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Service Process Optimisation in Swedish Public Dental Care

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Abstract

Introduction - High volatility (Vergidis, Tiwari & Majeed, 2006) and uncertainty (Eisenhardt, 2002) have increased the unpredictability and competitiveness for all types of businesses (Magal & Word, 2009). As a result, optimisation has become a common practice in the commercial and manufacturing sectors (Rowlands, Antony & Knowles, 2000) to maximally utilise the existing processes and ensure a sustainable and scalable competitive advantage (Antony, 2005). Optimisation's benefits, however, have not yet been applied to the same extent in the service sector (Vergidis, Turner & Tiwari, 2008b). Deregulation, excess of available staff and rising dental prices have exposed the Swedish public dental sector to increased competition and diminishing customer satisfaction (Edelholm, 2011). To remain competitive the public providers need to comprehensively redesign and optimise its service processes.

Purpose - The purpose of this thesis is to understand how optimisation and continuous service process improvement can be enabled in Swedish public dental care clinics.

Theoretical Framework and Research Method - The European Framework for Quality Management has been applied via three stages of action research strategy. The research objectives have been analysed through a combination of empirical data gathered from semi-structured interviews, workshops and observations at two public dental clinics.

Findings - Optimisation efforts are already present at the public dental care clinics, however, the application is re-active in nature due to lack of external market analysis and key performance indicators. As a result, continuous improvement is not present. The main internal support factors for successful optimisation efforts in public dental care are flat organisational structure, thorough and timely strategy, and cross-functional collaboration and commitment. The main obstacles for optimisation and continuous improvement in public dental care are strict internal hierarchies, restricted flexibility of roles and responsibilities, and misconception and lack of understanding of the optimisation and continuous improvement philosophy.

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List of Abbreviations

BEM - Business Excellence Models

BPM – Business Process Management

BPO – Business Process Optimisation

BPR – Business Process Re-Engineering

CEO - Chief Executive Officer

CSR - Corporate Social Responsibility

EFQM – European Foundation of Quality Management

HR – Human Resources

IT – Information Technology

NIST - National Institute of Standards and Technology

ROI - Return on Investment

SCM – Supply Chain Management

SIQ - Swedish Institute of Quality

TQM - Total Quality Management

1 Introduction

The critical role of business process optimisation (BPO) is introduced as a means for companies to overcome challenges and (re)create their competitive advantages in the continuously competitive business environment. The problems and relevance of the topic to public healthcare providers are presented before stating the purpose, delimitations, and intended contributions.

From an industrial standpoint, one of the main purposes of any business organisation is to attain and sustain profitability by maximising the return on investment (ROI) (Antony, 2005). However, the high volatility (Vergidis, Tiwari & Majeed, 2006), uncertainty and change of pace (Eisenhardt, 2002) of both the business environment and market processes have increased the unpredictability and competitiveness for businesses (Magal & Word, 2009; Antony, 2005). Companies of all types in all fields are facing continuously increasing challenges of complexity requirements, quality concerns, cost cutting and customer sophistication and demands to name a few (Russell & Smith, 2009; Antony, 2005; Eisenhardt, 2002). Competitive advantages have shorter lifecycles and sustainability than ever (Eisenhardt, 2002) and thus need to be upgraded constantly (Antony, 2005). In an era where the pace and cost of technology transfer have dramatically diminished (Kyläheiko, Jantunen, Puumalainen & Luukka, 2011) it is clear that a maximum utilisation and optimisation of existing processes, rather than relentless investment in and reliance on new technology, offers a more sustainable and scalable competitive advantage (Antony, 2005).

Business Process Optimisation (BPO), in a nut-shell, is an approach which via the redesign, improvement and management of the existing business processes (Vergidis et.al, 2006) enables organisations to reduce production costs and process variability, to improve efficiency and capability, to increase the ability of adaptation, and to enhance product quality which in turn can help companies to (re)create a competitive advantage (Antony, 2005; Vergidis et.al, 2006).

A vital part of the philosophy of process optimisation is to achieve maximum process efficiency and effectiveness, as well as end-product and performance quality through the redesign of the current processes by a supreme application of the existing technology as personalised IT systems and tools, which presumably could provide a higher level of success, but is oftentimes very expensive (Antony, 2005). Is a custom-made IT solution really the best and only, a 'one size fits all' practice? The academic world argues that various other approaches exist to address the execution and implementation of BPO for companies of diverse business sectors (Zairi, 1997). Moreover, more studies have shown that the service industry, in particular, often uses mainly simple and manual techniques in its business processes (Vergidis, Turner & Tiwari, 2008b).

In the last years a great amount of research and successful applications of BPO approaches have been done within the manufacturing sector (see Antony, 2001; Kendall, Mangin & Ortiz, 1998; Rowlands, Antony & Knowles, 2000). The research

in the sector of services, however, has mainly focused on areas of digital and web services (see Calinescu, Grunske, Kwiatkowska, Mirandola & Tamburelli, 2010; Velez & Correia, 2003; Ghosh, Surjadaja, & Antony, 2004). The current market environment has a diminishing effect not only on the physical manufacturing companies but also on the non-digital service providers. No longer is it only the price, but also the queuing time and access cost, to name a few factors, that have an increasing impact on how customers perceive the service of a firm (Pangburn & Stavroulaki, 2005). Consequently, it is also important for 'physical' service providers, like within healthcare, for example, to redesign and optimise their processes to remain competitive.

1.1 Problem

Quality of healthcare has recently become a much-debated issue all over the world, which is predicted to only rise in the years to come (Dahlgaard, Pettersen & Dahlgaard-Park, 2011). Even though many countries have increased their funding for public healthcare, neither the errors nor customer satisfaction have improved with it (Spear, 2005). Berwick, Nolan and Whittington (2008) explain this negative correlation with non-efficient and non-effective management and usage of resources within the healthcare organisations.

In Swedish healthcare, the year 1999 marked the start of the deregulation of the dental care sector (Edenholm, 2011; Carp, 2011). Since then, the number of dental service staff in Sweden, among other developed countries, has risen by 10 percent (Prasad & Varatharajan, 2009) due to the continuous ease of migration and the increase of denture practitioners worldwide (Tendon, 2004). The deregulation, excess of available staff and rising dental prices has resulted in the dental industry in Sweden facing increased competition (Edelholm, 2011). Since 2008, 'Folktandvården' – the public dental service provider in Sweden, has received a 50 percent increase in its funding (SSIA, 2012), yet, the competitive distortions have only gained in strength (Alnebratt & Lyxell, 2012). The private clinics can offer longer working hours and nearly 50 percent lower prices due to lower wage claims of Eastern European dentists entering the job market (Luthander, 2005).

Even though the public dental care providers dominate the market in terms of the number of clinics, only 40 percent of adults are currently registered as patients of 'Folktandvården' (children up to the age of 19 receive it for free) (Folktandvården Sverige, 2012). The largest private provider, Praktikertjänst AB, alone has a market share of 30 percent of the adult patients (Praktikertjänst, 2010). In 2010 the private providers had a seven percent lead over the public clinics in terms of customer satisfaction (Alnebratt & Lyxell, 2012). More so, according to a survey carried out in 2011 by Swedish Quality Index (Svenskt Kvalitetsindex), the difference in the quality index continues to increase to the advantage of the private clinics (TT, 2012). Surprisingly, the customer focus is indeed not always at the forefront of healthcare organisations, the convenience of staff and adherence to procedures (not involving the patients) is valued higher in the eyes of the management (Moullin, 2002). The public dental care providers are gradually losing their previous patients to private clinics (Edenholm, 2011), and still, the

government officials continue to promote and advocate for even further privatisation of the national dental care system by assigning the tasks previously supplied by public dental clinics to private ones to shift the industry towards freer competition and development (Andersson, 2008).

With high investments being made and results not being met, it has been questioned if the funds can be used more efficiently to meet the needs of the target groups. As a result, the officials have welcomed suggestions to improve the process, and public dental providers are willing take a proactive approach to improve their market positions (Antemar, 2012). Hence, to remain sustainable, attract customers, and compete with the private dental care sector in the future, the public dentistry needs to comprehensively redesign and optimise its service processes. However, this is in the context where the healthcare sector is subject to the challenge of satisfying a triple aim – providing care, enhancing health, and maintaining a low cost. Nevertheless, while very specific, direct comparisons with other businesses are difficult, but public dentistry can still benefit from adapting theories, principles and methods, which have been successful in other industries (Dahlgard et.al, 2011). A move towards process redesign and optimisation has already started to be implemented and the efforts have shown improvements in the Swedish healthcare (see Nyström, 2011; Karlsson, 2012). In 2011, 43 percent of the counties in Sweden were involved in some sort of lean-processes within the dental care sector (Sveriges Kommuner och Landsting, 2011). However, while the efforts are noteworthy they may be neither systematic nor necessarily thorough, thus the possible benefits may not be fully utilised or sustainable.

1.2 Purpose

The purpose of this thesis is to understand how optimisation and continuous service process improvement can be enabled in Swedish public dental care clinics.

Many healthcare sector organisations have acknowledged the importance of and are striving towards optimisation (Varkey, 2010) and process improvement (Moullin, 2002), however, the actual implementation has not reached the same level as in other sectors (Hides, Davies & Jackson, 2004). Therefore, to answer the purpose of this thesis the questions to address are:

RQ₁: Do Swedish public dental care clinics implement service process optimisation and continuous improvement in their day-to-day activities at the clinic level?

RQ₂: What internal support factors should be in place to initiate service process optimisation and continuous improvement among the staff of Swedish public dental care clinics? What obstacles can arise?

1.3 Delimitations

Firstly, the scope of this exploratory study does not encompass the entire supply chain. Instead, the focus of the research is set on the functional level of a company within the supply chain. The authors are aware of and agree with the threats to and limited capabilities of sub-optimisation in the long-term (Arace, 2011), but

have adopted a micro-level approach as the first step of a supply chain optimisation exercise to thoroughly scrutinise, analyse and optimise existing business processes on a specific company level to increase the success level (Worley, Grabot, Geneste & Aguirre, 2005). A notion of (service) process optimisation functions, advised by Mansar and Reijers (2005), is followed where the specific company must be examined first before the optimisation process can take place. Due to this delimitation the findings of the research are directly applicable only to the public dental care clinics as their structures, regulations and policies, and internal and external environments are similar, but may not be applicable to other actors within their supply chain. However, the findings can be a helpful tool for other supply chain members to deepen their understanding, thus, facilitating better collaboration, and serving as an example for their own optimisation practices.

The exclusion of IT from the research scope has a minimal effect on the findings and conclusions as the research is within a people-centred service sector with a focus on the internal supply chain flows, including information. Undoubtedly, IT is one of the enablers of optimisation, however, it should only be an add-on as the last step of the optimisation (Sharp & McDermott, 2011). The purpose of this thesis is to study in-depth the phases that happen before, therefore the importance of IT systems is mainly complementary. More so, the impact of customised and/or case-specific IT systems deserves to be studied comprehensively to yield significant results, which cannot be done in this study.

Finally, the geographical scope of research is limited to public dental care providers in Sweden. Therefore, the findings of the research may be country-specific and not be directly applicable elsewhere. Nevertheless, they may serve as an example or guidelines of possible areas of importance.

1.4 Intended Contributions

The authors with this study aim to contribute to the growing field of interest and research within the area of public healthcare sector optimisation. The findings should be beneficial for both practitioners and academics. For practitioners, the enablers and obstacles of optimisation in public dental care, and suggestions how to overcome these will be identified and analysed through empirical examples and conceptual frameworks. The findings are intended to help the managers and employees of the public healthcare sector to understand the importance and benefits of optimisation, and provide guidelines on how to pursue continuous improvement in their daily activities. The research intends to identify possible optimisation areas within public healthcare on a clinic level, which could serve as an example and starting point of optimisation for practitioners. The findings are also intended to contribute to the academic world by identifying whether and why do the public healthcare providers not implement the existing optimisation tools and techniques. Last but not least, gaps in the existing research will be identified to continue the development of the field.

1.5 Structure

The structure of the rest of the thesis starts with a literature review in chapter two with previous notable contributions and developments in the field of the intended study, definitions and presentation of related disciplines. Chapter two concludes with the justification and introduction of the theoretical framework. Chapter three specifies and argues for the chosen methodology, data gathering methods and analysis procedures chosen to answer the purpose and research questions of the thesis. Primary data and analysis is presented in chapter four followed by the conclusions section, including limitations, suggestions for future research and managerial implications in chapter five. The thesis is concluded with a discussion section.

2 Literature Review and Theoretical Framework

The following section presents an overview of the field, phases and approaches of business process optimisation in general and within the specifics of the service and healthcare sector. The justification and explanation of the exact chosen theoretical framework, synthesis and summary of the theory are presented to conclude.

The notion of business process optimisation (BPO) has been around for as long as businesses themselves (Sharp & McDermott, 2001). However, it has been only during the last two decades that the area has become almost a standard practice, and is still increasingly gaining momentum as a means of (re)creation of competitive advantages not only by businesses of all types (Lin, Yang & Pai, 2002; Antony, 2005; Vergidis et.al, 2006), but also academia, software merchants and consultancies (Andersen, Lawrie & Shulver, 2000; Arlbjørn & Haug, 2010). Surprisingly though, a very limited amount of research has been conducted in regard to business process analysis and optimisation as the existing research in the area mainly suggests an implementation of automation or IT technologies or a creation of entirely new business processes (Casati et.al, 2004).

BPO, however, cannot be completely explained nor successfully implemented without fully understanding business processes themselves (Arlbjørn & Haug, 2010). In reality, the understanding unfortunately is mainly vague and generic (Vergidis et.al, 2008b; Lindsay, Downs & Lunn, 2003), therefore the perspective of business processes is addressed first.

2.1 Business Processes

The perspective of business process, with its focus on the evaluation and enhancement of existing business processes (Sharp & McDermott, 2001), has been known for more than a century, tracing back to the Industrial Revolution and Adam Smith's idea of job division (Arlbjørn & Haug, 2010). However, it became a standard practice of organisations worldwide within less than a single decade starting in the early 1990s (Sharp & McDermott, 2001).

Although widely researched over the last twenty years and seen as the core concept of up-to-date enterprises (Sharp & McDermott, 2001) there is still no specific and generally agreed definition of the term (Werth, Walter, Emrich & Loos, 2010). The most often cited ones were introduced by the 'ground breakers' of process improvement and optimisation, for example: '*a business process is a collection of activities that takes one or more kinds of inputs and creates an output that is of value to the customer*' (Hammer & Champy, 1993, p. 32), and '*a business process is defined as the chain of activities whose final aim is the production of a specific output for a particular customer or market*' (Davenport, 1993, p.5). Generally, business processes define the internal structure of work, material, resources and information flows of an enterprise (Arlbjørn & Haug, 2010) to generate added-value (goods and services) (Magal & Word, 2009). Business processes define the behaviour of the company (Arlbjørn & Haug, 2010).

Furthermore, the two most important and acknowledged characteristics of business processes are: (1) cross-functionality and (2) acknowledgement of internal and external customers (Earl, 1994).

The number, complexity and types of business processes vary greatly among companies and industries (Magal & Word, 2009). Nevertheless, all business processes are subject to redesign to some extent. While there is an abundance of findings in the literature on business processes, their benefits are not yet acknowledged and applied within the service industry (Vergidis et.al, 2008b), which is the focus of this research. Therefore, only the specifics of service industry, which dentistry belongs to, and its business processes, will be addressed in more detail.

2.2 Services

For decades, until the 1970s, service industries were left in the shadow of their manufacturing counterparts (George & Barksdale, 1974; Swartz, Bowen & Brown, 1992). However, due to the growing trend of deindustrialisation (Rowthorn & Ramaswamy, 1997), the number of people employed in service industries rather than in manufacturing is continuously increasing (Schettkat & Yocarini, 2006). Over the years services have been defined in various ways. This thesis has adapted one of the most widely accepted definitions and defines services as follows. Services are *'processes consisting of a series of activities where a number of different types of resources are used in direct interaction with a customer, so that a solution is found to a customer's problem'* (Grönroos, 2000b, p.48, cited in Lusch & Vargo, 2006).

2.2.1 Characteristics of Services

Even though physical goods and services do share certain commonalities (see Rathmell, 1966 for the full list), and one cannot be entirely produced without another (Gummesson, 2000a; Rust, 1998; Grönroos, 2000b) there are various characteristics that distinguish the two (Vargo & Lusch, 2004). The most common prototypical service-only characteristics are – intangibility, inseparability, heterogeneity (Schneider & White, 2004), and perishability (Rathmell, 1966, cited in Vargo & Lusch, 2004).

Services are intangible, they cannot be touched or seen (Schneider & White, 2004; Rathmell, 1966). As tangible and intangible elements can be combined a service may not be purely intangible. The degree of intangibility varies depending on specific industries (Schneider & White, 2004). Perishability of services is illustrated by the impossibility to be stored or held (Vargo & Lusch, 2004; Schneider & White, 2004). Services are also inseparable, in its pure form services are produced and consumed at the same time, and these actions cannot be separated from each other (Schneider & White, 2004; Rathmell, 1966). The human factor, in the form of interaction between the staff and customers, makes services heterogeneous as customers have different demands and the staff will have different types of competencies, experiences and ways of delivering the service (Schneider & White, 2004). Therefore, the standardisation of services, as well as

pre-scheduled controls to ensure satisfactory quality, are highly complex (Schneider & White, 2004).

There is a vast array of service typologies developed by academics over the years, and these classifications are important factors for service characterisation. However, due to the focus of this thesis being on internal optimisation of a service organisation rather than on all internal and external processes and activities of the organisation itself, no further classification will be provided due to its limited relevance to the purpose (for an in-depth classification on typologies of service organisations starting from the emergence of the field, see Cook, Goh and Chung, 1999). To be able to fulfil the purpose of this research it is important to combine the two notions introduced above – the business process perspective and service characteristics, which are addressed next.

2.2.2 Service Processes

Service operations are a complex process, which consists of service design, production, marketing, and delivery with the main goal being to attract and encourage customers to buy the service from a specific supplier (Ghosh et.al, 2004). All of the service processes consist of various determinants; they are interconnected to jointly provide an integrated solution for service operations (Surjadaja, Gosh & Antony, 2003), and require customer participation (Fließ & Kleinaltenkamp, 2004). Moreover, the production, let alone delivery, of a service cannot start without the specification of customer requirements (Mengen, 1993; Krimm, 1995). It is important to note that customer participation can increase the process efficiency (Hoffman & Bateson, 1997), while at the same time it also requires higher process management. Absent, late or unqualified contributions by a customer have a direct effect on costs, time and tasks that employees need in order to fulfil the service process (Zeithaml & Bitner, 2000).

Now, when presented what business processes are, what they comprise of in general and within the specifics of service industry, business process optimisation can be introduced.

2.3 Business Process Optimisation

There is no denying that many (or according to some – the majority of) optimisation projects have failed (Yogesh, 1998), which has led some to see it as just another buzzword (Arlbjørn & Haug, 2010). However, a thoroughly and systematically carried out BPO facilitates a simultaneous improvement of the time, costs, quality and effort required in product, service and process planning, development, manufacturing and delivery via an analysis and (re)design of the current state of affairs, which in turn lead to a competitive advantage (Antony, 2005). The main determinant for optimisation is controllability (Antony, 1997 & 2005). In other words, if a process and/or its sub-part(s) (activities and resources) can be controlled then it can be optimised.

The highest potential for BPO is between sub-processes, functions, and departments (Dahlgaard et.al, 2011). BPO must follow a systematic approach of

various consecutive phases: analysis, design, implementation, and evaluation (Arlbjørn & Haug, 2010) that organisations are advised to follow to successfully implement optimisation and, in turn, create competitive advantage. This thesis will encompass the first three phases of BPO, excluding evaluation, which, due to time horizons, was out of the scope of the research. The context of the steps relevant to this research will be explained in more detail in the following sections.

The particular sequence of BPO makes it possible to better identify the specific possibilities and needs of a particular workforce, which in turn results in higher levels of efficiency and acceptability of the new business process implementation in practice (Worley et.al, 2005). The goals of optimisation vary between various industries and organisations, however, the main effects of optimisation and improvement in the service sector are presented in Figure 2.1.

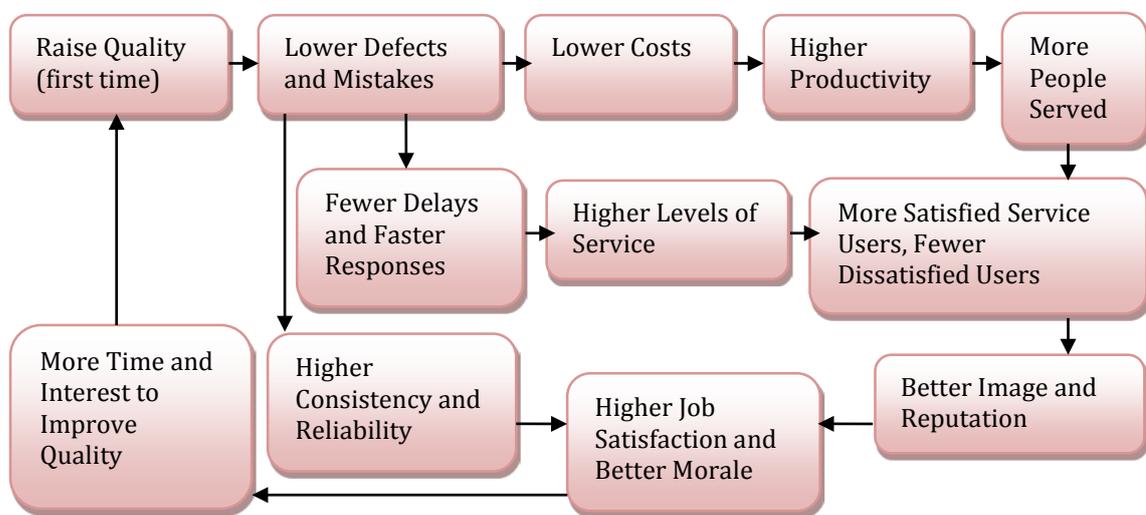


Figure 2.1 The Effects of Optimisation in the Service Sector (Moullin, 2002)

Parallel to the optimisation effects illustrated above the healthcare industry has more specific optimisation goals, which are discussed next.

2.4 Business Process Optimisation in Healthcare

In the healthcare sector, including dentistry, service quality is the main goal of process optimisation and improvement as it is the key differentiator for competitive advantage (Moullin, 2002). Service quality is a combination of customer satisfaction and product quality (Brady & Cronin Jr., 2011). Service quality in the public sector, which includes public dental care providers, is defined as *“fully meeting the needs of those who need the service most, at the lowest cost to the organisation, within limits and directives set by higher authorities”* (Øvretveit, 1990, cited in Moullin, 2002, p.14).

Various conceptualisations of service quality determinants have been proposed over the years, an incorporated list of the most acknowledged ones is the following. The customer-employee interaction, the service environment, and the service outcome, all based on the customer’s perspective, create the overall perception of service quality (Brady & Cronin Jr., 2011). The most commonly used

dimensions of these determinants are: reliability, responsiveness (waiting time), competence, access, courtesy, communication, credibility (trust), security, understanding/knowing the customer, and tangibles (physical appearance of facilities), however each organisation must align them with their own values (Moullin, 2002, Goldsby & Martichenko, 2005).

The customer experience of a service is thus highly influenced by the staff of the firm: its performance, the staff-customer communication, and how the staff carries out the service process (Grönroos, 2000b). Therefore, in this thesis the authors set out to explore the functional dimension of a service – the service delivery process. In other words, how the technical quality (service outcome) is transferred to the customer.

As the variables of service quality have been presented, the next question to address is – ‘how’ to successfully create an implementation strategy to create and/or maintain competitive advantage. Optimisation can be applied via various approaches (Zairi, 1997; Mansar & Reijers, 2005; see Kettinger, Teng & Guha, 1997 for an overview). So far, more than 900 improvement initiatives have been identified, however the Business Excellence Models (BEM) have been acknowledged to be the most prominent ones due to their wide use and validity (Mohammad, Mann, Grigg & Wagner, 2011).

2.5 Business Excellence Models

The main critique of the majority of proposed BPO tools arises from their prescriptive nature or step-by-step guide perspective. This approach is seen as only helping to manage organisational risk rather than providing actual technical guidance (Manganelli & Klein, 1994; Mansar & Reijers, 2005). The two most commonly used, and oftentimes contradicting optimisation tools (Sharp & McDermott, 2001), both in academia and practice, are Total Quality Management (TQM) and business process reengineering (BPR). However, there is no single business process optimisation approach that is better than the other. Each organisation must align its objectives to choose the one fitting them best (Sharp & McDermott, 2001).

When it comes to the healthcare sector, the theories, principles and methods of TQM provide a better fit for a couple of reasons. The holistic and people-oriented management discipline, in which TQM has evolved, requires absolute employee involvement and teambuilding to be successful, which has already been a long tradition of the culture within the healthcare industry (Dahlgaard et.al, 2011). More so, Dahlgaard-Park and Dahlgaard (1999) argue that the modern TQM, with its focus on continuous improvement, has the specific principles, tools and methods available for offer specifically to the healthcare sector.

Business Excellence Models (BEM), which are embedded in the TQM framework (Adebanjo, 2001; Bou-Llusar, Escrig-Tena, Roca-Puig & Beltran-Martin, 2009), enable organisations to assess and optimise their current processes and performance (Mohammad et.al, 2011) by providing a systems perspective framework based on proven business principles (Adebanjo & Mann, 2008) and are

non-prescriptive in nature (NIST, 2010, cited in Mohammad et.al, 2011). The academia has currently identified 94 different BEM used in 83 countries (see Mohammad et.al, 2011 for a full list). For these reasons the European Foundation for Quality Management (EFQM) model, which is based mainly on the concept of TQM (Adebanjo, 2001), is used in 30 countries, and is the most widely acknowledged BEM (Mohammed et.al, 2011), which is introduced next.

2.6 The European Foundation of Quality Management Model

The European Foundation for Quality Management (EFQM) model is an optimisation framework to make companies more agile to compete in the increasingly dynamic business environment (EFQMa 2013a). The EFQM (also known as the European Excellence Model), in essence, is a self-assessment tool for all organisational levels, and is also used as the auditing tool for the prominent Quality Award (Nabitz et.al, 2000). Its main difference from TQM arises from its wider scope (Moullin, 2002): instead of being only a framework for quality, it is concerned with achieving an all-around excellence, including its manifestation to employees, shareholders and stakeholders (Institute of Directors, 1997, cited in Moullin, 2002).

Created in 1991 (Bou-Llusar et.al, 2009), its general focus is on highlighting current shortfalls of the management team's performance via the measurement of organisation performance (Andersen et.al, 2000). Because of its roots in TQM, EFQM is relatively static, uses plausible logic to arrive at the set strategic priorities (Seddon, 1999), and permits benchmarking between organisations even across different markets (Andersen et.al, 2000). Not only is it the most widely used optimisation tool by practitioners (by more than 30,000 organisations), it has also been tested and validated statistically by academics (Saunders & Mann, 2005; Flynn & Saladin, 2001; Lee, Rho & Lee, 2003; Wilson & Collier, 2000).

However, a study conducted by Hides, Davies and Jackson (2004), showed that while interest in the EFQM has been shown by the public sector, also in healthcare (Nabitz et.al, 2000), the adaptation of the model has still not reached the same level as in the private sector. They mention the lack of focus on continuous improvement for customer satisfaction as being one of the factors. As this issue links directly to the RQ₂ and RQ₃ of this research, the EFQM model serves as a great tool to identify development areas to change this situation (Bou-Llusar et.al, 2009). Furthermore, a research project by European Commission identified four approaches used for optimisation in healthcare in Western Europe, with EFQM being the most generic and concise one, encircling all four. More so, EFQM is seen as encompassing almost all of the rest of available optimisation initiatives in its framework (Moullin, 2002), which permits organisations to maintain, evaluate and incorporate any other optimisation efforts they might have undertaken (Nabitz et.al, 2000). The model distinguishes nine strategic areas of importance to be monitored, known as The Nine Criteria, to identify, measure and support areas of successful process optimisation (Andersen et.al, 2000).

The nine criteria enable an understanding of the cause-and-effect relationship between actions carried out by the organisation and their results (EFQM, 2013a). EFQM consists of two categories – the Enablers and the Results. Enablers explain ‘what’ is done and ‘how’ it is done. They embody the processes, structures and means that the organisation can use to manage quality and optimisation (Nabitz & Klazinga, 1999). While the Results show ‘what’ has been achieved (Dahlgaard-Park, 2008). Learning, Creativity and Innovation support the Enablers, which, in turn, lead to Results, making the model dynamic – the process of improvement is continuous (Andersen et.al, 2000). EFQM periodically updates the standard ‘weights’ (importance) attributed to each criterion in accordance to changes in the competitive environment (Talwar, 2011). A visual presentation of the EFQM model and criteria weighting after the last transition in 2010 can be seen in Figure 2.2.

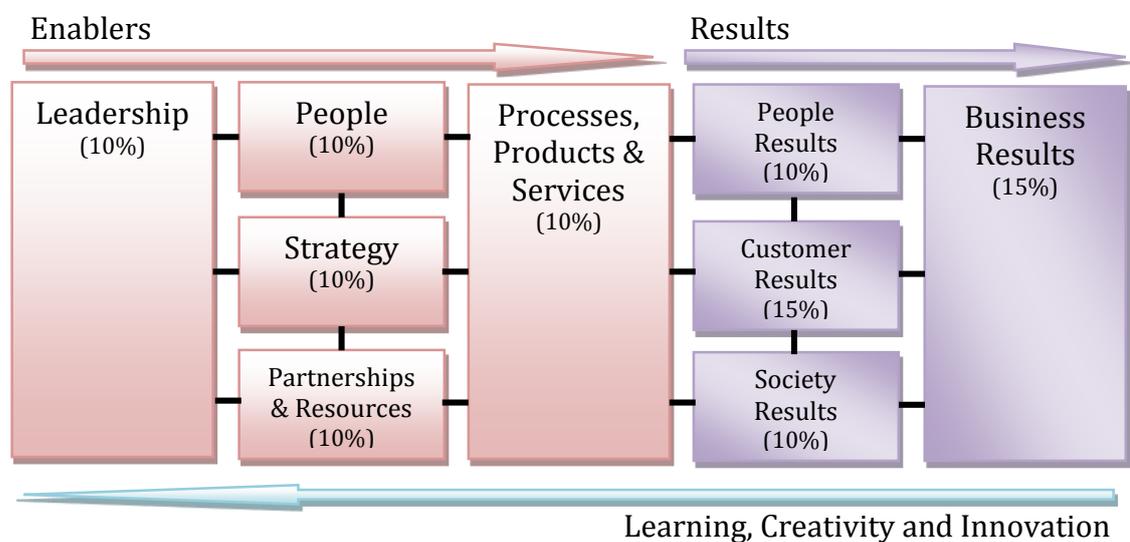


Figure 2.2 The EFQM Excellence Model (EFQM, 2013a)

For an organisation undertaking optimisation for the first time the model is used from right-to-left, while when optimisation efforts have been made the model can be used from left-to-right (EFQM, 2013a; Moullin, 2002). As mentioned in the Introduction, some optimisation efforts have been applied within the public dental care in Sweden, therefore, the left-to-right approach applies to this research.

The Enablers encompass the internal processes and levels of learning, which is the focus of this thesis. More so, according to Talwar (2011), the internal environment criteria build the internal strength of the company thus directly enhances its differentiation and competitiveness. Therefore, only these specific criteria and their required state for an organisation to be considered having a competitive advantage (Bou-Llusar et.al, 2009) will be explained in more detail.

2.6.1 Leadership

Like the majority of BEM, EFQM starts with the criteria of Leadership. Self-assessment within this category focuses on how the senior executives and managers commit and steer the firm towards continuous improvement and optimisation (performance excellence) (Dahlgard et.al, 2011; NIST, 2010; Samuelsson & Nilsson, 2002).

A difference between management and leadership is a point worth addressing. Management is mainly activity-based, concerned about the present, implements goals, relies on control and deals in a rational manner. Leadership, on the contrary, requires dealing with people not things, focusing on the future, setting the goals, inspiring trust and dealing in emotional horizons (Rajan & Van Eupen, 1996, cited in Moullin, 2002). Good leadership requires a combination of both. Good service sector leaders should exhibit the characteristics listed in Table 2.1.

Table 2.1 Characteristics of Service Sector Leaders (Cook, 1992, cited in Moullin, 2002)

- Good listener
- Encourage teamwork and communication
- Delegate responsibility
- Require and recognise excellence
- Encourage problem solving
- Request and welcome feedback
- Constantly seek out ideas and improvements
- Engender trust
- Be open and honest in their dealings

Quality is underpinned by long-term commitment and leadership, but without the application of a business process perspective optimisation will be limited (Mohammad et.al, 2011). A process-based view is vital for redesign and optimisation, and it requires the company to switch its perspective. Instead of a product/service focus on 'what' is done, it entails a focus on 'how' it is done. Since the various internal activities and processes are usually synchronised over numerous organisational units the purpose of a business process approach is to enable a maximum possible degree of transparency (Werth et.al, 2010). The company must be willing to loosen its functional structure to ensure a swift and parallel information flow both – horizontally and vertically (Davenport, 1993). Kollberg and Elg (2006) warn that managers in the healthcare sector are reluctant to support and encourage assessment and scrutiny of their organisations, which may stall the change and optimisation process entirely.

A summary of the EFQM assessment areas within Leadership and its responsibilities, based on Moullin (2002); Bou-Llusar et.al, (2009); Talwar (2011);

EFQM (2009 & 2013b); Davenport (1993); Werth et.al, (2010), and Arlbjørn & Haug (2010), is presented in Table 2.2.

Table 2.2 Assessment Areas and Responsibilities of Leadership

Leadership	- Adapt, react and gain commitment of all stakeholders (integration and transparency)
	- Embrace a business process perspective – ensure and support customer focus, organisational cross-functionality and information flow
	- Develop and facilitate the mission, vision and values
	- Embody organisational values in their actions (show direction and set an example)
	- Account for organisational governance systems and corporate social responsibility (CSR)
	- Commitment on the consistency of purpose (long-term initiative)

2.6.2 People

Based on past data, most of the companies pursuing optimisation, especially in Europe, focus mainly on their analysis of the current processes, which usually trigger a misfit between the optimisation process and the workforce of a company (Hammer & Champy, 2001). This explains why the majority of healthcare organisations, which have tried to implement BPO have had very limited success (Dahlgard et.al, 2011). When the employees all across the organisation are committed to the same goal a better understanding of processes, products/services and customers is achieved, which, in turn, increases the likelihood of customer satisfaction and loyalty and leads to competitive advantage (Talwar, 2011; Moullin, 2002).

One of the most common mistakes of any optimisation is a purely top-down approach design as it is not only unrealistic but also lacks the identification and participation of the people involved in the processes. To overcome the possible optimisation problems it is argued that the business processes should be adapted to the human actors rather than vice versa (Worley et.al, 2005), which helps to overcome the possibilities of a resistance to change (Moullin, 2002). This balance between the strategic needs of the organisation and personal aspirations and expectations of the employees is one of the major changes in the upgraded EFQM (EFQM, 2009). A compilation of the People enabler’s sub-criteria from Bou-Llusar et.al, (2009); Talwar (2011); EFQM (2013b); NIST (2010); Worley et.al, (2005) and Appelbaum, Pease & Leader (2002), is presented in Table 2.3.

Table 2.3 Assessment Areas of the People Criterion

People	- Recruit people that align with the organisational strategy and existing workforce
	- Engage the staff in the creation of organisational mission, vision and values
	- Engage, manage and support cross-functional communication and collaboration
	- Value, recognise and develop the skills and actions of the staff
	- Ensure fairness, equality and empowerment of the staff
	- Maximally utilise the available skills by aligning the staff with 'best-matching' tasks

While these aspects link into the responsibilities of the Leadership the initiative and participation of the staff itself in service creation and delivery is required (Moullin, 2002).

2.6.3 Strategy

The central position of the model belongs to Strategy as it constitutes of both 'soft' and technical' aspects (Bou-Llugar et.al, 2009) and serves as a tool for the integration of the rest of the criteria (Reiner, 2002). The sub-criteria of Strategy are summarised in Table 2.4 (based on EFQM (2013b); Mohammad et.al, (2011); NIST (2010); Talwar (2011); Worley et.al, (2005); Alnebratt & Lyxell (2012); Moullin (2002)).

Table 2.4 Assessment Areas of the Strategy Criterion

Strategy	- Develop organisational strategy (including vision, mission and values) with the involvement of the staff in alignment with optimisation goals, sustainability and competitive position (requires a customer focus perspective)
	- Cross-functional understanding of and commitment to the strategy
	- The consistency of implementation, monitoring, measurement and reviewing of the strategy

A strategy for successful optimisation must be derived from performance measurement (Worley et.al, 2005) based on vision, mission, policies and processes (Bou-Llugar et.al, 2009). Vision corresponds to where the organisation wants to be, and is crucial to determine the core values of an organisation. The two, when combined, establish the mission – what does an organisation want to achieve (Martensen & Dahlgard, 1999, cited in Moullin, 2002). The strategy must therefore be stakeholder-oriented, taking into account the characteristics of the sector, the market it operates in (Castresana & Fernández-Ortiz, 2005) and present and future needs and expectations of stakeholders (Moullin, 2002).

2.6.4 Partnerships and Resources

An organisation must align its internal and external resources and stakeholders with its strategy to ensure the effectiveness of processes and optimisation (Tan, 2002; EFQM, 2013b). Due to the focus of this thesis, the aspect of supplier management has been excluded from the research. Organisational resources in question consist of technology, information, and human resources (HR). While the technological capabilities are relatively easy to assess, the latter two have proven to be a challenge for many organisations (Worley et.al, 2005). The selection, analysis and utilisation of knowledge and information on financial resources, materials, intellectual property and assets within the organisation encompass the information resources (SIQ, 2013). An overview of the areas of importance within this criterion are illustrated in Table 2.5 (derived from Tan (2002); EFQM (2013b); Dahlgaard et.al, (2011); Dahlgaard & Dahlgaard-Park (2006); Arlbjørn & Haug (2010); Kollberg & Elg (2006); Moullin (2002); Magal & Word (2009); SIQ (2013)).

Table 2.5 Assessment Areas of the Partnerships and Resources Criterion

Partnerships and Resources	- Planning, management, measurement and analysis of resources
	- The understanding of interactions and interrelationships between individuals and teams on all organisational levels
	- Cross-functional ownership of activities – staff must understand not only ‘what’ to change, but also ‘why’
	- The involvement of staff in the creation of optimisation strategy from the very beginning of the change initiation
	- Cross-functional collaboration and teamwork of the staff
	- Systematic measurement of customer satisfaction and the company’s position in the market (benchmarking) – requires set standards and internal quality systems

While the ‘hard’ (quantifiable) and ‘soft’ (qualitative) standards are set by the Leadership and the People within the Strategy criteria, the quality systems relate directly back to the culture of and collaboration within the organisation. Unless the employees see the entire organisation as a dynamic entity that depends on the success and coordination of all its component systems not on separate functional areas, the quality systems will not work (Moullin, 2002).

It has been argued that no optimisation or quality improvement strategy will reach its maximum potential unless the quality and optimisation mind-set will be first ‘built’ into the people (Dahlgaard et.al, 2011). Change of existing company culture is never easy (Kollberg & Elg, 2006). The constantly changing external environment and internal processes require a continuous adaptation of behaviour and knowledge of the employees involved. Naturally, issues like stress, conflict and resistance to change arise. Research has confirmed that a correlation between the technical and information processes, and a proper analysis and alignment of the available human resources is the main enabler of a successful optimisation (Worley et.al, 2005).

2.6.5 Processes, Products and Services

As can be seen by the EFQM in Figure 2.2, all of the criteria explained above, when combined, create the processes, products and services of an organisation. However, as processes develop the product and/or service offering (EFQM, 2013b) and generate value for customers and other stakeholders (NIST, 2010; Tan, 2002; Talwar, 2011) it does not mean that processes themselves are automatically assessed through the assessment of the other enabler criteria.

In the healthcare sector, also dentistry, due to technical and medical standards, majority of the processes have had the same design for years. This is one of the main reasons why key processes, which have a vital impact on quality, must be identified as the existing processes and activities may be over-complicated, redundant or adding no value (Moullin, 2002), thus not be aligned with the strategy of an organisation (EFQM, 2009).

The performance of processes and competitiveness of a company depend on the management of BPO (Zu, 2009; Reiner, 2002; Palmberg, 2010). A lot of research on improvement has been conducted within the specifics of service industries and their strategies, and processes. However, certain gaps, especially in terms of practical implementation, remain (Vergidis et.al, 2008b). A thorough project of business process management (BPM), in this case – Quality Management (Moullin, 2002), must be started even before the start of an optimisation to increase the chances of its success (Worley et.al, 2005).

Business Process Management

Business Process Management (BPM) corresponds to the planning stage of optimisation and continuous improvement (Moullin, 2002) and comprises techniques, methods and tools that help to design, ratify, control and analyse business processes (van der Aalstter, Hofstede & Weske, 2003). BPM is necessary to thoroughly understand current position and available human and non-human resources. Therefore, proper BPM helps to overcome technical and socio-cultural challenges of process optimisation (Mansar & Reijers, 2005; Maganelli & Klein, 1994; Galliers, 1997; Carr & Johansson, 1995), which, in turn, enforces the chances of adaptation and improvement (Worley et.al, 2005).

BPM requires process modelling/mapping. There is a wide array of modelling frameworks and techniques proposed to enable optimisation mentioned in the literature (Palmberg, 2009). In most instances the modelling techniques are used simultaneously with one another to escalate their success (Worley et.al, 2005). An extensive review and classification of BPM methods for analysis and optimisation is provided by Vergidis, Tiwari and Majeed (2008a), Melao and Pidd (2000), and Weston (1998).

The assessment of the processes directly incorporated in medical procedures is excluded from this study. The main points of process assessment are summed-up

in Table 2.6 (compiled from NIST (2010); Tan (2002); Talwar (2011); EFQM (2013b); Bou-Llusar et.al, (2009); Dahlgaard et.al, (2011); Samuelsson & Nilsson (2002); Magal & Word (2009)).

Table 2.6 Assessment Areas of the Processes Criterion

Processes	- Design and manage processes from a customer and stakeholder perspectives and in alignment of strategy
	- Identify and assess key processes, which add the most value
	- Identify the people, competencies, tools and information required for key process execution
	- Define the ownership, roles and responsibilities of the staff with regards to maintenance and improvement of key processes
	- Develop key performance indicators (KPIs) taking into account key stakeholders, the desired future state of the organisation, and the performance of competitors (benchmarking)
	- Systematically measure, evaluate and improve processes via the set KPIs to adapt to unforeseen effects and changes

Key processes are derived from the organisational strategy (Worley et.al, 2005). Practical ways of finding key processes are through brainstorming, interviews with key stakeholders, hiring an external consultant and/or by using the Generic Porter Model (Sharp and McDermott, 2001; EFQM, 2013b). Each key process must be assessed on the criteria listed in Table 2.6. The areas of service quality to measure in the healthcare sector were presented in section 2.2.2.

To sum up, EFQM is not only a tool for self-assessment and award application but also an appropriate framework for systematic implementation of optimisation (Bou-Llusar et.al, 2009), which can also be useful as a management control tool (Mohammad et.al, 2011). Previous studies have concluded that the model encompasses both social and technical dimensions (Bou-Llusar et.al, 2009) – there do exist interrelationships between all criteria of the model (Oakland, 1999) and with the six possible management control approaches, which shows the integrativeness, holistic nature, and applicability of the model to organisations of any sector, size, structure or maturity (Nabitz et.al, 2000). The main limitations of the model can be summarised as follows: (1) the contextual/contingency factors are given little attention, (2) the simplified and generalised nature of the model limits the inclusion of all possible variables and aspects of the process in question, and (3) the consistency between the expectations and actual application of the model is not always met (Dahlgaard-Park, 2008). However, the implementation and systematic use of feedback loops help to overcome these shortcomings (Samuelsson & Nilsson, 2002).

On a side note, Sweden, like various other countries, has developed a bespoke excellence model known as Swedish Model for Performance Excellence (SIQ). While the model differs slightly from the EFQM framework on its weighting, the differences are relatively minor (Mohammad et.al, 2011). Being derived from

EFQM all the criteria of SIQ are encompassed in the EFQM as well and thus it can be seen as a more condensed version of it (Talwar, 2011), therefore, due to a much less available data and research done on SIQ, the authors have acknowledged its importance for promoting and supporting optimisation and continuous improvement in Swedish organisations but the research is based on EFQM.

2.7 Summary of the Theory

Process optimisation requires the understanding and application of business process perspective to evaluate and improve existing processes (Arbjørn & Haug, 2010). The business process perspective involves customer-centric focus (both internal and external) and cross-functionality (Earl, 1994), which are vital for optimisation and continuous improvement (Sharp & McDermott, 2001). Business processes entail the internal work, material, resource and information flow structures (Arbjørn & Haug, 2010). Service processes differ from manufacturing processes in four major ways: intangibility, inseparability, heterogeneity (Schneider & White, 2004) and perishability (Rathmell, 1966, cited in Vargo & Lusch, 2004), which make their quality assurance highly complex (Schneider & White, 2004).

Business process optimisation (BPO), therefore, is a notion, which analyses and (re)designs the current processes, products and services over their entire lifecycle and can simultaneously improve the time, costs, quality and effort required from the beginning until the end of its supply chain (Antony, 2005). The main determinant for optimisation is controllability; if a process, activities and resources can be controlled then it can be optimised (Antony, 1997 & 2005). BPO has four general and consecutive phases: analysis, design, implementation and analysis (Arbjørn & Haug, 2010), and has the highest potential for between sub-processes, functions, and departments (Dahlgaard et.al, 2011).

Within healthcare, the main goal of optimisation and a key to competitive advantage is service quality (Moullin, 2002), which constitutes of customer satisfaction and product quality (Brady & Cronin Jr., 2011). The determinants of service quality are based on the customer's perspective on the customer-employee interaction, the service environment, and the service outcome (Brady & Cronin Jr., 2011), which entail the dimensions of reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer, and tangibles (physical appearance of facilities) (Goldsby & Martichenko, 2005; Moullin, 2002).

Optimisation can be applied via various initiatives (Mansar & Reijers, 2005; Zairi, 1997) and currently more than 900 improvement initiatives (Mohammad et.al, 2011), which are most commonly based in the Total Quality Management (TQM) or Business Process Reengineering (BPR) frameworks, have been identified (Sharp & McDermott, 2001). From this wide selection Business Excellence Models (BEM), which are embedded in TQM (Bou-Llugar et.al, 2009), have been acknowledged as the most prominent ones in general and specifically in the healthcare sector (Dahlgaard et.al, 2011).

The European Foundation of Quality Management (EFQM) model, based on TQM (Adebanjo, 2001), is the most widely acknowledged and used BEM (Mohammad et.al, 2011). EFQM is a tool for both – (1) the auditing for the Quality Award and (2) self-assessment on all organisational levels, to highlight current underperformances of business processes and management (Nabitz et.al, 2000). The model distinguishes nine strategic areas of improvement to identify, measure and successfully implement optimisation efforts (Andersen et.al, 2000). The nine areas or criteria are divided into Enablers: (1) Leadership, (2) People, (3) Strategy, (4) Partnerships and Resources, (5) Processes, Products and Services, and Results: (1) People Results, (2) Customer Results, (3) Society Results, and (4) Business Results, which all must be assessed on specific areas to manage quality and optimisation (EFQM, 2013b; Talwar, 2011; Bou-Llusar et.al, 2009).

3 Methodology

The following chapter will present the philosophy, approach and design of the research. The respondent selection criteria, data collection and analysis methods are explained before evaluating the quality of the research, presented in the chapter thereafter.

3.1 Research Philosophy and Methodological Perspective

3.1.1 Realism

While scholars seem to still argue on the most applicable SCM methodologies a consensus has been reached on the fact that the SCM and logistics fields and the research therein are most commonly embedded in the positivist paradigm (Mentzer & Kahn, 1995). However, the focus of this thesis is not exclusively on the supply chain and its activities as it has also acknowledged the effect that the people involved in it play in its creation, therefore the realism tradition has been adopted as the underlying research philosophy. For this particular research it is important not to underestimate social constructionism – that a socially constructed environment (the organisation) has an impact on how the individuals involved in it interpret the world around them. The focus thus is not on the social roles of the people and how these individuals interpret their ‘reality’ through them, but rather on how these interpretations and relationships construct the phenomena and thus have to be understood for explaining and investigating it. It is clear that jointly experienced stimuli will create a shared interpretation whether the individuals involved are aware of it or not (Saunders, Lewis & Thornhill, 2003).

Realism, which is embedded in a variety of both epistemological and ontological positions (Madill, 2008), embodies the belief that objects, social structures, and reality exist independently of human thoughts (Vogt, 2005; Saunders et.al, 2003). Therefore, even though the reality is independent of any single individual, every human being’s reality is his/her own interpretation of it (Madill, 2008). While this interpretation may be subjective it has undoubtedly been affected by social forces and processes (consciously and unconsciously), and thus will have an impact on the behaviour of the individuals (Saunders et.al, 2003). Based on this, it can be seen that realism has certain common traits with positivism, which is the predominant philosophy of SCM, as noted above. Nonetheless, the main distinction between the two is that realism does not treat people as objects of the study. Instead, it strives to understand the socially created interpretations, to be able to comprehend the processes and social forces which have influenced the predisposed views and behaviours (Saunders et.al, 2003). In summary, the realism paradigm argues that the world should be understood from an objective point of view; it has a neutral value, and is empiricist in nature (Madill, 2008).

3.1.2 The Systems View

In order to fulfil the purpose of this thesis it requires an observation of a specific company, its human resources and business processes, simultaneously with an

application of an existing relating theory, hence, the adopted methodological perspective of this research is the systems view. In a very generic sense, the systems view (also known as systems theory or holistic functionality) can be explained as a framework through which the researcher is enabled to analyse and/or describe a group of objects working together to generate a certain result (Arbnor & Bjerke, 2009).

There are two main fundamentals of the systems theory. Firstly, all components of the phenomena are embedded in and are parts of a network of relationships among one another. In short, it is a system. Secondly, this system has shared behaviour and patterns. An understanding and explanation of these specific patterns is necessary to create a thorough insight into the phenomena (Arbnor & Bjerke, 2009). The systems view is therefore applicable to the purpose of the thesis as it permits an interdisciplinary study of organisations, which are subject to sharing a specific internal language, thinking, and work division and execution. By using the systems view, it will be possible to define and analyse the interdependence of cross-functional relationships of people and business processes within the organisation.

Furthermore, the systematic view's embeddedness in structuralism (Arbnor & Bjerke, 2009) complements the underlying goal of the research to seek improved economic and human solutions. The holistic aspect of the theory contributes to the cross-functional alignment argument where a given system cannot be thoroughly defined, explained nor understood, let alone optimised, by the sum of individual components alone. Instead, it is the system (an organisation) as a whole, which determines the behaviour of its components (Arbnor & Bjerke, 2009).

3.2 Abductive Scientific Approach

This research thesis has taken the increasingly advocated stand that theory and method should be highly interrelated and one should not be assigned a higher importance in the research process than the other (van Maanen, Sørensen & Mitchell, 2007; Alvesson & Kärreman, 2007) to be able to understand and represent the reality in a cognitive manner (Weick, 1989). The abductive approach, a combination of both inductive and deductive approaches (Saunders et.al, 2003), advocates a continuous interplay of theory and methods, which is vital to meet the intended purpose and contributions of this research. The reflexivity enabled by abduction has therefore been used to problematize (re-evaluate and re-shape) both the theoretical framework (Alvesson & Kärreman, 2007) and empirical data gathering and analysis processes throughout the entire research process (Mills, Durepos & Wiebe, 2010). The authors believe that this approach has helped to maximise the internal and external applicability and sophistication of the empirical material and theoretical framework (van Maanen et.al, 2007).

Research which relates exclusively only to the deductive or inductive approach substantially delimits its scope of inquiry and contribution to knowledge (Golicic, Davis & McCarthy, 2005). The iteration of both has been used to create pre-understanding and limit the possible bias (Gummesson, 2000b) and narrow mindedness of researchers at the same time (Alvesson & Kärreman, 2007). The

process of deduction has been used to (re)establish possible guidelines of relationships between variables, facilitated by induction (DiMaggio, 1995), which permitted causal conjectures and re-classification (Mills et.al, 2010), and in turn enabled critical reasoning and validated cognition (Alvesson & Kärreman, 2007).

3.3 Action Research Strategy

Previous research in SCM has been mainly normative and quantitative in nature (Mentzer & Kahn, 1995). Seeing how the business and market environments within SCM are becoming more complex, a clear imbalance and need, for complementing qualitative research to be able to understand and explain the various phenomena of SCM in-depth, appears (Golicic et.al, 2005; Näslund, 2002). Even though realism, which has been chosen as the research psychology of this thesis, is oftentimes linked with quantification it is also well-suited for a multitude of qualitative methods (Madill, 2008). Another reason in favour of a qualitative study relates to the focus on business processes. Decision-making, changes and implementation of processes cannot be analysed solely quantitatively as its mechanic manner leads to fragmentation, scarce information and misunderstandings (Gummesson, 2000b). It is not to say that the two approaches cannot be used complementarily, but quantitative methods are better suited for well-structured and understood problems.

Action research (also known as action science) is the most far-reaching and challenging of case research methods (Gummesson, 2000b). Concisely, it can be described as participant observation with active intervention (participant as observer (Saunders et.al, 2003)) using mainly qualitative methods (Gummesson, 2000b). The research process offers the researcher a close collaboration with the study object and the practical problem to be solved (Eriksson & Kovalainen, 2008) in a democratic manner (Saunders, Lewis & Thornhill, 2007). Not only is it interactive (requires a cooperation between the researcher and study participants and their environment), thus having the possibility to change values, norms and the status quo, it may (and should) also contribute to science in general (Gummesson, 2000b). A continuous feedback and flow of information between the researchers and participants is important to develop new adaptations (Payne & Payne, 2004). The achievement of this has been complemented by the abductive nature of the research. Therefore, the permitted cross-functional competence and knowledge building with an aim of problem solving and continuous change is in line with the purpose and intended contributions of this research.

Sievers (1979) has developed the different steps involved in action research which include: investigation, entry, data collection, data feedback, diagnostics, action planning, implementation and evaluation (cited in Kotzab et.al, 2005). There are decisions to be made prior to the commencement of the data collection due to the specific conditions applying to the researcher-study object relationship such as: holistic understanding of the problem, communication, interests and background.

The next step is to collect, evaluate and prepare the variables applicable to the study, as well as structures and processes referring to the data collection, data feedback and diagnostic step. This enables the formation of the basis for

interpretation and understanding. Furthermore, the involvement of the research participants in the later stages of the research is achieved via feedback, where participants are involved in the analysis of the data using their business expertise and at the same time providing a starting point for the (re)development of the researched organisation or group. Next, the researcher must define action tasks, responsibilities and an approach for evaluation (action planning) in order to implement the strategies (implementation) (Sievers, 1979, cited in Kotzab et.al, 2005). The result and changes are finally measured and analysed (Eriksson & Kovalainen, 2008). The evaluation should be carried out by the researcher to examine both intentional and unintentional outcomes, containing analysis on a practical basis but also a theoretical view, which is one of the most important steps for the learning process. These different steps are summarised in the Table 3.1.

Table 3.1 Phase Model of Action Research (Sievers, 1979, p. 124, cited in Kotzab et.al, 2005)

Research step	Predominantly...	Content
Investigation	Research	First orientation and pre-decision about the following cooperation.
Entry	Action	Development of a common working relation and of a contact: first problem orientation: selection of methods for data collection and feedback.
Data Collection	Research	Analysis of organisation variables and processes.
Data Feedback	Action	Return of the prepared data basis to the client system for discussion and diagnosis.
Diagnostics	Research	Access to the situation, the problems and deficits of the systems.
Action Planning	Action	Development of specific action plans, which include decisions about who will achieve the plan and how the success can be measured.
Implementation	Action	Management of acquired changing strategies.
Evaluation	Research	Evaluation of the effectiveness/ineffectiveness for the implementation – continuation of the project is possible.

The action research strategy is therefore especially suitable for studies concerning processes, learning (Gummesson, 2000b), development or improvement of a problem, or when a change process needs to be understood (Eriksson & Kovalainen, 2008). The *modus vivendi* (the driving force) of the research should not be theoretically driven, but rather focus on the real-life problems, which means that the approach of action research will be closer to the description of the realist paradigm (Eriksson & Kovalainen, 2008).

Action research has been criticised for either being too academic and theoretical or too 'practical' – lacking objective findings as the researchers are too embedded in the research environment, thus biased (Payne & Payne, 2004). The authors of this study have therefore set out to bridge this gap and apply independent and theoretically based judgement while staying open to alternative arguments and explanations by combining the 'participant as observer' role with the abductive research approach. Additionally, action research strategy is more subject to validity issues than any other qualitative research strategy, especially in terms of (im)partiality and narration (Saunders et.al, 2007). Explicit care and attention to these areas must be given throughout the research process to be able to validate the studied phenomena (Eriksson & Kovalainen, 2008).

3.4 Selection of Case Studies

As previously discussed in the problem section, the Swedish dental care sector has undergone major changes due to the deregulation of the market. Folktandvården Sörmland made a decision in 2010 to corporatize their organisation, which was based upon recommendations from a consultant and politicians. The main argument was that they are currently competing in the same market as the private clinics and should do so under the same conditions (Kägo, 2010, Södermanlands Nyheter, 2010). The consultancy report also proposed that effectiveness measures should be applied. The fact that the organisation is now under competitive pressure and that the change took place relatively recently made the authors of this thesis particularly interested in Folktandvården Sörmland, which was therefore chosen as the sample frame for the research.

For action research to collect rich and comprehensive empirical data the researchers must not only gain the acceptance and trust of the participants, but also gain physical, continuous and cognitive access to ensure the feasibility and credibility of the findings (Saunders et.al, 2007). With the aim of this research not being to create generalisations, the sample size was set at two to three research units (clinics), depending on their sizes, to maximise the quality and depth of empirical data collection. The decision to work with research units/cases, rather than the entire population, is further justified by their characteristics to embody powerful examples and enable idea generation and fresh insights (Platt, 1988, cited in Mills et.al, 2010), which are necessary to meet the research objectives. While a study based on cases cannot prove a theory, it can still contribute to the existing knowledge (Mills et.al, 2010), and possibly create new causal explanations via the entitled reflexivity by elaborating, refining and/or contesting the theory (Alvesson & Kärreman, 2007; Mills et.al, 2010).

According to Fletcher and Plakoyiannaki (2010, in Mills et.al, 2010), data credibility, which is required for this, can be enhanced by purposeful random sampling. Purposive sampling selects a sub-set of population units (Sarantakos, 1998, cited in Mills et.al, 2010) and the judgment of researchers is used to select the research cases (Saunders et.al, 2007). Furthermore, when using multiple cases, the case selection must be strategically based on the knowledge of researchers to ensure the maximum amount of required information (Bleijenbergh, 2010, in Mills

et.al, 2010). Apart from the already mentioned sample frame, the researchers set selection criteria. First, one of the clinics should have implemented process optimisation to some extent. This would enable the identification of dependent and independent variables for possible causal relationships, and optimisation enablers/disablers. Second, the size of the clinics picked was decided not be a determinant of applicability as the EFQM can and has been successfully implemented in organisations of all sizes (EFQM, 2013a). After a phone discussion with the CEO of Folktandvården Sörmland, Sverre Berglund, on the purpose and objectives of the research, access was granted to two clinics, namely Folktandvården Gnesta and Folktandvården Fors. The two clinics are very different in terms of size (one clinic consists of only 15 employees whereas the other consists of 45) and has different experience from using optimisation. Next, the managers of the clinics were contacted over phone to explain the research purpose, objectives and the time, access and data required from the participants. Both managers expressed interest in the study and were very accommodating with regards to access. Over the period of the research, the researchers visited each clinic three times in total to deepen and re-evaluate their research. Therefore, the research is longitudinal and comparative in nature as it compares changes between the cases on the selected dimensions (Aaltio & Heilmann, 2010, cited in Mills et.al, 2010) and uses an iterative analysis of each case to create a final comparison on emergent themes and explanations (Campbell, 2010, cited in Mills et.al, 2010).

3.5 Research Methods and Data Collection

As mentioned before, there is a need for extensive data-gathering when conducting action research as it entails learning about a social system and, at the same time, finding ways of improvement, and collecting data jointly with the researched community (Eriksson & Kovalainen, 2008). It has been argued by scholars and practitioners that qualitative methods provide the best opportunities to study processes and change, with observations and informal interviews being named as the most prominent ones (Gummersson, 2000b; Eriksson & Kovalainen, 2008).

An adaptation of the model presented in Table 3.1 has been created with an aim to create a comprehensive overview of the steps taken throughout the three phases of research process. The adapted model is presented in Table 3.2.

Table 3.2 The Adapted Phase Model (based on Sievers, 1979, p. 124, cited in Kotzab et.al, 2005, adapted for this research)

Research step	Predominantly...	Content
Investigation (Stage I)	Research	Literature review and formation of purpose along with identification of appropriate methods.
Entry	Action	Telephone and email conversations with the Chief Executive Officer (CEO) and clinic managers to explain objectives of research and reach a decision as to how the data will be collected.
Data Collection	Research	Preliminary analysis through observations at both clinics as well as one-to-one interviews with clinic managers.
Data Feedback	Action	Workshop for introduction to the research and objectives, discussion of internal situation and identification of possible areas of improvement.
Diagnostics	Research	Analysis through academic theories and literature.
Action Planning (Stage II)	Action	Form strategies for implementation of improvements through theories and tools found in academic literature. Meeting with workshop participants to present action plan.
Implementation	Action	Actual implementation to be carried out by the researched participants through the action planned presented in the meeting.
Evaluation (Stage III)	Research	Meeting with workshop participants and clinic managers to evaluate success of implementation, employee participation level, as well as identifying obstacles and weaknesses of strategies.

The chosen empirical data gathering methods and actual data collection processes are explained in the sections below.

3.5.1 Observations

Observation is a systematic and structured data collection method that entails active seeing, noticing, hearing, and recording (di Domenico & Phillips, 2010, cited in Mills et.al, 2010). Observations also provide the advantage of capturing unexpected events, however, it can be problematic for the researcher to document all the events at that specific time and these may be prone to the subjectivity of the researcher (Mills et.al, 2010; Saunders et.al, 2007). These limitations were overcome by developing detailed central variables based on the theoretical framework, with both researchers taking the role of an observer simultaneously, and comparing and discussing their field notes before data analysis. An additional strength arises from the fact that only one of the researchers is fluent in Swedish,

therefore attention to different and alternative details on the same processes has been incorporated.

The researchers took a role of ‘participant as observer’ giving their identities and purpose of the observations, which was necessary to gain all three levels of access and overcome any ethical concerns of the research. Therefore, direct observations were carried out at the clinics where the researchers were present to gain insightful views of the daily operations. It also allowed evaluation of the processes through measurements of different variables according to the requirements for successfully completing the business process management/mapping, discussed earlier. Even though this role of the observer increases the possibility of habituation, when the observed adapt to the presence of the observer (Saunders et.al, 2007), the authors believe that this aspect has been restricted as the length of time spent in the research environment helped to develop trust and limited the possible distortions of ‘normal’ activities and behaviours over time. A diary was used to keep additional notes on primary, secondary and experiential data, as suggested by Saunders et.al, (2007), which were then discussed between the authors before writing descriptive observations and narrative accounts to ensure the abductive reasoning until the next visit at the clinic. Parallel to continuous observations of all activities within the clinics throughout the day, the focus and length of time spent on specific distinctive functional areas is presented in Table 3.3.

Table 3.3 Observation Length and Focus at the First Visit

Observation Length and Focus at Both Clinics During the First Visit	
Reception and Waiting Area	3 hours in the morning (from the beginning of the receptionist(s) arrival at the clinic), and 1 hour before closing.
Dentists	2 hours during their appointments.
Dental Hygienists	2 hours during their appointments.

3.5.2 Workshops

Workshops can be considered as a type of social intervention, organised by an external party (in this case – the researchers), aiming for change through means of resolution (Fisher, 2004). The participants are gathered to discuss the topic at hand so the organiser(s) can analyse and possibly find solutions for the problem. The involvement of the researched group empowers the participants (Eriksson & Kovalainen, 2008).

A workshop-approach is also one of the self-assessment methods developed by EFQM (Hides, Davies & Jackson, 2004). Therefore, it has been chosen as a mean of obtaining data and to identify the current situation along with suggested improvements from the staff involved. Furthermore, it also benefits to encourage teamwork and works as a good base for discussion related to possible

improvement areas and strengths, as well as motivating the staff to engage in improvement efforts (EFQM, 1999, cited in Hides, Davies & Jackson, 2004).

The aim of the workshops was to involve the staff to challenge their assumptions and promote continuous improvement to be implemented as a part of their work culture. It also allowed the authors to incorporate their expertise into crafting a desired state of processes, giving insights that would not have been possible to obtain from academic theory only. Finally, it gave the necessary feedback to form an academic analysis based on real-life events and outcomes, thus complementing the abductive nature of the research.

A higher effectiveness of workshop data is derived when the selected participants comprise of their usual social group (Mills et.al, 2010). However, both clinic managers expressed their wish to participate as well. The authors are aware that their presence might have resulted in alternative and distorted responses from other participants, as pointed out by Mills et.al, (2010), but this trade-off had to be made to ensure continuing and cognitive access. Nevertheless, the request has been noted and included in the data interpretation. The selection of the remaining workshop participants was stratified and random at Folktandvården Fors due the size of the clinic – employees from all functional areas within the clinic based on their availability to participate at the set time (five employees). The same sampling technique was used at the first workshop in Folktandvården Gnesta, while in the second workshop all employees participated. The workshops lasted two hours and were held in the staff room to ensure familiar and free, and covered the areas derived from the theoretical framework and previous observations.

3.5.3 Semi-Structured Interviews

Semi-structured (focused) interviews are a qualitative data collection method based on a small number of open questions, which allow active probing for elaboration by the interviewer (Barlow, 2012, in Mills et.al, 2010). It is an especially helpful technique for exploratory and explanatory studies (Saunders et.al, 2007) as even though a sub-set of topics, based on theory and concrete issues, is created, they may vary depending on the context and applicability (Barlow, 2012, in Mills et.al, 2010) thus permitting the emergence of previously unconsidered matters (Saunders et.al, 2007). See Appendix 1 for the interview guide.

Interviews were conducted on a one-to-one basis with the clinic managers to get an overview of the management's view of the business processes, optimisation and continuous improvement. In the case of Folktandvården Fors, questions relating to previous optimisation efforts were discussed with the clinic manager. The interviews were both recorded and hand-noted, and transcribed to increase the quality of data and assist the further analysis process.

Semi-structured interviews are subject to reliability, and biased data quality, issues (Mills et.al, 2010). The matter of reliability has been addressed by developing and presenting a clear and detailed presentation of the research process, while the possible biases (mainly interviewer, interviewee, and response, according to

Saunders et.al, (2007)) have been overcome by the use of open questions, limitation of technical jargon, and transcripts.

3.6 Analysis Process

The analysis of qualitative data undergoes four sequential procedures – sorting, reduction, argument, and conceptualisation (Saunders et.al, 2007). First, the sorting of data happens through the raw data classification/coding into meaningful categories (Fielding & Lee, 1991; Gahan & Hannibal, 1998; Grbich, 1999, all cited in Payne & Payne, 2004). Field notes from the observations of both observers, and transcripts of the workshops and interviews, were combined and computer-stored right after their occurrence to ensure no missing data or distortion, as suggested by Payne and Payne (2004). Second, both authors read each text as a whole and added notes, reflections and identified key words and phrases, which were then discussed to ensure data quality and objectivity, before reducing the data into units. Cross-referencing and colour coding was used to develop categories and recognise relationships (Payne & Payne, 2004) between activities, concepts and variables. The argument and conceptualisation was reached through data interpretation consisting of explanation building where the recognised relationships were tested both - against predicted theoretical explanations and by attempting to build alternative ones (Saunders et.al, 2007). As the data collection, coding and analysis (interpretation) of qualitative data happen simultaneously (Payne & Payne, 2004) and due to the abductive nature of the research, and the research consisting of three stages – the analysis process was carried out multiple times before arriving at the final results.

The business process management/mapping (BPM) was utilised to create customer flows to finalise Stage I. This allowed the authors to obtain a clear overview of the processes to be discussed and modified during the second visit at the clinics and Stage II. The current state of the processes and suggested improvements (based on theory, the observations and workshop results) were discussed alongside with introduction and explanation of continuous improvement and the EFQM to the participants.

3.7 Evaluation

There exists a widely spread belief that qualitative research is less successful at handling reliability on a practical level (Gummesson, 2000b; Payne & Payne, 2004). This is due to the fact that reliability in qualitative research is seen as a different issue because of a different philosophical starting point (Shipman, 1997, cited in Payne & Payne, 2004). Social environment, its character and settings, are too complex to be re-studied in the same richness of detail (Marshall & Rossman, 1989, cited in Payne & Payne, 2004). Socially embedded processes are neither stable nor repetitive; therefore, qualitative research should not be aimed at seeking uniformity and standardisation but rather to be open to new, alternative and innovative explanations (Payne & Payne, 2004). As a result, Lincoln and Guba (1985, cited in Payne & Payne, 2004), argue that instead of striving for reliability, qualitative research should be measured for dependability – whether the results of

one study are likely to re-occur. The research evaluation on the reliability criteria is summarised in Table 3.4.

Table 3.4 Reliability Evaluation

CRITERIA	COMMENTS	METHOD
Dependability	Can be achieved by the employment of alternative explanations, which, in turn, eliminate inconsistencies. In many ways it is similar to the notion of reflexivity (Payne & Payne, 2004).	Both the dependability and reflexivity of this research have been satisfied via the use of an abductive research strategy, which empowered the authors to question and explore the limitations of the existing knowledge and assumed relationships by repetitive engagement with the research participants and environment. The process of abduction led to continuous re-evaluation of the theoretical framework, which has resulted in a fully developed conceptual framework thus ensuring the plausibility of conclusions (Payne & Payne, 2004).
Participant error and bias	<p>The observer error can be eliminated by either highly structured methodology or transparency of the research process (Saunders et.al, 2007).</p> <p>Choosing the role as participant as observer can allow to gain trust of the group (Saunders et.al, 2007).</p>	<p>Has been eliminated by the application of the ‘participant as observer’ role of the authors as the research strategy and empirical data gathering method (Gummesson, 2000b; Saunders et.al, 2007) based on the time spent in the research environment, and allowed to gain trust which could receive more consistent responses.</p> <p>Since qualitative abductive research does not apply to high structuration field and observation notes, and workshop and interview transcripts are available upon request to ensure transparency and provide a portrayal of subsequent research procedures.</p>
Observer bias (confirmability)	One of the main threats of qualitative, especially action research and observations due to data interpretation. Qualitative research, in general, is oftentimes criticised on its subjectivity and lack of neutrality (Saunders et.al, 2007). However, complete objectivity is unobtainable in any research (Abercrombie, Hill & Turner, 1986, cited in Annells, 1996). The choice of topic and theoretical framework, research questions, data collection and analysis methods and procedures all have been subject to the values of the researcher (Payne & Payne, 2004), hence the existence and acknowledgement of axiology (Saunders et.al, 2007).	The abductive nature of the research has enabled the sensitivity and reflexion to the connections and plausible relationships between values, procedures, and the empirical data. The results of a research of a socially embedded phenomenon depend on the interaction of the researchers with the research participants and environment. Therefore, Payne and Payne (2004) argue that what matters in qualitative research is not the neutrality but the credibility (dependability). The satisfaction of this criterion was explained above. Confirmability is further justified by the advantage to compare and discuss the data interpretations with the co-author, which has resulted in the elimination of subjectivity (Lecompte & Goetz, 1982, cited in Payne & Payne, 2004). More so, the multi-mixed qualitative empirical data collection process (observations, semi-structured interviews and workshops) has ensured triangulation.

According to scholars, qualitative research, in general, withstands the majority of validity issues more effectively than quantitative research (Payne & Payne, 2004) as it maximises internal validity (Golicic et.al, 2005; McGrath, 1982) by providing a close-up of the phenomena and its underlying issues (Creswell, 1998). Nevertheless, in empirical terms, the findings of qualitative research must be evaluated on criteria of ecological validity and transferability (external validity/generalisability) in addition to the reliability criteria addressed above (Payne & Payne, 2004).

Furthermore, it is an acknowledged fact that qualitative research is less concerned about transferability (Shipman, 1997, cited in Payne & Payne, 2004; Kotzab et.al, 2005). Nevertheless, the possibility to gather rich in-depth observations of the research setting and participants in their natural environment and unique social context cannot be weighted less important than operationalisation and generalisation. The validity concerns of the research are addressed in Table 3.5.

Table 3.5. Validity Evaluation

CRITERIA	COMMENTS	METHOD
Ecological validity	Ecological validity represents the capacity of the research findings to make sense in their natural setting (Cicourel, 1982, cited in Payne & Payne, 2004). According to Payne and Payne (2004), even if other criteria of validity are satisfied, the research has little value if it does not achieve ecological validity as it then has failed to interpret the subjective meaning(s) in question.	Has been achieved by the choice and implementation of action research strategy which, due to its close and prolonged collaboration with the environment under study, time devoted to reconnaissance (fact finding and analysis) and the involvement of participants throughout the study, provides one of the highest ecological validities of all research strategies (Saunders et.al, 2007).
Communicative validity (seen as the means to the same end as generalisability (Payne & Payne, 2004))	Communicative validity refers to when the researcher test the interpretations made with the participants (Payne & Payne, 2004). It is the results of qualitative multiple case studies which by elaboration, refinement, and dispute of existing theoretical assumptions, enable analytical generalization (Harlow, 2010, in Mills et.al, 2010; Saunders et.al, 2007).	Transcript of empirical data has been confirmed by the respondents. Case studies were chosen as study units.

3.8 Ethics

In action research, the ethical concerns with regard to data gathering become evident as the researcher will actually be present during the natural setting or the day-to-day work of the research participants (Eriksson & Kovalainen, 2008). The participants should also be aware that data could be gained through more informal settings, such as during coffee breaks. All research participants were informed on the identities of the researchers and the research purpose, which is not only an ethical stand-point, but also a necessity due to the research taking place in the context of healthcare (Saunders et.al, 2007).

The respondents were assured that the information provided would be anonymous, but this option was taken only by some. Approval for voice-recording was asked and granted for workshops and interviews. Finally, the interview transcripts were cross-checked with the interviewees to limit misunderstandings and distortion, and increase the quality of data. In short, the authors of this research have adopted the deontological philosophical standpoint of research ethics.

4 Empirical Findings and Analysis

The following chapter presents the primary data, combined from observations, workshops and interviews, and its analysis.

The data and analysis are presented in a sequential manner to illustrate the link of all three research stages, where Stage I corresponds to the Analysis and Design phases of BPO, and the Implementation phase is represented by combining Stages II and III. All of the data presented in each stage relate to the data collection sources and dates summarised in Table 4.1.

Table 4.1 Summary of Research Stages

Research Steps	Data Collection Sources	Content	Date of Conduction
Data Collection (Stage I)	<ul style="list-style-type: none"> • Observations • Interviews 	Preliminary analysis through observations at both clinics as well as one-to-one interviews with clinic managers.	2013-03-25 (FORS) 2013-03-27 (Gnesta)
Data Feedback (Stage I)	<ul style="list-style-type: none"> • Focus groups 	Workshop for introduction to the research and objectives, discussion of internal situation and identification of possible areas of improvement.	2013-03-25 (FORS) 2013-03-27 (Gnesta)
Diagnostics	<ul style="list-style-type: none"> • Observations • Interviews • Focus groups 	Analysis through academic theories and literature.	
Action Planning (Stage II)	<ul style="list-style-type: none"> • Presentation and discussion 	Form strategies for implementation of improvements through theories and tools found in academic literature. Meeting with workshop participants to present action plan.	2013-04-05 (FORS) 2013-04-04 (Gnesta)
Implementation		Actual implementation to be carried out by the researched participants through the action planned presented in the meeting.	
Evaluation (Stage III)	<ul style="list-style-type: none"> • Focus group • Interview 	Meeting with workshop participants and clinic managers to evaluate success of implementation, as well as identifying sustainability and obstacles of the strategies.	2013-04-25 (FORS) 2013-04-26 (Gnesta)

4.1 Empirical Findings of Stage I

To meet the objective of Stage I the Analysis and Design phase assesses the current state of both clinics. Therefore, the empirical data and analysis of Stage I are presented in accordance to the structure of the main optimisation concepts introduced in Chapter Two; starting with the two pre-determinants of adapting business process perspective, which is vital for successful optimisation, before illustrating the current state of both clinics via the EFQM Enabler criteria.

4.1.1 Business Process Perspective

The past years have resulted in a higher customer focus in public dental care clinics within the county of Folktandvården Sörmland in general. The CEO and HR manager in the headquarters come from the commercial background, illustrating the rising changes. While the term 'patients' is still used, they were more and more often referred to as customers: *"Before it was more of a healthcare establishment. Now we have moved from patient to customer"*. At Folktandvården Fors (hereafter – FORS) this switch took place long before the remaining clinics in Sörmland where the focus has changed in conjunction with the corporatisation.

Acknowledgement of Internal and External Customers

One of the employees at FORS argued that while a more *"economical thinking"* is gaining in importance, a balance between the customer focus and financial reasoning must be kept: *"That is the hard part, to find the balance between income and customer – what the customer wants and our money"*. In contrary, at Folktandvården Gnesta (hereafter – Gnesta), the view slightly differs, where a balance between the costs and employee satisfaction is seen as the main goal for optimisation efforts.

"The employee is put first, you should come up with solutions of an activity that result in a more efficient organisation with the right financial considerations, but, at the same time, do not stress or press the employees".

When asked about areas of improvement at FORS, the staff pointed out that smaller clinics can offer a sense of a *"family feeling"*, which even though could be arranged on certain occasions, would become problematic for emergency appointments. There is a will to be able to take care of the patient as fast as possible, but it may not always satisfy the customer's quality perceptions. In Gnesta, the question of what should be improved at the clinic was met with a long silence. The manager explained:

"It depends on who you ask that question to. Some may want a lot of changes, some may feel satisfied with the way things are, some only want a few changes or improvements. But I can say that on a scale from one to ten with regards to improvements we are at nine. You think that you have developed and changed, both when it comes to software and hardware, but there are some areas of improvement within all perspectives. And we must really sit down and discuss it".

To identify areas of improvement the Gnesta clinic has carried out a customer survey, originally developed at FORS, which is planned to be used regularly. *“You get stuck in some ways of carrying out your work, where you think ‘But this is the right way’. So you may need a different pair of eyes to look at it”*. The main area of optimisation evolved around economic aspects.

Cross-Functionality

A clinic meeting, held twice a month to inform the staff on the current topics, is used also as a forum for the discussion of new ideas at FORS. Many of the ideas for optimisation originate from the staff at these meetings, which is acknowledged by the employees to increase their involvement in the decision making. The staff at FORS thought that new ideas and procedures were implemented as soon as possible, depending on the resources. It was also acknowledged that their manager, who is open for new ideas, is a major enabler for this. One such trial was the concept of ‘Munapoteket’ – a mini pharmacy stand with selected oral care products, which is now implemented in all county clinics, including Gnesta. At Gnesta, a clinic meeting is held once a month on current events, but they are not necessarily exploited as regular idea sharing sessions. The areas of improvement are rather discussed during employee appraisals, via employee surveys or during operations planning days, mainly on an individual level.

The FORS staff believes that they are encouraged to generate new ideas and can propose them directly to the manager or at the clinic meetings. According to the manager, encouraging the more quiet staff members to participate is a challenge. Some employees show more initiative to suggest improvements, which creates a *“safe environment”* and encourages others to follow. The clinic has invented a “Pucko-pärm” principle, a Swedish expression, which translates along the lines of an ‘idiot-folder’ – where the unsuccessful ideas are filed. When mentioned at the workshop the staff was laughing about the concept, expressing that failures should be seen as a learning curve rather than something embarrassing - *“the climate is very open; no idea is a stupid idea”, “you try and nobody dies, and if it has not worked out you change back”*. At Gnesta, the optimisation efforts do not have as long of a history, hence, the experience differs. While the staff members deem that they are encouraged to come up with new ideas, some employees argue that the support for actual implementation at times is lacking: *“I cannot do it. I can say that I want to do it, but if they say ‘No we cannot do that’, it is over.”*

“It is very difficult to get it practically. I have to ask for someone’s permission and then, if someone within the staff did not hear the idea, they do not want to permit it. They have to be sure that it is a very good idea before I can do it”.

There has been a resistance to implement certain optimisation ideas at FORS as well. The manager sees this as a positive sign, which maintains realism, creates a balance and spurs a dialogue. Whenever a resistance to change has emerged the manager has developed an alternative approach – the change is first implemented on a micro-level within the clinic, and if successful then made an all-encompassing practice. She acknowledges that some employees need more time to *“sleep on the ideas”* to make the decision. When asked why FORS has been so successful with

optimisation while other clinics have not, the manager stressed the necessity of employee involvement:

"I tell them that I rather have them telling me that they do not like an idea and that they disagree than say nothing... the day when they say nothing is the day I should change my job, then they have given up".

4.1.2 Leadership

In the Swedish public dental care sector, a lot of current or previous dentists have been promoted as clinic managers. At FORS the manager has a degree in business and has worked at a private clinic before acquiring the position 10 years ago. Some of the optimisation efforts that have been developed here have become a standard practice within the rest of Folktandvården Sörmland. She explains her success as: *"I am results oriented. I think that is the big difference between the others and me; they focus only on caring about the people"*, and that leadership in the public healthcare sector in general has to play a more important role. She believes that education in business has given her the required knowledge and analytical ability, however it is not the main determinant of a good leadership: *"If you do not have a leader that is open-minded, then it stops directly there"*. The FORS' manager explains her leadership as follows:

"I think a lot of my leadership style as in the form of coaching in sports. You must look at what players you have and what they are good at when putting together a team – someone is filling the water bags, someone is scoring, and someone is defending, and we need them all".

The manager at Gnesta has held the position for about 10 years while also working as a part time dentist at the clinic, which affects his time available for administrative tasks.

"Actually, it is hard. Before, I spent maximum one day per week for administration. Because it is a small clinic I need one and a half day (for administrative work), the last couple of months I've had more. It feels better now. Now I can cope with it".

He stresses that while a lot has been achieved already, partially due to an assistant for routine matters, strategic planning is an issue.

"20% of my working time is spent on administrative work; I need at least two to three days per week to do it properly"; "I hope the employees understand that. If I worked only on administration, I could contribute more. And I hope now, that I have a bit more time, I can get my employees more satisfied and that I can change and develop the organisation even more".

This clash was evident in the viewpoint on the management between the staff as well. Majority of them acknowledged the fact that the manager holds two positions, thus cannot focus purely on management tasks. While on a one-to-one discussion various employees expressed some critique with the current situation and priorities of the management.

At FORS, the manager argues for an open-book policy with all stakeholders. With the staff it is done by encouraging feedback related to her work, and showing and explaining the financial flows to the staff –

“If I am honest to the staff, they will be honest back”; “I feel like we have built trust, and we have decided together how things should be done”; “It is important to show them (the staff) when you have done something wrong, and be open to new directions. I have no prestige, I can say ‘Well, you were right.’ The only person, who can be absent from the clinic, is me”.

The manager in FORS argues that to achieve external transparency improvements are necessary as the managers see their clinics as separate entities. While more responsibility is taken to work together among the county’s clinics, more information must be shared to highlight the good and slacking parts of certain processes and activities on an official level so the managers can learn from one another: *“It is easier to steal a good idea than to invent one yourself. I copy ideas all-over the whole time!”.*

From the viewpoint of the staff at FORS the management was described to be easy to approach with both negative and positive matters, without having to feel scared about the response or confidentially.

“I can go into Camilla’s office and say (shows an angry face) or I can be happy. I know that if I have a problem I can also go somewhere else, but I think it is very important that you can go to the chief and tell it to her or him and know that it will stay there. And I know that it is not like that in every clinic”.

“You need a flexible boss. They used to be very decisive. They want to show that they make the decisions. But we have a different way, it is very democratic”.

To illustrate this, the manager explained how the staff is offered three choices, which vary on their level of required commitment and speed of implementation, to pick from when a bigger change has to take place. More so, she argues that *“for dental people you must show what the literature says...you must have good facts”* to ensure their understanding and commitment, and the necessity for changing one’s leadership style depending on the situation.

The opinions on external – intra-clinic transparency of both clinic managers matched. Constant references and comparisons with each other were made throughout the entire research stage. A very different situation, however, can be seen on a clinic level. The official, organisation comprising, issues are openly communicated between the management and the staff, according to the employees at Gnesta. The manager at Gnesta believes that the clinic has an open environment where everyone is encouraged to speak their mind. However, various members of the staff did not agree that the manager can be approached with all issues to have an open and equal dialogue. Based on past conflicts, certain employees in Gnesta believe that the communication on sensitive issues does not exist at all.

4.1.3 People

At FORS the staff praised the democratic leadership style of their manager, who continuously encouraged them to speak up. The employees stressed that it is the management that has enhanced the open work environment and employee commitment. At Gnesta, as mentioned, the employees praised the manager, but at times voiced some critique in private. As one of the employee put it: *“Sensitive issues are a top secret”*. Additionally, the manager dominated the workshop discussion, with one of the employees joking that *“You talk so much that we do not have to talk!”*.

FORS is a merger of two clinics. In order to blend the two differing cultures into one and help the employees to get accustomed with one another the staff was mixed into smaller groups to develop and ensure a common understanding of future goals. This resulted in the creation of the *“Seven Golden Rules”*, which will be explained later, and has ever since been used as a tool to encourage a dialogue between the staff members and the management. As the manager put it: *“It is important to listen to the people who are going to work with each other”* The small groups division is still used to discuss current situation and future plans. *“The hierarchies come naturally with our profession, but we are not competing amongst each other. It is important to complement each other. But only if you want to, we do not force anyone to do something they do not want to do”*. The need to surround yourself with the necessary expertise was emphasized:

“When I recruit I take humanity into consideration – how you look at other people, how you meet other people. The orthodontics is important, but you can learn it. But how you see women or a boss who is not a dentist, and how you take care of the nurse and stuff like that is more important, and says a lot about you”.

Due to the small size of the clinic at Gnesta all staff members are part of the same group during the meetings. The manager emphasized the importance he has for employee satisfaction: *“Everything that is connected with the employee rubs off on the patient too. If the employee feels good, then it mirrors on a happier customer”*. A delegation of tasks has recently started at the clinic and the staff was satisfied with the concept, voicing a necessity to increase it even more to add more flexibility to their roles and responsibilities. Additionally, one of the employees expressed that: *“I want us to work towards the same goal a little more. A bit more like ‘Folktandvården Fors’, now we are like two separate teams”*. In contrary, one of the employees voiced that – *“There is always an open climate at the clinic meetings. Everyone gets to speak their mind”*. The compliance with organisational values was named as the main factor for recruitment.

4.1.4 Strategy

FORS, according to the staff, has not experienced competitive pressure from the private dental care clinics, however, its existence is acknowledged and more marketing efforts have been made as a result.

“We (Folktandvården) do not follow the latest developments and, therefore, a lot of people see us as a B-level dental care providers. We are putting in a lot of effort to wash that stamp”.

The management, inspired by the staff, has created and implemented customer surveys, which have become a standard among other clinics in the county. The surveys have helped to see the gaps in the performance: *“... people feel that they are a social security number and not a person. And we work a lot to have the connection with the customer, which is hard with 19 000 customers”.* Finally, the manager of FORS admits that the majority of her optimisation ideas come from the private dental care providers saying, that:

“The private clinics see money in everything they do, but we are not there yet. Maybe we are not supposed to go there either, but to have a mixture of it”;

“If there is something I and Folktandvården have to be better at it is the external market analysis. If we are going to be better than we are today we should not look at other dental clinics, we must look at companies, which have good customer relationships, which make the customer feel like they are the best”.

In contrast, Gnesta held the belief that, while there are two private clinics in the town, no changes have happened in the market in the past 10 years: *“There has not been any increased competition in Gnesta and there will probably not be any more competitors because there is a limited customer base”.* When asked what differences there were between themselves and the competitors, the staff only listed the strengths of Gnesta, saying that they can do everything that private providers can. The staff argued that: *“We cooperate, we are not competitors, we cooperate”.* It was the question on differences in customer service that raised gaps in external analysis: *“I cannot compare us to private clinics. I do not know exactly what type of customer service they have”.*

Folktandvården Sörmland has developed a set of organisational values for all its clinics (see Appendix 3). When asked what the values were, the staff at FORS was not able to name them all. Nevertheless, having the best quality, being open-minded towards customers, and taking care of all people were mentioned by one of the employees. The manager added – working together. The staff of FORS explained that since they had already developed their own values before the official ones were proposed they were a step ahead of the organisation, and, therefore, mainly follow their own ones.

When the merger at FORS took place, the manager saw a need for values applying specifically to their clinic. The concept of the “Seven Golden Rules” was explained as:

“If you really go back to the base when we built our thinking around how we were to work here, then we made these kinder-garden rules. It is important that the values do not become just a paper. You must work with them every single day”.

In Gnesta both the staff and the manager confirmed that the values of Folktandvården Sörmland are brought up during the meetings for decision-

making, but only the manager could name them all, with the staff laughing when they were read out. Manager:

“We practice them regularly. You bring it up on clinic meetings, and every year you have the operations planning looking at all the five perspectives when it comes to customers, staff, finances, environment and renewal activities. When developing an action program for these perspectives, you refer back to the values. You cannot do something that contradicts the values”.

The manager also stated that clinic-specific values/rules do exist, but the staff members could not recall them. The rules of the clinic were sent to the researchers a month after the first visit (see the rules of both clinics in Table 4.2).

Table 4.2 The Rules of Clinics (translated from Swedish)

The Seven Golden “Always” of FORS	The Five Golden Rules of Gnesta
Always have consideration for each other, be generous.	Honesty
Always spread joy and energy.	Cooperativeness
Always cooperate and help each other.	Flexibility
Always have a clear communication, honesty and listen.	Humour
Always respect each other.	Communication
Always be solution-oriented.	
Always both: give and take.	

4.1.5 Partnerships and Resources

FORS introduced examination appointments in their clinic, which were so successful that have been launched to other clinics within the county. The examination appointment is usually around 30 minutes where the dentist is spending only five to ten minutes with the patient. It requires a high degree of collaboration as different professionals participate as necessary to serve as many patients as possible. Still, at FORS the staff acknowledged that the private sector might have come further regarding collaboration. Overall, the roles and responsibilities at the clinic were considered very flexible and being able to trust the other staff members were one of the enablers for this. However, rules and regulations somewhat restricted this flexibility. Gnesta has followed the example and has started to delegate extra tasks to employees with matching skills. The manager of Gnesta mentioned that he intends to do it on a wider scale.

The staff of FORS is aware of the various competencies their employees possess and performing tasks outside the traditional job descriptions is seen as one of their

biggest success factors: *"We move around our competencies so we can use them maximally"*. It delivers not only economic advantages, but increases employee satisfaction as well. Each available niche in the orthodontics market can be served within the clinic, and finding a specialist whose character and methods suit them best. More so, FORS holds pride in its multinational staff and argues that rather than creating a misfit between employees it actually gives them an advantage.

A very similar situation exists at Gnesta, where increased collaboration is one of the major goals for both – the manager and the staff. *"We strive to really think about working professionally towards each other and the customer"*. Nevertheless, some scepticism is evident towards cross-functional collaboration: *"I don't think there is any. We are very split"*. The most resistant to more responsibility given to other staff members comes from the dentists, in the opinion of some.

The skills and technology available at Gnesta are one of the best in Sörmland. Being a small clinic, in addition to technically skilled staff (one of the two certified implant dentists in Sörmland is the manager), it is the only one in the county that has a laser, both dentists work with the 'laughing gas' (which not many dentists in Sweden are certified for), and has equipment for aesthetic dentistry. Yet, these advantages are not explicitly advertised.

"Folktandvården' has not been keen on advertising. There are certain clinic managers that are putting a stop to promoting anything else but care. But it (advertising) is coming more and more, you have to follow the trends".

At FORS the roles' descriptions are tried to be set aside to promote collaboration. Collaboration and performing tasks that are traditionally not linked to the profession (e.g. translation for the reception) is mostly desired by the dental hygienists and nurses in both of the clinics. The biggest obstacles to achieve this most often are the regulations or the unwillingness of the dentists to let it happen. At the same time, the dental hygienists hold the most individualistic role as less collaboration is required. This was evident from the observations at the clinics with a hygienist expressing she simply would not know what to do if an assistant would be assigned, and preferred to carry out all tasks by herself instead.

Parallel to actual collaboration the staff at FORS is encouraged to give feedback to each other in order to improve the quality of their work. The manager admits that it is something that still has to be worked on, as it is not done by staff's own initiative. The employees consider this difficult, arguing that it is easier to give negative feedback to a colleague with a different professional category rather than to someone from the same one. However, the necessity is acknowledged: *"If you do something wrong and nobody tells you that you are doing it wrong, you cannot do it the right way"*. Once again, the lack of trust and open communication was prevalent among the staff members at Gnesta where a system for anonymous feedback had been set up instead.

4.1.6 Processes, Products and Services

The construction of the workflows may be restricted by decisions made on a governmental level so it is difficult at times for the customer to understand the decisions behind certain procedures. Dental care for children is an example, where the government make decisions as to who should carry out the tasks. This does not allow the clinic to create an optimal solution to the workflow, as they would ideally use someone else to perform the task. Very little influence can be made into these decisions, especially at the clinic level.

When designing a process, looking at it from the customer's perspective was mentioned as the most important factor for success at FORS. *"You need to work towards what the customer values. If we make the decisions based on the customer then it usually turns out for the best"*. Quality was named as a sub-factor of customer-focus. However, balancing quality, price and time was still of importance. An employee explained the abstraction of quality:

"It may be that the patient, or the customer, may think 'I have only been in there for five minutes. Was it really a good job?' or 'I have been in there for an hour, that must be good!'".

Another important factor of service design and delivery at FORS is the sense of pride of an employee. The importance of the two factors at Gnesta was the opposite, starting with the job satisfaction of employees and then – customer focus. Some employees disagree on this hierarchy.

The perception and experience of employees, statistics or customer surveys and feedback are used at both FORS and Gnesta to measure performance. The survey has 10 questions and covers aspects such as – the physical appearance of the waiting area, the way in which the customer can get in contact with the clinic, the information on fees, how much time it takes to get an appointment, customer greeting and treatment, and whether they would recommend the clinic to others. The manager of FORS thinks that measuring performance is one of the most important factors for success and should be done more frequently as it is now. Measurement, she says, is oftentimes ignored by many managers, who focus only on implementing ideas but do not follow up. One of the employees expressed that it is *"so boring to look back"*, however, acknowledged its importance for continuous improvements.

4.1.7 Summary of Stage I Empirical Data

The empirical findings of Stage I are summarised in Table 4.3 below, and will be used for the analysis of all three phases.

Table 4.3 Summary of Stage I Empirical Data

	FORS	Gnesta
Acknowledgement of Internal and External Customers	Balance between financial resources and customer wants. Employs surveys to assess external customers.	Balance between financial resources and employee satisfaction. Employs surveys to assess external customers.
Quality Dimensions of Importance	Family feeling Quality Time	Software Hardware
Cross-Functionality	Clinic meetings held twice a month. Optimisation ideas are discussed in groups and/or with manager. Staff is encouraged to raise suggestions. Practical implementation/trial is easy.	Clinic meeting held once a month. Optimisation ideas are discussed individually. Staff is encouraged to raise suggestions. Practical implementation/trial is hard.
Leadership	Education in business, commercial sector experience. Full-time manager. Supports external transparency and information flow. Facilitates open dialogue and integration internally.	Education in medicine, public sector experience. 80% dentist and 20% manager. Supports external transparency and information flow. Open dialogue and integration internally is limited.
People	Recruits only people that align with the company's environment and culture. Flat organisational hierarchy. Facilitates cross-functional communication and collaboration. Available skills are utilised to maximum. Employee commitment varies but the culture is more collective.	Recruits people that comply to organisational values. Has a hierarchical organisation. Supports cross-functional communication and collaboration, but it does not manifest in practice. Available skills are utilised to maximum. Employee commitment varies but the culture is more individualistic.
Strategy	Aware of increasing competition. External market analysis and benchmarking are not done. Advertisement efforts have been increased. Customer surveys originated from the staff initiative. Cannot name the organisational values. Clinic-specific values created cross-functionally before the official ones were proposed and are used consistently.	Holds the belief that there is no competition. External market analysis and benchmarking are not done. Limited advertisement. Customer survey adopted from FORS. Only the manager can name the organisational values. Organisational values are used consistently. Clinic specific values have been created, but are not consistently referred to.

Partnerships and Resources	<p>Introduced collaborative examination practice, which has become a standard in all county clinics.</p> <p>Regulations and professional hierarchy limits collaboration and teamwork.</p> <p>Technological and HR resources are well assessed.</p> <p>Direct cross-functional feedback.</p>	<p>Uses collaborative examination practice.</p> <p>Management promotes collaboration and teamwork, but it is not supported by all of the staff.</p> <p>Regulations and professional hierarchy limits collaboration and teamwork.</p> <p>Technological and HR resources are well assessed.</p> <p>Anonymous feedback.</p>
Processes, Products and Services	<p>Government restrictions on processes and services.</p> <p>Processes developed from the customer perspective.</p> <p>KPIs of main importance: quality, price, time and employee satisfaction.</p> <p>Processes measured via employee experience and perception, and customer surveys on a clinic level. On the organisational level also via statistics.</p>	<p>Government restrictions on processes and services.</p> <p>Processes developed from the employee perspective and afterwards from the customer perspective, not supported by everyone in the staff.</p> <p>KPIs of main importance: employee satisfaction, quality, price and time.</p> <p>Processes measured via employee experience and perception, and customer surveys on a clinic level. On the organisational level also via statistics.</p>

4.2 Analysis of Stage I

The Stage I analysis is related to the current state of affairs. Every assessment and optimisation strategy must be organisation-specific (EFQM, 2013b), however to meet the objectives of the research the results must be more generalizable, therefore, the exact degree of meeting the analysed criteria has not been included in the study. Instead, the various sub-criteria are analysed on a more generic level to gain an overview of the existence or obsolescence of main factors.

4.2.1 Business Process Perspective

The research has confirmed Andersson's (2008) argument that corporatization will enforce process re-design in Swedish public dental care clinics. Furthermore, it is evident that some sort of optimisation efforts have indeed already been implemented in the dental sector (Sveriges Kommuner och Landsting, 2011). These aspects are illustrated by the facts that the board of Folktandvården, including the current and next CEO, come from the commercial sector, and both of the participant clinics, along with others in the county, have attempted process improvements.

Acknowledgement of Internal and External Customers

While the notion of customer satisfaction has been increasingly acknowledged from the public dental care providers (this is affirmed, for example, by the change in terms from "*patient*" to "*customer*" and the development and use of customer surveys), full effects of optimisation (presented in Figure 2.1) are not yet understood. The optimisation seems more financially driven than to (re)create competitive advantage and market share, which the public sector is continuously losing (Edenholm, 2011).

There is a notable difference between the two clinics in terms of customer acknowledgement. At FORS more emphasis is put on the external customer acknowledgement, with five out of ten healthcare quality dimensions (presented in section 2.4) recognised by the staff, whereas at Gnesta a greater emphasis is put on the views of internal customers. Even though both internal and external customers are acknowledged at both clinics, this observation raises a question whether Gnesta has a customer-centric perspective, which is vital for successful process optimisation (EFQM, 2013b). Furthermore, the argument of Moullin (2002), stating that in healthcare, majority of time the processes are created based on the employee preferences and convenience, is true. Even though customer focus is named as the second most important criteria at Gnesta, it shows that optimisation is not valued as the main priority (EFQM, 2009).

Nevertheless, one of the initial aims of the market deregulation – free-er competition and development (Andersson, 2008) has been achieved in practice. More so, the public clinics, indeed, are open to improvement ideas as proposed by Antemar (2012) and are becoming more aware that they can benefit from the tools and practices applied in the commercial sector as argued by Dahlgard et.al, (2011). At the same time, the staff of both clinics were aware of the trade-offs that

optimisation can bring, which is a necessary pre-determinant to adopt process-based view and successfully implement optimisation changes (Arbjørn & Haug, 2010).

Cross-Functionality

The levels of experience on optimisation initiatives vary among the public dental care clinics. FORS has been more pro-active than the organisation itself, thus the clinic surpasses others in terms of actual effective implementation of changes.

At FORS cross-functionality has been truly achieved. The staff is encouraged to raise improvement suggestions, which are discussed at the clinic meetings to gain everyone's opinion. More so, trials of actual change implementation are supported from the management even when a consensus is not reach among all employees. These practices demonstrate that FORS has adapted the business process view since the functional structure of the clinic has been loosened and horizontal and vertical information flows are facilitated (Talwar, 2011; Davenport, 1993).

At Gnesta cross-functionality does not go further than the design phase (Arbjørn & Haug, 2010). Even though suggesting improvements is welcomed, the discussions are mainly individual and the practical implementation hard. Based on this it can be concluded that in Gnesta the process based perspective has not been fully applied, which means that optimisation will not yield maximum results (Mohammad et.al, 2010). The different levels of success in terms of optimisation efforts and continuous improvement depend on the commitment and facilitation of leadership (Moullin, 2002; Bou-Llusar et.al, 2009), which is addressed next.

4.2.2 Leadership

At FORS, as concluded above – the business process perspective is inhabited; the manager has developed the clinic's strategy based on customer perspective, thus meeting the first two areas of assessment of EFQM (Werth et.al, 2010; EFQM 2009 & 2013b). In addition to the internal and external integration, a short power distance can be observed at the clinic. Transparency, trust, embodiment of organisational values and an open dialogue between the management and the staff, also confirmed by the latter, are ensured and implemented. More so, the leadership style and practices meet all nine characteristics of a good service sector leader presented in section 2.6.1, thus embodying both – manager and leadership planes (Cook 1992, cited in Moullin, 2002). Additionally, optimisation at FORS has a much longer history than in the rest of the organisation in general. As can be seen, the management of FORS meets all the sub-principles under the Leadership criterion of EFQM (see Table 2.2).

The case of Gnesta is different. While the manager is keen on optimisation and continuous improvement, thus meeting the criteria of mission and vision development (Arbjørn & Haug, 2010), the lack of business process perspective and internal and external customer integration results in not meeting the first two, arguably the most important, Leadership sub-criteria. More so, the fact that only 20 percent of attention is given to managerial tasks by the manager, raises

questions to what extent the criteria of mission and vision development, the embodiment of organisational values and accountability for governance systems are met. This also contradicts one of the core principles of continuous improvement – the commitment on the consistency of purpose (Moullin, 2002), therefore, this sub-criteria is also not fully met. The existence of a long power distance in the clinic (staff is not comfortable criticising their manager or others directly), which is typical in healthcare organisations (Kollberg & Elg, 2006), shows a contradiction: even though employee satisfaction is the main criteria for optimisation choices for the manager, it is not always the case in practice. Transparency, trust, and problem solving mind-set, that are necessary for cross-functional involvement, common goal setting and reliance on the leadership (Talwar, 2011) are lacking. Lastly, the management meets four of nine good service sector leader characteristics – delegate responsibility, seek out ideas and improvements, being open and honest in his dealings and being a good listener (Cook 1992, cited in Moullin, 2002), as optimisation and dialogue/problem-solving are encouraged but not facilitated.

On a more general level, it is increasingly argued that leadership must be dynamic and adaptive to both external and internal environment (EFQM, 2009; Talwar, 2011). Parallel to the necessity of business process view, which requires constant adaptation to external stakeholders (Werth et.al, 2010), another difference between FORS, where optimisation has been highly successful, in comparison to other clinics, and Gnesta, where the process is limited, is situational leadership. Therefore, the results acquired at the clinics support the argument of dynamic leadership, which is a challenging change in the healthcare sector due to its hierarchical environment and traditional ways of process execution (Moullin, 2002). As the responsibilities of Leadership link directly into the criterion of People, it is assessed next.

4.2.3 People

First of all, the recruitment at FORS is based on the compatibility of a character with the existing staff and work environment, which meets the first of the assessment sub-criteria (see Table 2.3). The creation of clinic-specific values to merge two ‘cultures’ illustrates the engagement of the staff. The involvement, commitment and equality of all employees are enhanced by the continuous use of all-clinic encompassing groups to discuss current situation and future plans (Talwar, 2011). The People sub-criteria are further satisfied by the flat organisational hierarchy, demonstrated in the data analysis so far. This in turn displays the facilitation of fairness and employee empowerment (the employees believe that they possess decision-making power), and communication via vertical transparency and welcomed feedback, thus, assuring three other areas of assessment based on employee participation and avoiding the top-down approach of optimisation, which are crucial for its success (Worley et.al, 2005). The flexibility of roles and job descriptions, within the boundaries of regulatory restrictions, and technical collaboration on procedure (process) delivery permits identification and maximum utilisation of available skills and competencies (EFQM, 2013b). The remaining aspect of continuous development of skills is assured by

the industry's regulations to partake educational courses annually. Therefore, on a generic level, the FORS clinic meets all of the assessment area requirements for successful optimisation under the People criterion. Nevertheless, even though the internal culture is collective in nature, the employee commitment varies. An example is the dental hygienists, which have more individualistic practices, and would like to remain that way, or by the still remaining reluctance to increased role flexibility by dentists, once again confirming the hierarchical nature of the sector and industry (Moullin, 2002), which can be a threat to successful process optimisation.

The recruitment in Gnesta is in line with the alignment of organisational strategy, ensuring the balance between personal aspirations and continuous improvement (EFQM, 2009). Furthermore, the collaboration on examinations, adapted from FORS, permits the fulfilment of cross-functional collaboration (Bou-Llusar et.al, 2009), and the development of skills is mandatory. The clinic manager of Gnesta was also looking to increase the delegation of tasks showing that the hierarchical structure is being challenged and available skills are utilised optimally, which can improve employee engagement, communication, fairness, equality and empowerment (Talwar, 2011; EFQM, 2013b).

Since the role of leadership entails the responsibility for governance systems and CSR (EFQM, 2013b) it is understandable that some decisions have to be made whether they are favoured/supported by the employees or not, especially in a public organisation. Nevertheless, there are two ways of how to overcome the jeopardy of misalignment between the People and Strategy, which can lead to resistance to change (Dahlgaard et.al, 2011). Option one entails simply making the decision as the hierarchical position permits it (Kollberg & Elg, 2006). The second option, illustrated at FORS, where the issue is explained to the staff to ensure their understanding and, thus, alignment with the overall Strategy (NIST, 2010).

4.2.4 Strategy

Due to the Strategy being the central element of successful optimisation - even if the rest of the criteria are fully met, without satisfying the Strategy criterion the optimisation efforts and continuous improvement will not reach full potential (Reiner, 2002). Additionally, Strategy must be derived from performance measurement (Worley et.al, 2005), which illustrates the importance of external environment analysis.

All clinics within the county have adopted the customer survey developed at FORS to follow customer satisfaction, as mentioned before. However, additional steps need to be taken. Even though FORS has a business process view with a customer-focus and internal cross-functionality when creating its Strategy, which are essential for optimisation (EFQM, 2013b), and is aware of increasing competition, external market analysis and benchmarking is not done. As a result, the sub-criterion of developing organisational strategy is not fully met since the performance measurement is not all-encompassing (Mohammad et.al, 2009). The cross-functional understanding and commitment has been illustrated in the paragraphs before. At the same time, the increasing awareness of its importance

and devotion to change the current market analysis practices partially convenes the last criteria of Strategy (see Table 2.4) (Alnebratt & Lyxell, 2012). FORS has been relatively successful in its optimisation efforts, however, it can be concluded that the possibilities are not maximised as all criterion of EFQM are not met. This is in line with the assumptions of the authors of the thesis in the Problem section, questioning the thoroughness, timeliness and sustainability of the success of current optimisation practices. To conclude, FORS has to improve within this criteria to fully benefit from optimisation.

Previous paragraphs have concluded that customer-centric perspective is not the main focus in Gnesta, with employee satisfaction being ranked higher by the manager, which some of the staff do not agree with. Nevertheless, this factor combined with the fact that competition is not even acknowledged, which excludes any market analysis apart from the standard adopted customer survey, disqualifies meeting two assessment areas. More so, even though organisational values are referred to, only the manager can name them raising a question of understanding and commitment. As a result, the third criterion is not fully satisfied.

Another aspect must be pointed out in relation to both clinics - the existence of clinic-specific and organisational values. At FORS, the latter are given a secondary importance, while in Gnesta the situation is reversed. Since Strategy must be based on all – vision, mission and values, a potential misfit or missing areas in strategic planning are possible when some of the components are organisational while others are not (Bou-Llusar et.al, 2009).

4.2.5 Partnerships and Resources

Due to the scope of the research being on a single-organisation level, the sub-criteria of Partnerships and Resources (listed in Table 2.5) have been analysed on an internal level.

All of the employees at FORS were aware of the technological resources and available competencies and skills of the staff. The internal information flow has already been illustrated by the direct cross-functional feedback, transparency and collective culture, which in turn facilitates process ownership (EFQM, 2013b). However, the external information resources, as analysed in the section on Strategy, are not fully assessed, measured nor analysed. By still using the mixed-groups approach during clinic meetings it is ensured that interactions and interrelationships are made visible and understandable cross-functionally (Worley et.al, 2005). The same 'technique' permits early employee involvement in change processes (Dahlgaard et.al, 2011), especially since majority of change initiatives are born at the clinic meetings. Teamwork, both physical and in the form of consultancy, is practiced at the clinic and there is a stride towards higher flexibility on roles and responsibilities, however certain obstacles remain. The push towards collaboration comes from the bottom of the hierarchical structure, and, as the research proved, is oftentimes stalled by national regulations and staff members of a higher role (Kollberg & Elg, 2006). Additionally, collaboration is still mainly seen as a means to maximise available human and non-human resources for financial reasons and not necessarily for employee satisfaction. The main weakness of this

enabler criterion lays on the still narrow view of competition, which is caused by the lack of proper external analysis (EFQM, 2013b; Magal & Word, 2009). The market analysis is left as a responsibility of the headquarters. The existence of collective and integrated internal environment permits certain level of optimisation success, however this narrow-view can have a bad effect on the timeliness within the customer expectations and sustainability in long-term (Dahlgaard et.al, 2011; EFQM, 2013b). In conclusion, the clinic has areas of improvement within resource management, measuring and analysis, collaboration, and systematic measurement of business results.

The technical and HR resource assessment is also well executed at Gnesta, the staff is well aware of the strengths and capabilities of the clinic, though reluctant to talk about weaknesses. The information flow management, however, is an issue, especially due to the lack of critical analysis of competition. The interrelationships and process ownership have been facilitated after the introduction of collaborative examination practices, where the financial gain has been identified as the main advantage. Just like at FORS, the lower hierarchical levels of staff want increased teamwork and collaboration, which though supported by the manager, meets the same restrictions – regulations and hierarchical resistance. However, it has been emphasised by the staff in Gnesta that there has been increased efforts aimed at delegation of tasks and other collaboration related activities. To varying degrees most areas of assessment presented in Table 2.5 need to be worked on at Gnesta. Nevertheless, the size of the clinics in question must be kept in mind; in a clinic with fewer employees the perceived responsibility of all actions is bigger, and possibly – more personal. It is the leadership, which plays a major role to show an example and overcome this obstacle, as showed by both the research data and theory (Bou-Llusar et.al, 2009), which highlights and confirms the role of the management as the starting point of optimisation and continuous improvement (EFQM, 2013b).

4.2.6 Processes, Products and Services

The assessment within this category must be done on each identified key process, when analysing the current state and developing optimisation strategy (EFQM, 2013b). However, this results in an organisation-specific strategy, which is not the focus of this research. Therefore, the processes, products and services of the respondents are analysed on a generic level to be able to draw less situational conclusions.

Even though government restrictions can be an obstacle for the creation and implementation of an optimal flow of operations, it has been proven through the analysis of previous criteria that customer-centric focus can still be applied within public dental care clinics. Designing processes in balance of all stakeholders' perspectives is thus possible as suggested by the EFQM (Talwar, 2011). Therefore, the model really can be applied to organisations across nations, sizes and sectors (Nabitz et.al, 2000). However, the question of trade-offs depending on the weighting given to either internal or external stakeholder satisfaction is still left unanswered. Based on the data gathered from the clinics, FORS with the customer-

first approach is more successful at optimisation, while Gnesta's employee-first perspective has many areas to improve upon. At the same time, it cannot be forgotten that optimisation at FORS has nearly 10 years of history.

The extent to which FORS complies with the sub-criteria is best demonstrated by the various improvement ideas created in the clinic, which have become mandatory standard practices throughout 'Folktandvården Sörmland'. This proactiveness has given the clinic an advantage to change its culture over time, which is one of the major enablers of optimisation (Moullin, 2002; Kollberg & Elg, 2006), while other clinics, like Gnesta, are only at the beginning of the process.

Apart from the customer satisfaction, which is measured via surveys, other KPIs of importance in both FORS and Gnesta are quality, price and time (in decreasing order), and employee satisfaction, which in case of FORS is listed as nr.4 and in Gnesta: nr.1. The effect of the particular sequences has already been addressed in paragraphs above, but the point worth making is that public dental providers need to develop more specific KPIs to thoroughly measure and be able to respond to changes. Otherwise, no feedback loops are in place, which threatens the timeliness, success and sustainability of optimisation (Samuelsson & Nilsson, 2002).

4.2.7 Suggested Areas of Improvement

The importance of cross-functional ownership was introduced in the theoretical framework; the staff must understand not only 'what' to change, but also 'why'. Therefore, customer flows of both clinics, which originated from the observations, interviews and focus groups, were mapped to identify key processes and performance indicators from the customer's perspective. The following Tables 4.4 and 4.5 present the suggested areas of improvement, which originated from the BPM. The underlying arguments for suggesting these improvements as well as the possible benefits for applying them are also presented.

Table 4.4 – Suggestions Made to FORS

Suggestion	Underlying Arguments	Possible Benefits
Make children’s section in waiting area more playful	Makes up 40% of their customer base – important target group	Higher customer satisfaction among children and possibly the parents
Warmer and brighter reception area	Cold and dark waiting area caused patients to not take off their jackets – creates discomfort	More comfortable for patient and higher customer satisfaction
Calm music in the waiting area	Patient feels unease of appointment due to stressful music, makes him/her more stressed and can lead to more complicated treatments	Making patient calmer before the appointment which could lead to ‘easier’ treatments
Placing ‘Munapoteket’- brochures on the tables in the waiting area	Tables are currently empty which makes waiting area less welcoming	More patients would ask about the products and help the after treatment and oral health, hence improve quality
Re-organise the furniture in the waiting area	A feel of assembly/waiting line and created a sense of anonymity	Patients would feel less anonymous
Suggestion box for patients to use	Originating from observation in Gnesta where such box was used	Showing that clinic values opinion of patients and that it is an organisation focusing on continuous improvements
Install coat hangers in the reception and remove lockers	The lockers are always kept closed and seem to be used by the staff, as a result the patients don’t take their jackets off	Smoother customer-flow, less items are brought into the dental cabinets
Inform patients if and why their appointment is delayed	Patients get upset when required to wait without explanation, and voice it to the receptionists	Higher customer satisfaction, increased information flow

Table 4.5 – Suggestions Made to Gnesta

Suggestion	Underlying Arguments	Possible Benefits
Encourage and facilitate a more open dialogue	Supported by opinions expressed by staff in interviews and observations	Improvement of collaboration and employee satisfaction
Forming clinic-specific values together with the staff.	Employees currently unaware of the values	Could possibly facilitate a more open dialogue and improve information flow and conflict solving. May also bring together staff and working towards the same goals
Use whiteboard in staff area for morning meetings	Poor communication for resources required	Optimal and timely allocation of resources
More time spent on administrative and managerial tasks	Lack of direction expressed by staff and unawareness of their own values	More efforts directed at continuous improvements and better human resource management
Critical market analysis	Staff did not express any concern towards competition or unable to identify the clinic's weaknesses	Improvement in forming strategies and create awareness of developments in the market
Standardised templates for improvement ideas	Previous improvements not measured	Measuring required to evaluate performance
Advertise 'Munapoteket' better at appointments	Made to a greater extent in FORS where they could see a better oral health among their patients as a result	Better customer service experience and improved oral health among patients
Placing 'Munapoteket'-brochures on the tables in the waiting area	Tables empty and makes waiting area less welcoming	More patients would ask about the products and help the after treatment and oral health, hence improve quality
Opening up the display of 'Munapoteket'	Patients expressing that they would like to touch products prior to purchasing them	Increased performance of 'Munapoteket' and customer satisfaction
Make more keys for 'Munapoteket'-display	Staff member expressing concern for only one person having a key	Increased availability of 'Munapoteket'
Evaluation of idea box	No suggestions received and process not clearly defined	Better capture opinions of patients
Improve customer flow from customer perspective	Customer flow currently not optimal as caused customer dissatisfaction by delays and bad impression of first point of contact	Improved customer flow would lead to smoother operations and higher customer satisfaction
Using plastic cards in the case where patient do not have to pay after appointment	Suggestion originating from FORS to improve customer flow	Improved customer flow and lessen effect of bottle neck at reception

Placing a chair beside shoe covers in entrance	Patients standing up while putting shoe covers on unstable	Increased customer satisfaction
Clear out brochures not used and organise desks by using labelled folders	Observations left impression of a disorganised and chaotic workplace that could negatively affect the image in customers eyes	Easier to find documents needed, keep a clear mind and show professionalism
Work ergonomically and order drawers	Inefficient workflow in the cabinet	Reduce waste of moving around
Sending text message reminders to patients 2 days prior appointment instead of 1 day	Late cancellation of appointments experienced at FORS clinic	More time to fill in gaps caused by late cancellations

Based on the analysis of Stage I it can be concluded that FORS has not only come a lot further in optimisation efforts, but also meets the majority of the assessment criteria on a general level. Therefore, less suggestions could be identified, and for Stages II and III the research strategy was changed to rather capture the experience of FORS on optimisation. As a result, the EFQM framework was presented in a much more depth and detail at FORS than in Gnesta, to put to test its alignment with practical implementation. Stages II and III still represent the Implementation phase of BPO; Gnesta illustrates the short/mid-term situation on change processes, while FORS has helped to capture the situation over a longer period of time.

4.3 Empirical Findings of Stage II and III

The empirical data for Stages II and III (drawn from the sources and dates illustrated in Table 4.1), in relation to the suggested areas of improvement at both clinics, has been combined to illustrate how the decision-making and reasoning changes over time on actual change implementation. At FORS all workshops were attended by the same people, while at Gnesta the workshops on Stages II and III were attended by all employees permitting a clinic-encompassing discussion. The data is presented clinic by clinic to illustrate how the decision-making process differs between clinics with different levels of successful change implementation.

4.3.1 FORS

Some of the suggestions due to the time and resources required could not be immediately implemented, however Tables 4.6 and 4.7 at the beginning of each section summarize whether the suggestion was implemented (Y), is pending to be implemented (Y*) or will not be implement it (N).

Table 4.6 – Suggestions’ Application at FORS

Suggestion	Status
Make children’s section in waiting area more playful	Y
Warmer and brighter reception area	N
Calm music in the waiting area	Y
Placing ‘Munapoteket’-brochures or flowers on the tables in the waiting area	Y*
Re-organise the furniture in the waiting area	N
Suggestion box for patients to use	N
Install coat hangers in the reception and remove lockers	N
Inform patients if and why their appointment is delayed	Y*

While all suggestions were agreed to be taken into consideration, the employees took a more passive role, in comparison to Gnesta, during the workshops and some suggestions were not even commented on.

The following comments are derived from the Stage II workshop. An improvement of the children's corner was met by counter-arguments as to why it is designed as it currently is. The toys had previously been ripped and the noise level had increased as a result. A counter-suggestion was made to keep such issues in mind when considering what toys are suitable. The lockers used as a cloakroom was not considered to be a problem. It was explained that in most of the care facilities this was the system used due to pickpockets and thieves. Informing patients about delays was seen as very necessary and had to be worked on. Lastly, the idea of the suggestion box was disregarded due to the limited comments received when it has been used before, mostly consisting of profanities.

At FORS it was mutually agreed that the pre-set schedule would be revised and that a clinic meeting for Stage III to discuss the EFQM and the pursuit of the Swedish Quality Award along with the necessary steps to be undertaken before doing so would be held instead.

During the feedback of Stage III the clinic had decided to review their own values by comparing them to EFQM. As a result, providing the best quality was identified as the main goal of the clinic. Three of their own customer promise values were highlighted as particularly important to reach this: (1) the customer should always be treated in a nice manner, (2) the customer should always be able to get quick responses, and (3) the customer shall receive the highest quality. The manager sees the highest need of improvement on the last one, and the following areas have been identified. The need to bring together the available service offerings and to always find a solution based on what the customer wants within the clinic. Regardless of a single employee competence the customer should be offered to see another employee if needed in order to deliver the full service package. Inter-staff feedback and increased collaboration between public dental care clinics, also 'switching' employees would permit gaining a natural exchange of competencies.

Between the workshops of Stage II and III the staff had time to reflect on the suggestions and it was decided that the children's corner should be made more inviting and have more toys. Adding flowers to the tables were to be considered, however, allergy risks were to be thought about. The lockers were to remain in the reception as coat hangers for the patients. Finally, the clinic manager mentioned that she intends to continue bring up the topic of continuous improvement during the entire organisation's operation days in autumn.

4.3.2 Gnesta

The suggestions discussed are presented in Table 4.7.

Table 4.7 – Suggestions’ Application at Gnesta

Suggestion	Status
Encourage and facilitate a more open dialogue	N
Forming clinic-specific values together	Y*
Use whiteboard in staff area for morning meetings	Y*
More time spent on administrative and managerial tasks	Y
Critical market analysis	Y*
Standardised templates for improvement ideas	Y*
Advertise ‘Munapoteket’ better at appointments	Y
Placing ‘Munapoteket’ brochures on the tables in the waiting area	Y
Opening up the display of ‘Munapoteket’	N
Make more keys for ‘Munapoteket’ display	N
Evaluation of idea box	Y
Improve customer flow from customer perspective (self-check-in etc.)	Y*
Using plastic cards in the case where patient do not have to pay after appointment	N
Placing a chair beside shoe covers by the entrance	Y
Clear out brochures not used and organise desks by using labelled folders	Y
Work ergonomically and order drawers	Y
Sending text message reminders to patients 2 days prior appointment instead of 1 day	N

The manager believed that open dialogue was already encouraged and present, and when the suggestion was raised again on Stage III, did not see the reason for it. A question, if someone felt that it was hard to speak their mind, was posed. An employee admitted feeling as the one speaking for everybody else. Another employee added that bringing up issues is seen as complaining and being annoying. The manager pointed to the distinction between being afraid to speak up and being shy. Therefore, it was asked, how critique is received and handled at the clinic. Even though some employees pointed out that some people are not able to take any critique, the manager still felt that everyone was comfortable with expressing their opinions and coming up with suggestions. Stressing that any issue could also be reported anonymously through a computer system. More collaboration and teamwork was deemed inapplicable if an employee would not agree with it as it would affect the patient or could lead to a reassignment. This was met by a comment from the staff: *“If you have never tried something, how will you then know if it is a good idea or not? You also have to be able to take the first step and try it”*.

As for the suggestion to improve collaboration and teamwork, the clinic manager pointed out that it would not be implemented if the employee would not agree with it as it would affect the patient or could lead to the employee resigning. This

was met by a comment from the staff: *"If you have never tried something, how will you then know if it is a good idea or not? You also have to be able to take the first step and try it"*.

Clinic-specific values were to be developed at the next clinic meeting; however, the current ones were discussed at the last workshop. None of the staff members knew what the 'Five Golden Rules' were. When honesty, the first rule, was mentioned the group was silent and the atmosphere got tense. During the discussion many of the staff members would avoid eye contact and look down at the floor. After a while, one of the members admitted she did not fully understand what was meant by honesty and that it could be seen from many perspectives. After a discussion it was still unclear as whether honesty is present at the clinic. As the remaining values were read out only two employees would speak. They agreed on cooperativeness, flexibility and humour as values that permeate their operations. Communication was seen as *'not being a problem'* by one employee but the rest were silent. The manager asked one of the employees to speak up, stating that she would normally be more talkative. The staff was also encouraged to voice their opinions and just *'say something'*, even if they did not agree with the values. A feeling of frustration from the clinic manager was apparent: *"You aim for people being honest, but then if they are honest or not... There is nothing that can be done about it"*. Finally, honesty was defined by the manager as not talking behind each other's backs. At the end of the presentation and discussions observers agreed that humour was indeed very much present at the clinic.

Previously the whiteboard was used for weekly activities' display purposes not planning resource allocation. Due to different starting hours the implementation was seen as difficult. Nevertheless, a trial-period was granted. However, by the Stage III workshop no meetings had been held to plan necessary resource allocation as it was disregarded as unnecessary and each employee should plan his/her day and resources needed by him/herself. In case a help from another employee is needed it should be addressed when the event occurs.

The manager has continuously increased the time spent on administrative tasks while the staff argued for not having enough time for idea generation. A standardized template for improvement ideas was considered as too time-consuming, however, at the Stage III workshop this idea was planned to be pitched to the management in the headquarters.

The view on external market was challenged in all workshops. The manager kept insisting that they knew everything about the private clinic in Gnesta. An employee mentioned a new offer of the private clinic, which she had learned about from a patient. While the offer was rated as unnecessary, the staff had been oblivious to its existence. Additionally, while at Stage III the staff acknowledged the importance of external analysis and benchmarking, they were argued to be the responsibility of the country's management.

Putting 'Munapoteket' brochures in the waiting area was decided to be implemented immediately and a discussion on opening the display emerged. The manager joked to give it a trial and evaluation period, repeating the phrase that the

observers had used on several occasions during the data collection. 'Munapoteket' is a recent project thus its logistics are at initial stages, particularly the inventory planning, which could be improved. Apart from the researchers advising an increased advertising of 'Munapoteket', an employee suggested to incorporate its products in the examination appointments. At the last workshop the staff was surprised of the increase in sales from the promotion. The display, however, was not going to be opened with a simple explanation – it is a display and the customers may mess it up. The product ordering, however, had been assigned to be done via the collaboration of receptionists and hygienists.

All of the staff agreed that an idea box would be a helpful tool for evaluation, however the idea was disregarded due to lack of responses from patients, instead customer surveys were to be used. The employees also agreed that cards for patients with pre-paid agreement could enable smoother customer flow and decrease the lines at reception, but at the last meeting was seen as necessary for a small clinic.

The suggestion on self-registration made the differing opinions evident. The discussion centred on convenience versus estrangement from patients and costliness. Essentially the importance of a smooth customer flow was explained, and for the Stage III workshop the staff had to identify the weak points of the current one and design optimal solutions. When visiting the clinic on Stage III the receptionists had closed the doors and opened customer window instead, which had increased the number of patients checking-in. The self-check-in was disregarded due to its costliness. An employee suggested using a tablet instead, but the manager still argued for the expenses.

Cleaning out unnecessary brochures and keeping a tidy workplace gained positive feedback, especially after explaining the psychological effect it may have on the patients' perception on the quality of the service. At the last workshop the cabinets and working areas had been tidied up and organised, and new equipment had been ordered. More so, the employees had discussed ideas for better placement for the tools. A new idea – standardisation of the outlay of the cabinets, was suggested by the staff so the assistants could find the need equipment more easily.

A trial period for sending out the reminders two days rather than one prior to the appointment had been granted for two clinics already. An employee mentioned that the text messages tent to be delivered during the night so the staff saw it as a good change.

In general, over the research period the attitude of the staff changed from cautious to receptive, on Stage III the staff expressed gratitude for the external assessment admitting that challenging routine procedures had not been easy. When asked how continuous improvement will be maintained at the clinic the manager mentioned the inclusion of a question in the appraisals where the employees can suggest improvements. The manager also suggested visiting other clinics to observe and share best practices, its practicality was questioned but the idea was supported by the majority of employees.

4.4 Analysis of Stage II and III

The analysis of Stages II and III have identified the internal support factors and obstacles for service process optimisation and continuous improvement. The main findings have been categorised and are presented hereafter. The main focus and discussion is based on variations from the theory, therefore some aspects are illustrated only by one clinic.

Commitment

Long-term commitment is not only an underlying factor for quality but also for optimisation and continuous improvement (Mohammad et.al, 2011). The data help to illustrate this fact. While both clinics assured to take the suggestions into consideration and discuss them at clinic meetings the commitment diminished over time. At Gnesta majority of the suggestions were greeted with eagerness for trial periods, in reality, however, many suggestions were completely disregarded and little explanation provided. The main arguments were based on the employee's perspective and convenience rather than the customer's perspective, more so, on individual preferences of the staff. Once again raising the concern of poor collaboration There is a threat of limited internal collaboration (which did, however, improve during the research process) and as a result, it is questionable whether the optimisation efforts will be internally driven and continuous in Gnesta.

While FORS has a history of successful change implementation and illustrate their commitment, they were less enthusiastic about implementing the suggestions to begin with, thus raising questions about accepting and welcoming external assessment/critique. The argument of – everybody does it, as a reason for disregarding a suggestion questions the commitment on the customer's perspective.

Organisational Culture

The analysis of the previous research stage already illustrated the differences between the cultures of the two clinics, which were re-confirmed on Stages II and III. The tension and avoidance of discussion on values at Gnesta once again demonstrated the unresolved and contradicting versions of internal culture. With the critique to the manager given by the staff (Stage I) and the manager blaming the staff for not speaking up, it seems as if a vicious circle has been created and it is hard to identify as to where the problem originates from. The anonymous internal system for comments further implied the non-existence of open dialogue between the staff. More so, the staff members were not familiar with the clinic-specific values explaining why no common goal could be identified within the clinic.

Two issues are evident. Firstly, there clearly are different opinions amongst the staff whether an open environment at the clinic exists. Secondly, there seems to be a lack of support and commitment for cross-functional communication and collaboration, which is crucial for optimisation, especially in a people-driven service industry (EFQM, 2013b). Both the staff and the leadership are equally

responsible for the creation of organisational culture (Moullin, 2002), which are discussed next.

People

It is a well-established fact that the customer experience to a great degree is influenced by the staff of the organisation (Grönroos, 2000a), and the customer-employee interaction is an essential part of the overall perception of service quality (Brady & Cronin Jr., 2011). More so, Worley et.al (2005) argued that business processes should be adapted to the company's human actors not vice versa to overcome potential optimisation problems. In the light of these arguments, the Gnesta clinic seems to have the right approach. The employee and his/her feelings play a great role in deciding whether a new idea will be implemented or continued. On the other hand, this creates barriers to implement vital changes if not everyone in the staff sees it as convenient to them. Therefore, using employee satisfaction as the primary decision factor would not necessarily overcome resistance to change as already opined by Moullin (2002). Rather it could segregate the team even further and lead to weaker collaboration. It was already expressed in Stage I that there are two teams and no common goal within the clinic. However, issues related to resistance to change are common (Worley et.al, 2005) and can be overcome for example by trial periods, which has been proved in practice by the FORS clinic.

Leadership

As presented in the previous sections, a lack of employee engagement in the creation of mission, vision and values substantially limits cross-functional understanding, commitment and execution of processes not only in theory (Talwar, 2011) but also in practice. While the Leadership is directly responsible for managing and facilitating the People and Strategy facets of optimisation efforts it is also the responsibility of the Leadership to ensure common language and understanding between the two (Bou-Llusar et.al, 2009).

While Kollberg and Elg (2006) argued that managers in the healthcare sector managers are reluctant to support any scrutiny of their organisations and activities, the managers were very open to suggestions and different perspectives. This contradiction shows that managers in healthcare are not reluctant to improve, it is rather the hierarchical traditions of the industry that stall the improvement when plans do not get transferred into actions. The hierarchies limit cross-functional ownership of activities (EFQM, 2013b), thus optimisation efforts have limited lifecycles and success if the staff does not understand why changes have to be made, which is common by a pure top-down approach (Worley et.al, 2005) when the goals of the staff and the management differ.

Processes, Products and Services

Even though the majority of processes and activities in the clinics are nearly identical it was apparent that standardised improvements are limited because of the size of the organisation. While this confirms the company-specific optimisation

strategy (Worley et.al, 2005), certain common areas of improvement can be and were identified. A helpful approach to this is the creation of a customer-flow, taking into consideration the first, last and most frequent point of contacts between the service providers and the customers, which can serve as guidelines to meet all service quality dimensions (Moullin, 2002) as the customer experience is affected by the communication between employee and patient as explained by Grönroos (2000a).

Another important facilitator of optimisation is evaluation, which according to Arlbjørn & Haug (2010) should be a separate phase of BPO. As pointed out by Antony (2005), controllability is essential for optimisation, however, managers in the healthcare sector do not yet implement in practice according to Dahlgaard et.al, (2011) and the data. The lack of evaluation has an effect on both intangible and tangible resources (Moullin, 2002, Goldsby & Martichenko, 2005), and while the management is aware of the necessity of measuring it either lacks the commitment or the skills to do so.

The optimisation is further challenged by the fact that the processes and procedures in the healthcare industry have remained unchanged for years due to medical and technical standards, and key processes identification is not the focus of daily activities (Moullin, 2002).

Partnerships and Resources

The necessity of resource management is acknowledged but not always executed either due to lack of time, understanding or knowledge. The argument of insufficient time for the identification of the areas of improvement or resources required does not stand the test in reality – FORS, being more successful at optimisation, never mentioned time as a barrier, while it was a common excuse in Gnesta. A more likely explanation is the lack of commitment, which has already been discussed. It is rather the ‘soft’ resources (people) that either drive or stall the optimisation efforts in the service (dental care) sector even more so than in manufacturing. As Dahlgaard et.al (2011) argue, the quality and optimisation mind-set has to be ‘built’ into people for the strategy of optimisation and quality improvement to be successful. Therefore, it is crucial to integrate the right mind-set in the culture at the clinic. Kollberg and Elg (2006) acknowledge that changing the existing organisational culture is not an easy task, however the EFQM does not address this issue.

The lack of external analysis in the sector on a clinic level is obvious. At the best case, the existence of competition is acknowledged, and still, the external analysis of competition is mainly seen as a responsibility of the higher management, which seriously threatens the sustainability, pro-activeness and success levels of optimisation efforts (EFQM, 2013b).

Nevertheless, a wish for higher inter-clinic collaboration is evident, which would help to utilise the resources while advancing the staff (Bou-Llusar, et.al, 2009).

5 Conclusions

The conclusions to answer the research questions of the thesis, along with limitations, future research suggestions and managerial implications of the research are presented hereafter.

RQ1: Do Swedish public dental care clinics implement continuous improvement and service process optimisation in their day-to-day activities at the clinic level?

It was discovered that both clinics do optimise their daily service processes, however the degree of commitment, success and its strategic importance varies. The corporatisation of the sector in combination with the economic crisis was the first driver of optimisation efforts in the Swedish public dental care clinics, however, over time, other benefits have been acknowledged.

On the other hand, due to the lack of pro-activeness of the clinics in terms of external market analysis and performance evaluation it cannot be concluded that continuous improvement is incorporated in their organisational strategies. The lack of the identification of KPIs in Gnesta and KPIs based on gut feeling at FORS makes the clinics more re-active in their optimisation efforts, which may limit the awareness, scope and sustainability of optimised service process areas. A competitive advantage can be sustained only if the improvement is continuous and systematic; the rather re-active nature of the current efforts will not be enough to regain and sustain a higher market share and customer satisfaction.

RQ2: What internal support factors should be in place to initiate service process optimisation and continuous improvement among the staff of Swedish public dental care clinics? What obstacles can arise?

Based on the empirical data it can be concluded that a flat organisational structure is the main internal support factor and an initial driver of optimisation and continuous improvements efforts in the public dental care sector. Flat organisational structure permits achieving several planes of the EFQM simultaneously, therefore, challenging hierarchical structures within the legal regulations has been proved to increase collaboration and in turn employee empowerment.

The characteristics of the dental and healthcare sector require treating leadership and the staff at an equal importance due to the characteristics of the sector to successfully carry out not only optimisation efforts but also achieve continuous improvement. However, as the sector is known for its hierarchical structure, in cases where this setting is very deeply rooted, the initial drive for optimisation will relay on leadership.

Flat organisational structure, however, does not entail a lack of clear organisational strategy. Without a strategy, embodying the optimisation and continuous improvement goals, other internal or external factors will only play a situational role. A thorough optimisation strategy requires systematic internal and external analysis, in other words – a full-time commitment and knowledge. While

the strategy is developed by the manager unless a common cross-functional goal and understanding will be assured there will be no internal commitment. With no commitment the optimisation efforts will not be internally driven nor continuous.

Clinic-specific values can be a useful tool for continuous improvement processes if created by the employees and embodied also by the leader. The result is smooth communication streams that allow increased feedback loops and assures the vital balance between the development strategy of the organisation and the employee aspirations. An additional advantage of having these values is their possibility to enable an easier identification of KPI's, which illustrates the spill-over effect of the different enablers in the EFQM. Additional guidance on important areas of measurement and KPIs can be drawn from the healthcare specific quality dimensions, which are best to be assessed by mapping customer-flow based on the first, last and most frequent points of contacts between the service provider and the customer.

The long history of strict hierarchies within the sector and industry, combined with the restricted flexibility of roles and responsibilities create the biggest obstacles for optimisation and continuous improvement implementation. For an organisation that has various dispersed sub-divisions it is also crucial to align the clinic-specific strategies and values with the organisational ones, otherwise the organisation cannot be seen as working towards the same goal and the optimisation results can be contradicting.

Yet another issue for implementation within the public dental care sector arises from the misconception and lack of understanding of the optimisation and continuous improvement philosophy. Seeing all practices that are applied in the commercial sector as being inapplicable and incongruent with the values of the public sector stalls the initiative and commitment.

5.1 Limitations and Future Research

Apart from the delimitations stated at the previous sections of the thesis a few more limitations after the data collection and analysis process must be addressed. First, the assessment process must be carried out in a much more detail and depth to ensure higher generalisability of the results, while at the same time, the assessment will then be organisation-specific. While the findings of this research can be used as a starting point to identify which criteria enable or challenge the process optimisation within healthcare, a more in-depth scrutiny and comparison of clinics of the same size and optimisation experience is required. The size of the clinic is an important factor when choosing the optimisation strategy, and creates different enablers and obstacles not only for the assessment process, but also for practical implementation.

Due to the different experiences with optimisation and current states of the participant clinics, the data gathered from the FORS clinic on Stages II and III did not permit a direct comparison between the clinics on the Implementation phases of BPO. Thus, the applicability of the findings of these stages cannot be ensured to

be generalisable. However, it can be concluded that the implementation is very specific to each organisational unit.

As for future research, it would be interesting to analyse the process through a change management perspective, especially in the service sector, and possible incorporate this with the EFQM. Also, only focusing on the leadership style and the effect it has on each enabler would allow to see the importance of the leadership criteria, which is named as the starting point of the EFQM. Another area for future research would be the performance measurement of process improvement, as this was excluded from this thesis and the effects of the actual suggestions made were not measured. A more holistic view of EFQM would be beneficial to see if continuous improvement permeates the whole organisation.

5.2 Managerial Implications

Since promoting dentists as clinic managers is a common practice within the public healthcare industry it is the responsibility of the higher management to ensure a proper training, which the new position requires. Holding a managerial and/or administrative position even in the public healthcare sector requires an understanding and knowledge of the corporate world, which cannot be achieved by medical education alone. Having a business perspective is a major enabler not only for management but also for optimisation, and continuous improvement, and the clinic managers, who do not have it, are willing to learn. It is therefore the responsibility of their managers to assess any gaps in the education required to meet the set objectives and goals on the clinic level, and also to systematically follow up on the results, taking into consideration the opinions of all involved actors. Due to these knowledge limitations and size differences, when choosing to apply any kind of optimisation and continuous improvement tool a clear distinction on which actor is going to be responsible for what must be defined. In most instances, no single clinic manager will have the time, knowledge and/or resources to thoroughly carry out the process.

Additionally, since the managers of public health care organisations are working towards the same goal a higher level of knowledge sharing must be practiced between the clinics. This would permit access to best and worst practices, thus decreasing the time and costs on trials and errors on an individual level, which in turn results in a higher competitiveness of the entire organisation.

The benefits and effects of a successful optimisation and continuous improvement must be explained to the staff. What is seen as obvious by the management or someone with a business background is not as obvious to employees with an education and experience of medical and/or public sector. Either the rest of the staff must be brought up to the same level of understanding of the business terminology and the causal relationships in it or the terms, concepts and examples used must be adapted to the audience to ensure employee commitment.

The lack of performance measurement is a very critical area that public dental care, and possibly healthcare in general, clinics do not carry out sufficiently, if at all. The performance measurement is currently left as a responsibility of the

headquarters. The re-activeness, time delays and possible inaccuracies of this approach are obvious. Especially since current processes are measured based on employee experience and perception, which is a highly biased approach. The importance and knowledge of measurement must become a standard practice of managers.

6 Discussion

The last chapter of the thesis presents the additional discussion of the research findings.

The EFQM, and optimisation in general, stress the necessity of process view and customer-focus (EFQM, 2013b; Arbjørn & Haug, 2010). However, one of the major changes in the model in 2010 was the need to balance between the strategic optimisation strategy and personal aspirations while the weighting of People and Strategy enablers has remained equal (EFQM, 2009). In other words, the customer and employee satisfactions are presented as relatively equal in importance. Combined with the notion that the perception of service quality relies mainly on the interactions with the staff (Brady & Cronin Jr., 2011; Grönroos, 2000a) a contradiction arises. The importance of employee satisfaction in service industry, particularly healthcare, based on the findings of this research, is almost as equally important as customer satisfaction due to the prototypical service-only characteristics (see section 2.2.1). It is the belief of the thesis' authors that in the healthcare sector, especially public, valuing much higher either customer or employee satisfaction will not result in maximum utilisation nor sustainability of optimisation efforts.

Even though the EFQM is argued to be applicable to organisations of various sizes, sectors and countries the framework is still very detailed and used commercial sector specific terms and concepts, which are hard to grasp for non-commercial organisations. This may result in insufficient assessment not representing the actual situation of an organisation and its status. More so, the framework is a helpful tool for pointing out and illustrating the necessary state for maximum utilisation of optimisation, however, does not provide guidelines or tools of how to reach the desired state of affairs. Finally, due to the complexity and depth of the model internal assessment will always be biased even if all the concepts are understood, while an assessment by external actors can be costly.

A question that was raised during the research process was whether analysis of competitors should be carried out at a clinic-level or if it should be dealt with the management at the Head Quarters. While it would be optimal to gather such information at a clinic level being more close to its direct competitors, it has its restrictions where the scarce administration time may not allow the clinic to do so.

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Appendices

Appendix 1 – Workshop Interview Guide

1. How have the optimisation efforts so far affected our work?
2. Were you involved in this process? How?
3. How was it communicated to you?
4. Was there any resistance?
5. What was good/bad about it?
6. Which do you feel are the most important factors/criteria for carrying out your day-to-day activities?
7. What are the values of Folktandvården Sörmland?
8. How are they incorporated in your daily activities?
9. What makes you different from the other dental clinics?
10. Are there any strict guidelines that need to be followed when designing your activities and processes?
11. How have you been affected by the increased competition on the market?
12. Are roles and responsibilities clearly defined within the clinic? Are you performing any activities and tasks outside your own ones?
13. Are you encouraged to come up with new ideas for change?
14. Do you feel you have the support needed from both your managers and colleagues?

Appendix 2 -Interview Guide for the Managers

1. Who made the decision that processes should be optimised and what was the background to this? (Applies to FORS only)
 - a. Whose idea was it?
 - b. How was it communicated to the rest of the staff?
 - c. Was there any resistance?
 - d. What processes were chosen and why?
 - e. Were these changes rolled out to other clinics in Folktandvården Sörmland too? Why/why not?
 - f. What were the factors considered when optimising the processes?
 - g. How did you evaluate the outcome?
2. What are the values of Folktandvården Sörmland/clinic?
3. How are the values incorporated in daily activities?
4. Are there guidelines to be adhered to influencing the process design?
5. How have you been affected by the increased competition?
6. Are looking at what the competition is doing?
7. What makes you different from the other dental clinics?
8. Do you encourage your staff to find improvement possibilities?
 - a. How are you supporting this?
 - b. How does such a change take place?

Appendix 3 – Values of Folktandvården Sörmland

The organisation is based on the belief that dental care should be aimed at prevention and provides a professional way of carrying out the processes (Folktandvården Sörmland AB, 2013). Diversity is of high importance to the organisation as it enriches the organization, both in terms of patients and the staff. Maintaining a healthy economic position is highlighted and is seen as something that is of obvious importance. Furthermore, there should be room for environmental aspects to be addressed where the organization is applying a holistic view of the environment and the organization should also work towards being the most environmentally friendly alternative.

The organization sees themselves as being different as they are 'having fun together' and 'developing themselves' (Folktandvården Sörmland AB, 2013). Having a small business spirit with an open and family atmosphere is something that the organisation has adopted emphasizing the importance of sticking together and taking care of each other. As a result, the organization welcomes new ideas and ways of doing things even though it may not be successful, and the saying "rather dare one roll of the dice than never to stretch a bow" is applied here to further emphasise this. This approach is used to address customer satisfaction and satisfied staff which is their goal.

The organization is arguing that good oral health is a civil right and that they aim to have an offensively proactive approach towards dental care and at the same time not excluding any age group; it should be a place for everyone (Folktandvården Sörmland AB, 2013). Compliance with the United Nations Convention on the Rights of the Child and the County Council's environmental management system is obvious to Folktandvården Sörmland.