The Path towards Excellence
Business Excellence in Swedish Dental Clinics

Bachelor’s thesis within Business Administration

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Abstract

Purpose: The purpose of this thesis is to determine whether Swedish dental clinics apply parts of Business Excellence models in their business operations and whether or not they are aware of doing so. The framework for this survey will be based on the success factors that we identify in the Swiss dental clinic Frenkenklinik AG, which is known to effectively apply theories behind Business Excellence.

Background: An extensive range of research has been carried out regarding Business Excellence and its effect on manufacturing, service companies and even healthcare. Still, there is a lack of studies on how Business Excellence can change and improve the dental care sector. However, there is a clinic in Switzerland that has not only implemented Business Excellence, but done it so well as to win the prestigious EFQM Excellence Award. Therefore, we want to investigate what Frenkenklinik AG does, that makes them so successful and if dental clinics in Sweden are applying Business Excellence and if they are aware of the fact that what they do could be considered Business Excellence.

Method: In order to answer the purpose of our thesis we had to employ a mixed method approach. We required a qualitative approach, in the form of semi-structured interviews, in order to find the factors that make Frenkenklinik AG so successful in their application of Business Excellence. After this, we used a quantitative method when surveying whether Swedish dental clinics employ activities that are part of a Business Excellence approach.

Conclusion: In conclusion, we have identified five factors that have made Frenkenklinik successful at using Business Excellence. We then have found that Swedish dental clinics are certainly using parts of Business Excellence; however, they are not aware of actually having a Business Excellence approach. And lastly, we found recommendations for Swedish dental clinics to improve their journey towards Excellence.
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1 Introduction

This chapter provides the reader with an introduction to the topic of this thesis. Firstly, the structure of this thesis is illustrated. Secondly, a background to the respective subject and a discussion of its relevance will follow. Thirdly, the purpose, perspective and delimitations will be introduced. This chapter is concluded with definitions that are used in this report.

“Excellent things are rare.”

Plato

We are living in a fast-moving, ever-changing world that is characterized by globalization. Companies do not only compete on a national level anymore, but have to race with combatants from all over the world. Western businesses complain about how they are threatened by competitors from low-wage countries who challenge their quality products by offering ‘good-enough’ ones. Besides the increasing competition, customers are becoming more and more demanding. Nowadays, it is not enough to just offer a unique product - that only is the entry criteria into the market. No, today, a customer wants value-for-money-products, quality and, first and foremost, service. As the Wal-Mart founder Sam Walton (2011) puts it: “There is only one boss. The customer. And he can fire everybody in the company, from the chairman on down, simply by spending his money somewhere else.” Besides that, the customer is also the one who ensures a company’s income. Consequently, customers are the reason businesses exist; and if a company fails to meet its customers’ expectations and needs, it is likely to be out-of-business before even realizing it.

Realizing the exigency of customer loyalty, organizations prompt to offer more than just a product. They tender a whole package that directly or indirectly affects customer satisfaction. The use of such an approach is called Total Quality Management, which aims at producing exceptional products and services on a qualitative outstanding level while being cost-efficient and trying to meet all stakeholders’ needs and expectations.

One of the few sectors that appears to still be resistant to the saying “the customer is king” is the healthcare industry. Is it because healthcare is indispensable to life? Or is it maybe because in health care customers are only ‘patients’? There is hardly another field that requires more personal contact than in health care. Nonetheless, a stiff Doctor - patient relationship seems to be the norm in most practices. Additionally, stressed and unfriendly nurses and receptionists as well as the typical unpleasant feeling and structure of a health care institution add to the general discomfort when one has to visit the doctor. Having the customers feeling discomfort when visiting your business will surely have a large negative impact on their satisfaction.

A different picture you will observe when you enter the Frenkenklinik, a Swiss dental clinic situated 15km south of Basel in the Swiss canton of Baselland in a town of 1800 inhabitants called Niederdorf. An exceptional sympathetic team welcomes its patients with open arms into a friendly atmosphere. One immediately feels that something is dif-
different in this practice. Employees and dentists have a smile on their face. There are no grumpy patients sitting in the waiting room or upset little kids’ faces. The reason for this immediate difference is hard work by the employees and the owner of this clinic to implement Business Excellence - a management system where constant improvement and customer focus is the norm.

Dental care is an area of business where customer focus is often not a priority, as this has historically been a profession where there has been little or no competition and never-baiting demand. We, therefore, explore how intensely dental care clinics in Sweden focus on customers or, better, on patients, employee focus and quality management.

One must, however, keep in mind that Sweden is a country in which health care has been monopolized by the government for a very long time and as such it is not considered as a business. This has led to a situation where there is an ambiguous attitude towards providing health care for profit; now reformations have opened up the way for this possibility.

1.1 Disposition

• Firstly, the reader will be immersed into the topic of this paper in the Introduction section which also contains the background to this paper. The reader is introduced to the history of quality management and the related theories are presented. In the following, the purpose and research questions are laid out in order to specify exactly what the authors endeavor to achieve with their thesis.

• The Frame of Reference is the next major section and gives an in depth review of the existing literature on the topic of Business Excellence and empirical results from different implementations. This section is organized in a funnel approach where the reader is firstly introduced to general information and is then, in steps, taken to issues more specific to the purpose.

• In the Methodology and method part, we introduce and discuss the scientific method that we used when approaching the research problem, data collection as well as analysis.

• Finally, our Findings and Analysis will be presented and analyzed in order to answers the three research questions. This thesis is completed by a conclusion part where our findings are put into perspective relative to the purpose.

• Conclusion is aimed at concluding our finding and analysis. It will refer to all research questions.

• The Discussion section concludes this thesis. We will, firstly, regard additional observations we made. Secondly, we will elaborate on the limitations of this study and lastly, we will give some suggestion for possible future studies.
1.2 Background

With increased competition comes a need to improve productivity and customer loyalty in order to maintain profitability as margins decline. There are many ways a business leader can choose to achieve these goals - outsourcing can be a way to improve the cost efficiency of production, automation is another. Strong marketing can inspire customers to stay loyal. Business Excellence is an approach that intends to achieve both of the above goals.

The first beginnings of quality management date back to 1920, but the methods used then were merely statistical in nature and only had a distant relation to the tools of Business Excellence, which are the focus of this paper. One could say that the first implementation of quality management was made in Japan during the 1940s, when Deming was invited to improve the quality of Japan’s industry to make it internationally competitive. That was the start of what is now called lean production (Bicheno, 2009). Total Quality Management (TQM) appeared during the 1980s when Western companies had to start their own quality programs in order to keep up with the competition from, among others, Japanese producers. The aim of the TQM movement was to deliver goods and services of good quality. The movement relied on a few simple guidelines on how to do business in order to maintain and improve quality (Douglas & Judge, 2001; Agus, 2001; Mann & Kehoe, 1994).

The principles and model created for Total Quality Management (TQM) have become the foundation to what is now called Business Excellence. It was in the 1990s, that the change, that would later lead to the diminishing presence of TQM in favor of the term Business Excellence, started. One important step-stone in this change was when the European Foundation for Quality Management (EFQM) changed the words quality and total quality management to excellence and Business Excellence (Adebanjo, 2001). In the same paper by Adebanjo (2001, p.39) one can read the following quote by De Dommartin, the CEO of EFQM:

“EFQM believed the Model should reflect shifts in business emphasis and new management ideas as well as fulfill the requirements of large, small and medium-sized enterprises in the private and public sectors. Their objective became: to provide a model that ideally represents the Business Excellence (TQM) philosophy that can be applied in practice to all organizations irrespective of country, size, sector or stage along their journey to excellence.”

From this quote is seems as though the terms TQM and Business Excellence can be used interchangeably from each other. This is partly supported by Wade (2000) who states that excellence is basically a definition of TQM, as they are based on the same principles. One could also view TQM as the basis for Business Excellence “...while it remains dynamic and flexible enough to change depending on the influences and opinions of organizations using them” (Ashton, 1997, p.15). We believe that the change in term - from TQM to Business Excellence - was an effort to make it easier for non-production companies to apply the models and to get the support from non quality department employees.

One company that has managed to implement Business Excellence in a way that has improved productivity and customer loyalty is the Swiss dental clinic Frenkenklinik
AG. The clinic was founded in 1984 by its owner Dr. med. dent. Roger Harr. It is situated 15km south of Basel in the Swiss canton of Baselland in a town called Niederdorf. The clinic currently operates with 6 dentists, and has 23 employees working as dental hygienists, prophylaxis assistants, receptionists, administrative workers, dental assistants as well as cleaners. The owner’s wife, Mrs. Conny Harr-Tschudin, works as the manager and press spokes person for the clinic.

Since the average income in the area of the clinic is about 37% below the average for the canton, the company understands that it must not only base its focus on income, but rather emphasize its corporate social responsibilities. As a reaction to the ongoing structural transformation in health care and the new demands from patients and employees, Frenkenklinik introduced Business Excellence applications to its business in 1995. The clinic started off by using Total Quality Management (TQM) policies and later, in 1997, implemented the EFQM Model in its operations. Throughout the years, Frenkenklinik has achieved various certifications for quality management standards that are governed by the International Organization for Standardization (ISO). This decision has lead to a large improvement in employee morale and a substantial decrease in cost incurred due to lacking quality. Implementation has been so successful that in the year 2000 the clinic was awarded with the Swiss ESPRIX National Quality Award. The same year, Frenkenklinik was the first health care organization to ever receive the award for being the best European business - the European Quality Award.

1.3 Problem Discussion

As of 1999, it is free for any qualified dentist to start a private clinic in Sweden (Axelsson, 2000). This means that the competitiveness of the dental market should have increased, making it even more important for clinics to distinguish themselves in order to attract loyal customers. This is why we want to use our thesis to evaluate the quality management in Swedish dental clinics.

Business Excellence has proven to be performance enhancing and adds greatly to the satisfaction and motivation of customers or patients and employees. As it was mentioned above, the concept seems to be rather unknown by the health care industry. Even though we came across some outstanding examples of clinics applying Business Excellence it was more the exception than the norm. We believe that Frenkenklinik is a perfect exemplar of how Business Excellence can be applied in the health care sector, of how it can improve a clinics performance and especially of how it can influence the well-being of all involved stakeholders, may it be the patients, employees or the CEO. Unfortunately, we do not come across many practices that are that ambitious in improving their performance or are willing to strive for their stakeholder’s satisfaction. Health care is very closely connected to the well-being of humans and should hence have highest quality standards in every aspect. This thesis aims at examining whether Swedish dental clinics are aware of Business Excellence and to what extent they use it.

Another aspect that makes the subject matter of this thesis very appealing is that Business Excellence and the application of management system is most often applied by producing companies but rather infrequently at fairly small health care institution. The approaches that can be taken and the consequences of employing management systems are not only interesting but especially fascinating, sometimes unexpected and surprising. Frenkenklinik is an exceptional example that will conduce as a form of guide how
Business Excellence can be implemented, applied and benefited from. Based on that, we will evaluate the Business Excellence approaches of Swedish Dental clinics.

We believe that our research can bring benefits not only to clinic owners, their employees and their customers by improving efficiency, work motivation and customer satisfaction but also academia and other interested in how to improve the success of one’s organization by using Business Excellence.

This thesis aims at answering the following research questions that are linked to the previously described facts:

(1) Which is/are the critical factor/factors behind the successful implementation of Business Excellence at company Frenkenklinik AG?
(2) Are Swedish dental clinics using parts of Business Excellence and are they aware of doing so?
(3) Is it possible to give general recommendations to Swedish dental clinics?

1.4 Purpose

The purpose of this thesis is to determine whether Swedish dental clinics apply parts of Business Excellence models in their business operations and whether or not they are aware of doing so. The framework for this survey will be based on the success factors that we identify in the Swiss dental clinic Frenkenklinik AG, which is known to effectively apply theories behind Business Excellence.

1.5 Perspective

When approaching the topic of Business Excellence in this thesis we will take two different perspectives into consideration, the in-depth perspective and the statistically general perspective. We believe that this dual perspective adds value to our paper as we can answer research questions with distinct differences in scope. In relation to the professional area that we are researching, we do, however, have an outside perspective since we, as students, look into a specialized profession without any previous knowledge of the field. We do hope that we can provide our readers and fellow students with an interesting insight into the quality management implications of dental care. As we have had our own experience of dental care as patients we also write this paper from a patient’s perspective with a very limited insight into the perspective of a practice owner or practice employee.

1.6 Delimitations

It should be noted that our survey was constructed with very concise questions and static choices of answers. This was intentional as we wanted to focus on the spread of Business Excellence related activities and not to analyze in depth how the activities are implemented. We did get remarks from some respondents who felt that our answer options did not allow them to fully explain the situation at their practice. However, the survey did help us succeed in creating a holistic picture.

While it would have been interesting to see exactly how these activities are implemented in the different clinics, this was not within the scope of this thesis and is therefore something that we can suggest as future research.
1.7 Definitions

- **Business Excellence**
  
  “Business [E]xcellence is the systematic use of quality management principles and tools in business management, with the goal of improving performance based on the principles of customer focus, stakeholder value and process management.” (Hemzal, n.d.)

- **Total Quality Management**
  
  TQM is an integrative philosophy of management for continuously improving the quality of products and processes (Ahire, 1997). There are nine common practices involved in TQM: Cross-functional product design, process management, supplier quality management, customer involvement, information and feedback, committed leadership, strategic planning, cross functional training, and employee involvement. (Cua, McKone & Schroeder, 2001)

- **Quality**
  
  For this paper we use the definition by Dr. Harr (2001, p. 69) that quality is the level “to which the product or service meets customer expectations.” He also states that “quality is not restricted to the nature or quality of a product or service as such.” Defining quality in this way makes it vital to maintain a customer focus in one’s business development, since what matters is what the customers want and not how well one can produce a product or supply a service.

- **Efficiency**
  
  We chose to define efficiency as a comparison of what is being produce/performed compared to what can be performed with the same input of resources.

- **Successful**
  
  There are as many ways of explicitly defining success and successful. However, we chose to develop our own definition: A company is successful when it fulfills the expectations of all its stakeholders. However, meeting customers’ expectations should be the priority. Different levels of success can be decided on the basis of how many stakeholders and to which extent stakeholders’ expectations have been met.

- **Awareness**
  
  “Awareness is the state or ability to perceive, to fell, or to be conscious of events, objects, or sensory patterns. In this level of consciousness, sense data can be confirmed by an observer without necessarily implying understanding. More broadly, it is the state of quality of being aware of something.” (Kohli, 2011, p.59)

  In our research this implies to those dentists that are or are not aware of the fact that Business Excellence exists. However, no knowledge on how to apply Business Excellence is required to achieve awareness.
- **EFQM Excellence Award**
  The EFQM Excellence Award is Europe's most prestigious award for organizational excellence. It is given to Europe's best performing companies and not-for-profit organizations (EFQM, 2010).

- **Malcolm Baldrige National Award**
  The Malcolm Baldrige National Quality Award is the highest level of national recognition for performance excellence which a United States based organization can receive (NIST, 2010).

- **ESPRIX**
  Esprix is based on the European EFQM Excellence model. The Esprix Swiss Excellence Award is just like the EFQM Excellence Award granted once a year. It is awarded on national level though and aims at pricing the best companies in Switzerland (ESPRIX, 2011).
2 Frame of Reference

The frame of reference is structured using a funnel approach on the basis of how closely related the theory is to our research and purpose. Firstly, related tools are introduced and these are followed by a section where the theoretical foundation of Business Excellence is established. We continue by describing the theory and its implications in health care, the specific issues of Business Excellence in Dental practices and present the critical factors that make Frenkenklinik’s Business Excellence approach successful. We conclude this chapter by providing an overview about dental care in Sweden.

“If you don’t drive your business, you will be driven out of business.”

B.C. Forbes

2.1 Malcolm Baldrige National Quality Award

The simplest way of describing the Malcolm Baldridge National Quality Award is to say that it is the USA’s equivalent of the EFQM Excellence Award. One notable difference is that the award uses the word Performance Excellence instead of Business Excellence. The award is based on assessment of the Criteria for Performance Excellence which consists of several critical aspects of management:

- Leadership
- Strategic planning
- Customer focus
- Measurement, analysis and knowledge management
- Workforce focus
- Operation focus
- Results

Working with the criteria serves two main purposes, to:

- Identify Baldrige Award recipients to serve as role models for other organizations
- Help organizations assess their improvement efforts, diagnose their overall performance management system, and indentify their strengths and opportunities for improvement.

So when looking deeper into the information available it does seems as if the MBNQA is really the equivalent of the EFQM Excellence Award, operating under roughly the same principles and towards similar goals.

2.2 Balanced Score Card

The Balance Score Card is a management tool that was introduced to academia by Kaplan and Norton in 1992 (Cobbold & Lawrie, 2002).
It was constructed to make it easier to provide managers with “…richer and more relevant information…” (Cobbold & Lawrie, 2002, p. 1) by combining financial and non-financial measures into one report structured around four clusters: financial measures, learning & growth, internal business processes and customers. The tool is today globally accepted and is now in the fourth generation of development since its inception (Cobbold & Lawrie, 2002).

It tries to create a more balanced way of leading companies based on the idea that old tools were too focused on financial data and, therefore, did not supply managers with enough information to make balanced decisions.

### 2.3 Business Excellence

The course material published by Fritz Fahrni and Thomas Friedli (2010) gives a very broad introduction to Business Excellence and presents an overview of the concept by explaining how and where it can be implemented.

The authors introduce the background of Business Excellence and illustrate how it emerged from simple quality management in the manufacturing industry to a concept that can integrate all parts of any organization – may it be in the production or service sector. They present different models like the European Business Excellence model developed by the European Foundation of Quality Management (EFQM), the American model Malcolm Baldrige National Quality Award as well as the Japanese Deming Price. Mainly based on the EFQM model, Fahrni and Fritz explain the process of benchmarking one’s organization, which helps companies to develop a framework for their specific firm. Moreover, the work highlights how the Business Excellence framework can be implemented and how companies can benefit from it. They also point out the role of stakeholders and the importance of their commitment as well as different competitions which award companies which were especially successful in employing Business Excellence. Fahrni’s and Friedli’s work composed a highly valuable framework for further research. Deriving from the manuscript, we could specifically search for more explicit literature.

While this course material provides a foundation of what Business Excellence is and how it can be implemented, it is necessary to look further for an even wider knowledge of the area. Therefore, we continue this section by analyzing what other authors have written within this field.

The article TQM and Business Excellence: Is there really a conflict? (Adebanjo, 2001) discusses the evolution from TQM towards Business Excellence and the difference between the two concepts; or rather the lack of difference as the paper suggests that they are two different sides of the same coin that should co-exist.

The research paper Promoting Excellence - An international study into creating awareness of business excellence models by Nigel Grigg and Robin Mann (2008) aims to dispose the result of a significant international study, focusing on how custodians of Business Excellence frameworks promote and create awareness of frameworks on the national level. This paper relates to our thesis in view of the fact that it looks at awareness of Business Excellence frameworks amongst organizations. In our thesis, we will study the awareness of Swedish dental clinics to Business Excellence factors. Therefore, this research paper underpins this thesis by creating a basis for our research questions. In the
findings section of the paper, the authors write that: “Business Excellence still has a ‘low profile’ and is not properly understood by most organizations and by their CEOs and front-line managers; the link between business excellence and other improvement activities is unclear to most organizations.” (Grigg & Mann, 2008, p. 246) This creates a foundation for setting up a hypothesis that Swedish dental clinics are rather unaware of Business Excellence models and are unlikely to make use of them.

When continuing to deepen our knowledge about Business Excellence, we observed that the organizational structures of a company play a significant role for the successful implementation. Bauer, Falshaw and Oakland concluded in their investigation Implementing Business Excellence (2005) that complex and formal organized companies are more likely to encounter problems when implementing Business Excellence than simple and informally structured organizations are. Two additional articles written by Kanji (1998; 2002) deal with the topic of how to implement Business Excellence and how to measure it.

In a study where research was especially focused on the Danish and Swedish markets, the Danish authors Kristensen, Juhl and Eskildsen (2001) introduced a measurement system for Business Excellence and came to the conclusion that organizations which follow a clear Business Excellence approach can record better financial results. Those conclusions are underlined by Oakland and Tanner (2008). The Kanji’s Leadership Excellence Model (2002) was used as a measure of Business Excellence maturation in order to examine whether or not there is an existing relationship between Business Excellence practices and an organization’s performance in both private and public companies. The researchers indicated that there is a positive relationship which underlines the previously stated argument that a Business Excellence approach can help companies achieve a better performance.

In his work Business Excellence models and the path ahead Balvir Talwar (2011) deals with the three previously mentioned models but also identifies 100 other Business Excellence Models/ National Quality Awards used all over the world. Talwar believes that those models transform depending on the changes of the external environment and can be regarded as a current way to attain excellence. He also states that Business Excellence models have to be adapted to the specific organization in order to achieve perpetually successful business performance. This realization is especially helpful for our research since it indicates that we should not try to identify one specific Business Excellence framework with all its particular characteristics, but that we should rather explore factors that are in line with one of the Business Excellence models and aspects that the company, in accordance with its culture, might have implemented itself.

Williams, Bertsch, Van der Wiele, Van Iwaarden and Dale (2006) have a similar perspective. They analyzed the academic and practical validity of current Business Excellence models and came to the conclusion that the model forms a good foundation and guidance for companies which have problems with conformance quality and that advanced organizations should develop their own approaches which are in line with the company’s business model and strategy.

2.4 EFQM Excellence Model
The EFQM Excellence Model is based on two groups of criteria, five enabler criteria and four results criteria. The former consists of Leadership, People, Strategy, Partner-
ships & Resources as well as Processes, Products & Services and the later of People, Customer, Society and Key results. If one can achieve excellence in the Enablers – the criteria a company has control over – one will see a change in the Results.

Figure 1-1 The EFQM Excellence Model (EFQM, 2010b).

If a company enters the competition for the EFQM Excellence Awards, external auditors will assess the company according to the model. In accordance with this system, a company can earn a maximum of 1000 points distributed over the nine categories (EFQM, 1999). A company that scores in the range of 600 to 700 points would reach ‘excellence’ according to Roger Harr (2001). In contrast, Harr also writes that a newly ISO 9001 certified company would probably only reach a score of approximately 200-250. However, it is important to understand that while a company with 700 points might have reached ‘excellence’, it is still only the beginning of a true journey towards constant improvements. Or, in comparison, as said by (Peters, 1988, p. 7): “Excellent firms don’t believe in excellence - only in constant improvement and constant change.”

The points are weighted differently between the lists of criteria, with customer satisfaction having the highest weight with 20% (Harr, 2001). This is important as it means that the EFQM Excellence Model is very rewarding towards companies that satisfy the expectations of their customers.

The method of evaluation used with the Excellence Model is called RADAR and consists of four steps: Decide on the Results the organization is aiming for; Develop an integrated set of sound Approaches to attain the results; Deploy approaches in a systematic way; Asses and Review the approaches by monitoring and analyzing the results achieved. The RADAR logic can be combined with the EFQM Excellence Model to create a robust assessment of any organization.

It should be noted that the EFQM Excellence Model does not describe what to do and how to do it; the Model only provides a framework to enable an organization to commit self-assessment and find opportunities where one’s service can be improved (Moeller, Breinlinger & Elser, 2000).
2.5 EFQM Excellence Model Experiences

TQM and firms performance: An EFQM excellence model research based survey (Santos-Vijandre & Alvarez-Gonzalez, 2007) is a very interesting article reviewing the relationship between the EFQM model and firms performance.

Firstly, the paper finds that the inclusion of Awards – such as the EFQM Excellence awards – provides valuable benchmarking data for firms in similar environments as the competing firms. The article concludes that companies adopting the EFQM Excellence Model achieve competitive advantages that help them outperform competition. Furthermore, it is also found that the Model is universally useable within the European context. However, the authors admit that the results must be treated with caution as the report has the limitation that:

“[T]he research constitutes a cross-sectional snapshot based on 93 firms operating in the north of Spain. We can neither trace the progress of the companies in our study nor estimate the potential lags between TQM adoption and the outcomes achieved by the firms” (Santos-Vijandre & Alvarez-Gonzalez, 2007, p. 33).

The results presented by Santos-Vijandre et al. are partly approved by Calvo-Mora, Leal and Roldán (2005) who studied the performance of Spanish universities and came to the result that it is only the Process Management enabler that has a direct impact on performance.

Eskildsen and Dahlgaard (2000) confirm that the People Enabler directly affects the People Results. However, Bou-Llusar, Escrig-Tena, Roca-Puig and Beltrán-Martín (2005) argue that there is a strong relation between the enabler and the results in the EFQM Excellence Model and that a balanced approach therefore is recommended.

Rusjan (2005) argues that the EFQM Excellence Model is properly structured for the first phase of the analysis, namely identification of a problematic situation, but that the model is lacking in structure in problem identification and on how to exploit strengths or how to prioritize the areas of improvement.

To summarize our review of the theory regarding the EFQM Excellence Model, the research strongly suggests that there is a correlation between working with the model and successful results. However, there is a lack of substantial, long-term research on how the different areas and the structure of the model affect the improvements (Eskildsen, Kristensen & Juhl, 2001; Rusjan, 2005; Calvo-Mora, Leal & Roldán, 2006; Calvo-Mora et al., 2005; Wonggrassamee, Gardiner & Simmons, 2003).

2.6 EFQM Excellence Model in Health Care

There are several studies written on the topic of suitability of the EFQM Model in the area of health care. The interest for quality and efficiency improvement in the health care sector in Europe has increased as the sector is moving more and more into a free market system where the patient is no longer seen as a patient but rather as a paying customer (Moeller et al., 2000).

We have found articles studying the implementation or planned implementation of the EFQM model in Spain (Arcelay, Sánchez, Hernández, Inclán, Bacigalupe, Letona, González, Martínez-Conde, 1999), Germany (Moeller et al., 2000) and in Great Britain
(Stewart, 2003; Jackson & Bircher, 2002). The consensus from the researchers is that there is great potential in using Business Excellence in health care institutions. There are, however, several issues that hinder the development.

At first glance, a ‘production’ approach seems very inhumane to apply to a health care organization. Therefore, a good education for the change driving managers is needed in order to gain organization wide support for the project. We believe that the change from Total Quality Management to Business Excellence has made it easier to start these processes at, for instance, a hospital.

Furthermore, there is a long startup period, when using the EFQM Model as a substantial self-assessment, which has to be carried out before actual improvements can be implemented. That is caused by the fact that before one commences on the journey towards quality, it is crucial to know how the organization is performing and especially where the firm’s performance could need improvement (Moeller et al., 2000). There is also a considerable increase in workload during the commencement period. However, once the advantages of the excellence approach are obtained, the workload will decrease as the motivation to continue the quality process is increased (Jackson & Bircher, 2002).

Despite these obstacles Moeller et al. (2000) write that there is a realistic potential for health care organizations to use the EFQM Excellence Model. This view is shared by Naylor (1999) who expects that using the EFQM model will ultimately lead to excellence in business results. Arcelay et al. (1999) does not stop at business results but also states that the EFQM Excellence Model is a highly useful tool to induce a change towards a Total Quality Management culture in health care services.

Jackson and Bircher (2002) present a good example of a small care unit in Lockside outside Manchester, UK, an organization that was very successful in implementing the EFQM Model.

The researchers state that it is beyond doubt, that the EFQM Excellence Model has helped the practice to significantly improve its approach towards management and the delivery of excellent primary care services.

Jackson and Bircher (2002) also provide a list of eight lessons learned from the Lockside experience:

The lessons during the last 24 months are too numerous to mention, although some have been singled out and are listed below:

- The EFQM excellence model is easily applicable to general practice.
- The EFQM excellence model can integrate and strengthen government and other initiatives that are mandatory for general practice.
- Measuring performance criteria is very difficult and needs accurate disease registers and much pre-thought in addition to robust data collection systems.
- Increasing the capability of the computerized system and setting up the release of regular automated reports are very helpful when wanting to improve performance management and continuously improve healthcare delivery.
• Once you have the necessary performance data for your results areas you may need to spend time to carry out significant event analysis before an improvement action can be put in place.

• Primary care practices need to develop a culture of constructive criticism before this process can be truly effective.

• An open, trusting, non-threatening culture with sound communication systems is vital for success.

• There is no fixed figure for the right number of results areas for a general practice in the first instance; rather each practice needs to consider its aspirations, resources, starting point in relation to the excellence journey and the capability of its information systems.

In the article by Jackson and Bircher (2002), they write that feedback on ones performance can be both unsettling as well as very important. Anyone who embarks on a journey that involves a lot of feedback should be prepared for some surprises, both good and bad, and should have the energy, commitment and the enthusiasm for improvement, no matter how much it hurts. According to the same article, their experiences from the Lockside Medical Centre has given them the view that the troubles are definitely worth it, especially as it can save lives and improve the experience for both customers and staff.

“The ultimate test for whether the EFQM excellence model can transform a general practice is ‘does it make things better for patients?’ In 2000 the team at Lockside Medical Centre would have answered ‘we think so’, in 2001 the team can undoubtedly answer ‘we know it does’”

(Jackson & Bircher, 2002, p. 266)

2.7 EFQM Excellence Model in Dental Care

This section will be based on an article written by no one else then Dr. Roger Harr (2001) who is the CEO of the Swiss dental clinic Frenkenklinik AG, which we use as a role model for our survey of the Swedish clinics. This is due to Frenkenklinik’s relatively long and successful experience with the EFQM Excellence Model as well as that it is the only sources that we have found that discusses the use of the EFQM Excellence Model in dental care.

However, as we have been unable to find other articles covering the same issue, this section will be victim to any biases contained within the article by Harr (2001). The lack of literature is, on the other hand, a confirmation to the fact that using Business Excellence within dental care is not yet very common and therefore deserves the attention of academia.

The story told by Dr. Harr is, by all measures, a success story where the clinic managed to win the EFQM Excellence Award, for enterprises with less than 250 employees, only five years after starting to work with Business Excellence. At that time the clinic was the only dental organization that worked according to the EFQM Model.

Dr. Harr argues that this might be a result of a tradition where medical practitioners and dentist are suspicious of new and unfamiliar concepts. This suspicion grows even larger
as the concepts are brought into medicine from the outside and seem incapable of addressing the very complex nature of medical practice and as such cannot adequately describe the activities of these professions.

However, there have been several attempts to implement quality management initiatives. One example is the World Health Organization that already in 1990 began working on quality management for health care (Walther & Heners, 1995).

An approach that many dentists believe can secure customer loyalty is to always maintain a high level of new and technologically advanced equipment. This is not only financially questionable, but it is also not very high ranked among customers as a reason to change a clinic. Poor service, however, is something that 50% of customers specify as the main reason to change from one dental clinic to a competitor. Another important reason to change dentist is lack of courtesy among the staff (Harr, 2001).

This leads to the conclusion that the quality of dental treatments are taken for granted by the customers. Hence, it is reasonable to believe that the best way to maintain customer loyalty and to expand the customer base is to provide a service package that continuously gives the patient a positive surprise regarding service parameters such as waiting time, courtesy, atmosphere and similar qualitative factors.

Another reason why one should avoid using technology as a competitive advantage is that technology is rather easy to copy. This cannot be said regarding a business model based on customer satisfaction.

In line with this, the EFQM Excellence Model seems to have a good synergy with dental services as the model has a focus on customer satisfaction through effective processes and a positive working climate within the organization (Harr, 2001).

**2.8 EFQM Excellence Model at Frenkenklinik AG**

The system used at the Swiss dental clinic Frenkenklinik AG is based on four cornerstones. The first cornerstone is the application document for the EFQM Excellence Award. This 35 page document presents the Excellence systems used and also provides evidence that the company achieves ‘excellence’. This document is verified every time the clinic participates in the awards. Interviews with patients, staff and suppliers, random checks on statistics supplied and examination of all supporting documents can all be part of the verification (Harr, 2001, p. 73).

Another cornerstone of the Frenkenklinik’s Business Excellence initiative is the practice manual, a description of the systems at the clinic. This document is now approximately 400 pages and is reworked into a new version twice every year (Harr, 2001). “This manual also provides the basis for certification. It contains flow diagrams for all processes, specifications, organizations charts, instructions, checklists and specimen standard forms.” (Harr, 2001, p. 73)

This manual is not only a show document as it is actually used in the everyday work at the clinic in order to maintain a high level of service and quality.

The third cornerstone is the business plan that is drawn up afresh every year. The document is also distributed to any external partners, such as banks and other companies that the clinic has dealings with. This plan reviews the goals achieved and not achieved the last year as well as an assessment of the current situation for a range of factors such
as: goals, time factors, environment, resources, balanced scorecard, improvement suggestions and opportunities available to competitors and the clinic (Harr, 2001).

Lastly, there is a group of about 800 graphs derived from the criteria in the EFQM Model, these are updated monthly, and these make up the fourth cornerstone. As the graphs includes target level and benchmarks which makes it possible to quickly assess the current situation.

As described by Dr. Harr (2001, p. 74), “…a very useful tool for persuading and motivating the staff – even shocking them on occasion. These graphs are an essential management resource”.

These four documents provide a very important overview of the current situation of the clinic and make it much easier to find things that can be improved. They are the foundation upon which the rest of the Business Excellence initiative is built.

It is important that any quality management system is not started with the goal of reaching a certification, such as ISO9001. Since such a certification is very static and not comparable to the process of continuous improvement that is true Business Excellence in the work. Roger Harr (2001) instead suggests that such certifications are rather something that one should ‘pick up along the way.’

When starting an implementation it can be very tempting to hire an external expert or consultant to either guide the management along the way or to support with reasonable milestones and general guidance. However, this is something that Dr. Harr (2001) suggests that the practice owner or manager should do him/herself. The reason for this is that while doing these tedious tasks the manager will learn new things about management as well as his own business, which is really right in the responsibilities of a manager. So even though it is time consuming and something that the manager will have to do on top of his normal duties, he/she should try to do most of the work. The lessons learnt from this could be even more important in the dentist sector as many practice owners do not have any education or a lot of experience in managing a business. On the other hand, if one does not know where to start, hiring a consultant might be good to get things started.

At the end of his article Dr. Harr (2001) gives some advice to anyone who wants to start a Business Excellence implementation. The first thing that he recommends is that you gather your employees and carefully discuss and analyze what it is that you want to achieve, and why you want to achieve this. The last part is often overlooked but can greatly improve the support for the change movement if everyone is clear regarding on which grounds the change is taken. This analysis is important for several reasons and this is best explained by the following quote: “If you don’t know where you want to go, it’s hardly surprising that you end up at the wrong destination” (Harr, 2001, p. 80).

As a second step the article recommends analyzing the current situation. This is a task that is vital to any improvement program. If your current location is not clear, how can you know in which direction to travel?

It can be very beneficial to already now start using the EFQM Model during the analysis; you can leave out some of the criteria but using this tested structure can make this step easier, this also prepares the organization to start working towards competing with the best of European business.
After the analysis of the current situation one can continue with the third step which is to gather all documents and instruction sheets available in the practice. Using the information in these documents one can describe the different processes that drive the everyday operations of the clinic.

The third step suggested by Dr. Harr, is to gather all documents and instruction sheets in the clinic and start to describe the processes that are used within the practice.

After this step one can look at the processes currently used within the practice and see where improvements can be made. Using the information gathered during this time one can start developing the practice manual. This manual should contain guidelines that employee can follows to operate according to the new paradigm of excellence. Now sometime should be spent following this manual in order to become used to this new way of practice.

The final step is then to call in a preliminary auditor from the certification agency that one is working towards or an external consultant. This audition should then give enough information to find new ways of improving the work done at the clinic, if this is so then a new improved version of the manual can be written. At this stage one has completed a cycle of improvements and should have an understanding of how to maintain a virtuous circle.

Now it is time to apply for certification or for any quality management award that seems fitting for the company in question.

2.9 Business Excellence Approach of Frenkenklinik

We will now introduce the reader to the exact Business Excellence approach that Frenkenklinik takes and which applications Frenkenklinik uses in order to achieve Business Excellence. We have gathered this information from our semi-structured interview (elaborated on in the following Methods section) conducted with Dr. Harr as well as from all articles available to us about Frenkenklinik (mostly taken from their website). It is important to note that we present this section in the Frame of Reference instead of in our Findings section so that the reader is ultimately introduced to Frenkenklinik’s work environment. From this section, we will analytically derive our conclusions about Frenkenklinik’s critical factors behind their successful Business Excellence implementation and thereby answer our research question 1. This analysis can be found under heading 4.1.

After realizing that customer loyalty could not solely be achieved by acquiring the latest technology for the practice, but rather by making customer service top-priority, the clinic set out to increase friendliness of the staff members, decline waiting times as well as improve the general atmosphere among others (Harr, 2001). Frenkenklinik understands that the medical performance of a dentist is indeed critical; however, it should be viewed as self-evident. It can be said that Frenkenklinik has established its own quality management system that is perfectly adapted to the needs of their clinic focusing unconditionally on their customers. Dr. Harr has pieced together a quality system that is based on the Malcolm Baldridge Model, however, mostly on the EFQM Excellence Model (Harr, Personal Communication, 2011-03-17). The following is a description of Frenkenklinik’s Business Excellence application, structured in terms of the EFQM Excellence Model’s criteria.
We have found that for fulfilling the **Leadership criterion** of the EFQM model (as described above under heading 2.4, Dr. Harr performs outstandingly seeing that he defines, communicates, and even practices precisely phrased values. He believes that by communicating clearly defined goals to all the clinic’s employees, the purpose of each individual’s tasks will become clearer and will lead to higher motivation (Harr, 2001). His exceptional leadership can be seen in the implementation of different policies like the ‘open door policy’ which gives staff the opportunity to approach him at any hour of the day. His communication with staff is strengthened by team meetings that take place on a regular basis as well as by newsletters that he sends out to all employees of the clinic - including to the cleaning staff, which is not the norm for dental practices. In terms of leading his organization with integrity and inspiration, we have found that Dr. Harr keeps himself updated with sociological trends. He says that he analyses more than a hundred magazines and various internet forum each month to be able to spot and follow sociological trends as they arise (Harr, Personal Communication, 2011-03-17). We believe that this is one of his key competences in terms of his innovative leadership style.

He also carries out an ‘open book policy’ where every employee has the right to know everything that goes on in the practice including controlling data as well as the financial position of Frenkenklinik. He therefore organizes briefings for everyone, which he calls ‘quality circles’. To measure employee performance and monitor the quality of work being performed in the clinic, Dr. Harr invented the ‘Mystery Man Program’ under which he, and all other employees each have the opportunity to once a month do an audit of Frenkenklinik. This might be carried out in form of an email sent from an anonymous address asking for the advertised Pick-up service in an unfriendly manner. The staff is then tested on their timely and friendly response. But not only regular feedback sessions and evaluations make Dr. Harr’s leadership style very special; he has also developed a distinctive suggestion system, under which he has considered more than a thousand improvement suggestions a year. The way the system works is that every employee needs to hand in at least one suggestion for improvement for every day of further education he/she is involved in, otherwise the day spent for education will be taken off the employee’s leave days. To Dr. Harr, it does not matter what sort of further education or training the employee is involved in (in extreme cases it may even be cooking classes or Tai Chi) as long as the education helps the employee in self-improvement (Harr, 2001).

The previous quality-ensuring system leads to and links the next EFQM criterion: **People.** We have found that Frenkenklinik believes that people are the key to their success (Harr, Personal Communication, 2011-03-17). They consider their selection of new staff members more closely than they would when acquiring a new software package or other technology for the clinic. According to Harr in 2001 (p. 75): “Human resources are our most important ‘software’.” An important part of their hiring policy is that every single staff member is involved in the process, leaving Dr. Harr only with the right of veto. To ensure employee’s motivation, qualification and competences as well as friendliness, Dr. Harr has implemented a reward program called the M-A-X (name is best described in English as the ‘Employee Stock Index’), which works in the following way: Every employee starts off every year with a total value of 1000 points. Every month the ‘market value’ of these points drops by 1%. However, each employee’s share price can be enhanced again by exceptional achievements, such as special engagement for the
team, being punctual, decreased rate of errors as well as taking part in further education programs among others. To care for employees’ health, Dr. Harr also gives away points for maintaining a healthy body mass index or being smoke-free for example. Employees having the highest rated shares by the end of the month, also win a 500 Swiss Franc premium.

Drawing back on the feedback and employee-assessments described earlier under the Leadership criteria, the clinic allows for mistakes to be made. Nevertheless, the staff member having made a mistake must address it at the following staff meeting and come up with a way of how to prevent such a mistake from being made again. Dr. Harr believes that this helps Frenkenklinik as an organization to stay innovative and learning-based (Harr, 2001).

In regards to criterion 3, **Policy and Strategy**, Dr. Harr believes that the strategy for adopting a new framework or system must remain simple for it to be conceived by everyone in the organization. Therefore, Frenkenklinik involved all of their staff in the making of a mission statement, in which their goals, visions, as well as a definition of the company are presented. To follow up with their mission statement, Frenkenklinik takes regular measurements. However, Dr. Harr notes that the importance should lie in knowing what to measure and to kill the - often times gripping - ‘data darlings’. Frenkenklinik uses a Balanced Score Card (BSC) system to “ensure that the vision and strategy are actually bedded into day-to-day operations” (Harr, 2001, p. 74). Frenkenklinik has adapted their BSC system so that it does not only address financial goals, but also goals regarding for example their customer, staff, environmental and leadership focus amongst others.

All in all, as Dr. Harr likes to put it: the implementation of the Business Excellence system at Frenkenklinik could be described as a triathlon rather than a marathon. There were many processes that needed to be trained and changed, and this happened with 95% transpiration and 5% inspiration - or simply with a lot of consistent physical and some intellectual work (Harr, Personal Communication, 2011-03-17).

Moving to Criterion 4, **Partnership and Resources**, it can be said that Frenkenklinik keeps good relationships with their patients, suppliers, partners, and with society as a whole as well as with competitors. They acknowledge their suppliers by announcing the best one on their website every year, after closely assessing all contact and especially all consignments received. To benefit and therefore keep good relations with their patients, Frenkenklinik has made it their target to introduce at least two new technologies or modern processes to their clinic.

In the criterion 5, **Processes**, the focus here for Frenkenklinik lies on adding value for their patients by governing the quality framework and the processes used. The clinic formatively analyses patients’ expectations and requirements to build a solid base for challenging their processes. Frenkenklinik uses myriad self-monitoring tools combined with various checklists to control the processes under the ISO standards. To ensure the quality of their dental work, Frenkenklinik, for example, has an external hygiene laboratory come into their practice every 3 months to audit their hygiene standards. They also run internal audits every 4 months to check their own system quality and adherence. By regular situation assessments Frenkenklinik methodically recognizes their errors. They also conduct regular assessments using both the Malcolm Baldrige Model as well as the EFQM Excellence Model (Harr, Personal Communication, 2011-03-17).
Frenkenklinik regards Criterion 6, Customer Results, as the most important and most significant in terms of the EFQM model. Therefore, the clinic puts maximum effort on their customer focus and especially patient satisfaction. A strong example of this can be seen in the fact that merely 1% of their patients have to wait longer than 15 minutes and Frenkenklinik’s policy states that whoever has to wait longer than 15 minutes is entitled to a 50 Swiss Franc discount. Other patient perks include: Free car shuttles to and from the clinic if needed; A complimentary SMS reminder service; For complex dental procedures, Frenkenklinik showcases treatment options on a personal PowerPoint presentation; And for bedridden patients Frenkenklinik even offers in house treatment for no extra cost; For children with extreme fear of the dentist, a clown visits the clinic once a month on a pre-specified day to make dentist visit a pleasant experience; Frenkenklinik also offers 8-year warranties for certain dental procedures; Due to a shift system, they also offer longer opening hours than other practices; For parents, the clinic offers appointments with in-house childcare facility; Drop-in service is offered for all busy working people who are struck by time-pressure; And a waiting room in the Garden is prepared in the Summer. Frenkenklinik measures customer satisfaction by how many new patients enter their clinic on a monthly basis and how many patients change to other dentists as well as through information from questionnaires and focus groups that are part of their regular self-assessment (Harr, 2001).

Under the 7th criterion, People Results, as can also be gathered from the leadership criterion, Frenkenklinik would go to any length to satisfy their employees as they believe that happy employees create fertile soil for excellent customer service. Frenkenklinik offers structured concepts for the incorporation of new employees, concepts for employee-training, concepts for employee-support, and various bonus concepts, however, Dr. Harr notes that the more satisfied their staff is, the more skeptical they become. That is why Frenkenklinik constantly works towards improvement of their concepts to remind everyone of the benefits that working at Frenkenklinik brings. To measure employee satisfaction, Frenkenklinik runs a detailed survey every year. In this survey, they consider sick leaves, staff turnover, and the reasons of tardiness to work. However, the most significant index for staff satisfaction, Frenkenklinik takes from the amount of approved improvement suggestions received from employees (Harr, 2001).

In terms of the 8th criterion of the EFQM Excellence model, Society Results, Frenkenklinik strives to fulfill societal expectations especially by improving their environmental performance and their commitment to social equity. Frenkenklinik strives to constantly reduce their energy consumption. As an example, they reduced their energy usage by 52% in the years of Business Excellence implementation (1995-1999). They have also significantly reduced the usage of amalgam in dental treatments and now mostly use environmentally friendly chemicals, which they dispose of in an adequate manner. Some of their social work includes donations and free dental care as well as a strong commitment to caring for patients with special needs or for patients in retirement centers (as described under Customer Results). As part of his social work, Dr. Harr holds various lectures and training sessions at various institutions and education establishments (Harr, 2001).
Criterion 9, **Key Performance Results**, emphasizes the importance of achieving planned goals and meeting requisites and prospects. Frenkenklinik understands that financial results are of great importance, however, places its focus on error-related costs as well as market share and most on mastery of their key processes. In terms of mastery of key processes in dental care, Frenkenklinik performs well in communication with patients. They also have outstanding services (as for example the warranty offer on dental work), as well as superior hygiene standards. Their success rates for various dental procedures are also very high benchmarked with other clinics (Harr, 2001).

### 2.10 Swedish Dental Practices

According to Swedish law, dental care is defined as measures taken in order to prevent, investigate and treat illness and injuries in patients’ mouth. The law also states that the goal for Swedish dental care should be to provide a good and equal dental health and dental care for the entire Swedish population (Riksdagen, 2010).

Dental care is subsidized by the Swedish government which provides patients with cost-free dental care until they are 20 years old. Afterwards, one has to pay for one’s own dental care. Nevertheless, the patient still receives support of 150 or 300 SEK per year depending on age, which can accumulate to a maximum of 600 SEK if the support was not claimed in the previous years (Folktandvården, 2011).

There is also a system that protects citizens against very high costs. The system provides a 50% subsidies when a patient has to pay more than 3,000 SEK for dental care during a 12 month period and will give increasingly higher subsidize rates as the costs increase, to a maximum of 85% when costs rises above 15,000 SEK. This price is calculated using a reference price for all treatments published by the Dental- and Medicine-benefits institution, even as the actual price may vary between different clinics (Folktandvården, 2011).

Until 1999, dental care in Sweden was mostly carried out by the public institution ‘Folktandvården’. It was still possible to start private clinics; this was, however, subject to strict control by the Swedish government and thus very few private clinics existed. After 1999, it was free for anyone to start a clinic and since then the number of adult patients who choose private dental clinics has increased immensely and today more than 60% of all adults go to a private dental clinic (Axelsson, 2000; Privattandläkarna, 2011).

Swedish Council on Technology Assessment in Health Care, commonly known by its Swedish acronym **SBU**, is a government institution that evaluates healthcare methods and their risks, costs and benefits. The association was established in order to compare Swedish healthcare practices to scientifically verified facts and results. The reports are then used as an information foundation for policy makers who decide on how to shape the healthcare system. The organization endeavors to ensure that Swedish healthcare methods are based on scientific evidence and as such has high levels of quality, effectiveness and cost efficiency. Their assignment also includes verifying that a treatment’s benefits equal the costs of the respective treatment - a task that is becoming increasingly important as larger parts of the costs are transferred to the patient (SBU, 2011).

In 1999, SBUs field of activity, which was previously only concerned with the normal health care, also started to include dental care. This is supported by Swedish dental law
that states that dental care is required to maintain proper levels of quality and these levels should be continuously assessed and developed (Riksdagen, 2010). As such the work carried out by SBU should be carried out in such a way, and SBU should cooperate with the professionals, so that the results will benefit all dentists in the country.

In a paper written by Axelsson (2000) she writes that some of the methods used within dental care are by tradition based on empirical experience. The choice of treatment is often decided on by experience, one choose a method that ‘has worked before’. So in some cases treatments that could have been more sustainable, as well as provided a better solution with higher quality, are overlooked.

Hence, the challenge for SBU is not only to assure the quality of new methods, but also to verify that the methods used are the optimal choice. However, Axelsson (2000) also writes that the literature on dental practices are limited and not always of good quality. Therefore the work carried out by SBU in the dental area might not be as solid as the one presented in other areas of healthcare.

We can conclude by saying that there is some quality control being done in Sweden in regards to the dental care system. However, the quality of work made will still differ between clinics and there is nothing written regarding efficiency or service levels. Hence, the requirements are all related only to the quality of the actual dental treatments.

2.11 Summary

Out of all the theory that has been described in this section the one that is the most vital is the article by Dr. Harr (2001), which describes quite in detail how one can use Business Excellence at a dental clinic, together with the information we gathered from the interviews with Dr. Harr. It is both unfortunate and advantageous that he is also the CEO of the Frenkenklinik that is analyzed as part of this thesis. It is unfortunate as we only see one case from the perspective of one person but also advantageous as we receive very detailed and in depth information from this case. This information is vital to answer all three of our research questions, especially the first one. But it is also important information in the endeavor to answer or second research question as we need to establish which activities that we should look for when assessing whether Swedish dental clinics use Business Excellence activities.

It is also of use when we try to answer the third questions as we believe that the awards won by Frenkenklinik makes them a role model worth looking at when giving recommendations to other clinics on how to improve their performance.

Since two of our research questions regards dental clinics in Sweden the article by Axelsson (2000) together with the information gathered from Folk tandvården (2011) and Privattandläkarna (2011) is of great value as it widens our knowledge on how the Swedish dental system works especially in regards to prices, subsidizes and quality control.

As our reference clinic uses the EFQM Excellence Model and as it is the most widely used model in Europe we have had great usage of all the articles that were presented in this frame of reference, as they explain not only how the model and its assessment methods work but also how organizations have experienced working with the model, both health care and in other sectors. However, we also felt that it is necessary to research
more about other tool that are often mentioned together with Business Excellence, such as the Malcolm Baldrige National Quality Award and the Balanced Score Card.

In addition to the articles and other sources that are mentioned above we have also read more literature that does not directly help us in answering our questions but has paved the way by giving us a solid foundation of the academic area of Quality Management.
3 Methodology and Method

This part of the paper presents and explains the strategies we have chosen to employ for designing our data collection tools, implementing our data collection, as well as the strategy chosen for analyzing the data we have collected. We also give incentive to the quality of our data.

“If you work just for money, you'll never make it, but if you love what you're doing and you always put the customer first, success will be yours.”

Ray Kroc

3.1 Research Design

Our research is divided into two parts, in which the results of the first direct the design of the second part. This should be duly noted at this point, to avoid any confusion. The first part of our research is concerned with analyzing the Swiss clinic Frenkenklinik to find its critical factors behind successfully applying Business Excellence models. This is done by means of a qualitative study, which will be further discussed under heading 3.3. We will go on referring to this part of the thesis as Part 1. The second part of the thesis – which draws from the first – is concerned with answering the question of whether or not Swedish dental clinics also apply Business Excellence models and to what extent they are aware of doing so. This part of the research is carried out as a quantitative study, which is also addressed under heading 3.3. We will refer to this part of our empirical research as Part 2. Since the two parts of our research differ greatly in terms of the research methods applied, we discuss the data collection and the data analysis for each part separately.

According to Brewerton and Millward (2001, p. 11): “In practice, qualitative methods can be used to generate quantitative data.” By this the authors mean that interviews or focus groups, for example, can be strategically analyzed for various issues and these issues can then be analyzed for their frequency. This corresponds perfectly to our research design, as we use qualitative research to analyze certain issues (e.g. critical factors in successfully using Business Excellence approaches in a dental clinic), which we will then frequency analyze amongst Swedish dental clinics in a quantitative.

3.2 Research Approach

Deduction, Induction & Abduction

In reference to Ghauri, Grønhaug and Kristianslund (1995), when it comes to the foundation of theories, it is of great importance to give reasons for something being either right or wrong when doing research. There are three means of motivating conclusions and ascertaining whether something is correct or not. These means are either by induction, deduction or abduction (Arnbor & Bjerke, 2009).

An inductive research approach starts off with the collection of data, from which theory is developed in a following stage, as a result of data analysis (Saunders, Lewis &
Thornhill, 2007). According to Trochim (2006) specific observations of, for example, certain cases or aspects of life, seek to build a general pattern that can be used to create new theories.

A deductive approach has its starting point in general ideas, like existing theory and principles, and based on these it seeks to strengthen, disprove, adjust or improve them (Artsberg, 2003). Deduction is what is widely used in scientific research, such as in the natural sciences. It is concerned with the development of a theory and hypotheses which is then used to design a research strategy to test these rigorously (Saunders et al., 2007).

According to Saunders et al. (2007) combining deductive and inductive approaches within the same work of research is not only possible but most likely beneficial. In line with this Arbnor and Bjerke write: “The single models of explanations, that is, deduction and induction, are then seen as too one-dimensional and unrealistic, compared with how research is done in practice” (Arbnor & Bjerke, 2009, p. 92). Hence, the third mean of motivating conclusions joins this discussion - abduction. Abduction can virtually be seen as a mixture of induction and deduction, as it has its starting point in a combination of facts (induction) and theoretical knowledge (deduction). Oftentimes, when abducting a conclusion, a particular observation is situated within a pattern of general notions, which, if found veritable, will be an explanation of the case. This explanation can then be affirmed again through other cases (Arbnor & Bjerke, 2009).

In conformity with the previous, the research approach utilized in the course of this study is twofold. In order to fulfill the purpose of our thesis, we believe that an inductive approach is adequate in the Part 1 of our research - when finding the critical factors in Frenkenklinik’s successful use of Business Excellence models - and later, in Part 2, a deductive approach is seemingly fitted because we have our starting point in general frameworks and theories and then build hypotheses around whether or not Swedish dental clinics use parts of Business Excellence models and whether or not they are aware of doing so. However, from a holistic perspective, we believe that abduction is the most suitable research approach to be taken in order to succeed in fulfilling the purpose of our study.

Therefore, we see our research approach as taking the form of an earth-grounded rainbow. The earth represents empirical facts in which our research has its starting point and in which it also ends. It begins with moving towards the development of theories by closely analyzing Frenkenklinik and finding the critical factors for success. In notion, this step serves to create knowledge in a way that we construct a theoretical foundation drawing from empirical facts (Arbnor & Bjerke, 2009). Thereafter, in Part 2, the research draws from the previously developed theoretical background in creating new empirical facts about Swedish dental clinics (Arbnor & Bjerke, 2009).

**Explanatory, Exploratory and Descriptive Research Approach**

Robson (2002) writes about three types of research studies, exploratory, explanatory, and descriptive. Exploratory research is used to define ideas surrounding the respective research questions that are yet to be fully understood. This type of approach can be used in the early stages of research, when the collection of data occurs before theories or hypotheses are drafted (Yin, 2003). The focus here is to generate insights and acquaintance for later research and is often held closely to quantitative research.
Descriptive research builds on exploratory research and seeks to describe characteristics of a phenomenon. It is carried out in order to seek information on a specific problem as it is. For this type of research, data is often quantitative and the researcher should be well trained in Statistics (Robson, 2002).

The explanatory research builds on the preceding two types. When the subject matter that is being researched, has been well explored and described already, explanatory research is commonly utilized to identify the cause of how and why something occurs. Explanatory research seeks to find causes and reasons behind the facts that have been established by descriptive research (Yin, 2003).

For this thesis, we use all three methods in the course of our research. The exploratory type was applied in the early stage of our work, when we defined ideas surrounding Business Excellence and clarified the true nature of the problem. We did so by means of an extensive literature review. For Part 1 of our research, we applied an explanatory method by closely analyzing how Frenkenklinik applies Business Excellence and by looking at the causes behind their success in doing so. In Part 2, our research took a descriptive form in which we carried out a survey of Swedish dentists to unravel whether Swedish dental clinics commonly apply Business Excellence and whether they are aware of doing so.

**Mixed Methods and a Sequential Explanatory Design**

In order to be able to respond to the explanatory and descriptive nature of our purpose, a mixed method strategy is chosen to extract the benefits of both quantitative and qualitative methods (Creswell, 2008). It is not sufficient to solely gather and analyze qualitative and quantitative data, they also need to be blended to create a more intricate image of the research than when considered alone (Creswell & Clark, 2006). Therefore, we have chosen to carry out a sequential explanatory design where collection and analysis of qualitative data first takes place and is then followed by the gathering and analysis of quantitative data (Creswell, 2008).

**3.3 Data Collection**

In accordance with Denzin and Lincoln (1998), qualitative research emphasizes the socially constructed nature of reality, the close relation of the researcher and the study, as well as the situational confinements that emboss the investigation. In this type of research, findings are not attained by statistical methods or other practices of quantization, but rather by explorative orientation, meaning that qualitative research mainly focuses on gaining insights and developing explanations (Ghauri & Grønhaug, 2010).

In keeping with our research approach chosen for Part 1 of this study, a qualitative data collection strategy is used to gain insight into the Swiss dental practice Frenkenklinik, and more specifically into their application of quality management and the benefits they have drawn from reforming to Business Excellence. According to Ghauri and Grønhaug (2010) qualitative research is associated with two essential sources of data: Primary and Secondary data. In the course of our qualitative research, we make use of both these sources.

Our secondary data was mostly retrieved from various journals, accessed through the Jönköping University library, but more importantly directly from Frenkenklinik’s website. Frenkenklinik publishes all articles written about their clinic and all contributions
to various health journals written by the clinics owner on their website making this information accessible to us. More information about the literature reviewed as our secondary source, can be found under heading 2 in the frame of reference.

Since some of the information needed, in order to answer our research questions is not prevalent in the secondary data – especially information on the critical factors behind Frenkenklinik’s successful implementation of Business Excellence – we sought out to answer our questions by means of collecting primary data. This primary data includes a semi-structured interview conducted with Frenkenklinik’s owner and manager, Dr. Harr, which can be read about in the following section under heading 3.3.1.

By contrast to the above description of qualitative research, quantitative research has its emphasis on testing and verification. It focuses on controlled and result-oriented measurement which seeks to unravel the ‘truth’ (Ghauri & Grønhaug, 2010). The major disparity between the two types of research (quantitative vs. qualitative) is that the quantitative strategy uses numbers for analyzing the data while the qualitative approach uses words (Saunders et al., 2003).

In conformity with our research approach chosen for Part 2 of this study, a quantitative research strategy for data collection is applied, in order to arrive at the answer of our second research question. To answer this question, a survey was sent to Swedish dental practices to measure the degree to which Business Excellence processes are applied and to what extent this is done knowingly. More about this survey can be read about under heading 3.3.2.

### 3.3.1 Semi-structured Interviews (Part 1)

In qualitative research, it can be said that interviews are the most common method for finding conclusions to research problems. Interviews can be carried out via mail, telephone or Skype or also in person. Only certain types of interviews are usually linked to qualitative research. These are usually referred to under the term ‘qualitative interviews’ and include unstructured and semi-structured interviews (Bryman & Bell, 2007). Structured interviews are solely affiliated with quantitative research and are therefore futile to Part 1 of our research.

An unstructured interview gives the investigator as well as the interviewee maximum flexibility in asking questions and answering. The investigator does not have to follow any order of events; he/she can just prompt the interviewee to speak freely and monitor the replies as they arrive. Oftentimes the flow of unstructured interviews is compared to a conversation between acquaintances. By contrast, semi-structured interviews are a bit less flexible as the researcher usually has a set catalogue of questions in a certain order, covering fixed topics, though leaving the interviewee considerable leeway to answer (Ghauri & Grønhaug, 2010).

In finding out what Frenkenklinik’s critical factors behind their successful implementation of Business Excellence were, we needed a flexible approach as we only had little conjecture on what the outcome of this question might be. We did, however, at the point of interviewing, have a very good understanding of Frenkenklinik as a company, their background, and daily procedures. We, therefore, could focus our attention on the issues that were still unclear and thereby save a considerable amount of time during the interview. A semi-structured interview was, therefore, the most suitable for our purpose; it
allowed us to ask our questions in a sequence and set manner to avoid tautology in answers.

We first contacted Frenkenklinik to inquire whether they would take part in our research. After receiving Frenkenklinik’s consent, all interview preparations were undertaken. These preparations included finalizing our literature review so to be thoroughly knowledgeable about Frenkenklinik and our topics in general; and inquiring what type of interview Dr. Harr most preferred. As he promptly let us know that, due to his own time restraints, he preferred to be interviewed by email, we started crafting a written interview. The first part of the email we constructed to answer our remaining questions about the clinic and the clinic’s use of Business Excellence. There was no sequence or system in the questions; They were asked in a manner – often typical to semi-structured interviews (Ghauri & Grønhaug, 2010) – that allowed Dr. Harr to respond freely and as he saw fit. The second half of the interview was, however, a bit more structured, as we based our questions on ‘The Fundamental Concepts of Excellence’ that were published by EFQM. This way we constricted our interviewee to follow a theme, which allowed us to arrive at the answers we needed surrounding our first research question – the critical factors behind Frenkenklinik’s Business Excellence implementation.

3.3.2 Survey (Part 2)

According to Ghauri and Grønhaug (2010), the use of surveys and questionnaires is one of the most commonly applied methods to collect quantitative data in business studies. It is further a very effective tool to obtain opinions, attitudes, descriptions and cause-and-effect relationship. Especially, the low incurred cost and the minimal resource requirement while a relatively large sample can be examined, make this tool very attractive (Brewerton & Millward, 2001). Thus, the method of surveying was also used for this study. However, there are two different kinds of research surveys. On the one hand, we have longitudinal survey designs, which aim at collecting data about trends within the same population and assessing changes in a subpopulation or panel group of the same individuals over time. On the other hand, there are cross-sectional survey designs, which are used to collect data at one point of time in order to observe beliefs, opinions, current attitudes or practices of a population (Creswell, 2008). As this thesis aims at exploring the current use of Business Excellence practices by Swedish Dental Clinics, we will make use of a cross-sectional survey design.

Another differentiation that has to be made is whether to use self-administered or interview-administered questionnaires. Which form to choose, depends mostly on the level of contact between the researcher and the participants. Interview-administered surveys require personal contact with the participants by either conducting a questionnaire via phone or having a personal interview (Saunders et al., 2008). For this study, we required a relatively high amount of participants but were only aiming at receiving nominal data. Thus, it was not necessary to have any personal contact with the prospective respondents. Consequently, we used a self-administered electronic questionnaire which was distributed via email. We chose this form simply because of scarce resources. On the one hand, we were constricted by a time frame to collect the data collection and, on the other hand, we did not have any monetary funds. Therefore, an internet-mediated and -administered questionnaire was the most economic solution.

In the following, we will elaborate on how we constructed our survey, which issues we took into consideration and the theories behind it.
Selection of population and sample

This section aims at defining the population from which the sample is going to be drawn. A population can be defined as including everyone with some common defining characteristics the study wishes to understand. Often researchers do not have the necessary time or financial means to collect information from everyone or everything in a population. Therefore, it is necessary to detect a representative sample of that population. (Creswell, 2008)

For both physical reasons and the purpose of the study, we chose a population in Sweden. Moreover, the actual writing of the thesis took place at the authors’ home university Jönköping International Business School in the south of Sweden. The chosen population encompasses all public and private Swedish dental clinics that are concerned with general dental care. After the population was chosen, a sample needed to be selected. In order to do so, two sampling approaches can be used. Depending on the amount of durability the researchers are aiming at, the population’s characteristics and the participants’ availability, probability or non-probability sampling can be applied. In probability sampling, a researcher selects individuals that are representative of a population (Creswell, 2008). Every member of the population has a known probability of being selected (Brewerton & Millward, 2001). As the researcher can claim that the respective sample is representative of the population and thus, allows him/her to make generalizations about the population, probability sampling is the most rigorous form of sampling. That also implies that it is possible to answer research questions, achieve objectives and make conclusions about characteristics of the population by statistically estimating the characteristics of the sample. In case the former type of sampling is not applicable, non-probability sampling can be used. The researcher then selects individuals regarding their availability, convenience and matching characteristics that are coinciding with what the research tries to study. Consequently, the probability of the individual to be selected is unknown. Non-probability sampling also applies when the researcher is not aiming at making generalizations that can be proved statistically but rather wants to describe a small group of participants (Saunders et al., 2007; Creswell, 2008).

Since this study is aiming at determining characteristics of the whole population of Swedish dental clinics by analyzing a sample, we used probability sampling. In order to identify the sample used for the study, different approaches can be taken. Considering the aim of our study to investigate a relatively large population that is spread all over Sweden and thus not easily accessible for us, we decided to use a form of multistage cluster sampling approach. Hereby, the researcher classifies a sample in two or more steps (Creswell, 2008).

The first step we took was to identify a possibility to get a list with all Swedish dental clinics that is as complete as possible. It has to be noted that we only included general dentists in our survey. That is we did not include any esthetic-dentists or dentists that are specialized in a very niche area of treatment.

As mentioned above there are two different forms of dental clinics in Sweden, namely private and public clinics. For both constitutions, one can find a webpage that encompasses the majority of all private and public dental clinics respectively – Privat Tandläkarna and Foltandvården Sverige (2011). In order to have a rather equal sample for both forms, we, secondly, consulted Statistiska centralbyrån, SCB, the Swedish government agency that produces statistics. SCB regularly publishes statistics about the
population of its metropolitan areas. Sweden is divided into 21 counties (län). According to them, we picked the 60 most populated urban areas and, therefore, received a fairly even spread over the 21 counties as good as possible equally divided between the counties (SCB, 2007). Using that information, we were able to prepare an extensive list of 1200 email contacts that encompassed private and public dentists all over Sweden. The questionnaire was sent out to all these contacts and we were able to get a total of 235 responses. That results in a fairly low response rate of 19.58%. How we can interpret this response rate and what impact it will have on the results of our statistical analysis will be discussed in more detail in the analysis section of this thesis.

To sum up, the chosen population is all private and Swedish dental clinics. The sample frame is encompassed by all private and public dental clinics appearing on the websites of Privat Tandläkarna and Foltandvården Sverige (2011). The actual sample was then formed by dental clinics from all over Sweden.

**Questionnaire design**

One of the most challenging parts of our research was to develop a questionnaire that would help us to make reliable and valid findings that support the answering process of the second research question. We will now go into more detail, how we designed our questionnaire.

According to Creswell (2008), researchers take three steps into consideration when they design an instrument for data collection.

1. Different kind of questions should be used.
2. One should employ a strategy for good question construction.
3. A pilot test of the questions should be conducted.

Those three aspects offer a good guide to establish a good survey and were, therefore, also used to conduct this survey.

Before starting to construct the questionnaire, one has to specify what information one tries to obtain. In our case, we wanted to investigate whether or not Swedish dental clinics have some form of a Business Excellence approach as well as if they are aware of their use. The different indicators that suggest a Business Excellence approach were attained by qualitative analyzing Frenkenklinik. Based on the findings from that study, we were able to construct a questionnaire that led us to acquire an insight into Swedish dental clinic’s behavior.

Next, we considered in what way we wanted the questions to be answered. It is important to decide whether to use open-ended questions, which allow the respondent to formulate her or his own answer, or to apply closed questions that require the participant to tick one or more given answers. The majority of the questions are closed questions, only a few questions allow the respondent to specify his or her answer. We chose to construct the question that way as open-ended questions may cause an enormous amount of answers with possibly many variations. That could complicate the analysis and interpretation of the results immensely (Ghauri & Grønhaug, 2010).

Having the aim of the study and the questionnaire in mind, we also felt that closed questions would be sufficient to answer our research question. Further, there are different kinds of questions like list questions, ranking questions or rating questions et al.. We
used mainly list questions, some category questions as well as one open question. List question offer the participants a list of possible responses and are especially useful when you want the respondent to consider all possible answers. The response categories can differ widely and include for example ‘agree’/ ‘disagree’ or ‘yes’/ ‘no’. Category questions are designed in a way that only one category fits the respondent and are mainly used to obtain information about behavior and attributes (Saunders et al., 2007). The survey encompasses a total of 37 questions and a comment box at the end.

In the first part of the survey, we shortly indicate the background of this survey and ask the receiver kindly to participate. We made sure that not too much information about the anticipated outcome of the study is given but that the statement is rather general. Additionally, we paid attention to the length of the introduction as we did not want to lose receiver’s interest by overwhelming them with information. We also provided our contact details and the opportunity to contact us if the participants were interested in the outcomes. The questions of the actual questionnaire were ordered systematically into five parts and develop from more general to rather detailed ones.

Firstly, we want to assess the clinics characteristics by asking about the location according to Sweden’s 21 counties, the number of full-time employees, the number of dentists, the approximate number of returning patients and whether the clinic was public or private. Thus, we want to see how diverse the sample of respondents was. Having answers from both public and private clinics enables us to statically test for a difference between those two institutions.

Secondly, we posed questions that were concerned with customer activities such as ‘Do you offer drop-in service for patients without an appointment?’ or ‘Do you send out reminders to patients with pre-booked appointments?’ (Appendix 3) With that part as well as with the following two sections we want to obtain an overview to what extend Swedish dental clinics have a Business Excellence approach. The subsequent part tries to assess employee activities. By asking ‘Do you have employee meetings where you discuss how the performance of the practice can be improved?’ or ‘Who is involved in the hiring process?’ we wanted to observe which approaches are taken to integrate, motivate and satisfy employees and their needs.

The next section ‘Quality Improvement Activities’ aims at analyzing the use of quality management and management systems of the clinics. Here we asked questions like ‘Is your clinic ISO certified?’ or ‘Do you use a Balanced Score Card?’. The final three questions are supposed to help us understand the degree of awareness of Total Quality Management and Business Excellence.

More than 75% of the survey’s questions had to be answered with either ‘yes’ or ‘no’. Despite the fact that not providing an ‘escape route’ by adding ‘Don’t know’ or ‘No comment’ to the possible answers might lead respondents to not answer certain questions or even the entire survey, we decided not to include such a option. We believe that the questions are straightforward and can be answered by almost any employee of the clinic with simply ‘yes’ or ‘no’. The asked questions were constructed and formulated in precise and simple way. Considering the background and level of education of the participants, we are certain that the used language and vocabulary is known by all employees of a dental clinic. Moreover, the ‘yes’ and ‘no’ answers were vital for the statistical analysis. By means of the amount of ‘yes’ and ‘no’ answers, we will estimate Swe-
dish dental clinic’s Business Excellence approach and their awareness of the concept. The category questions enabled us to obtain more detailed information.

After the final questionnaire was constructed, we reconsidered the layout in order to avoid non-responses caused by lacking neat- and tidiness (Ghauri & Grønhaug, 2010). Taking into consideration that the constructed questionnaire might be too long, we pre-tested it and came to the conclusion that it would take less than ten minutes to answer it and thus was sufficient. We also paid repeatedly attention to the posed questions and whether there were easily answerable.

**Pilot Study**

As mentioned above, before the actual questionnaire is sent out it should be tested in a pilot study. By doing so the questionnaire can be refined and the possibility that participants have problems in answering the questions and thus cause the researcher difficulties to record the data, can be reduced. Moreover, it can help to assess the questionnaire’s validity and likely reliability. We will elaborate on both these points later on in this paper. Further, it may occur that the researchers lose their clear objectives as they work closely related to the project and thus may overlook the most obvious errors. Those errors can be easily detected by an outside party or participants. By analyzing the collected data it is also possible to investigate whether or not the respective questionnaire satisfies its actual purpose and helps to answer the related research questions. In order to successfully pilot test the survey, one also has to consider the number of participants. Hereby, it is of course best to have as many participants as possible but that often depends on time and money resources. In any case, no matter how time pressured a researcher is, it is always recommended to pilot test the survey even on a small scale (Saunders et al., 2007).

For the mentioned reasons, we also pilot tested our survey. For convenience and timely matter, we randomly picked three private and three public dental clinics in Jönköping and delivered our questionnaire personally. We asked the respective clinics for their participation and their feedback on the survey. Thus, we were able to detect small mistakes and also the approximately needed time to fill it out. The respondents also pointed out that they would like to elaborate when answering some of the questions. Taking that into consideration, we nonetheless decided to keep closed questions as this study only tries to establish whether or not Swedish practices make use of Business Excellence and whether they are aware of doing so. Detailed responses would not be in line with our purpose and would extend the data collection and analysis beyond the study’s actual aim. Overall, we received very positive comments and felt optimistic to send out the questionnaire to a picked sample.

**3.3.3 Ethics in Data Collection**

When conducting a study, it is the researcher’s moral responsibility to explain and find answers to his or her research questions in an honest and accurate way (Ghauri & Grønhaug, 2010). Especially because business research takes place in society and involves the participation of individuals ethics is of great significance (Shamoo & Resnik, 2009). The rights of a research’s participants have to be defined, understood and particularly complied with. It is important that the intended participant’s privacy is neither caused harm nor intruded. For this study and the means we used to collect data, we as-
sured all participants confidentiality, anonymity and voluntary participation (Saunders et al., 2007).

Survey participants have not been asked any identifying details in order to guarantee their anonymity. Moreover, both Dr. Harr and the survey respondents were asked to voluntarily participate in this study and agreed to do so. Consequently, both parties were assured complete confidentiality. No data has been distributed to any third parties.

3.4 Data Analysis

“Data analysis is the process of bringing order, structure and meaning to the mass of collected data” – Marshall and Rossmann (1995, p. 111)

In order to make sense of the data and to be able to find patterns, common themes and correlations, an analysis must be conducted. Given that two types of research methods were used in this thesis, there was a need for two types of analyses, each being the best suited option for the data collected. As previously mentioned, the qualitative data analysis was performed first in order for it to act as a foundation for the quantitative data collection.

The process of withdrawing information from quantitative data is, as mentioned before, straightforward, numerical and precise. The researcher commences by counting and ranking the various data received and thereby conducting descriptive statistics. Oftentimes the statistical analysis of quantitative data is extended to thorough testing processes where computer programs are mostly needed. By contrast, qualitative data analysis has a very subjective factor, which makes it hard to define a set procedure for analysis. This type of analysis depends heavily on assumptions and interpretations (Johns & Lee-Ross, 1998).

Instruments of Analysis for Part 1

Bryman & Bell (2007) say that a general strategy of qualitative data analysis is needed in order to guide the process of coming to conclusions. However, according to Ghauri and Grønhaug (2010) there is no one appointed and prevalent strategy for qualitative data analysis. Nevertheless, Miles and Huberman (1994) give some generic yet helpful suggestions. They claim that in qualitative data analysis three components can be distinguished to guide the process. These components are:

- Data reduction
- Data display
- Conclusion drawing

We followed these instructions in order to guide us with our analysis from Part 1 of our research. Firstly, in reference to the point ‘data reduction’, we organized all our information received from Frenkenklinik so, as to have an overview of our data. We created summaries of all the articles read and thereby could extract the most important information. By doing so, we could already select the questions that we planned to ask in the interview to avoid redundancies. Once all our data was received, from the interview and the literature reviewed and all the most important data was extracted, we moved on to the next two points: Data display and Conclusion drawing. Here we laid out all our summaries to freely identify the critical factors behind Frenkenklinik’s successful Business Excellence implementation.
**Instruments of Analysis for Part 2**

Our data in its statistical form contains values that have no quantifiable meaning, therefore, our data is categorical, as we only have two different answers and, as such, values the data can be even more precisely described as descriptive and dichotomous (Saunders et al., 2007). The data passes two stages of analysis; firstly it passes through descriptive statistical methods such as frequencies and ratios to get a basic overview of the data collected. The second stage consists of a series of statistical tests used to see whether the tendencies seen from ocular analysis, using the descriptive statistics gathered in the first stage of analysis, are significant or not.

For the first stage we used Excel to do the calculations that we required, such as frequencies. During this stage we also change the format of our data from ‘yes’ and ‘no’ into a binary format where 1 indicates ‘yes’ and 0 indicates ‘no’. This was made using the find and replace function in Excel as a preparation for importing the data into EViews.

EViews is a statistical package for the windows platform mainly focused on economical and forecasting calculations and as such it contains all the basic statistical functions required for our purposes.

While Saunders et al. (2007) suggest that one simply calculates the mode when looking for which value occurs most often we believe that this method is lacking as it does nothing to investigate whether the difference is large enough to be statistically significant. Therefore, we decided to use the (binominal) sign test which would provide us with the answer whether the difference is significant or not (Rowley, 2005). We believe that the sign test is a sound choice as it is a test that although not very powerful is very generally applicable. (Aczel & Sounderpandian, 2009)

The sign test is used to test the null hypothesis, that there is no difference, in the means of two variables, X and Y, which in our case means that we tested for a difference between 1 and 0 or that the mean is different from 0.5. We decided to use $\alpha = 10\%$.

Once we tested whether there was a tendency towards a given answer in the sample and the different sub-samples we also wanted to test whether there was a difference in tendency between the sub-samples. This cannot be done using a sign test and therefore an additional test is required.

We choose to use an ANOVA F-test to test for a difference between the means of the different sub-samples. While it is usually advised not to use ANOVA methods for ordinal data one has to keep in mind that data varies between different scales depending on the question asked and the purpose of the data (Velleman & Wilkinson, 1993)

When comparing the means of the answers from the different sub-samples the data takes on a nominal and continuous shape since these mean values can take on an infinite number of values between 1 and 0. This means that we can use an ANOVA method and accordingly an F-test to test for differences between sub-samples.

### 3.5 Data Quality

As mentioned above, when you conduct research you are aiming at obtaining reliable and valid results (Creswell, 2008). Often, academics believe that the quality of scientific research is lacking credibility and thus makes it difficult for the audience to have confi-
dence in the evidence (Mosteller & Boruch, 2002). Reliability and validity are two concepts that are related with each other in complex ways. Sometimes these terms overlap while at other times they are mutually exclusive. Reliability aims at demonstrating that a study’s operations, like data collection or analysis procedures, can be repeated and nonetheless yield the same results (Yin, 2009). Validity is concerned with the degree to which the chosen research instruments really represent what they appear and intend to represent (Saunders et al, 2007; Brewerton & Millward, 2001). A third concept that is significant for quantitative research is generalizability. The concept assesses to which extent research findings can be generalized and apply to the entire population (Saunders et al., 2007). Having the quality and credibility of research in focus, we will address the issues of reliability, validity as well as generalizability of our research in the following section.

3.5.1 Validity

Similar to reliability, there have to be made distinctions between validity in qualitative and quantitative research (Creswell, 2008). The different factors, we will consider now.

Internal validity corresponds to the level to which we can conclude that there is causal relationship between two or more variables present. In quantitative research, internal validity is concerned with the questionnaire’s capability to measure what it intends to (Saunders et al, 2007). The aim of the survey is to find what represents the reality of what you are actually trying to measure. As Saunders et al. (2007) point out this is an actual contradiction since there would not be a need to construct a questionnaire if we already knew the reality. Hence researchers refer to other relevant aspects. One of those is content validity which is concerned with the level of representativeness of the posed questions compared to all questions that could have possibly been asked (Brewerton & Millward, 2001). This can be achieved by carefully reviewing and reconsidering questions and scrutinizing each question again by labeling it as essential, useful but not essential or not necessary. Similarly, we examined each question of our survey and assured that all unnecessary questions were excluded. This is also true for the structure we used during our interviews with Dr. Harr. Even with carefully constructed questions there could still be a certain level of bias from Dr. Harr as we in many ways ask him questions directly or indirectly related to his own performance or success.

Another internal validity researches take into consideration is criterion-related validity. It refers to the questions ability to estimate whether accurate predictions can be made. This test of validity rather applies when research tries to predict something like for example customer’s buying behavior. Our survey did not exactly aim at predicting anything but it was used to estimate Swedish dental clinics’ attitudes towards their use of Business Excellence (Saunders et al., 2007).

Construct validity is concerned with whether our questions assess what we want them to measure (Brewerton & Millward, 2001; Saunders et al., 2007) and if they are significant, meaningful, useful and have a purpose (Creswell, 2008). "identifying correct operational measures for the concepts being studied” (Yin, 2001, p. 40). In the case of our survey, we measured the clinics’ Business Excellence approach by asking the questions which indicated a likely use when answered with ‘yes’ and vice versa when answered with ‘no’. Therefore, any question was constructed in a way that was meaningful, useful
and significant and showed a tendency or reluctance towards the application of Business Excellence.

3.5.2 Generalizability

Generalizability, often also referred to as external validity, is of significant importance in research. It is concerned with the extent to which research findings can be generalized and is both valid for quantitative and qualitative research (Yin, 2001; Saunders et al., 2007). Hereby, quantitative research relies on statistical generalization, while case studies are based on analytic generalization (Yin, 2001). Frenkenklinik is, as described in the very beginning of this thesis, more of a precursor and exceptional example. Therefore, we preclude that those findings can be generalized. It also was not the aim of this study to reach generalizability of the respective results.

In terms of the quantitative research we conducted, we intended to make generalizations. As described earlier, it was not possible to acquire data from the entire population due to its size and the availability of contact information. Therefore, a sample has been developed. The attained results were used to describe tendencies and relationships which were also tested statistically. One important factor that determines to which degree findings can be generalized is the response rate. In the case of this study it was as mentioned earlier 19.58%. As this is very low we have to keep in mind that the results from our survey can be biased in the direction that mostly clinics that recognized the terms and activities answered, which is more likely, or in the direction that more clinics that do not used Business Excellence answered the questionnaire.

3.5.3 Reliability

According to the objective of reliability, any researcher who conducts a study and follows the instructions of the same, previously executed study, should obtain the same results. The approaches to assure reliability depend on the type of research. For qualitative research it is important to record the exact procedures. Only by doing so, another researcher will be able to repeat the study. In the case of this thesis, any type of contact or preparation operations for interviews with Frenkenklinik were documented in a record (Yin, 2001).

For the quantitative research, different aspects had to be taken into consideration. Similarly, the method to select a population and sample were documented as well as how the survey was constructed. To increase reliability further, the questions were constructed according to established theories. Before carrying out the actual data collection the questionnaire was pilot tested and revised (Saunders et al., 2007). We believe the questions of the survey were posed in an easily understandable and straightforward manner which aims at eliminating any kind of misunderstandings. One should also keep our rather low response rate in mind when discussing reliability. Since only 19.58% of the people that received the survey responded to it, a similar survey with a larger response rate or another group of respondents could lead to different results.

3.5.4 Translation bias

Lastly, we would like to elaborate on the use of different languages and the need to translate. Respondents’ capability to answer posed questions fully and in a useful, efficient and purpose fulfilling way depends on their ability to understand the language of the interview or survey (Bryman & Bell, 2007). As the first part of the research in-
cluded in-depth interviews and communication with the Swiss dental clinic Frenkenklinik and two of the authors are native German speakers, we decided to communicate in German and translate all interview notes and attained information into English for this thesis. The second part of our research, on the other hand, required us to communicate with native Swedish speakers. The needed questionnaires were therefore formulated in Swedish by the native Swedish speaking author and translated back to English. When translating questions and associated instructions into other languages it is important to keep in mind that there are most likely differences in the meaning of words between the two different languages. Sometimes there simply is no appropriate translation of words or phrases. For that reason, questions that have to be translated need to be reconsidered thoroughly to assure that they have an identical meaning and lead to equal answers (Saunders et al., 2007; Bryman & Bell, 2007). For the mentioned reasons, we reviewed and re-formulated the questions and answers for both the in-depth interview and contact with Frenkenklinik and the questionnaire that was sent to the Swedish dental clinics. We believe that all conducted research and the required translations are free of any discrepancies as there was at least one native speaker for every of the three used languages.
4 Findings and Analysis

This section conduces the answering of our research questions. Firstly, we will provide the critical factors of Frenkenklinik’s success. Secondly, we will present the findings and analysis of our survey and the statistical study, and, finally, we will give recommendations to the Swedish dental clinics.

“Excellence is not a skill. It is an attitude.”

Ralph Marston

4.1 Critical factors behind Frenkenklinik’s successful implementation of Business Excellence (RQ1)

In order to answer our first research question – Which is/are the critical factor/factors behind the successful implementation of Business Excellence at company Frenkenklinik AG? – all information gathered through the semi-structured interview with the clinic’s highest ranking official and sole proprietor, Dr. Harr, as well as through the extra articles provided to us by the clinic are analyzed.

By analyzing our findings of Frenkenklinik’s Business Excellence approach (which can be found under heading 2.9), we have collectively come up with the critical factors that we believe have made Frenkenklinik successful at implementing Business Excellence. We will first present the factors in a keyword-type of arrangement before we elaborate on each in the respective paragraph below. It should also be noted, that the order of the list does not stand for the importance of the first to the last factor, but that every factor is of the same significance.

List of Critical Factors:

- Frenkenklinik’s superior integration of a vast array of different activities that lead to Business Excellence
- Frenkenklinik’s intensive focus on employee satisfaction
- Frenkenklinik’s unconditional customer focus
- The insight of Frenkenklinik’s leaders to treat a dental practice as a vibrant Business and not just a health care facility
- Dr. Harr’s leadership style, spirit and especially his creativity and innovation as a business man

We believe that many companies – especially in the service sector – pursue quality management towards eventual Business Excellence. However, some fail to draw all the benefits from achieving Business Excellence, as they do not integrate quality management in every sector of their business. We have found that one of Frenkenklinik’s major success factors in using Business Excellence is their superior integration of a vast ar-
ray of different activities that lead to Business Excellence. Frenkenklinik manages to make use of every single (of the nine) EFQM Excellence Model criteria – from Leadership to Key Performance Results – by implementing innovative policies and applications.

Frenkenklinik’s intensive focus on employee satisfaction is another outstanding factor for their success in achieving Business Excellence that we identified. Placing paramount importance on their employees’ interest builds a foundation for remarkable customer focus and, therefore, results in exceptional extraction of quality management benefits.

The previous factor links to the next: Frenkenklinik’s unconditional customer focus. As previously touched upon, unconditional customer focus results in a superior extraction of quality management benefits. As mentioned in the Introduction part of this thesis, we believe, that one of the few sectors that appears to still resist the saying “customer is king” is the healthcare industry. Frenkenklinik counteracts this trend by viewing and treating their patients as customers. We opine that Frenkenklinik provides more of an experience than just a service to its patients. The unconditional customer focus ultimately links to the next withdrawn success factor:

The insight of Frenkenklinik’s leaders to treat a dental practice as a vibrant Business and not just a health care facility is another critical factor for their success in using Business Excellence. Dr. Harr says that before he embarked on the journey towards Business Excellence, he acquired many books on management and business administration to be able to fully understand how to run a business (R. Harr, personal communication, 2001-03-31). By being able to run Business and not just a Health Care Facility, we believe that the owner or manager (in case of public health care) can consider a wider spectrum of issues and therefore make better use of Business Excellence.

Dr. Harr’s leadership style, spirit and especially his creativity and innovation as a business man can be looked upon as the foundation for all previously mentioned critical factors and, therefore, it is - itself - a critical factor. His understanding is that continuous development of the quality criteria is the most crucial point, as “Quality is like cycling: He who stops falls over” (Harr, 2001). His attitude towards improvement and his sense for social responsibility has led Frenkenklinik to where it stands today: State of excellence.

4.2 Analysis of the data received from our survey (RQ2)

In this section we will analyze the answers of our survey and with the help of this data answer our second research question: Are the Swedish dental clinics aware that they are using all/some parts of Business Excellence?

Clinic characteristics (Questions 1-5)

From the first group of questions answered in our survey, it is possible to give a picture regarding the clinics that answered. Looking at the very first question regarding ownership we can see that 73% (170) of the respondents where private clinics which is in close relation to the ratio of private clinics that were sent the survey - 72%, 918. The same situation applies to the public clinics with a total number of respondents of 62 (27%) while the number of sent out surveys was 361 (28%).
As the total number of answered surveys was 235 we have a response rate of 19.58%, which is quite low. This means that one has to keep the unresponsiveness bias in mind, especially when looking at the statistical section below. One very likely bias that could occur from this response rate is that clinics that recognized the terms and activities mentioned in our questionnaire responded. We do not know whether this is the case but one has to keep this in mind when reading our results and interpretation of the data.

There are several possible reasons for why we did not achieve a higher response rate. Firstly, the survey was only sent out once and due to difficulties in mailing such a large number of addresses we did not send out any additional reminder emails encouraging the receivers to reply. Secondly, the data collection was only carried out during one week which is a rather short time relative to the size of the survey list. There is also the unfortunate possibility that the purpose of our survey was not deemed as interesting. Lastly, as students we might not seem very important which could lead some possible respondents to discard our email without further consideration.

If we move on to discuss the data received and look at the geographical distribution of the answered surveys, we see that the county with the largest portion of answers was Skåne län from which we received 20% (46) of our answers, while the second was Västra Götalands län at 14% (34). In the case of Skåne län this very high proportion could be explained by the fact that it is the only county with three relatively large cities.

The size distribution is much skewed to the smaller end with 163 or 70% of the respondents’ clinics having less than 11 employees. In this group there were only 18 public clinics, which means that most of the clinics that we would consider small are private. Correspondingly 60% of the clinics have one or two dentists, which is also to be expected as there is usually a 1:3 ratio between dentists and other employees.

As is logical when the size of respondents varies from 1 to 30+ employees, it is only understandable that there is a wide range in the answers to the question regarding returning customers. In our case the range is from 700 to 18 000 returning customers, with an enormous outlier at 240,000 which we are unable to verify as reasonable or not. This is meant as another way of measuring the size of the clinic in order to get a better set of characteristics of our survey participants.

It surprised the authors that 27% (45) of the private clinics do not have a website. While 21% of the public clinics also state that they do not have a webpage, we believe that it is more important for a private clinic to be active in attracting customers, for which a homepage is often useful.

The large majority of the clinics surveyed are available to their customers a total of 30 to 50 hours per week. Our ‘reference’ clinic in Switzerland is available a total of 70 hours every week to their customers, there are 7 clinics in our survey that are able to match this level of availability. It is also quite interesting to see that 9% of the respondents are only available 20 to 30 hours every week.

**Customer activity questions (Questions 6-12)**

Moving on to the activity related questions where our statistical analysis shows that there is a significant tendency among our respondent to answer ‘yes’.
The first question in this section asks whether it is possible to ‘drop-in’ to the clinic without having to make an appointment prior to the visit. This question is answered with a ‘no’ in 83% of our questionnaires with only 39 clinics answering that this service is offered.

The result for the second question is similar to that of the first as only 10% of the surveyed clinics offer a pick-up or transport system for patients who require this for their appointments. It is equally disappointing that 69 clinics, 30% of the respondents, have no reminder system for pre booked appointments. However, 199 clinics (85%) provide dental care for children. And when doing so also have special entertainment and rewards in place for the young patients.

**Employee activity questions (Questions 13-18)**

Having a systematic approach to assessment is the key to succeed with Business Excellence in the long run. It is therefore a negative fact that only 28% of the responding clinics have a system in place for employees to evaluate each other. On the other hand, it is very positive to see that 91% of the clinics have practice meetings where they discuss the performance of their clinic.

Returning to the importance of a systematic approach the questioner asked whether there is a system in place where employees can give suggestions on how to improve the service offered at the practice. A clear majority of 87% answered that there is such a system in place.

While there is an intricate yet straightforward reward system in place at Frenkenklinik 39% of the Swedish clinics answered that there is no such scheme currently in place at their practice. This does, however, mean that the majority of clinics have such a system, the answers does unfortunately not reveal any information regarding the scale of the implementation.

Dr. Harr, the manager of Frenkenklinik, is always available to his employees and so are the managers of 202 out of the 235 clinics who participated in our survey. The manager is also solely responsible for the hiring process at 29% of the respondents while at 20% it is the managing team, 20% the affected employees and at 31% all employees working in the practice are involved.

**Quality improvement activities (Questions 19-34)**

By trying to reduce the ecological footprint of one’s operations it is often possible to realize benefits in many different areas, financial, image, goodwill etc. This is something that 203 or 86% of the answering clinics is actively trying to achieve, while 32 clinics state that they are not actively trying to reduce their ecological footprint.

84% of the respondents state that they have a practice manual that contains for example flowcharts for different treatments, specifications, checklists and other standard documents. These documents are important to keep a standardized high level of quality. On a related topic, 97% of the clinics give guaranties on their work.

15% of the clinics answered that they have quality circles where patients and employees together discuss the service offered at the clinic. 9% also have a practice news letter that is sent out to their customers.
When asked if the clinic is certified according to an ISO standard 9% wrote that they are ISO 9001 (Quality) certified, 19% said that they are ISO 14001 (Environment) certified. However, none was certified under ISO 13485 (Healthcare) something that Frenkenklinik is. It is very important to note that 72% of the surveyed clinics answered that they was certified under another quality standard. Hence, all clinics had some sort of certification.

At 98% a clear majority of the respondents agree that a dental clinic can be run as a business. However, 16% does not follow a written business plan nor do 15% have a written vision and mission statement.

Using the Balance Score Card can be a very good way to gain a good overview on the direction and progress of the clinic. Yet, only 29% of the surveyed clinics are aware of its existence and yet fewer (15%) are actually using the tool.

While the majority of the respondents thought that a clinic can be run as a business only 49% experience any competition from nearby clinics and 77% does not perform any analysis of the competitive situation. Even without an analysis 83% believe that they provide better service than their competition. By using questionnaires and/or interviews 72% assess the needs of their customers.

While self-assessment can take on a long way it is sometimes easy to get stuck in a train of thought or to lose objectivity. Therefore, it can be useful to participate in external assessments. Out of the 235 responses 94 clinics have an external party assessing their clinic. Closely related is the use of benchmarking, something that 28% answer that they use regularly.

**Business Excellence / Total Quality Management (Questions 35-37)**

TQM is a term that is familiar to 18% of the surveyed clinics while Business Excellence is slightly less widespread with 11% stating awareness. On the question whether they believe that their clinic is using one of the above mentioned quality management programs 14% believe so. This means that most of the clinics that are aware of the concept are also implementing it.

So as written in the statistical analysis of our survey, while there are many questions answered with ‘yes’ in the Customer, Employee, and Quality improvement activities sections there were very few ‘yes’ answers to the last three questions.

**4.2.1 Statistical Testing**

In this section we test whether our results are statistically significant so that we can answer our second research question: Are the Swedish dental clinics aware that they are using all/some parts of Business Excellence?

As we constructed the survey in such a way that if a company answers ‘yes’ this indicates that they are using parts of Business Excellence. Therefore, we can use Sign-tests to see whether the answers can be used to statistically support our conclusions.

We will also use an ANOVAs F-test to see whether there is a significant difference in the answers given by public and private clinics as well as small and larger ones.
When doing a sign test we give all ‘yes’ answers a value of 1 and all ‘no’ answers a value of 0. We then test whether the mean of all the observed answers significantly differs from 0.5. Since we can conclude, by merely looking at our data, that there is a larger number of ‘yes’ answers than there is ‘no’, or the other way around, there is no need for the test to be one-tailed.

The testing will be conducted using EViews. For all the tests conducted below we will use a 10% chance of committing a type 1 error, α = 10%.

First, we want to test whether there are significantly more ‘yes’ answers then ‘no’ answers.

Table 1 Sign test, Full sample
Test of Hypothesis: Mean = 0.500000_Full sample

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>5.623619</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

As p = 0.00 shows that p < 0.10 we can reject the hypothesis that the mean does not significantly differ from 0.5. We therefore have a result that is significantly skewed towards 1. This means that there is a tendency among the companies in our survey to use parts of Business Excellence.

Next, we test whether there is a tendency among the public clinics to answers more often ‘yes’ to the questions reflecting their use of Business Excellence.

Table 2 Sign test, Public sub-sample
Test of Hypothesis: Mean = 0.500000_Public Only

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>6.787629</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Once again p = 0.00 means that p < 0.10. We can therefore reject the null hypothesis that the mean is equal to 0.5. Hence, there is a significant tendency among the public clinics to answer ‘yes’.

Running the same test for private clinics shows similar results.

Table 3 Sign test, Private sub-sample
Test of Hypothesis: Mean = 0.500000_Private only

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>3.020298</td>
<td>0.0025</td>
</tr>
</tbody>
</table>
\( p = 0.0025 \) is \( p < 0.10 \) and as such we can reject the null hypothesis that the mean does not significantly differ from 0.5. This means that among private clinics there is also a tendency towards answering ‘yes’.

Now, we test whether there is a significant difference in the answers from private and public clinic by testing if there is a significant difference in the value of the mean of their answers.

H0: \( \mu_1 = \mu_2 \)

H1: \( \mu_1 \neq \mu_2 \)

Table 4 ANOVA F-test, Private vs. Public

<table>
<thead>
<tr>
<th>Method</th>
<th>df</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-test</td>
<td>5246</td>
<td>-5.126460</td>
<td>0.0000</td>
</tr>
<tr>
<td>Satterthwaite-Welch t-test*</td>
<td>828.5447</td>
<td>-5.258490</td>
<td>0.0000</td>
</tr>
<tr>
<td>Anova F-test</td>
<td>(1, 5246)</td>
<td>26.28059</td>
<td>0.0000</td>
</tr>
<tr>
<td>Welch F-test*</td>
<td>(1, 828.545)</td>
<td>27.65172</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

*Test allows for unequal cell variances

Again \( p = 0.00 \) means that \( p < 0.10 \), thus we can reject the null hypothesis that there is no significant difference in the answers given by private and public clinics.

So far we can summarize our findings that there is a significant tendency among the clinics that answered our survey to answer ‘yes’ when asked if they perform certain parts of Business Excellence. This is true for both the entire sample and the two sub-samples, only public or only private clinics. We can also state that public clinics answers significantly more ‘yes’ then the private ones.

Now we want to test whether size influences the use of Business Excellence.

Table 5 ANOVA F-test, Small vs. Larger

<table>
<thead>
<tr>
<th>Method</th>
<th>df</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-test</td>
<td>5923</td>
<td>-6.097718</td>
<td>0.0000</td>
</tr>
<tr>
<td>Satterthwaite-Welch t-test*</td>
<td>2702.508</td>
<td>-6.163614</td>
<td>0.0000</td>
</tr>
<tr>
<td>Anova F-test</td>
<td>(1, 5923)</td>
<td>37.18217</td>
<td>0.0000</td>
</tr>
<tr>
<td>Welch F-test*</td>
<td>(1, 2702.51)</td>
<td>37.99013</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

*Test allows for unequal cell variances

\( p = 0.00 \) shows that \( p < 0.10 \) and therefore we reject the null hypothesis that clinics sized 1-10 and 11+ do not have significantly different answers. This would suggest that it is more likely that a larger clinic is using parts of Business Excellence.
There are, however, some important facts to note regarding this test and the sample pool:

All clinics that answered that they have more than 30 fulltime employees are public and 13 out of the 17 clinics that have between 21 and 30 fulltime employees are public as well. 21 out of 41 clinics in the size range 11 to 20 are public. So in the 11+ ranged used in our test (to have comparable sample sizes) there are 71% public clinics, and as such there is a strong correlation between the size and ownership factors.

Now, we shall look at only the last three questions in our survey. These questions asked whether the companies were aware of the existence of Business Excellence, the closely related theory Total Quality Management and if they believed that they were applying these theories. If we can prove that there is a tendency to answer ‘no’ to these questions we can prove that in general the clinics are using parts of Business Excellence without being aware of the actual theories.

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>-26.80003</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

$p < 0.10$ as $p = 0.00$. Accordingly we reject the hypothesis that the mean is not significantly different from 0.5. Hence, there is a significant tendency among our clinics to answer ‘no’ to the three last questions.

Now, we shall test whether this is true for both public and private clinics respectively.

<table>
<thead>
<tr>
<th>Method</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-statistic</td>
<td>-26.25268</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

$p = 0.00$ and as such ($p < 0.10$) we can reject the hypothesis that the mean is not significantly different from 0.5.
With $p < 0.10$ we can reject the null hypothesis that the mean is not significantly different from 0.5.

This means that the significant tendency to answer ‘no’ to the last three questions is true for both public and private clinics separately.

Now, we want to test whether there is a significant difference in the answers between public and private clinics.

### Table 9 ANOVA F-test, Last Three Questions, Private vs. Public

<table>
<thead>
<tr>
<th>Method</th>
<th>df</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-test</td>
<td>370</td>
<td>-1.952441</td>
<td>0.0516</td>
</tr>
<tr>
<td>Satterthwaite-Welch t-test*</td>
<td>358.073</td>
<td>-1.952441</td>
<td>0.0517</td>
</tr>
<tr>
<td>Anova F-test</td>
<td>(1, 370)</td>
<td>3.812027</td>
<td>0.0516</td>
</tr>
<tr>
<td>Welch F-test*</td>
<td>(1, 358.073)</td>
<td>3.812027</td>
<td>0.0517</td>
</tr>
</tbody>
</table>

*Test allows for unequal cell variances

With $p = 0.052$ and $p < 0.10$ we can reject the hypothesis that there is no significant difference in the answers from public and private clinics.

We can also test whether there is a difference in the answers given by small and larger clinics.

H0: $\mu_1 = \mu_2$

H1: $\mu_1 \neq \mu_2$

### Table 10 ANOVA F-test, Last Three Questions, Small vs. Larger

<table>
<thead>
<tr>
<th>Method</th>
<th>df</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-test</td>
<td>694</td>
<td>1.792656</td>
<td>0.0735</td>
</tr>
<tr>
<td>Satterthwaite-Welch t-test*</td>
<td>342.4561</td>
<td>1.690306</td>
<td>0.0919</td>
</tr>
<tr>
<td>Anova F-test</td>
<td>(1, 694)</td>
<td>3.213617</td>
<td>0.0735</td>
</tr>
<tr>
<td>Welch F-test*</td>
<td>(1, 342.456)</td>
<td>2.857134</td>
<td>0.0919</td>
</tr>
</tbody>
</table>

*Test allows for unequal cell variances

Since $p < 0.10$ we can reject the hypothesis that the answers from small and larger clinics does differ significantly.

And for this test one should also note the remarks from our last test involving the size of the clinic, the correlation between size and ownership.
4.2.2 Summary

The testing made in this section has proved several important facts. Firstly, there is a significant tendency for the clinics that answered our survey to answer ‘yes’ to questions describing separate Business Excellence activities. This was also true for both separated samples - the private and public sub-samples (Table 1, 2, 3). There is also a significant difference in the answers given by public and private clinics where public clinics answered ‘yes’ a larger number of times (Table 4). We then move to the last three questions of our survey which asked whether the clinics were aware of Business Excellence, Total Quality Management and whether they thought that their clinics were using Business Excellence. Here, we found a significant tendency to answer ‘no’ for the entire sample as well as the previously mentioned sub-samples (Table 6, 7, 8).

With this information from the analysis we can answer our second research question that Swedish dental clinics in general are using Business Excellence but that they are not aware of the fact that they are doing so.

Results from table 9 show that private clinics are more likely to answer ‘no’ to the question whether they use Business Excellence, which is consistent with them having a tendency to answer to a larger amount ‘no’ to the previous questions (Table 9). We also conducted a test whether size had an effect on the answers, which had it significantly so. However, due to the strong correlation between size and ownership in our sample this should not be used as a basis for conclusions (Table 5, 10). The results regarding differences between public and private as well as the difference between the different sizes of clinics is not something that is included in our purpose but should be regarded as exploratory results and is therefore not included in our main results, but they are still interesting enough to be reported here.

4.3 Recommendations to Swedish dental clinics (RQ3)

As we have found that Swedish dental clinics generally do not use Business Excellence as a holistic approach, but rather just use certain parts of it - mostly unknowingly - we have identified recommendations for the implementation of Business Excellence in these clinics. This part of the thesis presents these recommendations and, therefore, answers our third and last research question - Is it possible to give general recommendations to Swedish dental clinics?

An existing quality management system does not relieve the practice owner or manager of his/her responsibilities. It should also not just be viewed as a simple marketing tool or just a business strategy. It is much more than that - it is about a cultural reorientation of the organization. This means that the introduction of a quality management system can only function if it is put into practice consequently and with utmost attention to details (Harr, 2001).

To start ones journey towards Business Excellence, consultancy support can be advisable. They can lay out benchmarks and help specify milestones, however, it should be noted that a consultancy or another form of external advisory cannot imperatively provide Business Excellence; it is the owner/manager who must do the work. This is also the reason for why a vertical structure in the organization can be helpful (Harr, 2011). Nonetheless, commitment of all staff involved in the organization is vital to the implementation’s success. If the staff cannot keep up with the manager’s understanding of the subject matter, his/hers enthusiasm and energy-level, the implementation is doomed to
fail, as Business Excellence will not be achieved on every stage of the organization. Therefore, we believe programs and policies for employee satisfaction as well as employee education and good communication should be made a priority when commencing the Business Excellence journey.

Another recommendation that we can give, is that dental clinics should start their journey slowly but safely towards Business Excellence. Small steps are encouraged, rather than trying to implementing it all at once, as this might cause confusion and mistakes to occur. Even though the process of implementation might seem tiring and ceaseless, every member of the dental clinic must stay motivated and focused to reach the final goal.

Furthermore, we would like to point out the importance of allowing external assessment, in order to avoid the risk of becoming routine-blinded when setting up a quality management system can. Therefore, one must stay open-minded to improvement suggestions and criticism.

But first and foremost, we would like to stress the fact that one must accept that a dental clinic and any other health facility, whether it be private or publically owned, needs to be treated as a Business where the basic rules of supply and demand apply. Only then, one is ready to commence the continual journey towards Business Excellence.
5 Conclusion

This section is aimed at concluding our findings and analysis. It will refer to all research questions.

“Excellence is doing ordinary things extraordinarily well.”

John W. Gardner

Starting off with this research project, we knew about Frenkenklinik’s great success in applying Business Excellence models. We knew that Dr. Harr altered his once ailing dental practice to a powerful business, which in year 2000 was awarded with the Swiss ESPRIX National Quality Award and, later that year and again in the following, with the prestigious European Quality Award. But what we were still unclear on, were the specific factors behind their successful implementation of Business Excellence, that according to Dr. Harr has set the practice “years ahead of other Swiss dental practitioners in terms of TQM” (Harr, 2000, p. 41).

After having conducted the interview with Dr. Harr, we believe that the critical factors Frenkenklinik’s successful implementation of Business Excellence are the following five: Their superior integration of a vast array of different activities that lead to Business Excellence as well as their intensive focus on employee satisfaction, and moreover, their unconditional customer focus combined with their insight to treat a dental practice as a vibrant Business and not just a health care facility. But also, very importantly, Dr. Harr’s leadership style, spirit and especially his creativity and innovation as a business man has lead to the success in using Business Excellence at Frenkenklinik.

Regarding our second research question, we believe that Swedish dental clinics are certainly using parts of Business Excellence; however, they are not aware that they actually are using a Business Excellence approach. We believe this, since when asked whether or not they do some activities which are part of a Business Excellence there was a tendency to answer ‘yes’. However, when asked whether they knew the terms Business Excellence and Total Quality Management and whether they are using it, there was a tendency for the clinics surveyed to answer ‘no’. This led us to the conclusion that they are using part of Business Excellence without being aware of doing so. Nonetheless, the low response rate of 19.58% should be mentioned here as it has a significant impact on the generalizability of our results. Taking the low response rate into consideration, we cannot be certain that our findings are true for the entire population. However, we believe that a clear trend can be observed.

Our third research question was to see whether it is possible to give any recommendations to Swedish dental clinics, based on the findings from our qualitative analysis of Frenkenklinik and the quantitative analysis of Swedish dental clinics’ use of Business Excellence. We believe that we are able to give some general recommendations to Swedish dental clinics regarding how they should continue to work on increasing customer satisfaction. Most importantly, we suggest that dental clinics need to start viewing their...
facilities as Businesses and treating their clients as customer. Only then, are they ready to commence on the path towards Excellence. Then, it can also be of help to acquire external consult to start off with a holistic quality management approach. Moreover, it is of utmost importance to motivate end educate everyone in the organization about the reorientation and its implications. Only when everyone is on the same page, will the outcome of the implementation be successful in the long-run.

To end this paper, we would like to recommend any company which tries to improve customer satisfaction to fully commit themselves to a holistic quality management program and really follow the road that they have already started; A path towards Excellence.
6 Discussion

This discussion section concludes this thesis. We will, firstly, regard additional observations we made. Secondly, we will elaborate on the limitations of this study and lastly, we will give some suggestions for possible future studies.

"The companies that survive longest are the ones that work out what they uniquely can give to the world not just growth or money but their excellence, their respect for others, or their ability to make people happy. Some call those things a soul."

Charles Handy

In the statistical section, we found that there seemed to be a difference in the answers given by public and private dental clinics. The same was observed when comparing the answers given by small clinics when compared to larger ones. It was interesting to see that it seemed as though the public clinics had a greater tendency to apply parts of Business Excellence. This was exactly the opposite of what we expected as private organizations are usually faster to apply new concepts. This might, on the other hand, have something to do with the fact that most of the private clinics in our survey had less than ten employees since larger organizations might see a greater need to have programs to improve their performance. However, one should keep in mind that Frenkenklinik did not have more employees when they started to implement Business Excellence and have since increased its number of employees significantly.

We think that a future study with a higher response rate form both private and public clinics could find a different results in regards to this aspect as we had a population that was greatly skewed towards smaller private clinics.

6.1 Limitations

As far as we could observe during our research there has not been any study of this kind. Considering the array of businesses – the different sizes and industries - that could apply Business Excellence, the scope of research that could be conducted is limitless. Additionally, there are numerous different models all over the world that can assist in developing a Business Excellence approach. Therefore, we had to make some limitations to our study. First and foremost, we only consider one model – the European EFQM Model. This selection was made simply because of geographical reasons as the research was carried out in Sweden and hence Europe, where the most commonly used Excellence model is the EFQM one. Furthermore, we limited our research to the health care sector and more specific to general dental clinics.

Moreover, we decided to, firstly, conduct a qualitative study in order to identify critical factors that assure the beneficial use of Business Excellence. Secondly, we carried out a quantitative study that observed whether or not Swedish dental clinics use Business Excellence and if they are aware of it. Thus, we chose to relinquish the opportunity to
study Swedish dental clinics on an in-depth level. This is also reasoned by the scarce time we had to carry out this research.

A third limitation to our study is the inability to measure the change in performance in case of Frenkenklinik. In order to do so, one would have to implement a reflection-like system at the same time as the company starts using Business Excellence. Only by doing so it would be possible to identify and compare actual changes and potential improvements.

A final challenge we encountered are the problems and issues we came across during developing our methods section. As described earlier our purpose required to carry out both a qualitative and quantitative research. There are no sources that describe how a health care institution and more specifically a dental clinic can implement, apply and benefit from Business Excellence. We could therefore not just use any specific theories but had to somewhat develop our methodological background and identify the most fitting approach.

6.2 Suggestions for Future Studies

Like it was indicated in the limitations section the amount of research that could be performed has no limits. This of course leaves plenty of room for future studies. We believe that the field of Business Excellence is not only very interesting but is also relevant to today’s business environment. We opine that the topic will gain more and more importance especially due to the ever-increasing competition in markets and industries. In the following, we will propose possible approaches that could be studied in prospective researches.

As this thesis used a cross-sectional survey design and assessed the current situation in Sweden, future studies could take an in-depth approach and investigate if there is a change, possibly an increase in the use of Business Excellence practices over time by using a longitudinal survey design. Another potential idea is to examine other countries and compare the different regions to each other. A similar direction could be taken by researching and comparing the application of the different models and whether one achieves better results than the other. Concluding from the limitations we indentified from our own research, we believe one interesting and valuable approach that could be taken in future studies would be to measure the level the performance of an organization that started to use Business Excellence changed and possibly improved.
References


References


References


References


Appendices

Appendix 1 – In-depth interview with Dr. Harr from March 17, 2011

a) Do/Did you use any other Business Excellence approaches/models than the EFQM model for the implementation in your company?
   “We conduct regular assessments using the Malcolm Baldrige model to avoid the so-called ‘tunnel vision’ from only using the EFQM model.”

b) On the condition of your agreement, we would like to know how your financial results have developed since the implementation of the Business Excellence approach. We would be very grateful if you could supply us with the most significant financials.
   - “Unfortunately, due to the following restructuring of our company, this is not as easy as one might think:
   - The FRENKENKLINIK was a sole-proprietorship until 2005
   - From 2006 to 2009, we worked in a group with publically limited service enterprises, a simple corporation, and two sole proprietorships. We did so, to ensure the professional standards and to comply with the regional health law, while still keeping corporate room for maneuver and reducing our tax burden, as well as having a scope of action for subsequent regulations.
   - Since 2010, we have been working as a pure public limited company with me being the proprietor. This was possible due to the easing of the professional standards and the Swiss health law.
   - As you can see, it is not as easy as it might seem to compile reasonable operating numbers in our case. I can, however, tell you that even though all the tax optimization measures conducted in the past years, our cash flow has improved by factor 6 from 1996 up until today.

c) How did you finance the implementation?
   Since we one day just decided to continuously reorganize towards TQM, the cost that emerged in the process can be looked at as an irrelevant overhead cost.

d) When did you first start seeing results/positive developments based on the EFQM implementation and what kind of result did you see?
   - The first results that we could see – which arose from the clear structure and better work instructions - were in the context of employee satisfaction. Other pleasant developments:
   - We became the largest clinic in Northwestern Switzerland with 30 employees, as of now, in a town with only 1800 inhabitants.
   - Improved financial results
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- Improved environmental key figures
- Higher quality in the medical work: reduced failure rates, fewer postoperative infections etc.
- Tremendous increase in patients

e) How did you perceive the changes in your business: Did the results come in linear progression or was it a bumpy ride?
The construction of a TQM-system can be described as being 5% inspiration (intellectual work) and 95% transpiration during the implementation of the daily business processes. The magic word is CONSISTENCY! The implementation is no marathon, but rather a triathlon. When having corporate success – just like when doing athletics – endorphins are released.

f) What is your impression on how your patients perceived the strategic change?
The first impression that patients usually describe, is that they sense the incomparable and warm environment in our clinic. This environment is neither a random coincidence nor due to us only employing the best staff (as many other companies like to proclaim); it’s the outcome of hard work from the leaders of this clinic, who work as role models and who consequently remind the staff of the right behavior.

Based on the Fundamental Concepts of the EFQM way towards Sustainable Excellence listed below, we would like to find out how you integrated and made use of the underlying concepts. We would be very grateful, if you could be so kind as to tell us whether or not you implemented each of the concepts. For the concepts that you use in your business, could you please elaborate on how you integrated them and what it is you do to fulfill their goal.

1. Achieving Balanced Results
2. Adding Value for Customers
3. Leading with Vision, Inspiration & Integrity
4. Managing by Processes
5. Succeeding through People
6. Nurturing Creativity & Innovation
7. Building Partnerships
8. Taking Responsibility for a Sustainable Future

1. Achieving Balanced Results
Excellent organizations meet their Mission and progress towards their Vision through planning and achieving a balanced set of results that meet both the short and long term needs of their stakeholders and, where relevant, exceed them.

The compiling of our application documents for the Esprix and the European Quality award as well as the regular assessment that we conduct, have helped us deepen our
knowledge of how our business works. Almost 15 years ago, we started conducting an international Best Practice Benchmarking and almost 7 years ago we founded the Society for Quality in Dentistry. Our ultimate objective is unconditional customer focus.

2. Adding Value for Customers
Excellent organizations know that customers are their primary reason for being and strive to innovate and create value for them by understanding and anticipating their needs and expectations.

Better quality of work and an improved service package (free pick-up service with the clinic’s shuttle, no waiting time before appointments, goodwill guaranty on work, waiting room in our garden during the summer time, better communication, exact quotations on prices, more efficient courses of treatments, home treatments, etc.)

3. Leading with Vision, Inspiration & Integrity
Excellent organizations have leaders who shape the future and make it happen, acting as role models for its Values and ethics.

We run an intensive study on sociological developments. We also analyze over 100 magazines and various internet forums every month. The recognition of the essential sociological trends in our industry is the key to innovation in the future and therefore a key competence.

For more information, refer to the scheme of our implementation rate. The responsibility for the ethical integrity is under Corporate governance in VR.

4. Managing by Processes
Excellent organizations are managed through structured and strategically aligned processes using fact-based decision making to create balanced and sustained results.

In the autumn of 2010, we introduced a project called "Migration". Through this project we managed to reduce our processes by 2 / 3. It was necessary, because our staff had become overwhelmed with their daily tasks, due to the ongoing optimization of all of our processes. All processes are interlinked and controlled by metrics and integrated over the BSC into the entire value chain of the business. Processes are continuously optimized in terms of risk management and earnings figures.

5. Succeeding through People
Excellent organizations value their people and create a culture of empowerment for the balanced achievement of organizational and personal goals.

People are the key for a company’s success. Our selection was optimized by means of project and degree dissertations from business students as well as from analyses from HR specialists. Structured concepts for the incorporation of new employees, concepts for employee-training, concepts for employee-support, as well as bonus concepts create the foundation for an excellent customer focus. A clear organization chart helps us avoid an overload. The supervisors and employees judge each other every 3 months.
Employee training is compulsory for everyone and employees are obliged to introduce the inputs from the training sessions to their daily processes.

6. **Nurturing Creativity & Innovation**
Excellent organizations generate increased value and levels of performance through continual and systematic innovation by harnessing the creativity of their stakeholders.

*The continuous improvement process has been downgraded a bit to free more resources for real innovation. ‘Real’ innovation is classified as follows: Must be completely different; must be able to do things that no one else has ever tried; Try things that competitors think are too risky; Define rules instead of following those of competitors; and always think of the clients! Innovation at Frenkenklinik is supported by means of Think Tanks and focus groups, and new ideas are implemented after a prototype phase.*

7. **Building Partnerships**
Excellent organizations seek, develop and maintain trusting relationships with various partners to ensure mutual success. These partnerships may be formed with customers, society, key suppliers, educational bodies or Non-Governmental Organizations (NGO).

*We have existing partnerships with clients, suppliers, actual business partners, the association as well as with competitors. These partnerships are actively used.*

8. **Taking Responsibility for a Sustainable Future**
Excellent organizations embed within their culture an ethical mindset, clear Values and the highest standards of organizational behavior, all of which enable them to strive for economic, social and ecological sustainability.

*Frenkenklinik was the first health care company to become environmentally certified. We constantly analyze our energy consumption and systematically reduce the usage of ecologically damaging substances (e.g. digital x-ray instead of analog x-ray which uses many harming chemicals).*

h) Now, could you please also name the concepts, which you think were and are most critical to the success in implementing Business Excellence in your clinic.

**Concept 3 is the most critical factor for us, since it provides the foundation for all concepts. Once you know what you want, everything else will become easy!**
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Appendix 2a - Questionnaire for Swedish Dental Clinics in Swedish

Undersökning gällande tandvårdstjänster

Bäste deltagare!

Vi är tre studenter från Internationella Handelshögskolan i Jönköping som just nu skriver vår kandidatuppsats gällande management system i Svenska tandvårdskliniker. Med denna undersökning vill vi kartlägga användandet av tidigare nämnde system. Vi uppskattar att det kommer ta åtta minuter att svara på samtliga frågor.

Informationen lämnas helt anonymt och det finns inga möjligheter för oss att veta vem som svarade vad. Samtidigt som informationen inte kommer finnas tillgänglig för en tredje part.

Er information är en vital del av vårt arbete och vi är mycket tacksamma för er hjälp!

Om ni tycker att vårt arbete låter intressant så tveka inte att kontakta oss för att ta del av våra resultat.

Tack på förhand,

Lisa, Julia och Oskar

Kontakt:
Oskar Lindh
Im08lios@ihh.hj.se

Klinik Information

1. Vilken ägandeform har er klinik?
   a. Offentlig
   b. Privat

2. I vilket län är er klinik belägen

3. Hur många heltidsanställda jobbar på kliniken?
   1-10
   11-20
   21-30
   30+

4. Hur många utav dessa är tandläkare?
   1
   2
   3
5. Hur många återkommande kunder uppskattar ni att er klinik har?

Kundrelaterade Frågor

6. Har er kliniken en egen hemsida?
   a. Ja
   b. Nej

7. Under hur många timmar per vecka har ni öppet för patienter?
   a. 20-30
   b. 30-40
   c. 40-50
   d. 50-60
   e. 60-70
   f. 70+

8. Erbjuder ni drop-in service för patienter utan förbokad tid?
   a. Ja
   b. Nej

9. Erbjuder ni hämservice / transport för behövande patienter?
   a. Ja
   b. Nej

10. Använder ni ett påminnelsestystem för era patienter?
    Notera att man kan välja flera alternativ.
    a. Ja, via Sms
    b. Ja, via Brev
    c. Ja, via E-mail
    d. Ja, via Fax
    e. Nej
11. Erbjuder ni barnomsorg för de patienter som tar med sina barn till kliniken?
   a. Ja
   b. Nej

12. Om ni erbjuder tandvård för barn, finns det då speciell underhållning eller belöning?
   a. Ja
   b. Nej
   c. Erbjuder inte tandvård för barn

Personalrelaterade Frågor

13. Har ni ett system där personalen på kliniken kan utvärdera varandra?
   a. Ja
   b. Nej

14. Har ni personalmöten där ni diskuterar hur klinikens resultat kan förbättras?
   a. Ja
   b. Nej

15. Finns det ett system för att personalen ska kunna ge idéer på hur klinikens arbete kan förbättras?
   a. Ja
   b. Nej

16. Finns det någon sorts belöningssystem för medarbetarna?
   a. Ja
   b. Nej

17. Är klinikchefen alltid tillgänglig för de övriga medarbetarna?
   a. Ja
   b. Nej

18. Vilka är involverade i ett anställningsbeslut?
   a. Klinikchefen
   b. Ledargruppen
   c. Berörda medarbetare
   d. Samtliga medarbetar

Förbättringsrelaterade Frågor

19. Arbetar ni aktivt med att förminska er miljöpåverkan?
   a. Ja
   b. Nej
20. Har kliniken en handbok med flödesdiagram för behandlingar, specifikationer, checklistor eller standardformulär?
   a. Ja
   b. Nej

21. Kommunicerar er kliniken internt eller extern med hjälp av:
   Notera att man kan välja flera alternativ.
   a. Gruppmöten?
   b. Kvalitetscirklar tillsammans med personal och patienter?
   c. Ett nyhetsbrev gällande kliniken?

22. Erbjuder ni garantier för ert arbete?
   a. Ja
   b. Nej

23. Är er klinik ISO certifierad enligt:
   Notera att man kan välja flera alternativ.
   a. ISO 9001
   b. ISO 14001
   c. ISO 13485
   d. Ingen ISO certifiering

24. Anser ni att en tandläkarklinik kan drivas som ett företag?
   a. Ja
   b. Nej

25. Följer ni en dokumenterad verksamhetsplan?
   a. Ja
   b. Nej

26. Har kliniken en nedskriven vision samt verksamhetsidé?
   a. Ja
   b. Nej

27. Känner ni till verktyget Balanced Score Card?
   a. Ja
   b. Nej

28. Använder ni Balanced Score Card?
   a. Ja
   b. Nej

29. Upplever ni konkurrens från närliggande tandläkarkliniker?
   a. Ja
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b. Nej

30. Genomför er klinik konkurrensanalyser?
   a. Ja
   b. Nej

31. Anser nu att er klinik erbjuder bättre service gentemot er konkurrens?
   a. Ja
   b. Nej

32. Undersöker ni era patienters behov genom frågeformulär eller intervjuer?
   a. Ja
   b. Nej

33. Har ni genomfört externa utvärderingar av er klinik?
   a. Ja
   b. Nej

34. Jämför ni med jämna mellanrum er klinik mot ett riktmärke, s.k. Benchmarking?
   a. Ja
   b. Nej

**Business Excellence / Total Quality Management**

35. Känner ni till begreppet Total Quality Management?
   a. Ja
   b. Nej

36. Känner ni till begreppet Business Excellence och vad det innebär?
   a. Ja
   b. Nej

37. Anser ni att er klinik använder Business Excellence eller Total Quality Management?
   a. Ja
   b. Nej

Ytterligare kommentarer:

   

Tack för att ni svarade på våra frågor!
Appendices

Appendix 2b – Questionnaire and Results of Surveying the Swedish dental clinics in English

Survey regarding dental care services

Dear respondent!

We are a group of three students from Jönköping International Business School writing our Bachelor thesis on the subject of management systems in Swedish dental clinics. We want to use this questionnaire to map the use of said systems. We appreciate that it will take about eight minutes to answer the questions in this questionnaire.

The information is treated completely anonymous and there are no ways for us to see who answered what. The information will under no circumstances be available to any third party.

Your contribution is a vital part of our work and we are very grateful for your help!

If you believe that our thesis sounds interesting, do not hesitate to contact us to take part of our findings.

Best regards,
Lisa, Julia and Oskar

Contact:
Oskar Lindh
im08lios@ihh.hj.se

Clinic Characteristics

1. Which is your ownership structure?

![Ownership Structure Chart]

2. In which county (län) is your clinic located?
<table>
<thead>
<tr>
<th>Län</th>
<th>antal</th>
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</thead>
<tbody>
<tr>
<td>Blekinge län</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>Dalarnas län</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>Gotlands län</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Gävleborgs län</td>
<td>6</td>
<td>3%</td>
</tr>
<tr>
<td>Hallands län</td>
<td>6</td>
<td>3%</td>
</tr>
<tr>
<td>Jämtlands län</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Jönköpings län</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>Kalmar län</td>
<td>8</td>
<td>3%</td>
</tr>
<tr>
<td>Kronobergs län</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Norrbottens län</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Skåne län</td>
<td>46</td>
<td>20%</td>
</tr>
<tr>
<td>Stockholms län</td>
<td>28</td>
<td>12%</td>
</tr>
<tr>
<td>Södermanlands län</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>Uppsala län</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>Värmlands län</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>Västerbottens län</td>
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<td>2%</td>
</tr>
<tr>
<td>Västernorrlands län</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Västmanlands län</td>
<td>8</td>
<td>3%</td>
</tr>
</tbody>
</table>

![Diagram](image-url)
3. How many fulltime employees does the clinic have?

![Pie chart showing distribution of fulltime employees.]

4. How many of these are dentists?

![Bar chart showing distribution of dentists.]

5. How many returning customers do you have?

The answers ranged from 500 – 18 000

Customer related questions

6. Does you clinic have its own webpage?

![Pie chart showing percentage of clinics with webpages.]

Yes, 175, 74%
No, 60, 26%
7. During how many hours per week is your clinic open for patients?

8. Do you offer drop-in service for patients without an appointment?

9. Do you have pick up / transport services available to patients who require this?

10. Do you send out reminders to patients with pre-booked appointments?
11. Is there child care available to the patients that bring their children to an appointment?

![Pie chart showing the percentage of respondents who answered yes or no to the question.]

- Yes, 40, 17%
- No, 195, 83%

12. If you offer dental care for children, is there special entertainment or rewards for the young patients?

![Pie chart showing the percentage of respondents who answered yes or no to the question.]

- Yes, 199, 85%
- No, 36, 15%

**Employee related questions**

13. Is there a system in place for employees to evaluate each other?

![Pie chart showing the percentage of respondents who answered yes or no to the question.]

- Yes, 65, 28%
- No, 170, 72%

14. Do you have employee meetings where you discuss how the performance of the practice can be improved?

![Pie chart showing the percentage of respondents who answered yes or no to the question.]

- Yes, 214, 91%
- No, 21, 9%
15. Is there a system where employees can provide ideas on how to improve the service of the clinic?

![Pie chart showing the responses to the question.]

16. Do you use any reward system for the employees?

![Pie chart showing the responses to the question.]

17. Is the clinic CEO always available to the other employees?

![Pie chart showing the responses to the question.]

18. Who is involved in the hiring process?

![Pie chart showing the responses to the question.]

Yes, 205, 87%
No, 30, 13%

Yes, 143, 61%
No, 92, 39%

Yes, 202, 86%
No, 33, 14%

The clinic CEO, 68, 29%
The management team, 48, 20%
Affected employees, 46, 20%
Appendices

**Improvement related questions**

19. Do you actively work to reduce your ecological footprint?

![Pie chart showing 86% Yes and 14% No](image1)

20. Does the practice have a manual containing flowcharts for treatments, specifications, checklists or standard forms?

![Pie chart showing 75% Yes and 25% No](image2)

21. Does the clinic communicate internally or externally by using:

![Bar chart showing Team meetings at 95%, Quality circles at 9%, and A newsletter for the clinic at 9%](image3)

22. Do you give guarantees for your work?

![Pie chart showing 97% Yes and 3% No](image4)
23. Is your clinic ISO certified?

- No ISO certification, 103 (72%)
- ISO 13485, 0 (0%)
- ISO 14001, 27 (19%)
- ISO 9001, 13 (9%)

24. Do you agree that a dental clinic can be run as a business?

- Yes, 231 (98%)
- No, 4 (2%)

25. Do you follow a documented business plan?

- Yes, 199 (85%)
- No, 36 (15%)

26. Does your practice have a written vision and mission statement?

- Yes, 199 (85%)
- No, 36 (15%)
27. Are you familiar with the tool Balance Score Card

28. Do you use the Balance Score Card?

29. Do you experience competition from nearby clinics?

30. Do you perform competition analysis?
31. Do you believe that your clinic offers better service compared to the competition?

Yes, 196, 83
No, 39, 17%

32. Have you performed external analysis of your practice?

Yes, 170, 72%
No, 65, 28%

33. Do you analyze the needs of your patient’s through questionnaires or interviews?

Yes, 94, 40%
No, 141, 60%

34. Do you regularly use benchmarking?

Yes, 66, 28%
No, 169, 72%
Appendices

**Business Excellence / Total Quality Management**

35. Are you familiar with the term Total Quality Management?

![Pie Chart]

- Yes, 42, 18%
- No, 193, 82%

36. Are you familiar with the term Business Excellence and what it means?

![Pie Chart]

- Yes, 27, 11%
- No, 208, 89%

37. Do you believe that your clinic is using Business Excellence?

![Pie Chart]

- Yes, 34, 14%
- No, 201, 86%

38. Additional comments:

Thank you very much for answering our questions!