and eventually repay the loan.

A substantial part of the work of credit management concerns the limited access of information. From a geographic perspective; banks knowledge and information about markets and businesses, that was previously obtained from the proximity between banks and their corporate customers, are now successively being replaced in a more impersonal way of assessing SME: By increased use of models and computerized programs during the credit assessment derived from the trend of reduction of bank offices and consolidation among banks (Silver, 2003). Meanwhile, bank offices are becoming more scarce; particularly in Sweden where SMEs are characterized by increased internationalization and specialization, with ever-changing external circumstances to adapt to. There may be factors such as economic

¹ SME - The definition of a small or medium sized enterprise is when enterprises fulfills the criteria of less than 250 employed, a turnover less than 450 million SEK and a balance sheet of maximum 390 million SEK. (EC, 2010)

conditions, competition and changes in laws and regulations, which might have significant effect on whether a loan is granted, or not. Furthermore, these mentioned factors results in continuously changing bank loan conditions, resulting in increased pressure on banks credit assessment techniques and skills.

The asymmetric information, explained as a feature of uneven information between the lender (the bank), and the borrowers (SMEs), might emerge when banks no longer can rely on the same degree of personal reflection in form of local knowledge as they used to, which consequently could affect the supply of capital to SMEs. At the same time, it is possible that the technological development, and hence the increased use of financial data available from various information systems, is simply replacing the way of gathering information and is not resulting in asymmetric information and the reduction of SMEs supply of borrowed capital.

Handelsbanken (SHB), which is the investigative company in this study, still emphasizes the importance of geographically proximity to their corporate customers in order to maintain the quality of credit assessment. Unlike other banks, they are establishing additional local branch offices in Sweden, but also in other countries.

1.2 Problem Discussion

There have been earlier studies investigating the credit managements in banks regarding asymmetric information, and as well, geographical distance. Bergström & Xayadeth (2009), highlights in their master thesis the effect and weight of information asymmetry between banks and enterprises. They conclude that the lack of following-up initiatives by banks influences the asymmetric information resulting in adverse selection and unnecessary high-risk taking from banks. Kling (1999) is focusing on small firms and their relationship with banks in her thesis concerning credit management by banks. To overcome the perceived limited access to information caused by lack of following up initiatives, Kling (1999), develops a conceptual framework, "credit intelligence", on how banks should make the credit management fit with all different kinds of corporate customers.

Carling & Lundberg (2002) conducted a more narrow analysis in their work by Sweden's central bank by questioning the existence of correlation between credit risk and bank's geographical proximity in Sweden. They come to the conclusion that there is no evidence of increased credit risk derived from larger geographical distance and asymmetric information. They state however, that there are reasons to consider the pitfalls of the study. In their analysis they were unable to include credit dismissals when firms were applying for loans, as there is no such data available from bank registers.

Degryse & Ongena (2002), made a resembling study as Carling & Lundberg (2002), when trying to measure the correlation between distance and loan rates from more than 15,000 bank loans to small firms. Their report presents a discrimination theory in bank lending to small firms. According to Degryse & Ongena (2002), the asymmetric information and the distance do not sufficiently affect the banks credit rating of companies. The loan rate is instead highly affected by the competition between banks, in various areas. At more distant places, where fewer bank offices are established, it becomes unproblematic for the bank to offer a higher loan rate to companies compared to places with high density of bank offices, due to the increased price sensitivity derived from competition. Degryse & Ongena (2002) state that banks strategically reallocate resources, and hence offices towards their core market in order to protect the returns from information production obtained in that sector. As each bank's captive market segment shrinks, banks specialize further in their core market at the expense of developing lending relationships in more peripheral markets.

Persen & Rajan (2002), documents the increased trend of distance between small firms and lenders in their thesis. When distance increases, lenders are consequently communicating with the borrowers in more impersonal ways. The ability of this new way of communicating has to do with technological developments. Persen & Rajan state however that that the quality of credit management is remained.

Earlier studies have not been focusing on banks operational work of credit management when evaluating distant, complex and proactive enterprises. Former authors have come to different conclusions concerning the relevance of distance and asymmetric information when

evaluating credit risk. By reviewing some of the earlier studies, making an analysis by only incorporate statistic data does not provide a detailed study and might also turn out to be problematic due to the difficulties in incorporating all variables: According to Carling & Lundberg (2002), banks do not store dismissed loan applications electronically more than 12 months, which means that only a small fraction of the defaulted loan is incorporated in their study. Besides, banks are not generally willing to disclose these kinds of data. The distance range variable might also be considered as a pitfall in earlier studies; Carling & Lundberg (2002) study, incorporated only firms that were operating at most 300 kilometers from the bank. At the same time almost none of the loans were granted to firms more distant than some half an hour drive, resulting in the exclusion from all dismissed loan applications.

By focusing on the operational work of credit rating and management, when distance between lender and borrowers becomes greater, in a business market of increasing internationalization and complexity by smaller and medium sized businesses, this study will be able to emphasize and explain, or dismiss, the importance of the localization of bank's branch offices. The study examining why Handelsbanken, unlike other banks, still emphasize the importance of being geographically close to their customers, in a time where banking business is generally characterized out of consolidation, centralization, and hence increased distance to customers, which the technological developments have made possible.

The study will further investigate how the credit process and assessment changes, when the distance between lender and borrowers increases. If there is a systematic relationship between asymmetric information and the increasing geographical distance between banks and firms it might be of importance to the banks. The asymmetric information might imply a rising potential for moral hazards and amplified credit losses; consequently the supply of capital will depend on how banks are handling the asymmetric information and distance when assessing the operational risk. The thesis will shed light in a qualitative way on the association between geographical distance and credit rating of business loan applicants. The study will contribute to the earlier statistical and aggregated researches made, by providing results from a more individual level and strictly qualitative study on the subject.

The study will only be focusing on Handelsbanken, because of their different approach compared to other major banks when it comes to distance and credit management. The observation of credit applicants will be limited to only include small or medium sized enterprises (SMEs) due to the fact that these enterprises encounter special financing problems, derived beside from their own limited capital, the lack of official capital markets and hence, the dependence of bank loans.

1.3 Research Questions

- Does distance still matter for Bank lending?
- If the distance matter, does it result in asymmetric information?

2 Methodology

This section briefly presents different views and choices of the methods, including the pros and cons of these, when writing an essay. The section presents how information used in the thesis, including its credibility and how this thesis has been written to achieve the objective of the study.

2.1 Study Approach

According to Björklund & Paulsson (2003), all researchers have a basic worldview, a way to look at the world, which also can be implanted in the research. There are generally two ways of looking at knowledge in science: *positivism and hermeneutics*. Positivism is characterized by the researcher's study conducted from an objective view; hence, researcher's own values and basic assumptions are not reflected in the study. One advantage according to Björklund & Paulsson (2003) the positivist approach has is that, regardless of the observer, the survey always obtains the same results. This study could however, be seen as a hermeneutic research, aiming to develop an understanding on how the credit management process work. A hermeneutic research is characterized by a developing an understanding of how something works in a more subjective approach. The approach is based on how the researcher is interpreting a phenomenon.

2.1.1 Quantitative or Qualitative methodology

The two general methods, used in scientific work to collect data, is the quantitative, and the qualitative, method. According to Björklund & Paulsson (2003), the quantitative method is used in studies where information aims to measure, score or statistical processes, numerical observations. The exercise of mathematical models is according to Björklund & Paulsson (2003), frequently used in quantitative studies. The information and the data used is not affected by the researcher's subjective values and influences.

Qualitative methodology is on the other hand used when the researcher aim to create a deeper understanding and a more detailed analysis of a specific study area, which is the objective of

this study, and therefore also used throughout the study. The method is frequently used in situations that cannot measure, or is difficult to compute. According to Björklund & Paulsson (2003) the method often uses various tools, such as interviews, deeper analysis of sources and observations; hence the qualitative study is a relatively more in-depth research. The authors own values and interpretations are also reflected to a greater extent than in a quantitative study. Björklund & Paulsson (2003) state that reliability is about how trustworthy the measuring instruments are, and if the investigation would get the same result if another researchers would use the same methods and measuring tools at a later stage. At a qualitative research, as this is, it is difficult to ensure a high reliability due to the fact that the author's personality affects the investigation and outcome.

2.1.2 Deductive or Inductive approach

The study approach seeks to develop a theoretical frame to describe the empirical data as accurately as possible. Björklund & Paulsson (2003) affirm that the researcher can switch between a general theory and concrete empirical data on every second. This switch between the various abstraction methods is called abduction. There are two different ways of studying to develop theories, deduction and induction. The deductive approach is often used when a quantitative data collection method is present, and hence, not a proper choice in this qualitative study. The analysis leads to the assumptions or hypotheses regarding the topic of the study and hence, existing theories, by verifying the assumptions with help of own data obtained. The thesis is written from an inductive approach, which is characterized by first examining the existing theory regarding the subject and later on formulate own theories when the empirical data is gathered (Björklund & Paulsson, 2003). The inductive method aims to present a better understanding of the present issue. Unlike the deductive approach, the inductive method allows the outcome to be influenced by the author's own ideas and views.

2.1.3 Data Collecting

When collecting data in the research, Björklund & Paulsson, (2003) describe two commonly used concepts, primary and secondary data collection. In scientific work it is important to be aware that sources can be of different quality and not always applicable to your own investigation. The most frequent used concepts concerning a survey's credibility is reliability and validity (Björklund & Paulsson, 2003). An investigation should always strive for as an

high reliability and validity, as possible. *Primary* data is own obtained information, in order to use in this study. The data can be collected in various ways, but interviews, surveys, and experiments are the most common. An interview is according to Björklund & Paulsson (2003), a kind of hearing that can be obtained at a personal meeting between the interviewer and respondents, over the telephone or through e-mail. The proper choice of gathering the primary data depends on whether a quantitative or qualitative method used in the study, since the various interview formats penetrates different levels of the study area. A great advantage from information obtained by interviews is that the question asked is designed to suit the respondent essay, and hence, be directly useful for the present investigation. During this research, interviews have been conducted and the interview questions are attached in the appendix section of this thesis.

Validity is a concept that defines the extent of what is actually measured in the survey (Björklund & Paulsson, 2003). A proper choice of method and measuring instruments used in the investigation is necessary in order to increase validity. Several different methods and instruments that is used in the collection and processing of obtaining data can increase validity. The empirical data in the thesis will mainly be conducted through structured interviews. Meaning that all questions have been determined in advance and answered in turn, in order to increase the validity and not to affect the interviewer or respondents throughout the interviews. In addition, following-up questions have also been made to obtain a complete understanding of the respondents. According to Björklund & Paulsson (2003) it is important to be aware that respondents might be influenced by the interviewer, the temporary social situation, or of other psychological aspects, which might affect the material obtained from the interviews. The number of respondents has much to do, whether it is a qualitative or quantitative study. The latter, generally process a large number of respondents while the first is focusing on a smaller number of respondents who answer from a more in depth point of view. The respondents in this study consists of a few key people from three different levels, a central division, a specialist unit and the local branch office, in order to obtain knowledge from the whole process of credit management and to establish the relevance of geographical proximity. The respondents will not be mentioned by their real names as they wish to remain anonymous.

Secondary data are already produced data, which was originally developed for a purpose other than the present study (Björklund & Paulsson, 2003). Examples of secondary data might be literature and Internet. Secondary data can also be found at attendance of lectures and seminars, where information is not directed to use in the current study.

This study is starting from a strict theoretical point of view, based on literature studies including existing theories in the same or similar fields of studies, in order to present a good basic knowledge of the study area and hence, to create a theoretical framework. Secondary information from the Handelsbanken's strategies is mainly obtained from the banks annual reports. The existing economic theory and literature has mainly been used to support the author's own investigation and provided a solid base to the present investigation in a relatively short time and with scarce financial resources. Disadvantage of the secondary information is that the data used, may be biased; caused by the original author's views on the topic as well the present author's selection of various parts of previous studies. Furthermore, it is important to be aware that different sources might be out of date.

The obtained data are finally used for a qualitative discussion based on the study's objective by processing and develop the theoretical framework from the empirical material obtained from the interviews.

2.1.4 Generalizability

In scientific work it is important to be aware of and to consider, how the survey's results could be generalized. In other words, to move from the result, analysis and conclusion of a specific case, to a discussion that is relevant from a more global perspective (Björklund & Paulsson, 2003). A frequent criticism of the inductive approach, which is used in this study, is that the theory is created with the help of a certain empirical data. Hence, it can be difficult to generalize. The empirical data in this study of Handelsbanken is collected at a given time and in a certain context. Geographical proximity is an important part of Handelsbanken's strategy and it largely explains why the organization is constructed as it is. This fact makes the results from the study hard to generalize and the statement will therefore not be made.

3 Theoretical Framework

This part of the study presents the frame of reference as a basis for the following analysis and conclusion. The theory aims to obtain an understanding and knowledge on how the process of credit management works, and how distance might affect the lending.

3.1 Credit management

Credit management is about how to select credit proposals, and monitor the credit worthiness of the credit customer, at first approval and subsequent follow-ups initiatives. (Kling, 1999)

The main problem in credit management according to Svensson & Ulvenblad (1994) is connected to the limited access of information, especially in the case of SMEs. Banks' knowledge and experience as well as the customers' participation and sharing of information have been of great importance to successful lending. The globalization of markets, which refers to the merging of historically separated places into one huge global marketplace, can be said to derive from two macroeconomic factors, the decline of trade barriers and the technological developments (Hill, 2009). These phenomenon leads to a intensified competition and deeper specialization and complexity, but also a proactive viewpoint from the enterprises. Consequently a more intensified mobility and a less well-settled presence can be seen when investigating SMEs and banks development.

In addition to the increasing price competition, the resources for successful credit management (e.g., low level of credit loss) have decreased (Kling, 1999), resulting in service standardization. While standardization has reduced banks operating costs (e.g., monitoring costs), it has also reduced the banks contact and knowledge of their corporate customers, which could result in credit losses. The service standardization might make sense given that the customers are not willing to pay the extra premium of a more customized service. At the same time the knowledge gained from customization and close contact between lender and borrower can reduce credit errors, and therefore also the embedded credit losses (Kling, 1999). The process of credit management usually consists of gathering information, assessment of the information, decision of granting loan or not, follow-up initiatives and finally winding-up of

credit. The process should handle both quantitative and qualitative views, which includes numerous of factors which bankers easily are able to point out (Kling, 1999).

3.2 Information management

As mentioned earlier, the work of credit management is initially intended to identify and maximize the lending to firms that can fulfill their obligations and to repay the loan, and the opposite to firms that lack the ability of fulfilling their obligations (Kling, 1999). Banks ability to grant loans and therefore take on risk is however limited. When deciding whether the banks should grant credit or not, they usually follow a given credit rating process to investigate the companies' repayment ability. The most difficult part in this process is when deciding on how to gather relevant information and data concerning the applicant's repayment ability (Svensson, 2003). Hence, there is strong pressure on the solvency of the credit applicant company. It is of great importance to be informed in every actual business situation of each individual company, to avoid granting credits to businesses that will not survive in the market, and hence, commit a credit error, later discussed in the study.

3.2.1 Asymmetric Information

Svensson (1993) state that the most difficult part in information management concerns how to gather *correct* and *relevant information* about the applicants' repayment ability. According to Landström (2003), the information asymmetry could be explained as a feature of uneven information between the bank and the applicants during the credit process, and is considered as a significant factor when granting the loan. The asymmetric information risk may arise when the credit applicant withholds relevant information concerning its abilities, (imperfect information), or for that matter when the bank has obtained advantages in information by their superior skill of assessing debtors. Asymmetric information might also emerge when the purpose of the loan is separated from the credit agreement with the bank. According to Bruns (2003) by being close to its customers, banks are able to understand the applicants business and thereby provide services with high quality consequently the asymmetric information reduce. In theory, Milgrom & Roberts (1992), state that imperfect information and therefore risk averseness might generate a more expensive loan, because of the greater risk taking.

The asymmetric information and more expensive loans can result in two kinds of economic inefficiencies; moral hazards² and adverse selection³. These inefficiencies might prevent the credit market to function efficiently by attracting debtors with poor economic strength.

The most risky projects in terms of variance in profit are the only applicants that can consider the more expensive loan cost to be reasonable, because of the high probability of failure. To prevent the adverse selection, which is now occurring, banks might undertake more aggressive screening activities. According to Hauswald & Marquez (2002) banks are charging a higher loan rate to remote borrowers to compensate for the adverse selection problem.

However, borrowers located close to the lender but more remote to other bank competitors are also paying higher loan rates than the average (Degryse & Ongena, 2002).

Hauswald (2002) as well as other studies, have shown, that banks strategic reaction to increased competition among lenders pushes down the profitability caused by the increased price sensitivity. Consequently, the price sensitivity decreases banks incitements to invest in acquiring information. As a result, the amount of information decreases. On the other hand, as competition increases, banks strategically reallocate resources towards their core market to protect the information knowledge, obtained in that particular sector. Hence, banks specialize in their core market at the expense of developing lending relationships in more peripheral markets (Hauswald, 2002).

There have been numerous theoretical discussions concerning home bias and asymmetric information, way back in history “upon equal or nearly equal profit investors would be preferring domestic firms...” Smith (1776). Mavruk (2010) stresses the importance of local bias, concerning the preferring of both individuals and institutional investors when investing in firms closer to their proximity. The home bias can be explained both as the value and the distance proximity effect. In the research by Mavruk (2010) the local bias between the years

² Moral hazard occurs when the party with more information about its actions or intentions (generally the party that is insulated from risk) has a tendency or incentive to behave inappropriately from the perspective of the party with less information and hence the insulated risk may affect the loan applicant differently than it would behave if it were fully exposed to the risk. (Business dictionary 2010-05-08)

³ Adverse Selection refers to a market process in which "bad" results occur when buyers and sellers have asymmetric information, the "bad" products or customers are more likely to be selected (Business dictionary 2010-05-08).

of 2000 and 2008 in Sweden, turns out to play an important role in the choice of investments in equity.

3.2.2 Technological Development and the Relevance of Distance

Peterson & Rajan (2002) states that lending to SMEs has historically been very costly because of the lack of information and hence the high cost of employees required to obtain the information necessary. The use of information and communication technology, which could mean everything from computers and phones to credit scoring⁴, has however resulted in a transformation of how banks are able to manage information which includes anything from collecting data, process it, communicate it, and finally store it in various computer-based systems. Technological development has also resulted in an expansion of specialized information intermediaries such as rating agencies and credit bureaus, which can save on banks duplication costs of information collection (Petersen & Rajan, 2002).

3.3 The 5 C's

Researchers have developed various models, either qualitative or quantitative, in order to identify the probability of success or failure of a lending. Which model to emphasize depends on the nature of the applicants business. Generally, the models consist of the five factors of credit rating, the 5 C's. Each C's weight varies by the applicant's business nature, (e.g., a new started company has no historical data, which results in a more qualitative model) (Gustavsson & Lundin, 2008).

⁴ Credit Scoring – A process by which a loan applicant's credit history and characteristics are summarized in a credit score which forms the basis for loan approval (Petersen & Rajan, 2002).

3.3.1 Credit history / Character

The first qualifying report a bank reviews is the applicants credit report (if there exists one). It provides the history of current and past obligations from an objective view.

According to Peterson & Rajan (2002) unlike large firms, the information of SMEs available has historically been rather limited and hence, difficult to assess. As small firms do not raise capital in public markets they are required of disclose much information. Since lenders in the past did not store and distribute information by a central bureau as banks do today, much of the information assessed was of soft nature (e.g., whether the manager of a firm were of good character and reliable), rather than based on financial information which often reflects historical data and achievements.

Svensson (1994) stated that the most important factor is the character of the applicant. Three distinguishing aspects of the character are always observed during the credit assessment; *personality, skills and business motive*.

When banks are evaluating the applicants, the meeting most often is taking place at the local bank office. In addition, bankers often require a meeting at the applicants company. By reviewing the applicants company (e.g., personal, interiors, and cars parked outside) bankers might get an insightful view upon how the company is run (Svensson, 1994). References from former employees, and remarks of payment may also be viewed during the assessment (Andersson, 2001). It is important, however, to notice that the encounter between the bank and the loan applicant might be severely misleading when evaluating the companies' repayment ability. Social-psychological research has shown that encountering a person may seriously bias the processing of information. Generally, a good credit history, a healthy business history, and a strong relationship with the lender is to be considered as a trustworthy character (Garb, 1998).

3.3.2 Capacity/Cash flow

A banker's analysis often consists of the most ordinary key figures such as liquidity, solidity and the projects or business' cash flow, uncertainty analysis is also sometimes used. Some bankers believe that a zero-result budget as well as one optimistic and one pessimistic analysis would be useful in the creditworthiness assessment (Svensson, 1993).

Banks should also consider information regarding business conditions, such as forecasts about the market, economic growth and other macroeconomic factors when assessing a company's future repayment possibilities. Despite the importance of financial ratios, the figures should not be exaggerated; the management of failing companies might perform manipulative accounting in attempts to hide poor conditions. In addition accounting information can turn out to be false because of poor management ability or the fact that they rest upon historical data (Andersson, 2001). Enterprises in financial distress are also tending to make their financial statements publicly available a few, or several months after the end of the financial year (Andersson, 2001).

3.3.3 Capital/Commitment

A strong commitment is an important factor during the credit assessment. The managers and owners commitment is most often measured in own equity invested in the business. Hence, there is a positive relationship between a borrower's commitment and the likelihood that the loan will be repaid, and hence equity is generally required from the bank to grant a loan. Depending on the risk of the proposed venture, the requirement of equity however varies.

3.3.4 Collaterals

In the survey by Svensson (1993), collaterals are sequentially analyzed in the credit assessment only after the three other factors have been accepted. The major problem with collaterals is to establish the asset value, which can be anything from mortgage deeds to personal bailment. Because of the numerous different natures of collaterals, lenders have developed acceptable loan to value ratios for assets pledged toward loans. Generally, the term of the loan must match the useful life of the pledged asset.

Due to the fact that banks are not comfortable with assessing credit risk in a variety of bills to customers worldwide, at great distances; credit insurances are occasionally an instrument to facilitate negotiations with the lenders. The insurance business' concept is to bear credit risk but not lend money. According to Floda Risk & Finance (2010), the added value of credit insurance in the credit management consists of the separation of risk and capital; insurance companies bear the risk and the banks provide the capital supply. Credit insurances may provide a higher loan to value ratios, and better loan terms.

3.3.5 Conditions

A bank must also review other external and internal conditions, which might distress the applicant's repayment ability. The economic environment, changes in technology, industry and market trends, legal issues, and the company's strategies and experience of management are some of the conditions that a bank looks for in addressing the reliability of the loan application. Many banks and branches reject a certain kind of businesses that have poor risk ratings due to these factors. In addition most bankers' comprehension is that, they can only assess simple products and services on geographical close and homogenous markets (Svensson & Ulvenblad, 1994).

3.4 Risk and Errors

3.4.1 Credit Risk

Credit risk can be defined as the risk of the counterparty becomes insolvent and fails its contractual obligations (Floda Finance, 2010). By granting a loan, the bank express its confidence to the applicant company and it is often the beginning of a long-term business collaboration, where the aim from the banks point of view is to avoid credit losses and maximize the return of the borrowed capital. It is crucial for the deal to become profitable; hence, the income which mainly consists of interest must exceed the costs, which includes both management costs (mainly measured in time) and credit losses (Svedin, 1992).

It might be reasonable to state that bankers have an individual incentive from granting loans and therefore receive bonuses by the generated loan volume and the included risk taken. However, according to Andersson (2001), by interviewing more than 30 branch offices this is not the general case in Swedish banks. Bankers might be rewarded for the quality of granted loan, but they do seldom receive any bonuses for the volume of lending. In contrast they may receive reprimands if they grant loans to failure enterprises, which generates credit losses. A granted loan is generally not a single individual's decision; a so-called credit committee usually monitors the individual banker. This implication affects banks when they now are facing a more complicated credit management situation, both geographically and technologically. Banks in Sweden are however approaching this development with different strategies.

3.4.2 Errors of lending

The objective of the credit provider is, as earlier mentioned, to maximize the lending to firms that can fulfill their obligations, and the opposite to firms that lack the ability of fulfilling their obligations (Kling, 1999).

As table 1 presents, in the initial phase a type I-error is conducted when a bank rejects a credit proposal from a firm that is able to fulfill its obligations. A type II-error is on the other hand made, when granting credit to an applicant that cannot fulfill its obligations. If the bank decides during the following-up phase, to wind up the credit, a type III-error is conducted if the applicant company would have been able to fulfill its obligations. Finally if the banker decides to renew the loan even though the applicant is struggling with its already existing credits and the lender in a later phase goes bankruptcy, the banker is guilty of a type IV-error.

The credit dilemma occurs when banks try to reduce the type I and III errors by a more restrictive credit policy, but at the same time increases the risk of type II and IV, and vice versa. To make the proper decisions in this dilemma it is important to possess the right kinds of information in the initial phase and to be present and informed throughout the credit period. Hence, the credit management, in terms of the bank organization must support the decision process in an acceptable manner and the bankers must have enough experience and knowledge. This requires correct information in the initial phase, but also updated information, obtained by following-up and monitoring activities by banks, which subsequently in the text will be defined as *Credit Intelligence Systems* (Kling 1999).

Initial Decision

Following up Decision

Fulfill Obligations Bankruptcy

Fulfill Obligations Bankruptcy

Accept

	Efficient credit management	Credit losses Type II-error
Reject	Lost credit contracts Type I-error	Efficient credit management

**Keep/
re-new**

**Wind-
up**

Efficient credit	Loss. Type IV-error
Loss credit contract Type III-error	Efficient credit

3.5 Monitoring & Intelligence Systems

3.5.1 Monitoring

Monitoring and following up initiatives are essential to reduce type III and IV- errors, resulting in a low level of credit errors. When information is constantly updated the lenders can reduce the potential by acting quickly to stop further lending and demand repayment. By contrast, if the information is acquired after a long time, the borrowers assets might have worsened under poor management and other lenders might have seized anything of value (Petersen & Rajan, 2002). By being proactive and visit companies regularly from time to time, the lender also increases the chance to renew their successful loans. Renewal of credits is a natural step in the bank's relationship with its corporate customer and is needed both as the corporate customer expand its operations, but also when the company is struggling and need cash injections. However, it is crucial that the bank make sure what the renewing of the loan is intended for, as there might be a risk of occurrence of asymmetric information and moral hazards. The intention of the loan could be seen from various monitoring activities, mostly by financial statements, credit history, as well as how payments to external parties have been conducted by various credit disclosures. Disclosures might also protect the bank against adverse selection; struggling companies may have sought credit elsewhere. However, in order to verify the accuracy of the financial information, geographical proximity is necessary (Bergström & Xayadeth, 2009).

3.5.2 Intelligence Systems

Customer knowledge has always been considered to be the heart of successful credit management (Kling 1999). Customer knowledge includes everything from obtaining, processing and interpreting information in order to generate proper decisions when selecting and monitoring credit customers, without to prevent credit losses and rejections of customers that would be able to fulfill the obligations of credit agreement. Based on interviews in European banks, Kling (1999) have suggested a matrix (Table 2), explaining the need of both customized credit assessing and following-up initiatives when granting loans in order to reduce the credit errors. Customer characteristics and their situations are represented in the table in terms of customer complexity, customer change, and hence perceived risk. The complexity and need of change in the firm implies the degree of requirements on information

collection and analysis. Combining the information collection, analysis and perceived risk results in four major types of intelligence systems, which are represented in the matrix below.

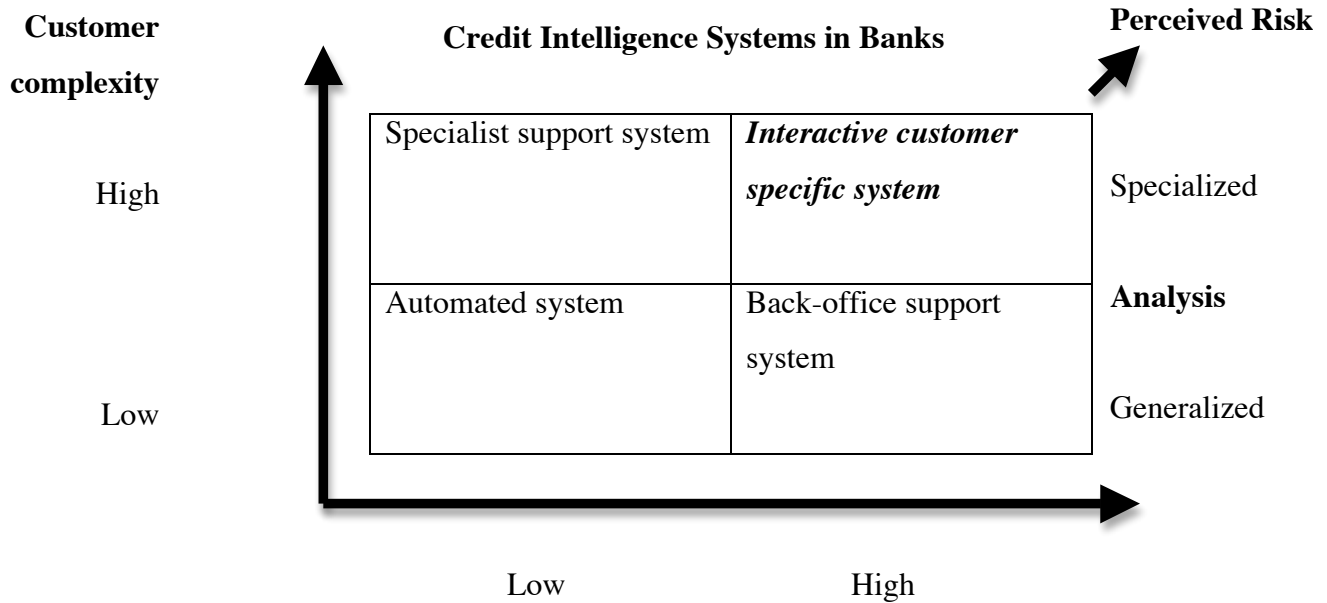


Table 2 : Credit Intelligence Systems in Banks

Source: Kling (1999, p.211)

In the case of complex and changing customers, the matrix reveals that close contact is necessary as the analysis requires specific knowledge and the information collection needs to be updated often. The interactive customer specific system makes it possible to the bank to both keep up to date what is happening, and to know enough about the corporate customer so that problems can be spotted early. However the cost of implementing this kind of system might be substantial for banks; sometimes even more costly than the following credit losses of an automated system (Kling, 1999). According to Kling (1999) one of the crucial findings during interviews of bankers concerning credit management and following up initiatives was that when complex and changing SMEs run into financial difficulties; banks tended to come in to the picture too late due to the lack of information, and warning signals. A majority of the interviewed bankers explained this by having too many customers, and too little time of required monitoring. Often the following-up initiative was made once a year or even less frequent.

4 Empirical Study

The empiric section provides a summary of the information and differences revealed in the case study of Handelsbanken, from three different levels; regional-, specialist- and a local operational-level. The choice of the respondents in the survey is motivated to achieve a complete as possible description and analysis throughout the credit process and the relevance of geographical proximity when lending to SMEs. The three departments chosen are independent of each other but the respondents' answers are assembled in the empiric study. Initially a brief description of the bank, the three departments and the respondents are presented to obtain an overview picture of the bank, and more specifically, the three departments the respondent represents. Sequentially followed, are the assembling of the respondent's answers and thoughts, presented in the same template as the theoretical framework.

4.1 Handelsbanken

4.1.1 Handelsbanks's History

In 1969 Handelsbanken was in a serious financial crisis. The management was resigned and in the early 1970 the decision was taken on a decentralization of Handelsbanken organization. However since 1972, after the organizational reform, Handelsbanken has achieved its objective of being more profitable than average for all the other listed banks in Sweden.

During the 1980s boom, the bank lending in Sweden increased unusually rapidly. A large part of the lending went into speculative investments, which as a result contributed, to the major Swedish banking crisis and deep recession. It was particularly business lending which caused the Swedish banks' huge losses. During the banking crisis Handelsbanken was the only one of the major Swedish banks that were not forced to discuss state aid.

In the early 1980s Handelsbanken followed its customers and started banking operations abroad. It was thought that the bank's success had to do with the decentralization and

consequently the local offices' geographical proximity to their customers that the organizational culture resulted in.

4.1.2 Handelsbanken Today

Handelsbanken currently has 461 branch offices in Sweden. In terms of numbers and geographical spread, this is more than any other bank in Sweden. Handelsbanken are also operating in 21 other countries, which makes them the Nordic bank with operations in the largest number of countries. Handelsbanken is today the largest lender to businesses in Sweden, with a market share of 26.8 percent. Their vision is to combine the strength of a large bank with local presence. Handelsbanken have no volume goals, neither in absolute figures, nor in market shares. The aim is to meet its customers' need in every location they are operating in.

Handelsbanken are convinced that a local presence is necessary to maintain a solid credit management work. (Handelsbanken annual report, 2009). The organization is highly decentralized, and the so-called church tower principle⁵ prevails; as almost all credit decisions are made as close to the customer as possible. The bank motivates the local presence by stating that local branches have the best knowledge of the customers and their local market. According to the Handelsbanken's annual report (2009), high cost-effectiveness allowed Handelsbanken to retain a local presence where other banks have closed their local branches. A clear division of responsibility characterizes the bank. The local branches, as well as each business unit, bears full responsibility for its business and risk management and the following problems that might occur from a granted loan. According to Handelsbanken, this fact contributes to strong incentives for high-risk awareness and for caution in business operations. The responsibility of granting bigger loans is supplemented by the local risk management in the various business areas and in the regional banks, to ensure that unnecessary risk-taking is avoided in individual transactions or local operations. Handelsbanken include a few special units with expertise in selected areas to contact for complex credit issues. In addition, external consultants are also sometimes used by Handelsbanken (Olsson). Due to the bank's decentralized organization most decisions are however made at the local branch office.

⁵ Church Tower Principle - credit should be given primarily to customers living and active in the neighborhood

Population	Handelsbanken	SEB
200-1000	7 %	3 %
-2000	10 %	2 %
-3000	7 %	0 %
-4000	5 %	5 %
-5000	5 %	4 %
-6000	4 %	3 %
-7000	2 %	4 %
-8000	3 %	2 %
-9000	2 %	2 %
-10000	2 %	2 %
-15000	6 %	7 %
-20000	4 %	6 %
-25000	3 %	4 %
-50000	6 %	9 %
-100000	7 %	10 %
>100000	27 %	37 %

Table 3: Banks' share offices in cities of different sizes
 Source: Compilation of data from the Swedish Bankers' Association (2003), and SCB (2000), by Olsson (2009) p.140.

In Sweden, there are about 1 223 urban areas with between 200 and 1 000, inhabitants, however, only 147 (12 %) of the urban areas are surrounded by a local bank office. About 70% of all towns with more than 1,000 residents have at least one local bank office (Olsson 2009). As statistics show, local branch offices⁶ in Sweden are generally only localized in urban areas and not in smaller and more remote localities. Table 2 is representing the percentage of Handelsbanken's and SEB's total number of offices. As the table shows, the location of Handelsbanken's local branch offices compared to SEB's is characterized by a more dispersed location of the bank offices to places with a small population, unlike other banks that focus on places with a bigger population.

⁶ Smaller localities - Places with fewer than 200 inhabitants.

4.1.3 Branch Office Långgatan

From the operational level, and thus from the perspective of the local offices, an interview has been conducted with a business advisor (who wishes to remain anonymous, but goes under the pseudonym, Eva Enqvist) Enqvist has worked within the bank sector for nearly 14 years. She previously worked at Nordea bank, before her career as business advisor at Handelsbanken's local office on Långgatan in Gothenburg.

The local office on Långgatan's clientele consists mostly out of corporate customers. The bank office is geographically located close to many of Gothenburg's famous shipping companies. This has resulted in that the office's staff today possesses deep knowledge in the financing of these types of companies. In addition, the office has successively built up a considerable network of contacts within the shipping industry. (Enqvist, 2010)

4.1.4 The credit Department

Jörgen Ingermarsson (a pseudonym) who works as a credit analyst at Handelsbanken's regional credit department in Gothenburg represents the regional special level in the empirical framework. Ingermarsson began his career at Handelsbanken already at age 18. Ingermarsson has previously during 30 years worked as a bank manager in six different local offices in Sweden. The regional credit department, at which he is currently stationed, consists of 20 employees. The regional credit department is among many other things responsible for identifying risks in major credit commitments, and hence, it offers support and advices to the local offices. Their job is to evaluate companies' and individual's credit applications. Usually, the credit files are of magnitude 10 millions SEK, or more, but because the office managers' and business advisors' credit limit is individually set, based on experience and market condition.

All the region's local offices are in contact with the regional credit department, but only after the bank offices themselves have made their evaluation, where both personal reflections and financial information are considered when to assess the company future resilience and ability to repay the loan. When the credit application reaches the credit department, only financial information is being emphasized (Ingermarsson, 2010).

If the application from the credit department is being avowed, further contact between borrowers and lenders is always made at the local office; thus, the local office always becomes the loan applicant's future bank contact, and the credit department is generally never in contact with the banks corporate customers.

4.1.5 Handelsbanken Finance

Bo Olsson (a pseudonym) is working as a regional manager at Handelsbanken Finance and represents the specialized level in the survey. Throughout his career he has been working in the financial sector in a variety of different companies.

Handelsbanken Finance AB is a wholly owned subsidiary of Handelsbanken, and is running closely with Handelsbanken's local branch offices. Handelsbanken Finance operates in Sweden, Denmark, Finland, Norway, Britain, Poland and China. (Handelsbanken Finance Annual Report, 2009)

Handelsbanken Finance is a special unit within Handelsbanken and its aim is to increase Handelsbanken's ability to establish lasting and profitable relationships with clients by delivering a high level of service. In the past, Handelsbanken Finance has mainly focused on how to improve the service for customers and for Handelsbanken's branch offices in order to obtain a more efficient credit management. In addition, Handelsbanken Finance is actively looking for profitable companies, but seldom takes the final credit decisions themselves. Instead, the companies are being referred to the various local offices in Sweden and after that Handelsbanken Finance has set the stage for further business cooperation. The local bank offices are hence never neglected (Olsson).

4.2 On the Credit Management

The first thing Handelsbanken look at, and come in contact with is usually the owner of the applicant company. The owners' credibility combined with a realistic business strategy benefits for a further deepening; hence trust is crucial (Olsson). The initial contact is made primarily on the customer's home area, to obtain an accurate picture of how the company is operating. Without this physical contact the applicant company's repayment ability and economical resistance is very difficult to assess. "Business is human relations that generate an understanding of the credit applicant's business concept" (Olsson). If Handelsbanken Finance considers an applicant company to be well managed, and there is potential for solid credit worthiness, the company is being referred to one of the bank's local branch offices.

4.3 On the Information Management

If the bank decide to bring in a new customer into the bank, Handelsbanken sets very high demands on the applicant. The bank's scoring models reflect two dimensions, financial strength and resilience, which is graded from one to five (Enqvist). The scoring models require at least a score of two, in each perimeter. In addition, in the absence of the natural contact between lender and borrower, and hence understanding, additional emphasis will be put on the scoring forms (Enqvist).

4.3.1 On the Asymmetric Information

Olsson argues that openness between Handelsbanken and the borrower, leads to insight on what the loan is really meant for, as sometimes the information obtained from the customers is not always accurate and correct. Given that the information Handelsbanken will take part of is often misleading, geographical presence is required in order to verify the accuracy of the information that the bank receive (Enqvist). Ingermarsson emphasize the importance of the government's consultation on the suppression of the audit duty , which is likely introduced in August 2010. Resulting in that the financial information, today obtained through annual reports and financial statements concerning smaller limited companies, will not be as reliable as before. Hence, according to Ingermarsson, the geographical proximity to SMEs will be of increased importance in the future in order to assess companies, and to verify the financial data.

4.3.2 Technological Development and the relevance of Distance

According to Olsson, much of the work of credit management revolves reactivity from the Bank's side. Often it is Handelsbanken, who seeks for potential business clients.

“Geographically remote businesses might therefore sometimes be forgotten, but if it is a good company, we will usually have an eye on it, since we are able to find documented performance from our various computer systems” (Olsson). Large distance to the client, emphasize the requirement of financial data (e.g., various credit report). The interest coverage ratio is what the bank typically measure and in low margin industries, sensitivity analysis is also commonly used (Olsson).

Handelsbanken is considering technological development as an opportunity to further decentralization. Through the Internet, local offices can develop their own websites for the local market and thus target specific messages to their local market and their corporate customers (Handelsbanken Press release, 2001).

The aim of Handelsbanken Finance is according to Olsson, to assess the applicant company's future prospects, which might be hindered by distance. Many cases require a permanent presence to be able to perceive the warning signs and consequently achieve high quality in the work of credit management. Handelsbanken Finance does not take the final credit decision; the unit is occasionally providing the foundation for the intended transaction through Handelsbanken Finance special skills (Olsson). Further contact with the loan applicant is however always made at the local branch when dealing with SMEs.

Ingermarsson, with experience from both personal local banking and expertise in impersonal credit decisions, also emphasize the importance of local proximity: Technological innovations can never completely replace and substitute the physical presence. To grant loans to a new corporate customer without physically visiting the company is according to him a professional misconduct. A complete credit evaluation can never be made by only incorporating financial data obtained from technological systems, since it do not reflect the future repayment ability and resilience, in the same way as the personal interaction between borrower and lender do.

4.4 The Five 5 Cs.

According to Olsson, (2010), all the components which might affect a company's repayment ability are important for a complete overall assessment. However, which component to emphasize depends entirely on the nature of the business. Enqvist (2010) state that there is room for individual-based credit ratings, but as business advisers, you often work along the completed scoring form, which leaves little room to subjectivity.

4.4.1 Credit history / Character

According to Olsson (2010) there is definitely a difference between assessing a nearby company, in contrast to a distant one. Proximity leads to insight and knowledge. Historical data is becoming more crucial in the case of distant companies. Proximity to the customer increases the understanding of business operations, and the market, which is a basic requirement for a good initial decision, and required for a proper following-up to the customer. Enqvist (2010) believe that a sole proprietorship is the most difficult form of enterprise to credit assess, as very little data exist, which in turn places high demands on the character behind the loan application to enable Handelsbanken to provide the credit. This factor is seriously affected by the presence of large distances between lenders and borrowers, which consequently results in absence of physical contact. Olsson states that Handelsbanken is very selective in their choice of corporate customers, and emphasizes transparency between lender and borrower. Transparency is achieved early in the credit process by communicating the existing conditions of a possible bank loan. According to Olsson, the retrospective positioning itself, can otherwise easily be interpreted as a sign of disapproval towards the loan applicant.

According Ingermarsson, the entrepreneur who often leads the smaller company is very crucial to its ability to survive in the long-term. Since bank loans are often extended over a longer period of time, it is important that the contractor is still present in the company during the loan period. Ingermarsson state that it occasionally might be relevant to the loan applicant to take out life insurance if the bank finds the character's presence in the company is critical to its repayment ability. In order to make these conclusions concerning the character, geographical proximity, and physical contact is necessary.

4.4.2 Capacity/Cash flow

The respondents unanimously believed that cash flow is the most important component of the 5 Cs in the work of credit assessment. Without a solid cash flow, no long-term survival, and hence, no loan agreement. It is of importance however to stress, irrespective of the company's securities, that the bank must believe in the business idea (Olsson). According to Ingermarsson, if a loan applicant is showing increasing negative cash flow, one must convince the bank that a change in the cash flow is likely. However it is important that a company does not present unrealistically optimistic forecasts. Since deviations from forecast disadvantages the bank's trust, as well as a precise forecast favors the bank's confidence.

4.4.3 Capital / Commitment

As earlier mentioned there is a positive correlation between a borrower's commitment and the likelihood that the loan will be repaid. The commitment is most often measured in the form of own equity invested in the company. "When granting loans to municipals, the applicant is not in need of any own equity invested, derived from the governments repayment ability and consequently the low risk taking from the banks point of view" (Olsson).

4.4.4 Collaterals

Olsson argues that the need of collateral is reduced for applicants with high repayment, while a good collateral can never outweigh bad repayment ability. Mortgage of property is however an example that can be considered as a good safety, but when lacking confidence to the customer, Handelsbanken, must still not go into to business with the loan applicant. When evaluating technology and knowledge companies, there are usually not much collateral in the form of assets. Customer receivables are basically the only thing that can be ensured in knowledge-based companies. Olsson states that for distant companies to be granted loans, or obtain better loan terms, *credit insurances* might be a solution. Remote or complex loan applicant firms, and hence more risky companies, in need of capital, can sign credit insurances and consequently achieve a better loan situation. The insurances are provided from various companies (e.g., ECB⁷ and Euler Hermes). Olsson personally believes that credit insurances will become more common as enterprises due to the globalization are becoming more mobile

⁷ ECB - Export Credit Board

and complex resulting in increasing credit risk. Handelsbanken Finance is however not using such insuring tools, due to the fact that they are operating in a low marginal branch and insurances are costly (Olsson). Handelsbanken Finance is however encouraging loan applicants' to sign credit insurances, which consequently could reduce the uncertainty in for example, accounts receivables. In addition, it is important to be aware of that Handelsbanken do not provide risk capital (Olsson).

4.4.5 Conditions

Credit records and other types of enforcements, might provide an accurate picture of how the company is operated and is performing. But according to Enqvist it is important during the credit process, to be able to question the loan applicant, in order to gain a better picture and understanding of the company and what the loan is actually for. However in order to do so, the bank requires knowledge of the industry. "It is about understanding the product and the industry" (Enqvist).

Within Handelsbanken there is basically no industry specialist to contact, due to the fact that Handelsbanken is a decentralized banking, and thus channels most of the responsibility to the local branch office. Enqvist, who previously worked at Nordea, where industry-specific specialist units were available, explains that these units functioned as a supplement to the individual business adviser, in situations of complex products/services or special industries. "If you are not familiar with real estate industry and the reason to its low equity ratio management, it becomes difficult to grant a loan" (Enqvist).

Olsson also emphasize the occasionally need of external and environmental analyses. When Handelsbanken is dealing with environmentally hazardous enterprises, which are operating in a risky business with many variables to consider, an environmental analysis might be required. In addition the overall attitude and standpoint toward finance of Handelsbanken when it comes to for example environmentally hazardous enterprises might be required (Olsson).

Ingermarsson do not believe Handelsbanken should be detailed familiar with all types of industries and companies, as many are very complex. Rather, it is about understanding the big picture and how the company is conducted. "Neat and tidiness at stores says a lot about how

the company is handled, and consequently might reflect how the bank loans will be considered.” It is the office manager and the business advisors responsibility to familiarize themselves with the companies. If it concerns large bank loans, the credit department will be contacted only after the local office has formed their opinion. Hence, all business is local, but the credit department might in some cases, have more financial experience (Ingermarsson).

4.5 The credit risk and Errors of Lending

Basel II, is according to Olsson, resulting in price differentiation of loans, as there are branch-based quotas on equity requirements. Ambivalent industries and companies must therefore pay an additional risk premium, which is also the case for companies with large distance to nearest branch office. According to Enqvist, the effect of committing a Type-II error is of more significance compared to a Type I-error, from the individual creditor's stance. Without further ado, the individual creditor is easily singled out as a scapegoat.

Ingermarsson believes that it is about evaluating a company from the existing data and contacts gained. If a credit denial later is revealed to be incorrect (A type I-error) when the applicant are showing very good results and hence, repayment ability; the creditor should not blame himself, when he or she has probably made the right decision given the information that was initially available. The lack of relevant information is generally not derived from financial data, but on the “feeling” that the local office obtains mainly by geographical proximity. The respondents consider this hard to explain, but they said it was derived from experience. However, from the long-term business perspective according to Olsson, Handelsbanken is depending on profitable clients, which might, in the long-term, be jeopardized by systematically making a Type I error; rejecting credits to potentially lucrative customer. Olsson considers Oktogonen⁸, to promote a long-term objective and hence, not to only focus on the short-term view, usually caused by the risk averseness from making a type I-error.

⁸ Oktogonen is a profit foundation that is controlled by the Swedish Business Bank staff. Oktogonen was formed in 1973 and is today is Handelsbanken's largest shareholder (approximately 10%) of the shares. If Handelsbanken accomplishes a better result than compared with other commercial bank, the bank will make a deposit of shares to Oktogonen. When the employee reached the age of 59 the shares can be realized (DI, 2010).

4.6 Monitoring activities & Intelligence Systems

4.6.1 Monitoring

Handelsbanken is constantly monitoring the loans granted. Partly through computer-based systems that signal to the local branch office if a client's credit rating is changing (Enqvist). Olsson states that warning signs of changing conditions may for example be record-of-non payments, negative cash flow indicated by reduced balance on the Bank account, and changes in various ratios which leads to insight. "As a universal bank, we want, if possible, to make all the client's business' and thus induce him or her, to become "whole customers", which as a bonus is resulting in an intensive and detailed monitoring system" (Olsson).

Enqvist mention from a more operational level that when a corporate customer is trying to avoid the bank, or behaves under stress, this is also considered to be a warning signal. According to Enqvist the monitoring of the corporate customers is mostly obtained from Handelsbanken's intensive contact with their clients, that they always strive to achieve, and is articulated mainly through the geographical proximity that Handelsbanken have for the vast majority of their business clients. In addition the frequency of the banks's visits and monitoring initiative is adapted to the level of risk that the bank consider the loan to be.

Enqvist argues that since lenders and borrowers are mutually dependent of each other, it is also in their mutual interest to achieve transparency between the parties. If large distances exist between the parties, they should try to meet halfway. By transparency, corporate customers will consequently benefit from better loan terms, and the bank will benefit from the reduced risk level, achieved through better control and monitoring of the loan.

According to Ingermarsson, since bank managers and the local offices are responsible for its financial results, it consequently has to bear the resulting losses of a failed loan. Which might result in a counterbalance to the objectivity that would otherwise be jeopardized by the relative close contact to corporate customers the bank offices often enjoys.

In addition, Enqvist argues that the objectivity in the credit process is achieved precisely from the close relationship with its customers Handelsbanken has. Close relationships generate

transparency and openness between the bank and its clients, and consequently results in better control and monitoring and consequently better results.

4.6.2 Intelligence Systems

Business responsibility, including the monitoring of granted loans, is primarily the local branch office's task, which enjoys the closest contact with the customer (Olsson).

Handelsbanken Finance and other specialist units may however be requested from various branch offices, to make following-up efforts on the basis of their specialist expertise.

Enqvist states that the local branch office gradually become specialists in certain types of companies that operate on their local market. Proximity to the customer is therefore according to Olsson further underlined, as well as the assistance from various specialist units, to facilitate the quality of credit management. Some specialized knowledge in a particular type of businesses is however, incurred by an interest from an individual credit analyst. Enqvist believe that a certain type of industry specific units within Handelsbanken would be desirable to contact for support when dealing with highly complex and changing enterprises. However, according to Ingermarsson, by contacting these special units as soon as it comes to advanced and complex enterprises, the local office risk to lose touch with interesting and profitable companies. Often the entire business responsibility is taken away from the local office when in contact with regional and central units. Without any incentives, the desire to attract profitable enterprises disappears and as a consequence, the overall result will suffer (Ingermarsson).

5. Analysis

The analysis is structured through a feedback of theory and empiricism.

The chapter compiles the responses obtained from interviews with the theory presented and are sequentially analyzed. The analysis will follow the same outline as earlier parts have been presented.

5.1 On the Credit management

At the same time as banks have pointed out the importance of proximity between lenders and borrowers to maintain the quality concerning credit giving; the trend of several major banks reducing their numbers of local branch offices in Sweden is continuing. Handelsbanken has however not followed this trend. They have systematically increased the number of branch offices, as they believe that the “branch offices are the bank”. According to Handelsbanken Annual Report (2009) it is the local offices who knows the local market best, and is consequently the most appropriate to take credit decisions. Hence the local presence and decentralization is considered very important. Hence, the office is the bank (Handelsbanken Annual Report, 2009).

As businesses become increasingly international and complex, the respondents in the research emphasized the importance of banks being active and thus attract the companies that they believe to be profitable in the future, to achieve good credit management. In order to do so, an understanding of the industry and the market businesses are operating in, is required.

Consequently; it becomes easier to focus on the local market. This might however result in that geographically remote enterprises could easily be forgotten. The respondents believed that despite geographical distance, banks succeed to pay attention more distant companies from the information stream various databases offer. But in order to verify the accuracy and enhance understanding of the information analyzed for the following credit decision, the importance of being geographically present was highlighted.

This might explain why Handelsbanken is relatively decentralized compared to other banks. Branch offices with its bank managers are the most knowledgeable of the local markets and consequently the most appropriate for the final decision.

5.2 Information Management

5.2.1 On the Asymmetric information

The lack of information makes the credit process more difficult and more risky. Often this risk is compensated with an additional loan premium. Information may sometimes be less reality-based, or simply too complex for banks to understand. Awareness, in the meaning of knowledge of the applicant company's strengths, weaknesses, market conditions and growth opportunity, might therefore become essential for a high quality credit management.

Capital request usually bottom in either the expansion of present operations or capital injections in order to not go bankrupt (Svedin, 1999). The respondents stressed that openness between firms and banks leads to insight on what the loan is really meant for, as sometimes the information obtained from the customers is not always accurate and correct. According to Svedin (1992), entrepreneurs and business leaders tend to be overly optimistic when it comes to business valuation and estimation of future income. It is therefore crucial from the banks point of view, for a credit assessor to possess understanding of the product/service and the firm from a market perspective. The ability to verify the accuracy of the information that the banks assess is crucial to ensure that the quality of the credit rating is maintained. Without the physical presence, the verification process becomes difficult. The verifying by Handelsbanken is achieved as consequence of the banks decentralized organizational structure.

Without close contact between borrowers and lenders, Handelsbanken and other banks might endanger themselves to systematically making credit errors (see figure 1) when evaluating the borrowers' creditworthiness on the basis of ambiguous information.

5.2.2 On the Technological development, and the Relevance of Distance.

In agreement with theory, the respondents confirmed that information and communication technology had changed the process on how to manage relevant information in the credit

process. Information, which could only in the history be obtained by geographical proximity, is now instantly acquired from various technological instruments, such as data based systems. According to literature, the technological developments have consequently reduced the importance of distance between lenders and borrowers. In addition, when information is timely, a lender can reduce the credit losses from a borrower's moral hazard. Handelsbanken however, consider technological development as an opportunity to further decentralization, and hence, still emphasize the importance of local presence. Through the Internet, local offices can develop their own websites and target specific messages to their local market and their corporate customers, consequently, technology is not a substitute to the local offices but instead a support (Handelsbanken Press Release, 2001). The "Church Tower Principle" might therefore be said to have become digital, when the use of new technologies has intensified the local branch offices' influence on the local market.

In the past, according to Petersen & Rajan (2002), only those with flawless credit history could borrow at distance, when there was no way for a distant lender to anticipate when a borrower was in trouble. In addition, it was very costly to resolve distress at a distance. The increased use of technological instruments when gathering information might therefore increase the supply of capital to geographical distant SMEs in the future. At the same time it might result in increased existence of adverse selection, when today lower quality borrowers are able to get credit at distance, due to the fact that information costs are lower and timely interference is now doable.

5.3 On The Five Cs

Banks capacity to determine a company's repayment ability requires necessary information to evaluate the customer's future economical performance. Each company is however unique, resulting in, credit assessor partly intuitively select different criteria' when assessing companies. According to the respondents there is a general frame of components to use during the information management and credit decision. This frame of components resembles the simplified 5 C's model used in the theory part; which component to emphasize, depends heavily on what kind of business being assessed.

5.3.1 Credit history / Character

As small firms do not raise capital in public markets, they are not required to disclose much information. Consequently, when there is a lack of historical and financial data, the respondents considered the character to be of crucial importance in the work of credit management, when dealing with SMEs. Confidence is something that is largely built up after several meetings with the entrepreneur according to the respondents. As the relationship between the Bank and the borrowing firm develops; the trust between them increases. Without a relationship, the respondents have to lean solely on financial information such as key figures and historical data. The respondents emphasized the importance of transparency between lender and borrower, which was mainly achieved from proximity, as it leads to insight and knowledge. The respondents unanimously underlined the personal feeling, which they found difficult to concretize, on what they actually looked at, but declared that it is about bankers experience and routine. However, in order to follow this instinct based on experience one has to know the product or the company. Consequentially, as distance becomes greater the supply of capital from Handelsbanken to SMEs is affected negatively.

5.3.2 Capacity/Cash flow

Consistent with the theory, the respondents confirmed that the most crucial factor for a successful loan agreement was the capacity of the applicant business in form of key figures. Handelsbanken's ability to take part out of these relevant parameters, such as cash flow, required no geographic proximity. However, the key figures must be treated with caution, due to the fact that information asymmetries might exist, and thus, might manipulate the data available for banks, obtained from various technological system and services.

In order to overcome the asymmetric information that may exist and to verify the accuracy of the information, part of the solution might be the proximity to the customers and hence, the insight concerning Handelsbanken's corporate customers. The geographical proximity and customer insight is a consequence of the banks highly decentralized organizational structure. Without any local presence and insight, the credit assessment quality might presumably be jeopardized.

5.3.3 Capital / Commitment

A strong commitment is an important factor during the credit assessment.

When it comes to knowledge-based companies, it becomes problematic for the bank to measure the value of the human capital available within the company. In general according to the respondents, one cannot usually borrow money with knowledge as a security (human capital) and thus, from a financial point of view, it becomes difficult to grant loans, resulting in a considerable sum of own capital invested from the knowledge intensive company.

Depending on the risk of the proposed venture, the requirement of the equity varies. The newly established Basel II, a risk sensitive capital requirement, which serves to reflect the underlying risks, has put more focus on the operative risk (Henriksson, 2007). According to the respondents, this phenomenon is resulting in price differentiation of loans. Ambivalent industries, and companies which are all difficult to assess, must pay an additional risk premium, which is also the case for companies with large distance to nearest branch office.

5.3.4 Collaterals

The applicant business is of crucial importance in banks requirement of collateral. According to the respondents, a seemingly risk free-project or enterprise is obviously more attractive to finance than a risky asset, regardless of the collaterals. As firms gradually become more knowledge intensive and international, the banks' credit collaterals disappear or might be too complex for the bank to assess. Credit insurances under these circumstances may be a solution and might compensate for the banks increased risk taking. According to Marquardt (1994), the difficulty of credit assessment of distant firms has been proven to be the main reason of Swedish bank presence and establishment, abroad. Hence, banks are following its corporate customers to minimize the risk taking.

5.3.5 Conditions

Changes in the economic environment, technology, industry trends, market trends, competition, legal issues, and company strategies, are all conditions that a bank has to consider when addressing the credit reliability of a borrower. These factors might affect and distress the applicant repayment ability. Much of the increased focus on external conditions has to do with the changes on the legal arena, which is constantly revised, e.g., Basel-agreements, which place high demands on the resilience of the banking system.

In addition, the respondents emphasized the importance of the government's consultation on the suppression of the audit duty, which could result in that the financials would not become as reliable as before, which emphasized additional importance of proximity to the corporate customers.

5.4 On the Risk & Errors

According to Kling (1999), risk averse behavior, which the fear of making a type II-error result in, may be considered as an individual feature but banks might also prefer to hire such risk-averse person and it suddenly becomes an institutional factor (Kling. 1999). From the respondents answers it is obvious that bankers are most concerned with a Type II-error. Such an error might damage their future career. While a Type I-error does not have the same evident impact on the individual banker as there are no statistics on rejected loan applications. However, a Type-II error might in the long term endanger the bank's profitability when bankers are being too selective in their choice of corporate customers. In addition, it could also result in the reduction of the capital supply, which is crucial for the survival and expansion of SMEs and also for Sweden's continued prosperity. Since Handelsbanken as well as other banks do not provide risk capital, Ingermarsson believed that a Type I error was not as serious as committing a Type II error, since the lender can only analyze the information available. However unless one can actually understand the information available, banks might risk to wrongly misinterpreting the information. Consequently the perceived risk might be derived from banks' lack of sufficient knowledge. If so, then the risks are solely perceived, and hence, not genuine, which also might be the case when great distance occurs between lenders and borrowers.

5.5 Monitoring & Intelligence Systems

5.5.2 On the Monitoring and Warning Signals

By constantly updating the information concerning the credits, banks are able to reduce the potential credit loss by quickly prevent further lending and hence, demand repayment. As well as renew credits to lucrative corporate customers. The following up credit errors-III &-IV, are hence highly affected by a solid monitoring system. Handelsbanken's monitoring system, and consequently the updating of relevant information has been explained in various ways. The common standpoint, however, was the significance of geographical proximity, explained in different ways. The special units within the bank argued that the monitoring activities of Handelsbanken when lending to corporate customers was mainly based on data systems, which constantly were revising business customers' credit rating. The monitoring system's existence however was a consequence of attracting corporate customers to become "whole

customers” and hence, obtaining a detailed monitoring system. The geographical proximity the decentralized organization offered was considered to be crucial in order to be able to offer different services and hence building up the monitoring mechanism. The local office accentuated that warning signals might often ascend from physical contact with the business leader. When dealing with geographically close companies, the professional business relationship Lender – Borrower must however not be jeopardized by an overly close relationship. Objectivity is essential to make the right decisions for credit management and observe potential warning signals. This in turn places heavy demands on standing up for the current policy that Handelsbanken has due to the bank’s strategy of proximity to the customer by the banks decentralized organization. The respondents on the other hand, considered that the objectivity was achieved precisely through the close relationship with its customers Handelsbanken have. The close relationship generated transparency and openness between the bank and its clients, which consequently resulted in better control and monitoring and hence less credit errors. In addition, since bank managers and the offices bear the responsibility for financial results from its loan portfolio, the responsibility might result in a counterbalance to the subjectivity that might otherwise be jeopardized by the local offices close contact to its corporate customers.

5.5.2 On the Intelligence Systems

Various geographical locations in Sweden are often compiled of industry-specific clusters. These clusters arise partly from ordinary causes such as natural resources, but also from the fact that competition tend to generate a flow of information resulting in further knowledge among firms and hence attract competitors in the same line of industry. Figure 2 is reflecting the certain need of expertise when handling with complex and changing SMEs (Kling, 1999). Hauswald (2002) explained that specialization from banks could be derived from increased competition among banks and thus tightened interest rate margins, which consequently is leading to banks’ tendency of defending the industry-specific areas. As a result banks might set higher interest rates due to its superior knowledge and expertise in financial solutions in a certain industry, compared to other banks and branch offices. However, the respondents in the research disagreed on this way of looking at different Bank offices’ specialization; they believe that the industry specific clusters are resulting in that local bank office becomes specialists in a certain type of industry. Hence, the Intelligence Systems, or the local branch

office's industry specific knowledge, is highly market driven and not a strategy in order to be able to set higher interest rates. Handelsbanken (2009) believe it to be important that the credit decisions shall be made as close to the customer as possible and the so-called church tower principle shall prevail, as the local office knows the local market and its players.

Handelsbanken's local office at Långgatan, in Gothenburg, currently has several large shipping customers, which make up a large proportion of office's total income. In addition they have built a "shipping network" to contact when faced with difficult and complex credit decisions concerning these kinds of companies. The personnel at the office consequently believed that they had managed to offer a kind of *Interactive Customer Specific System* as shown in figure 2.

However, despite the local offices proximity to its local market, the borrowing company is occasionally too complex for the individual business advisor or credit counselor to assess. As Svensson & Ulvenblad (1994) state; most bankers' comprehension is that they can only assess simple products and services on geographically close and homogenous markets. The respondents raised a certain desire for more central industry-specific experts to contact, as sometimes companies might seem ambiguous and therefore difficult to evaluate. Thus, there is reason to question whether Handelsbanken's strategy of local branch offices with its geographical proximity and decentralized organizational structure, is enough to familiarize with all different kinds of companies that are operating at the local market. The organizational structure can be compared with Nordea Bank, a more centralized and bureaucratic organization, where more support are available to the individual business advisor, derived from the industry specific support units. It appears that the lack of central industry specific units might be one of the side effects by Handelsbankens's prevailing decentralized division-structure when some of the support features and units disappear as the local branch offices are conducted as almost independent businesses. At the same time, the respondents believed that by allowing the local offices themselves evaluate companies, often without any regional or central expertise, better results could be achieved. This is due to the fact that responsibility stimulates the local business advisors to attract lucrative corporate customers to their own office.

6 Conclusion

In this final section the results of the analysis are presented. The chapter contains a report of Handelsbanken's stance regarding the relevance of geographical-distance in the process of credit assessment. In addition, closing remarks are submitted.

From earlier studies on the subject there has been disagreement about the geographical distance's impact on banks risk assessment and supply of SMEs borrowing capital.

This paper states however, that geographic proximity still plays a major role in maintaining the high quality of credit assessment and the reduced level of risk; explained in the study why Handelsbanken continues to stress the importance of local presence which the highly decentralized organization structure result in.

The essay, based on Handelsbanken's way of looking at the relevance of geographical proximity, argues that increased distance between lender and borrower will lead to increased risk perception. This in turn means that remote companies might be forced to pay an additional risk premium when borrowing money loan, in order to compensate for the banks increased risk as the banks lose the valuable information previously obtained through closeness to its customers.

In contrast to Persian & Rajan (2002), who suggested that the quality of credit is the same when banks are obtaining information from more impersonal ways, this study state that it is unlikely that financial information could possibly replace all the personal reflections. Physical presence is considered to present a more accurate picture of how a company is expected to carry out and perform in the future.

In addition to distance, other changes in the environment such as the suppression of the audit duty might increase the asymmetric information, resulting in difficulties in assessing the accuracy of the information received. Additional emphasis must consequently be put on the importance of verifying the accuracy of the data obtained which is easily facilitated by the geographical proximity by an organization that emphasize decentralization.

Unlike similar studies in the same area this study shows from a qualitative way and hence also from a detailed approach, the eventual pros and cons of a decentralized organization.

While Handelsbanken's prevailing organizational structure allows for a close relationship with its corporate customers, which in a later stage results in a comprehensive monitoring system, the study also demonstrates the possible drawbacks of a decentralized organizational culture: When channeling all business responsibility to the local bank office, which is the consequence of the Handelsbanken's organizational structure, it might lead to an overload on the individual bank office as they are occasionally assumed to be familiar with all types of businesses. Technological innovations, communication methods and central support units might as a result not serve as a substitute, but instead as an aid to the local branch office, by more impersonal ways of gathering information, derived from the information stream technological developments actually can offer.

The increased distance between Handelsbanken and SMEs, and hence the higher risk apprehension, resulted in reduced supply of the banks lending capital. Nevertheless, it is difficult and problematic to establish this as a general statement in the bank sector and will consequently, not be declared in this thesis. As in some cases, the crucial information that forms the basis for a possible loan granting, obtained from the proximity between the borrower and Handelsbanken's bank offices, is by other banks being replaced by the new type of distant information collection, and various insurances available. This fact might indicate that increased distance and hence, more focus on financial data could increase the supply of capital available to SMEs. However, the thesis concludes that the supply of bank loans in terms of quality might become negatively affected. As the personal reflections are excluded, and resulting in increased risk, when banks are not verifying the financial information obtained. As a result, the exclusion of personal reflections may generate increased credit errors and operational costs.

Furthermore, the increased supply of capital derived from more impersonal contact between borrower and lender might be said to only become short-lived since banks as well, as any type of enterprise, can only survive when its revenues exceeds its costs.

7 Criticism and Further Research

This part of the study includes criticism of the study, followed by a presentation of suggestions for further research.

This research argues that the establishment of the importance, or irrelevance, by distance between banks and enterprises regarding credit rating is not only interesting from the banks point of view when how to handle the credit risk associated with geographical distance in credit management. It is also interesting from the businesses point of view, when firms are to decide where to establish operations and the following effects on the loan terms. However, since this research is written solely from Handelsbanken's stance on the importance of geographical proximity, the text might be considered somewhat subjective and therefore difficult to accept, as a general. A critique to the essay is thus that the author had not thought of this disadvantage and importance enough. The conclusions in the essay could possibly have been made more general by examining other major banks' standpoint on the subject.

As the conclusions of this research would have become more generalized by comparing various banks' stance on the relevance of geographical proximity; this research might be used as an explorative study where the analysis and discussion could be the basis for further investigation with different banks. The supplementation of other banks point of view might usefully result in a generalizability to the subject.

During the research an interest in the future technological instruments and insurance options to use in the work of credit management arose. An advice to future research is therefore to immerse themselves with this kinds of subjects, as they are only mentioned most superficial in this study.

8 References

Keywords: Banks, Asymmetric information, Credit management, Geographical distance, Credit risk.

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Respondents

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Appendix

Type: Interview Questions to Handelsbanken

The credit management

- Describe the process during a credit assessment.
- Are there any differences in the credit process, when dealing with a remote business compared to an applicant in geographical proximity?
- How do you consider the work of credit rating when businesses today are becoming more and more specialized and hence, more complex? How are Handelsbanken handling this complexity?
- Why are Handelsbanken emphasizing geographical proximity to customers?
- In which way do you assume credit management will develop in the future?
- Do you believe that Handelsbanken as well as other banks are going to focus more on technological instruments in the work of credit management in the future and that geographical proximity is becoming less important?
- Is technological development reducing the importance of geographical proximity?
- Do you feel that the geographical proximity between a lender and a borrower is critical to the outcome and quality of credit management and rating?
- By only incorporate hard data, do you believe that the quality of credit assessment might be jeopardized?
- Why is a close relationship to Handelsbanken's corporate customers important? How is this relationship reached?

Information Management

- Describe the information search during Handelsbanken's credit rating. What factors are most important to assess?
- Are there any differences in the credit process, when evaluating a geographically distant company?
- Do you believe that a bankers view, concerning important variables in credit management, might differ from case to case?

- Is there in your opinion, additional qualitative factors that are important to assess?
- What kind of company do you think are most difficult to collect information about?
- Are Handelsbanken using some kind of special scoring model in this process? If yes, is this scoring-model customized to different units within the bank, or is it individual?
- Is the scoring model/models being adjusted when evaluating distant companies?
- Which role, do you consider the asymmetric information plays in the process of credit rating?
- How are Handelsbanken dealing with asymmetric information?
- Do you feel that distance, and hence imperfect information, might generate a more expensive loan?

The Risk and Errors of Lending

- What type of credit error/errors are you most concerned of?
- What is the most important in order to minimize type I-errors and type II-errors?
-----I I -----type III-errors and type IV-errors?
- How do you consider Handelsbanken's credit management in a company, which is stationed far from the any bank offices?

Monitoring & Intelligence Systems

- Do you consider monitoring as an important part for successful credit management? If yes, why?
- Describe your monitoring system?
- How are you able to track already granted credits? Who? How often?
- How is the credit monitoring carried out in the case of businesses in proximity, compared to a more geographical distant company?
- Is there an existence of monitoring problems concerning more geographical remote businesses?
- (Since monitoring possibilities are being limited out of large geographical distances,) do you think companies that are stationed far from the nearest office, are being offered worse loan terms and hence are being discriminated?

- Are the monitoring activities being adapted to the type of company that receives a loan? (Credit management Intelligence model)
- If a company is on its way "out" what do you consider the general warning signs to be?
- Is there any particular line of business or company you consider harder than others to assess, and consequently require a certain type of support or expertise? Is Handelsbanken providing this kind of support?