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Differences in Use of CRM Systems in a Sales Context – A Comparison Between Rapidly Growing and Average Companies

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Abstract

Non-selling activities, such as sales planning, teamwork, sales support, sales tracking, etc., are important parts of sales activities in any company. Earlier research has shown that the difference between effective and less-effective organizations can be found in the performance of the non-selling activities. This thesis continues investigating the non-selling activities by looking into the matter of Customer Relationship Management (CRM) systems.

Implementation of a CRM system requires that the people who are in contact with customers carefully log the activities, a task that according to research is considered to be dull by many people. Studies have shown, though, that CRM systems increase company profitability. Therefore allocating time for administrating them is a good investment.

Objective: This thesis studies the administrational CRM activities performed by the sales people and sets out to determine if fast growing consultancy firms in Sweden use CRM systems to a greater extent than comparable consultancy firms in the same country. The definition of fast growing firms has been firms that have received the Gazelle award from the newspaper Dagens Industri, the most known financial newspaper in Sweden. The award recognizes companies that have grown very rapidly in the last four fiscal years, mainly in terms of company turnover.

Purpose: Most companies strive for growth. Establishing a link between the time factor and company growth will help organizations motivate themselves into increased use of CRM systems.

Method: Collection of data for the study has been done by briefly interviewing 54 Swedish consultancy firms via telephone. Out of these 54 companies, 25 had received the Gazelle award, and the remaining 29 were in the same type of business but selected through random methods. The companies were asked about their use of CRM systems, how important they rate it and in their overall attitudes toward such systems.

Results: The companies with very high growth, i.e. the Gazelle companies, evidently use CRM systems to a higher extent than comparable companies, and the difference between the two groups is statistically significant. The majority of respondents in both groups consider CRM systems as useful or very useful (74 % in the ordinary group, 80 % in Gazelle group) but only 31 % of the Gazelle companies and 36 % of the randomly selected companies believe that it is also important for the profitability of the company. Many of the interviewed companies had plans expanding their usage of CRM systems. Although they generally thought positively about CRM systems, due to the fact that some of them did not utilize CRMs at all their profitability cannot be explained by the CRM use only.
Acknowledgments

We would like to thank Tribotec AB in Gothenburg, Sweden, for providing access to the very extensive and useful professional database Webselect, which normally is open only for companies for payment. With help of Webselect, we were able to easily do the selection of a control group for our research. Performing this thesis would not really have been possible without this type of database access.

We also would like to thank our supervisor for this thesis, Dr. Henrik Sällberg.
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1. Introduction

To do things right has been a concern for people since man was born; efficiency as a driver lies behind an infinite number of improvements along history. Efficiency can be regarded as a continuous process achieving better results, but it could also be a benchmark of how well something is done today.

Maximizing the output from a certain input is the key driver in most professional areas; the case of selling is no exception. The more efficiently a firm organizes its inputs and resources, the higher will the outcome be. Identifying those key determinants and focusing mainly on them would arguably be a short-cut to success. With regard to this, it is no wonder that the subject of sales efficiency has been thoroughly searched through the years. Perhaps there has been a higher focus on this in later years and hence the identified determinants of efficiency and implications of them have shifted from the 1960s to present.

Quite recently, researchers of sales efficiency have become aware of the importance of IT support systems in the daily work of company associates for achieving better results. These IT systems are generally termed CRM systems, where CRM stands for Customer Relationship Management. Thus, when we speak about CRMs or CRM systems in a sales context, we mean a computer program that contains a work log of activities and plans for a company’s sales calls with its customers, e.g. information about meetings, mails, sales opportunities, contact persons etc.

Much research has already been made within the area of CRM effectiveness, but some parts are still not known. For instance, what is the recommended amount of time one should devote to CRM administration? Theoretically, at least, there should be some type of appropriate level. Using them too little or too much will not be efficient.

This thesis aims at shedding light on, from an efficiency point of view, how large share of the work time salespeople should allocate to the administration of CRM systems. We will investigate if there is a link between how much time is used working with a CRM in a sales context and evident superior performance in terms of company turnover growth.

1.1 Background

Virtually every company has a sales department, no matter if the company consists of one person only or if it has several hundred thousands of people employed. The company can produce an outstanding product in the most cost efficient way, but if there is no one to sell the product, the wheels will not start running; the company would not receive any cash inflows and would soon go out of business. Sales people are usually the ones that start every flow of money into the organization by closing business, and the better they perform, the higher profit the company will earn. This gives motive for looking into the subject of efficiency among this group.

Also, salespersons make up a relatively large part of the labour in many companies. For instance, The Bureau of Labor Statistics in USA estimated 2004 that the existing U.S. workforce consisted of 15 million sales-related jobs. That corresponds to 10.6 % of the nation’s entire workforce (Artis, 2007). Putting efforts into researching the determinants of efficiency and effectiveness in sales work can yield huge earnings even for modest improvement, as sales work incorporates such a large number of people.

In the academic world, the area of sales efficiency and effectiveness has been researched from many different angles. A very large number of variables have been studied as antecedents of salesperson’s performance and effectiveness (Singh & Kosh, 2010). It is actually now possible to conclude on overall traits that evidently have high relation to sales
efficiency.

The results from past research can be interpreted as being quite coincident for a particular era. Reports from the 1980s very much focus on salesperson traits that can be connected to good sales performance, among them knowledge for the product, aptitude (i.e. how much of native talent an individual has to the sales job), skill level, motivation, role perceptions (i.e. how much the individual sales representative feels accountable for the results and can affect the outcome), personal factors (such as height, weight, appearance, age, gender, looks, marital status, education, club memberships and other similar characteristics), and organizational and environmental variables (Weitz, 1981; Churchill et als, 1985). Later work identifies further variables that can explain sales performance, such as the role perceptions of the salesperson, organisational factors, level of customer orientation, the importance of intrinsic and recognition motivation, and so on (Weitz et als, 1986; Piercy et al, 1997; Baldauf, 1999).

The idea of working smarter (rather than harder) started to emerge during the early 1990s, and the understanding of sales efficiency took a bit different direction. With the development of CRM systems in the late 1990s, research seems to have shifted focus in order to determine to what extent CRMs can be attributable for good sales performance.

1.2 Problem discussion

The authors of this thesis have a sales background in the technical business-to-business field. In this area, it is quite common with internal disputes in the sales organisations about the effectiveness part of the job: to put time and efforts on the right things to generate maximum output. Sales people usually prefer to spend time with their customers and therefore the subject of administration, for example updating the customer relationship management system, the CRM system, is often disputed.

Today, CRMs provide a sales person invaluable help to track and manage customer contacts. Customer calls, mails, contacts, claims and delivery problems: everything is possible to register into one single database. Customers can be categorized into different levels of potential so one can see where to put most efforts. Time schedules for planning future activities are simply accessible through the CRM system, as well as services to generate newsletters and a variety of customer communications. The system is also very beneficial for the organization for inspecting past performance and use it as input to market analysis in order to identify new business opportunities.

However, the level of usefulness in a CRM system will be dependent on that people actually update the database, and that requires foremost time but also commitment. For many salespersons, working with the CRM is tedious and complicated (Ahearne, 2007) - not something one would like to spend more time with than necessary. Those efforts could perceivably be better spent on something else. Question is whether the use of the CRM system can be clearly linked to better performance or not? If it can be shown that an increased usage of this type of administration activities increase sales, motivation for CRM administration is likely to increase.

Research has as a matter of fact shown that there is a clear link between introducing a CRM system and increasing sales efficiency and performance (e.g. Dalpe, 1992; Ahearne, 2007; Chen 2009). Companies seem also aware of the importance of using CRM systems. We therefore know that they both increase sales and that people know they should use them. Question is then if there is a direct relation between how much time sales people should allocated to them and how much sales growth can be expected. But this answer is not to be found in current research. We can only find evidence that they are valuable to use, but not how much work time should be devoted to them.
1.3 Problem formulation and purpose

It would be very valuable to know what share of work time could be reasonable to spend with the CRM system on e.g. a week-to-week basis, as holding the optimum level would more or less automatically yield better performance. Would it be possible to detect if a certain amount of time spent with a CRM can be linked to superior business performance?

A straightforward approach to investigating this would be to allow a selection of companies work with their CRM systems at different time levels for a longer period and from there analyse possible relationships. To do this will however not be possible within the time scope and the resources available for this thesis. Instead, we choose another approach: To study if the time spent with CRMs, whether it be above or below branch average, can be regarded as a determinant of sales efficiency, we intend to compare how much evidently successful companies use CRMs, and compare their share of time allocated to CMRs with the time share found in a random selection of companies of similar type but that do not exhibit significant growth.

If we can see clear differences in the level of time used with CRMs in relation to company growth, this study will support earlier research findings that CMRs indeed enhance sales. It will yet bring more knowledge into the area since no one has earlier investigated if the time variable as such can be regarded as a determinant. The question that evolves is: Even though the CRM might be used for different tasks, can the total time spent with it still, isolated, be linked to superior performance?

It can of course be defined in many ways how a salesperson or a sales organization can be efficient, and the similar arguments with definitions arise when determining which companies are the most efficient and successful ones. It would be reasonable, though, that companies where the overall sales efficiency is high also would be prone to demonstrate above-average results in terms of growth.

As a definition of highly efficient companies, we have for this thesis decided to take a closer look at a group of outstandingly prosperous firms: “the Gazelles”, as defined by the Swedish financial newspaper Dagens Industri (Dagens Industri, 2011). Since 2000, a committee at Dagens Industri each year assigns a number of companies the term “Gazelle of the year”. It is a price of extraordinary achievements in financial growth. Studying these Gazelles can be a fine benchmark in our work when defining salesforce efficiency, since these companies in all major terms stand out as best in class. Further explanation of the Gazelle companies is given in chapter 2.4.

As Dagens Industri defines company growth mainly as increase in company turnover, we will use increase in turnover for the selected companies as the output in our research.

Naturally, the extent of employment of the CRM system will affect the time spent with it. In a small company with a small customer database it could be sufficient to keep the customers’ contact details in the CRM system, but not necessarily to use it to more advanced exercises. Activities CRM systems support are, but not limited to, Sales support, Marketing support, Service Support, Analysis support. Even if the time itself will be our main research focus, it would still be inappropriate to leave out the matter of what the CRMs are used for. We will therefore also check this and see if we can find any dissimilarity between the two groups of companies.

In conclusion, this thesis will then study the share of work spent on CRM systems comparing Gazelle companies and a corresponding control group and scan for differences. Above that, we intend to investigate what the companies use the CRM systems for. We will also research how important the Gazelle companies feel it is working with them. Reason is to verify if they have found the right level of administration themselves or if it is more of a coincidence.
If it can be verified, in an extent that is acceptable using appropriate statistics evaluation methods, that there is exists a difference in how much the two groups of companies use their CRM systems, then this thesis will help organizations to determine where to aim efforts and, consequently, what inputs to measure and control.

At this rate it is uncertain if one can expect the Gazelles to use CMRs more or less than the control group. On one hand, earlier research suggests that the use of CRMs gives better performance; therefore it is likely we find the Gazelles use them to a higher extent. But on the other hand, many Gazelles are rather small companies where it could be reasonable there is not enough time to put into thorough administration, and therefore the time with the CMRs could also on average be lower than for the other, less rapidly growing, companies.

1.4 Delimitations

This thesis aims at investigating if there is a difference between the time spent with CRM systems for Gazelle companies and a control group. We do not however intend to find a formula for how much growth can be expected with a certain level of allocation.

The type of customers to which the firm sells or the type of products it sells all might affect the observed relationships between sales performance and various predictors of that performance (Churchill, 1985). This supports the conventional wisdom that the determinants of sales performance are actually job-specific. In published studies, researchers often have tried to predict performance across different kinds of sales jobs and different firms, but it could be, researchers say, the right answers can only be found very locally instead of universally. We take this into account when choosing a suitable subset for our study of efficiency among the Gazelles in so that we will not study all of them but only those within the same type of business.

Additional problems when interpreting research findings is that they rely profoundly on self-rating from those polled. For instance, Pettijohn et al. (2007), when investigating what importance sales skills has to the sales performance, used questionnaires where the respondents rate their performance in relation to others. The results then shows how the salespeople themselves think of their achievements but does not objectively judge outcome based on behaviour. Also on the behavioural side there are clear limitations, as the investigations done also in large parts rely on what the respondents feel themselves as being important (Miao, 2007). This bears a clear caution: the fact that something feels important does not necessarily mean it really is important. In the research for this thesis, we will also have to rely on answers that respondents will give; such as how much time they really spend on working with the CRMs and how important they feel the systems are. There is no possibility within the scope of this thesis to find out the time used by e.g. on-the-spot observation of the sales activities in detail.

Due to lack of time and resources we will have to limit ourselves to a small selection of, preferably, homogenous firms and organizations within those that have been awarded the Gazelle achievement and a corresponding control group. Even though the method itself might be valid for a larger survey, the results we obtain can after all be held true only for this small selection we make. On the other hand, results will probably be more well-defined.

Furthermore, we will not perform this study on an individual salesperson level; instead the sales manager or somebody functioning as such in the targeted company will be interviewed, which means we aim at studying the efficiency at an organizational level. The use of CRM systems is often a case of company policy, meaning how much they are used in daily work, so the time spent with them will probably be quite similar for all salespersons within the company.
1.5 Thesis structure

This research was divided into five phases, see Picture 1.1. The presentation in this thesis report follows very much the same order. As Picture 1.1 shows, first the reader will be guided through a literature review concerning a short overview of assorted efficiency related definitions. Thereafter a short presentation of sales efficiency determinants as established by academic research is given together with the links found between CRM use and sales efficiency. Thereafter the method for conducting the data collection phase is introduced, followed by reports on how the interview questions were developed and how the data collection phase was carried out. When all data is collected, data analyses, result presentation and conclusions thereof will follow.

Picture 1.1: Thesis work phases. The thesis report structure follows the same order.
2. Theory

The theory section first gives an overview of what CRM systems can be used for. Thereafter it goes through a literature review and offers a summary on previous research findings in the field. We then motivate our choice of time as an independent variable and how much emphasizes one can place in it as a determinant of efficiency. Finally, we introduce the concept of Gazelle companies as a subset for our study.

2.1 The purpose of Customer Relationship Management Systems

Customer Relationship Management is a comprehensive strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer (Parvatiyar, 2001). It involves the integration of marketing, sales, customer service, and the supply-chain functions of the organization to achieve greater efficiencies and effectiveness in delivering customer value. Understanding customers today is accomplished by maintaining and acting on historical and point-of-contact devices (Swift, 2001).

A CRM system is a tool for tracking and maintaining customer information. It contains, as the name states, information about the relations with the customer. Data in it can be used as input for market research or to identify key customers and new opportunities. Two important processes of CRM include proactive customer business development and building partnering relationships with the most important customers (Parvatiyar, 2001). If you know what and when a new customer need arises, you know when the customer is open for new businesses. You will be able to offer a good product or services, at the right time.

The most basic CRM system is perhaps only an address book or phone numbers on a piece of paper, while the more advanced systems can be linked to e.g. time reporting, mail servers and business analysis. An advanced system includes the whole organization. Picture 2.1 shows what kind of data can be put into a CRM system. Picture 2.1 also shows what kind of analyses data in the system can be used for, e.g. market analysis, identification of new sales opportunities etc.

![Picture 2.1: Input and Output data in a CRM system.](image)
2.2 Literature review

Below we list the central parts of our vast literature review. These parts will have implications for our theories and models.

2.2.1 Terminology: Definition of sales performance, efficiency and effectiveness

"Efficiency is doing things right; effectiveness is doing the right things.”
Peter Drucker

Apart from the definition above provided by the guru of corporate management, Peter Drucker, in the literature there is no clear, globally accepted differentiation between the terms performance, efficiency and effectiveness (Küster and Canales, 2008). "Effectiveness may vary greatly across different types of selling jobs and situations” as Singh and Koshy (2010, p. 546) pointed out after investigating the sales persons’ performance construct and its determinants in a B2B context; a fact that does not give much guidance. Most researchers agree tough that effectiveness and performance are different concepts.

"Sales performance” is described as the behaviour and, above all, the outcome of the behaviour that contributes to the organizational goals (Churchill et al, 1985; Anderson and Oliver, 1987; Walker according to Singh and Koshy, 2010, p. 546). If the parameters that are out of control of a salesperson are included in the measurement, for example the competitive market or organizational factors, we then talk about “sales effectiveness”.

"Efficiency” is a quite wide term. In natural science, efficiency is a measure of how much energy that can be transformed into another type of energy within a defined period of time. That is, being efficient is how to consume less of a certain input in order to achieve the same or more of a certain result.

In this thesis we use the term “effectiveness” as a measure of the capability to prioritise and to focus at the right things. “Performance” is used to refer to tangible outcomes that result from a certain type of behaviour in a sales situation, and “sales efficiency” describes how to perform sales-related tasks in a relatively short time.

2.2.2 Motivation is the key component for better sales performance

Many research teams have investigated the importance of enthusiasm and commitment to the daily activities. The teams have been able to establish a clear link between the level of motivation and outcome in terms of first-rate sales figures and effectiveness (Eisenhardt, 1985; Anderson and Oliver, 1987; Piercy et al., 1997; Baldauf, 1999; Miao, 2007; Pettijohn et al, 2007; Prosales, 2007; Küster et al, 2008). Charles E. Pettijohn et al. (2007) indicate that many people feel that born salespeople are the norm and that selling is not amenable to education and training. But on the contrary: reviewing literature on the subject reveals that one can achieve much more with the right type of attitude than with a high level of aptitude.

Piercy et al. (1997) concluded that the most effective sales organizations are characterised by a high level of motivation among their salespeople. In their study, high motivation was reached through imaginative, creative work, stimulated by new challenges. Anderson and Oliver (1987) is in conformance with this by stating that attitude, motivation and the salesperson’s strategic behaviour or approach are the main professional behaviour-related characteristics of a sales force.

The conclusions of the findings mentioned in this section support the idea of this thesis: to
investigate how much time really should be spent with CRM systems, as many people seem to think working with them is unnecessary. If motivation goes down due to the feeling of performing something redundant, then sales results also are likely to drop.

2.2.3 The organization’s importance on sales efficiency

Walker (1977) makes a distinction between efficiency of the sales organisation and the performance of the salespeople (Percy, Cravens, Morgan 1997). Walker created a framework of the areas that describes an effective sales organisation. According to Walker, the characteristics of the sales-person, the effectiveness of the sales management, the sales force behaviour and the sales organization design lead to the sales force outcome.

Baldauf et al (1999) have a similar model with the difference that their model does not differentiate between the behaviour and the outcome of the sales force; they just call them Sales Performance Variables. Neither of them included the financial variables as variables that affect efficiency; Walker (1977) didn’t because his model defines the sales force outcome as dependent on the efficiency of other areas.

Stephan Ndlovu (2010) questions the use of financial measurements as the only drivers for organizational performance: "Advocates of the traditional measures or performance argue that such measures are reliable, ensure comparability among companies and are well accepted by a multiplicity of stakeholders. This paradigm, however fails to reflect performance in the new economy" (Ndlovu, 2010). The traditional measures fail in companies with intangible assets such as intellectual/human capital (Ndlovu, 2010), e.g. values that are addressing customers, employee needs or how to attract and retain talented people. The sales force is the companies’ interface towards the customers why the mastering of the factors that improve the customer interference will be important determinants of the sales-person’s efficiency.

As Walker’s (1977) framework also shows, to reach an efficient organization, the determinant of the sales-person should be connected to the organizational goals. The importance of reflecting the organizational goals with the personal has been suggested by Artis (2007) as well. Ideally, performance outcomes support the strategic planning of the organization and focus on the most important elements of the organization’s ability to compete, serve its customer base, and flourish financially (Artis et al, 2007). Organizational goals are often connected to sales figures. Statistics retrieved from CRM, such as the number of leads or the number of new and existing customers, are early indicators of the goals.

As an implication of the findings above, we intend to investigate the CRM use at an organizational level, and not look further into the individual salesperson.

2.2.4 Spending time on non-selling activities has its legitimacy

Eisenhardt (1985) advocated that a combined controlling system gives a better view of the performance than either alone, and we believe that this is true. Sales efficiency is not achieved by measuring sales figures. The sales figures are important, naturally; but they work as performance indicators of the past. To improve the efficiency the work must focus on the non-financial measurements or observations. It is the quality of the non-financial work that makes way for the future result (Eisenhardt, 1985).

A vast study on sales efficiency conducted by Nigel F. Percy et als (1997) revealed several unpredicted relations, or rather non-relations, between conventional knowledge about sales efficiency and actual outcomes. They studied how salespeople in companies who are dramatically ahead in effectiveness act compared to those who performed at a lower level. Basically, the behaviour of the successful units was quite the opposite of the expected. The
sales units designated more effective in fact first appeared the poorer: they had larger units and they sold substantially less per head from a smaller customer base. They had a lower new customer sales per cent and spend more time selling. Finally, their selling costs ran substantially above the level of the others. Yet, they outstripped the competition and beat objectives in sales and profitability at greatly superior levels.

Again, CRM use is a non-selling activity and can by some people be regarded as unnecessary, only complicating things. Research findings, on their hand, encourage working with CRMs as doing so can be linked to higher performance, which the following section will show.

2.2.5 Research findings about CRM efficiency

As mentioned in the problem discussion, researches have managed to establish a clear link between the usage of CMR and increased sales efficiency, inducing more sales and increased company turnover. In this section, we refer to the most noticeable findings in this area.

Already in the 1970s, Walker (1977) found a link between the effort of sales planning and sales performance. Baldauf et al. (1999) narrowed down Walker's model into a number of hypotheses and variables that affect the performance of each object. On the organization level, Baldauf and his team found higher levels of sales unit effectiveness in organizations whose salespeople displayed relatively high performance of technical knowledge, adaptive selling, teamwork, sales presentation and sales planning. Therefore Baldauf's conclusions are in line with later research findings regarding adaptiveness to CRM systems.

Margaret P. Dalpe, region marketing director at McGladrey & Pulle, describes how her company increased sales by introducing a track system for customer calls (Dalpe, 1992). Her firm implemented a simple method for quantifying and qualifying all contacts with the customers. These contacts could be social outings, phone calls, face-to-face meetings or just a mail to spread information. They implemented a simple tracking system to record all sales-contacts and this system could also show the contact nature and frequency. With the result of the changes, according to Margaret P. Dalpe’s article, the firm managed to increase its sales performance. The main reason was supposed to be the increase in number of customer calls as the frequency and quality of them became very transparent through the tracking system. An analysis of number of contacts showed that there was a parallel between the number of contacts and the money value of new work. Although some of the time that could have been spent with customers instead was used for administrational task, that is, to update data in the CRM system, yet sales increased and the organization was very pleased with the new system.

Ahearne et al. (2007) investigated attitudes among sales people toward CRM and IT aid systems in general. They concluded that IT acceptance indeed has a positive effect on sales performance. This occurs because salespeople using IT expand their knowledge and, in turn, gain improved targeting abilities, enhanced presentation skills, and increased call productivity. They further write: “Recent empirical studies have demonstrated that there is a positive relationship between CRM practices and firm performance (…). The sales organization's ability and willingness to use IT tools are critical to the ultimate success or failure of the CRM initiative (…), and this is especially true in a business-to-business environment in which the sales force is the primary point of contact between buying and selling entities.”

Chen et al. (2009) studied ways of effectively implementing CRM systems by sorting out what it could be used for and what the possible outcomes of using them would be. They state that “…today’s business environment is extremely competitive, and treating customers well is of utmost importance. Therefore, there can never be too much emphasis on managing customer relationships. Taking steps to ensure effective CRM will augment business growth and profit.”

In December 2010, a group of Iranian researchers (Fazlzadeh et al., 2011) could conclude
concerning the effectiveness of CRM systems: "There is clear support for the contention that CRM use, in B-to-B markets, is associated with firm performance improvement in overall profitability, sales force productivity, customer retention, average account sales and average account gross margins. Since these are the criteria most frequently emphasized by in-depth group interview participants, the survey results clearly present the value of CRM to the firm. Furthermore, this research clearly indicates the benefits of higher order CRM systems, those with integrated account planning, account management and management reporting capabilities. Firms employing higher order CRM capabilities had a statistically significant performance improvement over users with less evolved systems."

2.3 How business area and company size impact the CRM use

SCB, Statistics Sweden, has looked into if CRM use in a firm is dependent on the type of business the company is in and the company’s size (Statistics Sweden, 2011). The investigation distinguished between CRM as an analysis tool and as a sales activity tool. The results revealed, among other things, that construction companies hardly used CRMs at all (Sales 16 %, Analysis 5 %) while the Financial and Information & Communication sectors used them a lot (Sales 60-70 %, Analysis 45-55 %). Table 2.1 displays how much companies of different sizes use CRMs for tracking Sales activities and for performing Market analyses.

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>Sales activities</th>
<th>Market Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-49</td>
<td>33 %</td>
<td>21 %</td>
</tr>
<tr>
<td>50-249</td>
<td>51 %</td>
<td>41 %</td>
</tr>
<tr>
<td>&gt; 250</td>
<td>67 %</td>
<td>53 %</td>
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</tbody>
</table>

Table 2.1: Approximate frequency of CRM usage: how many within the respective company size use CRM systems for recording sales activities or market analysis. Source: SCB (2011).

As can be seen in Table 2.1, generally companies use CRMs more for tracking its sales activities, and a bit less for performing marketing analysis. In the scope of this thesis, we believe it is important we look into this when collecting data from the two groups of companies. We will investigate if there are any traceable differences in what the companies use their CRMs for.

2.4 Why is the time aspect of CRM use significant to study?

Since CRM systems today provide a very large palette of features by which one can manage sales activities and record them, sooner or later the question emerges how much they really can be of use. Although research suggests that more time should be spent on non-selling activities, in theory there still should be a limit beyond which administration takes overhand of the actions directly related to dealing with customers. Consequently, it could be assumed sales performance will be lower.

It could be argued that the time spent on CRMs itself can be very much trivial in searching for determinants of superior sales efficiency. But the time should not be regarded as the only answer for how to reach high performance: it is just a part of the big picture. In the same way as when studying the shape of a shampoo bottle in order to enhance its sales the shape itself is not the only answer; it is a part of a bigger package where price and demand, competition etc. also contribute to explain the possible sales achievements.

As a further comparison, a sort of milestone in the research of salesperson performance seems to be the extensive meta-analysis conducted by Churchill et als (1985), named The
Determinants of Salesperson Performance, A Meta-Analysis and published in the Journal of Marketing Research. This article is very often referred to in later work by others. The research team took on the job to review in total 116 articles associating sales performance and determinants of that performance. Basically, they used the available literature to determine to what degree their model of salesperson performance holds. Their model had it that success is a function of six basic roles: 1) Aptitude (i.e. how much of native talent an individual has to the sales job), 2) skill level, 3) motivation, 4) role perceptions (i.e. how much the individual sales representative feels accountable for the results and can affect the outcome) 5) personal factors (such as height, weight, appearance, age, gender, looks, marital status, education, club memberships and other similar characteristics), and 6) organizational and environmental variables.

With the help of meta-analysis they determined in which order these roles were to be ranked. The result was a little bit surprising: the authors clearly address that no factor out of these six explains a portion larger than 10 % of the variation in sales performance. Having said this, they explicitly encourage sales managers to turn down consultant advice that contends to measurement of a single factor, e.g. some sort of personality tests.

The same goes for the time variable in this thesis study – it should be regarded as one possible factor for how to increase efficiency, but not taken as the ultimate answer for all inefficiencies.

Of course, it cannot be fully presumed that every Gazelle company really has a CRM system in place, so it will be the first thing to check in the data collection phase. Following some research findings reviewed in this chapter, about the reluctance of using CRMs, it can be of interest to see how many of these companies on average actually use some sort of IT tool to manage their activities.

2.5 Finding an evidently successful group of companies to study

For this thesis, we have decided to take a closer look at a group of outstandingly prosperous firms and compare their use of CRM to a randomly selected control group of companies. As a definition of successful companies, we study the “the Gazelles”, as defined by the Swedish financial newspaper Dagens Industri (Dagens Industri, 2011).

Since 2000, a committee at Dagens Industri each year elects a number of companies termed as “Gazelles”. It is a price of extraordinary achievements in financial growth. Studying these Gazelles can be a fine benchmark in our work of defining salesforce efficiency, since they in all major terms stand out as best in class.

There are very well-defined, strict and objective criterions for how to qualify as a Gazelle. A Gazelle has to have:

- A company turnover exceeding 10 million Swedish crowns (SEK).
- At least ten people employed
- Published at least four fiscal year reports
- Continuously increased its turnover during the last three years
- At least doubled the turnover during these past three years
- Presented accumulated positive returns for the latest four fiscal years
- In all essence grown organically, not through merging or purchases of other units
- Sound finances

The term Gazelle was founded by the American researcher David Birch in the 1980s (Dagens Industri, 2011). He recognized early that the small and rapidly growing companies were the ones that create most jobs in society; in contrast to the dinosaurs of economy that, according
to him, always look for ways of becoming more efficient and therefore often have to cut heads instead of employing more people.

The companies that qualify are published once a year in the newspaper. The criteria are tough, though. Only 0.5 % of all limited companies in Sweden achieve this award. Since 2000 and until today (2011), however, not less than 7200 companies have been awarded the Gazelle diploma.

It is not possible to apply for a Gazelle diploma. Instead, Dagens Industri themselves monitor the key financial measures of all companies once a year and they contact the companies themselves if they are subject of awarding. This way, any potential biases in their published lists are eliminated as the companies listed really meet the requirements and the list also really contains every Gazelle company that there is.


3. Research Methodology

This chapter describes our actions when investigating at what level the CRM system is used by the companies that have been awarded with the Gazelle diploma in comparison to a reference group. The main idea is to find out whether the Gazelle companies spend more or less time with their CRM systems than a reference group that do not qualify for the award.

3.1 Hypotheses formulation

With regard to the problem formulation defined in Chapter 1.3, to test if there is a link between CRM time used and superior company growth, we will first have to validate the growth of Gazelle companies. Although the Gazelles are already recognized as a group of companies that exhibit superior company growth, we actually conduct our research later than when the companies won the Gazelle diploma. Therefore there is a risk that conditions have changed. Also, when finding the Gazelles, Dagens Industri defines company growth as the difference between the latest fiscal report turnover compared to the turnover four years later. It could be there is a significant difference between the last and the first values; but computing the mean value of turnover increment will give a more balanced picture of the companies’ performance.

The re-definition of growth also was made due to practical reasons: we didn’t have access to company turnover data going back more than three years.

We state our first hypothesis which goes as follows:

**Hypothesis 1:** The mean increase in company turnover for the past three years is significantly higher in the Gazelle companies than in the control group.

If Hypothesis 1 is true, it will strengthen our research idea of using the Gazelles as a benchmark of successful companies.

To close the research, we also will have to prove that the use of CRM in Gazelle companies is different than in the reference group, regardless it being higher or lower.

We define the variable to measure as:

\[ T = \frac{\text{Hours per week spent with CRM}}{\text{Total work hours per week}}. \]

We then formulate our second hypothesis as follows:

**Hypothesis 2:** \( T(\text{Gazelles}) \neq T(\text{Control Group}), \)

where \( T(\text{Gazelles}) \) is the mean amount of \( T \) for the Gazelle companies as a group, and equivalently for \( T(\text{Control Group}) \).

Obviously, both Hypothesis 1 and Hypothesis 2 have to be true in order for us to be able to state that there is a link between allocating certain amounts of work time and achieving superior sales growth. If only Hypothesis 2 would be true but not Hypothesis 1, we would be able to conclude that the two groups of companies work in different ways but it cannot be linked to measurable improvements in performance. And if Hypothesis 1 would be accepted but not Hypothesis 2, we would not be able to link CRM use to output as defined by mean company growth.
3.2 Operationalization

To test our hypotheses, we have to transfer our problem formulation into a method that will be able to measure and determine what we want to find out.

Since the main focus is if we can find differences in the use of CRM systems between a clearly successful group of companies and a similar reference group, we first need to investigate how much time is put into CRM systems within these groups. This leads to our first measurement:

1. Detect the time spent with CRM systems in Gazelle companies and in a reference group on a weekly basis

The time itself has to be related to overall work time, though. Therefore we wish to calculate the share between time used for CRM and total work time, which will require us to also collect information per company how much they work on a weekly basis.

We have chosen to measure these times values on a weekly basis as we presume it is fairly easy for a respondent to accurately determine how much they work during one week, on average, and how much time they use with a CRM system during that period. It is also possible to take a mean value per day and multiply it with number of days per week to arrive at a reliable figure.

We were interested only in the sales part of CRM administration. What we decided to do, then, was to first ask what the companies use their CRM system for. The choices of the question were Sales activities, Market activities, Customer Analysis and Other. The purpose of this was to make the interviewed person think for what they used the CRM system before stating how much time they work with it, and by that including our definition of the right type of time. The CRM time used in the analysis afterwards was the total amount of time spent with these aforementioned types of activities on a weekly basis.

Since we wanted to link the CRM time to company growth (that is, turnover increase), we would have to find the companies’ growth figures, which lead us to the next operation:

2. Find reported company turnover for all investigated companies for the latest three years.

Having the variables in the shape of CRM time allocation at a specific company, we can plot these values against the corresponding company growth. The graph will show a mean growth during the period as a function of time used for CRM.

As for the attitude versus CRM use, we were determined to ask the companies how they feel about the time being spent working with the CRMs. A deeper picture of this can be obtained by asking if they plan to increase or decrease their use of them. Finally, we also will investigate if the companies feel the use of CRM systems can be put into a direct relationship to their profitability.

3.2.1 Sample selection

As this thesis would look into the Gazelle companies, we then had to start by scrutinizing which companies belong to this group. As we wanted as reliable and recent information as possible, we decided only to look at the latest Gazelle list, although it has been published annually for over 10 years. The sample was then formed using the list published in the newspaper on December 6, 2010 (Dagens Industri, 2010), which in total contained 696 companies.

The sample selection procedure became quite complex and is not explained at length in this
section. Instead, an extensive description of the procedure can be found in Appendix A. However, the article review ended with us aiming to investigate consultancy firms, as they made up a relatively large portion of the types of business listed.

The firms were divided into two groups where one group had received the Gazelle award. The other group worked as a control group and they have yet not fulfilled the criterions for Gazelles. The reference group was selected through simple random sampling (Dahmström, 2011 p.274). We discovered, not unexpectedly, that some Gazelle companies were found also in the randomly selected control group. Reason for why not all of them couldn’t be found in the random sample is perhaps that our selection was created later in time than for when the Gazelle group was identified by Dagens Industri, which means that the database has been updated for the companies who have published reports since then.

Companies are selected through their SNI code; see Appendix A for an extensive explanation of its function. If this code is incorrect it will affect the coverage degree of both control groups meaning that companies that are working as consultancy firms and have a faulty SNI code will not be qualified for the random sampling and vice versa.

The final investigation comprised of 61 Gazelle firms and 70 Control group firms. All these companies were contacted via telephone.

3.2.2 Shaping the Questionnaire

Primary data was to be collected through a questionnaire. To speed up the process of data collection and to be in control of number of replies, we followed the literature advice to do the data collection through phone interviews (Dahmström, 2011, p. 103). The benefits of doing so are that the number of answers is likely to be higher than in for an email survey which would have been our second alternative (Patel & Davidson, 1991). Through interviews one can reduce the partial reduction since there is a possibility to motivate why the respondents should participate. Also, in cases where the respondent is hesitating between possible answers, the interview performer can interpret his or her feelings and carefully guide – not lead – to the right option.

The interview was chosen to be of quantitative type; that is, with clear and well-structured options for answers. All persons were proposed the exactly same questions. The whole questionnaire is presented in Appendix B.

To decrease the individual reduction, we thought we would have to keep the interview short, around only 2-3 minutes. The limited time of the interview forced us to keep the number of questions down, and we then decided on maximally 10 questions.

To increase the reliability of the answers the questions have been simple with little risk for misunderstanding (Dahmström, 2011 p. 369). The perhaps most important question in this research is regarding the amount of time a member of the sales team works with the CRM system (see Appendix B, question 7). The answer was a personal assumption of the sales manager, which limited the reliability. A suggestion for receiving better reliability is to repeat the interview at a later stage (Eneroth, 1992 p. 25; Dahmström, 2011), which is called the test-retest method. This would not be beneficial in our case, though, due to the limited time, and due to the fact that the time for CRM work could actually change later in time. It would still be an assumption.

Before the real data collection was done, we performed a small pilot study among friends and colleagues as advised by Patel & Davidson (1991). At a final stage, we also called a few companies in the total control group selection (because there were in total 892 of them and therefore a few could easily be spared), in order to adjust the questionnaire.
3.2.3 Data Collection

The interviews were aimed at the sales managers both in the Gazelle companies and in the control group. Sales managers have a higher relevance to answering the questions since they usually are responsible for processes in the unit or organization and with a higher influence to what traits to be encouraged. Processes and traits are factors that affect to which extent the CRM system shall be used, and this will affect the CRM time parameter that we investigate. An alternative method would have been to ask every sales person and calculate the average usage of CRM in each company, but this would have been very time consuming and the probability to obtain more reliable results is not obviously higher. By interviewing only the sales managers we believe that we will still obtain relevant results.

When calling the companies, we introduced ourselves as students at BTH who investigate the level of employment of CRM systems in consultancy firms. With regard to ethics and moral, we clearly guaranteed total anonymity for the sales managers, both for them as a person and for the company. We were prepared for individual reduction due to persons who choose not to participate and due to the problem to reach the right person. Sometimes the question had to be repeated and clarified so the respondent clearly understood the question and could give a reliable and relevant answer.

In interviews there is always a risk that the interviewer influences the answers (Patel & Davidson, 1991). It was therefore important we kept a neutral tone, yet were polite and encouraging enough so the respondents would fulfil the interview.

3.3 Increasing validity and reliability in data collection

Validity is always a difficulty when investigating abstract variables (Patel & Davidson, 1991). Still many researchers have set out to determine the influence of such imprecise variables as e.g. role perception. The key to reach both reasonable validity and reliability is to be careful with the formulation of questionnaires and being cautious when interpreting and implementing results.

To increase the reliability of the whole investigation, we checked for the perceived usefulness of the CRM system through questions eight, nine and ten; see Appendix B. We believed to be able to get a good understanding of their honest attitude by verifying to what extent people believe that the time with CRM is well spent, if they are planning to increase/decrease the CRM time and to what extent they believe that the success of the company could be explained by the appliance of CRM.

3.4 Data presentation and statistical analysis methods

As a comparison between the two research groups of this investigation, we will produce diagrams that show the average turnover growth of the last three years as a function of the share in per cent (%) between time used for CRM and total work time, on a weekly basis. Gazelles and the reference group will be dotted with different colours.

We can identify a possible systematic difference in the mean values performing a t-test (Caulcutt, 1983). For the case of differences in company growth, we are only interested in detecting if the mean value of the Gazelles is higher compared to the control group. This implies the use of a one-sided t-test. To start, we will examine if the mean values pass at the 1 % significance level. If not, we will go lower in confidence and check for the 5 % level. When it comes to proving significant differences in the mean values of time spent with CRM, we intend also to test this with a t-test.

However, before going ahead and performing a t-test between two samples, one first has to
assure that the difference in variations in the two groups is not too large. This can be
determined using an $F$-test (Caulcutt, 1983). If the distributions pass the $F$-test, the $t$-test
can then be performed. For the case with growth we do a one-sided $F$-test and a one-sided $t$-
test, as we only are interested in a difference in one direction, while for the CRM time
comparison we will have to do both a two-sided $F$-test and a two-sided $t$-test as the mean
value actually can be either higher or lower.

For the $F$-test, the test statistic has to be below a critical value. If it is, then there is no
significant difference between the two sample variations; which is exactly what is wanted. In
contrast, with the $t$-test the corresponding test statistic in our case has to be above a critical
value, because we want to prove there is a significant difference.

If a variable would fail the $F$-test or the $t$-test we will, as suggested in statistics literature
(Caulcutt, 1983), proceed by determining its confidence interval and investigate if the mean
values of the Gazelles variable lies inside or outside the interval of the Control Group. This is
called the confidence method.
4. Results and analysis

In this chapter, we will present our research findings, starting with testing the hypotheses formulated in Chapter 3.1. After that we show graphs of the distributions we have found and perform a deeper analysis of the questionnaire results. A discussion of the results follows in Chapter 5.

A full synopsis of all the answers and our comments to them can be found in Appendix C. In this section we only give account to the central and most relevant findings.

4.1 Size of collected data

From the 61 Gazelles and the 70 in the sampled Control group, we managed to conduct interviews with 25 of the companies in the Gazelle group and 29 in the Control group. Of the others, in total nine representatives didn’t want to participate in the research and we were unsuccessful in establishing contacts with the rest.

4.2 Test of hypothesis – Company growth

From Chapter 3.1, we have the following hypothesis to test:

Hypothesis 1: The mean increase in company turnover for the past three years is significantly higher in the Gazelle companies than in the control group.

Hypothesis 0: Mean increase in turnover is not higher for the Gazelles

To test Hypothesis 1, we have traced company turnover for every single company in the research, collecting data from the three latest fiscal year reports. A mean value of the three latest years’ turnover has been calculated, and that mean value has been compared with the turnover for the first fiscal year, i.e. the third youngest one. This way we defined the mean company growth for each individual company.

Finally, we calculate mean values and standard deviations for the two whole groups, arriving at values presented in Table 4.1.

<table>
<thead>
<tr>
<th>Mean company growth 3 latest fiscal years</th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.1077</td>
<td>0.4010</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.1912</td>
<td>0.2461</td>
</tr>
<tr>
<td>Number of observations</td>
<td>29</td>
<td>25</td>
</tr>
</tbody>
</table>

**F-test statistic: 1.66**

**t-test statistic: 4.93**

*Table 4.1:* Mean company growth for the three latest reported fiscal years, division by research group.

In Table 4.1 we can easily observe the mean values of company growth differ greatly; with the Gazelle companies obviously performing much better than the control group. However, we still need to determine if there is a significant difference between the two distributions before making any definite conclusions.
Following the methodology established in Chapter 3.4, the one-side F-test statistic becomes 1.66, as can be seen in Table 4.1, which is well below the critical value of 1.84 at the 1 % significance level for a system with 60 degrees of freedom in both samples. Here we have less than 60 degrees of freedom in both samples (28 and 24, respectively), which means the critical value is in reality higher in this test, and therefore the confidence in the F-test increases. Thus a t-test can safely be applied.

The one-sided t-statistic is a high 4.93. The corresponding lowest acceptable value (the critical value) at the 1 % significance level for a one-sided t-test on a system with 25 degrees of freedom is 2.49. Thus we have validated there is a clearly significant difference between the mean values.

Therefore, as the mean value for the Gazelles obviously is higher, we can with support of the performed t-test conclude:

**Result:** We are able to accept Hypothesis 1 at the 1 % significance level and can reject Hypothesis 0.

### 4.3 Test of hypothesis – distribution of CRM time allocation

The second hypothesis from Chapter 3.1 we have to test goes as follows:

- **Hypothesis 2:** \( T(\text{Gazelles}) \neq T(\text{Control Group}) \)
- **Hypothesis 0:** \( T(\text{Gazelles}) = T(\text{Control Group}) \)

The definitions of these abbreviations also were explained in Chapter 3.1.

To test Hypothesis 2, we collect the response values from the investigation into Table 4.2 below. Initially, we can see the mean values of the use of CRM differ greatly, with the Gazelle companies obviously using the CRM systems around twice as much as the control group.

As in the preceding section, with help of the methods suggested in Chapter 3.4, we might detect a possible systematic difference performing a t-test. However, as can be seen in Table 4.2, the F-test statistic becomes 3.69. It has to be lower than 3.32 at the 1 % significance level for a system with 20 degrees of freedom in both samples (and lower than 2.46 at the 5 % level). As we have more degrees of freedom, the critical value is actually lower and the distance grows even more. Thus the t-test cannot be applied.

<table>
<thead>
<tr>
<th>Share of CRM time of total work time</th>
<th>T(Control Group)</th>
<th>T(Gazelles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.0806</td>
<td>0.1517</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.1281</td>
<td>0.2461</td>
</tr>
<tr>
<td>Number of observations</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>95 % confidence interval</td>
<td>0.03 – 0.13</td>
<td>0.05 – 0.25</td>
</tr>
</tbody>
</table>

**Table 4.2:** Share of CRM time of total work time, division by research group.
Since the t-test cannot be used, we will have to test Hypothesis 2 through other means. As said in Chapter 3.4, it can be done with confidence interval analysis. We therefore calculate a 95 % confidence interval for the two groups. The results are also presented in Table 4.2. Doing so, one can see the two intervals overlap each other greatly, but the mean value (which in this case equals the expected value for the sample as the companies are independent of each other) of the Gazelles actually lies outside the 95 % confidence interval of the Control Group. As a result, using the confidence method, we can at the 95 % confidence level say that the mean value of the Gazelles, \( T(\text{Gazelles}) \), lies outside the confidence interval for \( T(\text{Control Group}) \).

**Result:** At the 95 % confidence level, we can accept Hypothesis 2 and can reject Hypothesis 0.

The results of the hypotheses tests indicate that there really exists a difference in how much the Gazelle companies use CRM systems compared to companies within the same business field but without the same extraordinary company growth. In this case, the Gazelles use CRM systems as regards time to a significantly higher extent than comparable firms.

### 4.4 Graphical presentation of results

In the previous sections, we managed to prove that there exists a difference in how much the two categories of companies use their Customer Relationship Management systems. We can also display this connection graphically. Picture 4.1 shows the relation between company growth and CRM time used within the Gazelle companies. Picture 4.2 shows the equivalent relation for the control group. Comparing Picture 4.1 with Picture 4.2 reveals for first that the Gazelle companies indeed have superior company growth. It is also clearly visible that the Gazelle companies are using CRMs at the higher shares of work time since we can see more dots on the right hand side of the scale.

As an alternative way of presenting results, one can calculate mean values for company growth within CRM use in a certain time interval, resulting in a distribution function. Doing so for these two groups yields graphs as shown in Picture 4.3 and Picture 4.4, respectively. The intervals are in this case steps by 5 % of work time.

In both Picture 4.3 and Picture 4.4, a trend line is inserted. It is in both cases a polynomial function of order 5. As can be seen in the pictures, neither of the trend lines have good explanatory properties as the \( R^2 \)-values are below 0.70 which is the commonly accepted critical significance level.
**Picture 4.1:** The distribution of company growth as function of the time allocated working with CRM. The mean growth is defined as the difference between the latest fiscal report’s turnover for each company and the mean value of the turnovers reported for the latest 3 years.

**Picture 4.2:** The distribution of company growth as function of the time allocated working with CRM. The mean growth is defined as the difference between the latest fiscal report’s turnover for each company and the mean value of the turnovers reported for the latest 3 years.
**Picture 4.3:** Distribution function for the Gazelle companies showing company growth for levels of allocation time to CRM work.

**Picture 4.4:** Distribution function for the Control group companies showing company growth for levels of allocation time to CRM work.
4.5 Differences in what the CRMs are used for

Of the companies that actually use a CRM system, Picture 4.5 shows how many of them use the CRM system for logging customer calls, as a marketing aid and performing analyses, respectively. Picture 4.5 contains information only about the companies that stated they had a CRM system. Full statistics on this matter can be found in Appendix C. It is quite interesting that both groups use the CRM equally much for recording customer calls and for performing analyses of e.g. customer retention, claims frequency and similar (although the latter activity is not so common in both groups).

![Control Group](image)

**Picture 4.5:** Per cent (%) of companies in each group that use their CRM systems for recording customer calls, as a marketing aid and for performing analyses, respectively. Companies that do not use CRM systems are not included in these figures. If they would’ve been, the average values would have been somewhat lower. A slightly larger portion of the Gazelles than the control group seem to use their CRM systems as a marketing aid.

In Picture 4.5, we can see that the Gazelle companies use their CRMs more as a marketing aid compared to the control group. In section 4.3 we could conclude the Gazelles work more with the CRMs on the whole, but we can in Picture 4.5 also see that they put their time a bit more on the marketing side of the job. However, Picture 4.5 only tells us what they do but not how much time they put in each activity. We haven’t examined exactly how much each company spends as regards time on the individual activities listed in Picture 4.5, so we cannot say how large portion of the time difference in CRM use is put on marketing.
4.6 Analysis of attitudes toward CRM systems

As a part of the problem formulation in Chapter 1.3, we intended to investigate the attitudes between the two groups of companies to see if we could trace any particular differences. The strategy in this analysis of this is to weigh the answers and combine inputs from the attitude questions to find the overall trends in attitude.

Perceived usefulness is calculated from questions eight, nine and ten (see Appendix C). Looking at question eight only, the perceived usefulness of CRM systems is slightly higher for the Gazelle group (mean value 4.24) than for the control group (mean value 3.88). Both groups have a median of 4.0. The average values consolidate Hypothesis 1, but since this is an attitude question, with an ordered interval, the median value is of major importance. Therefore we will have to combine the results with Q9 and Q10 as well. The answers of Q8 and Q9 have been translated according to the following formula:

<table>
<thead>
<tr>
<th>Original Scale</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5 (positive)</td>
<td>=&gt; +1</td>
</tr>
<tr>
<td>3 (neutral)</td>
<td>=&gt; 0</td>
</tr>
<tr>
<td>1-2 (negative)</td>
<td>=&gt; -1</td>
</tr>
</tbody>
</table>

The points for the two questions are summarized per company according to the following scale:

+2; very useful
+1; useful
0; neutral
-1; less useful
-2; not useful at all

Companies with 2 points have answered that the CRM time is well used, and they are planning to expand the usage of CRM. This group perceives CRM as very useful according to the scale above. With -2 points, CRM is perceived as not useful, 0 is neutral.

Computing calculation for both groups, we arrive at the results shown in Table 4.3. We can see from the data that the Gazelles apparently rate the use of CRM slightly higher than the companies in the control group.

<table>
<thead>
<tr>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>54.2 %</td>
</tr>
<tr>
<td>1</td>
<td>20.8 %</td>
</tr>
<tr>
<td>0</td>
<td>20.8 %</td>
</tr>
<tr>
<td>-1</td>
<td>4.0 %</td>
</tr>
<tr>
<td>-2</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Table 4.3: Perceived importance of CRM usage within the Gazelle companies and companies from the control group; combination of questions regarding plans to increase CRM use and how important the time spent with it feels.
Next step in order to investigate the perceived usefulness is to look at Q10. The answers are categorized according to the following formula:

<table>
<thead>
<tr>
<th>Original Scale</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-10 (importance to the company performance)</td>
<td>=&gt; +1</td>
</tr>
<tr>
<td>5-6 (neutral)</td>
<td>=&gt; 0</td>
</tr>
<tr>
<td>1-4 (not-important to company performance)</td>
<td>=&gt; -1</td>
</tr>
</tbody>
</table>

The transformed values of Q10 are multiplied with the new values of Q8 and Q9. Results are shown in Table 4.4.

<table>
<thead>
<tr>
<th></th>
<th>Control Group (%)</th>
<th>The Gazelles (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>31.8 %</td>
<td>23.8 %</td>
</tr>
<tr>
<td>1</td>
<td>4.5 %</td>
<td>7.5 %</td>
</tr>
<tr>
<td>0</td>
<td>22.7 %</td>
<td>49.2 %</td>
</tr>
<tr>
<td>-1</td>
<td>18.2 %</td>
<td>0 %</td>
</tr>
<tr>
<td>-2</td>
<td>22.7 %</td>
<td>23.8 %</td>
</tr>
</tbody>
</table>

Table 4.4: Combined values for Perceived significance of the CRM system for profitability within the Gazelle companies and companies from the control group.

In Table 4.4, we can see that the weighed value of perceived usefulness to a CRM system is 31.8 % for the control group and 23.8 % for the Gazelle group. The companies in the control group believed more that a CRM is of major impact to the profitability of the company and also for the daily work. Among the Gazelle companies 68 % agreed to that the CRM time was important and they were planning to expand the usage, see Table 4.3 above. Yet, 23.8 % did not consider it as important to the profitability of the company.
5. Discussion and Implications

Chapter 4 exhibits the main results and conclusions of our study. In this section, we discuss the logic of our findings and the implications thereof in light of earlier research done by others. We also make judgements on reliability and validity.

5.1 Connections to literature

Our literature review shows that preceding studies have been able to establish a clear link between the use of CRM and increased sales efficiency, see chapter 2.2.5, and our study confirms previous research. Among others, Ahearne et al. (2007) found that the practises of CRM impact the firm performance positively. Our study shows that at a 1% significance level, the turnover increase is significantly higher for the Gazelle companies. At the same time, at the 95% confidence level, we can conclude the Gazelle companies’ use of CRM is much higher. Table 4.3 shows that the Gazelle companies seem to rate the time spent with CRM higher than the control group, which indicates they use it more actively and purposefully. Therefore we are inclined to believe it really is the use of CRM that is a determinant of high growth, and not high growth that induces high use of CRM. Therefore our results are in line with conclusions made by others in earlier research.

Among the companies that used CRM, 80-81% of them used CRM systems for recording sales activities and 24% for statistics. A difference in what the CRM is used for in the two groups is found in the use of CRM for Market analysis: 40% in the General group and 57% in the Gazelle group. In the theory section, chapter 2.1, the purpose of CRM systems was discussed. One function is for the management to identify new markets and customer opportunities with help of the historical data; that is, data provided by the people who are in contact with the customers, such as the people within the sales-organization. Margaret P. Dalpe describes how a CRM system changed how people worked in her company (Dalpe, 1992). The CRM became a central part of the management meetings in which they discussed what customer activities they should indulge in next. Similarly, Fazlzadeh et al. (2011) concluded that companies that use higher level types of CRMs are prone to exhibit significant performance improvement above companies that use less sophisticated systems. One reason for why the Gazelle companies have a high turnover growth could then be explained by their high use of CRM for Market analysis. To be certain a deeper analysis of each individual company will be required, though.

The scattered dots in Pictures 4.3 and 4.4, respectively, in their way support the conclusions made by Churchill et al. in their vast meta-analysis done back in 1985; see chapter 2.4. Their findings revealed that no single determinant could explain good sales performance with more than 10%. Likewise, in our case, the time factor itself is scrutinized but as said earlier, it cannot be expected to explain the difference between a rapidly growing company and a company performing at average level.

5.2 Implications of results

Comparing only the mean values of the time share of CRM use at work between the Gazelle companies and the control group; 15% versus 8%, see Table 4.2, we can conclude that this corresponds to a difference of around 2.8 hours per week, which is twice as much. With basis of this study, we can only see the Gazelle companies use CRMs much more than the average group, but we cannot explicitly say that doubling the use of CRM would for any company result in a very rapid growth. Actually, we cannot even say that to be true for consultancy firms – the sample is too small and the reliability too low to make such definite conclusions.
Yet, devoting an additional 2-3 hours more per week to the CRM system should be feasible for most companies. Some extra growth can quite surely be expected as all research implies a clear relation between these two metrics. It should be worth a try to allocate a few hours more per week to the different features in a contemporary CRM system.

The trend lines in pictures 4.3 and 4.4 do not show a clear relation between how much time is used to work with the CRM and corresponding company growth. The only thing one can see is that increased use of CRM also is likely to increase company growth. At the beginning of this thesis, we had theories about finding an optimum value for time used with CRMs, but it is more reasonable such levels cannot be found for a group of companies on the whole, and perhaps not even for individual companies.

In this study, the mean company size was 45 employees. On average, 45 percent of the general group and 44 percent of the Gazelle group are using professional (not self-developed) CRM systems, which is still higher than in Statistics Sweden’s (SCB) statistics found in Table 2.1. SCB showed that CRM systems are more common among companies with many employees and this is what we noticed as well. According to SCB's statistics only 33% of the companies with 10-49 employees are using CRM for sales activities. It might be that consultancy firms as a group use CRMs to a higher extent than companies from other types of business. Nevertheless it strengthens our method decision to narrow down the business type to study into a clearly defined category.

We think it is remarkable that one fifth of the control group claimed that they had no CRM system at all, even including the control question regarding if they had an equivalent system, let it be of any simple sort. Some said they had all the customer history information “in their head”. As discussed in the introduction, some people believe that CRM systems are boring and superfluous. They have all information they need on mail or in their head and the contacts are stored in a personal phone book. Our own experience has showed that the backside is that companies or departments with no centralized knowledge database are very vulnerable. The company will be very dependent on a handful number of people, and if these people leave, the company will suffer a severe loss of valuable customer information.

The result of the perceived usefulness of CRM as described in Chapter 4.4 is that 68% of the Gazelle companies believe that a CRM system is very useful in daily work; however only 24% of these most optimistic companies believe that CRM benefits their profitability. Why does any company use any system unless it improves company profitability? Looking carefully into the answers, we can see these 24 % consist of five companies out of which two were on their way to start using the CRM system. The third company used the system to follow up the sales performance, and the two other companies had a CRM system but they were hardly using it. Common for these companies were that they planned to expand the usage of CRM. Our conclusion is that they believe CRMs are useful, but due to that they are not fully using it, the effect on financial performance has not yet been proven.

The companies registered in the consultancy category were very diverse companies. "Consultancy" is a broad concept and the category has a wide range of customers and services. A few of the companies received orders from the government; others were working as external consultants paid per hour. There were also transport and logistics firms, investment companies etc. The motivation and organizational perception to use CRM is likely to be dependent on the customer segment and the provided services. If a company doesn’t need to attract new customers - a few of the interviewees claimed they didn't have to - or if the business is closely connected to the government from which all orders arise, a CRM will never be regarded as particularly relevant to the business.
5.3 Evaluation of validity and reliability

The problem formulation for this thesis was to explore if there is a difference in the usages of CRM systems between one group of rapidly growing firms compared to average companies within the same type of business. We have found a few differences which are statistically significant. Therefore we are confident in saying the study answers the problem definition, and consequently the face validity of this study is determined to be sufficient.

Our study also is very much in line with what others have found in earlier research and thus the theoretical consistency is assumed to be good. The same goes for the methodological consistency, as it would be quite easy for somebody else to rerun the test and arrive at the very similar data and thus at same type of conclusions.

The reliability of this study, however, relies heavily on the ability to measure the working time with CRM accurately. In our case, it was an estimate given by the sales manager in the organization (or a person with an equivalent role). In total, data per company was collected during a two minute phone conversation, which might be too little to get reliable and accurate values. On the other hand, the companies participating in our research had no chance to prepare a “favourable” behaviour, e.g. encouraging themselves to use the CRM more so the values would be more imposing. By simply calling them up and asking them about this, they were taken by surprise and we could frame an unbiased value. If an automated system for recording CRM activities is introduced, one has to take the psychological effect of the monitoring into account when evaluating any results.

Estimates of time always have the drawback that people not always have a good awareness of time (Patel & Davidson, 1991). People might exaggerate or underestimate. Much higher reliability would have been achieved through calculations extracted from the access logs in the CRM system itself. Within the scope of an MBA master thesis, however, that would not be a feasible operation but it can be something to take into account if deeper studies of the subject would be taken on.

However, the reliability in the study increases as time coherently was kept a continuous variable instead of a discreet one. Initially we looked into scales where respondents could choose between different time ranges, but we soon realised the differences in how much time spent with the CRM can be very small and hence not fit into the given scales. As it now became, people could estimate the time spent actually down to a minute’s accuracy. This increases our test reliability.

We also had discussions about the questions regarding attitudes towards the CRM. The first two questions were 5-level attitude questions why it is questionable if there is a clear relative difference between the answer levels. Scales have the drawback that people might avoid the extremes (Dahmström, 2011). Yet, they should be narrow enough so people can quickly understand the different levels and relate to them (Patel & Davidson, 1991). We believe that the options we provided the respondents with were accurate enough for the scope of this thesis.
6. **Recommendations for future work**

It is difficult to make definite conclusions of CRM usage in the business category consultancy firms on basis of this research; the selection was not optimally chosen. In this category we find very diverse companies. “Consultancy” is a broad concept and the category has a wide range of customers and services. A few of the companies in our study claimed they receive orders from the government while others were working as external consultants paid per hour. There were also transport and logistics firms, investment companies etc. This is what can happen with a random selection among SNI codes.

We believe that the customer segment and the provided services impact the level of CRM distribution more than the professional category “consultancy”. If this investigation would be repeated, we suggest to study the CRM time among companies with a much similar customer base, which requires a careful background research of the firms involved.

For collecting data about the time devoted to CRMs, we no longer believe that a survey or interview will be reliable enough. Instead, despite the psychological effect mentioned in Chapter 5.3, we recommend a technical measurement tool connected to the CRM system, alternatively having the sales people recording their CRM activities into a centralized system on a daily or weekly basis. This way the time estimation would be much more accurate, although it would require good planning and willingness to cooperate from the participating firms.

In this investigation, we divided the CRM activities into Sales activities, Marketing activities, Analysis and others. The concept of each activity is wide, and it would be interesting to analyze deeper for what actions and purposes the systems are used in an efficient company compared to a less efficient one. For instance: quotation writing, categorization of potential business with each customer, competitor analysis and so on.
7. Reference list


Appendix A: Choosing a subset to study and performing the selection of a control group

The Gazelle companies as published by the Swedish financial newspaper Dagens Industri are elected with help of financial intelligence provided with the Swedish credit grade company UC. For our thesis, we have also used the very same figures from UC, with help of UC’s database tool Webselect.

The Gazelles are in DI’s publishing listed ranked by financial growth. Along with the ranking they write out type of business, number of employees and latest business turnover.

Sorting all 696 Gazelle companies from 2010, one finds that the four largest categories were building (154), IT (77), consulting (61) and retail (50). For the purpose of this thesis, a sufficient sample had to be obtained. We assumed that new tax deduction possibilities in Sweden within building in private homes in that were introduced during 2008 explains the large number of booming construction companies on the list. Since these tax reductions for some parts also could be used for IT related services, we then decided to look into the consultancy firms.

Telephone numbers to all those 61 consultancy firms were found with help of the business database tool Webselect, provided for business professionals by the Swedish credit institute UC. This database can be reached only through payment of the UC services.

Creating the control group

As a comparable group of companies, that in major parts had same size and business as the Gazelles, we decided they should meet the same requirements as the Gazelle companies are compared with except for the criteria of growth and profitability. Analyzing the list of consultancy firms in the 2010 issue, we could see the Gazelles within consultancy had:

1. A turnover of 10-404 MSEK
2. Between 10 and 251 people employed.

To conclude, the selection we made in Webselect in order to find similar companies consisted of the following parameters, with rounding to match Web select’s selection options:

1. Company turnover of 10-499 MSEK
2. Number of employees between 10 and 299 people
3. Age of firm minimum 4 years
4. An SNI code that is one of the following: 702200, 711220, 711210 and 711240 – see below.
5. A credit grade of minimum 4 on a grade ranging from 1 to 5 where 5 is the best. This is according with UC, the provider of information to Webselect, to be regarded as sound finances.

The selection resulted in 892 companies. A few Gazelle companies showed up in the list, as expected, and these were omitted. The remaining ones were subject to random selection made by Excel, resulting in 70 companies that then formed the control group. Telephone numbers were obtained with help of Webselect, as with the Gazelle companies.
About the SNI codes

Swedish tax authorities demand all companies to provide a code for their particular type of business. It is a six-digit code, named as SNI code ("SvenskNäringsgreninriktning", Swedish business branch type). This code tells quite precisely what the company does as its main business. Read more of these codes and their function here: http://www.sni2007.scb.se/snisokeng.asp

In Webselect, a specific SNI code is visible for all existing companies. This way one can track quite exactly what a certain firm does.

The Gazelle companies are already categorized by Dagens Industri; however, it turned out their labels didn’t coincide with the SNI codes in Webselect. This is probably since the SNI codes are not always reliable, after all, since companies can provide the wrong code to the authorities.

In total, we could see there were 13 different SNI codes for these 61 consultancy firms. However, 80 % of them had one of four SNI codes (702200, 711220, 711210 and 711240), so we chose to include these four in our selection of a control group.
Appendix B: The questionnaire with answering alternatives

As this research was performed within Swedish companies, the telephone interviews were then held in Swedish. Below the complete questionnaire is found translated in English.

This survey is completely anonymous and will not be used for marketing purposes by anyone.

As much as possible, please answer the questions from the sales department’s perspective.

1. How many people do you have employed in total? (open question, must lie between 10 and 299)

2. How many of them are sales people, including the sales manager? (open question, can be maximum 299)

3. How many hours per week is your average work time? (portions of 1/10 h were accepted)

4. Do you have a specific CRM system for tracking your customer calls? (Yes/No)

5. If No on question no. 4: do you have some sort of equivalent system to log the customer calls? E.g. Excel, calendars, manual log books? (Yes/No)

6. A) Do you use your CRM system for recording customer calls? (Including updating contact information, reporting visits, mails sent etc) (Yes/No)

   B) Do you use your CRM system for marketing purposes? (Including finding new leads, developing existing customers in assorted ways) (Yes/No)

   C) Do you use your CRM system for customer relationship analyses, e.g. customer retention, customer satisfaction, claim occurrence etc? (Yes/No)

   D) Is there something you do use your CRM system for that hasn’t been mentioned in above questions? (Open question)

7. How many hours per week does a member of you sales team work with your CRM within the aforementioned tasks? (portions of 1/10 h were accepted)

    Now I would like to ask you about your attitude toward using CRM systems.

8. In how big portion would you say the time you spend working with your CRM is well used? Please choose between: 1) Not at all 2) In a low portion 3) Neither high nor low 4) In a high portion 5) In a very high portion
9. Do you plan to increase or decrease your use of CRM systems? Please choose between: 1) Decrease a lot 2) Decrease some 3) Neither of 4) Increase some 5) Increase a lot

10. Your company is a profitable one. Choosing within a scale ranging from 10 to 1, what significance do you think your CRM system has for your profitability? The extreme values are:

   10: It is crucial .................................. 1: It has no significance
Appendix C: Questionnaire results

Total amount of respondents: 54 (1 per company)
Number of Gazelle companies interviewed: 25
Number of companies from the control group interviewed: 29

Average number of people employed:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>44,7</td>
<td>45,7</td>
</tr>
<tr>
<td>Median</td>
<td>25</td>
<td>22</td>
</tr>
</tbody>
</table>

Comment: A few companies in both groups have a large number of workers, which gives a big difference in the mean and median values.

Number of sales people, including the sales manager:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15,3</td>
<td>14,8</td>
</tr>
<tr>
<td>Median</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Standard error</td>
<td>5,95</td>
<td>4,58</td>
</tr>
</tbody>
</table>

Comments: A few companies in both groups have a large number of workers, which gives a very big difference in the mean and median values. For that reason the standard error (=standard deviation for the group divided with the square of number of observations) becomes a high value. Many respondents reported they didn’t have any sales persons at all, or stated that virtually all workers function as sales persons.

Average work time per week:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
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<tbody>
<tr>
<td>Mean</td>
<td>40,8 h</td>
<td>41,7 h</td>
</tr>
<tr>
<td>Median</td>
<td>40 h</td>
<td>40 h</td>
</tr>
<tr>
<td>Standard error</td>
<td>1,44 h</td>
<td>0,82 h</td>
</tr>
</tbody>
</table>

Comment: no real differences between the groups; they work very much to a similar extent.
**Question:** Do you have a CRM system to keep track of your customer calls? Answers are presented by group below.

**Control Group**
- Yes, self-developed: 34%
- Yes, purchased: 45%
- No: 21%

**The Gazelles**
- Yes, self-developed: 40%
- Yes, purchased: 44%
- No: 16%

Comments: Surprisingly perhaps, a fifth of the control group claimed they had no CRM system at all, even including the control question if they had an equivalent system, let it be of any simple sort. Some said they had all the customer history information “in their head”.

**What the CRM system is used for:** Of the companies that actually use a CRM system, the tables below show how many of them use the CRM system for logging customer calls, as a marketing aid and performing analyses, respectively:

**Control Group**
- Customer calls: 80%
- Marketing aid: 40%
- Analyses: 24%

**The Gazelles**
- Customer calls: 81%
- Marketing aid: 57%
- Analyses: 24%

Comments: Companies that do not use CRM systems are not included in these figures. If they would’ve been, the average values would have been somewhat lower. A slightly larger portion of the Gazelles than the control group seem to use their CRM systems as a marketing aid.

**Additional activities:**
As an open question, the respondents were asked if they use their CRM systems for any particular purposes that were not mentioned in the preceding three questions.

Among the answers were: Reporting work time as base for invoicing customers (as many consultancy firms invoice per hour they work for the customer), registering quotations,
tracking quality, measuring activity level such as number of customer calls, business forecasting, using it as a guide in project steps, benchmarking competitors.

---

**Hours per week that a sales person on average works with the CRM within the activities mentioned above:**

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3,8 h</td>
<td>7,6 h</td>
</tr>
<tr>
<td>Median</td>
<td>2 h</td>
<td>2 h</td>
</tr>
<tr>
<td>Standard error</td>
<td>1,12 h</td>
<td>2,37 h</td>
</tr>
</tbody>
</table>

Comment: These figures are for the people that do use a CRM. Average would have been lower if it had included those who don’t.

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**The time spent working with the CRM is well used:** mean value on a scale ranging from 1 - Not at all; 2 - In a low portion; 3 - Neither high nor low; 4 - In a high portion; 5 - In a very high portion:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3,88</td>
<td>4,24</td>
</tr>
<tr>
<td>Standard error</td>
<td>0,17</td>
<td>0,13</td>
</tr>
</tbody>
</table>

Comment: the Gazelle companies seem to perceive working with the CRM systems as being more important than the people in the control group. The difference is statistically significant using a t-test at the 10 % level.

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**Plans of increasing or decreasing the use of CRM systems:** mean value on a scale ranging from: 1 - Decrease a lot; 2 - Decrease some; 3 - Neither of; 4 - Increase some; 5 - Increase a lot:

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3,76</td>
<td>3,96</td>
</tr>
<tr>
<td>Median</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Standard error</td>
<td>0,13</td>
<td>0,15</td>
</tr>
</tbody>
</table>

Comment: no significant differences between the two groups, but we can see that many of the polled companies plan to increase their use of CRM systems in future.
**Significance of the CRM system used for company profitability:** Mean values on a scale from 10 to 1, where the extreme values are: 10 – It is crucial; and 1 – It has no significance.

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>The Gazelles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5,00</td>
<td>5,33</td>
</tr>
<tr>
<td>Median</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Standard error</td>
<td>0,47</td>
<td>0,56</td>
</tr>
</tbody>
</table>

Comments: practically no differences. It seems most companies relate their use of CRM systems somewhere between the two extremes, i.e. they do not value it as being crucial but also don’t feel it’s insignificant.