The Role of Integrating Customer-Orientation View in product Development to Sustain Competitive Advantage

A case study in the digital healthcare industry

Master's thesis in Management and Economics of Innovation/

Entrepreneurship and Business Design

RAMA HERMEZ

PEGAH JAHANKHAH

Department Of Technology Management and Economics
Division Of Entrepreneurship and Strategy

CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden 2021
www.chalmers.se

Report No. E2021:090

MASTER’S THESIS E2021:090

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Chalmers University of Technology

SE-412 96 Gothenburg, Sweden

Telephone: + 46 (0)31-772 1000

Chalmers Reproservice

Göteborg, Sweden 2021

Abstract

The healthcare sector in Sweden is undergoing a transition driven by digitalization, increased demand, and COVID-19. Receiving healthcare has traditionally been through physical contact between doctor and patient, but digital healthcare apps have changed the contact form. These apps allow patients to easily schedule visits and interact with doctors without geographical and time limitations. Today, the customers have access to more information and control over their decision and can easily switch to other alternatives which increases the competition in the digital healthcare market. However, little is known about this market in general and how the transitioning from physical to digital healthcare is shifting the power from doctor to patients.

This study aims to investigate what are key sources of competitive advantage in this market and how digital healthcare companies in Sweden implement customer orientation into their product development to sustain competitive advantage in the market. To find this out, semi-structured interviews were conducted with five major Swedish digital healthcare companies. A theoretical framework was developed based on a literature review about competitive advantage and customer orientation to be then analyzed and discussed together with the empirical findings.

Findings show that the competition in the digital healthcare market is high and innovative services can easily be imitated. Additionally, setting a low price can not either be used as a differentiation strategy to attract customers due to the high regulation from the government. Therefore, innovation and price differentiation are not the sources of competitive advantage in this market. Instead, customer satisfaction is a crucial source to sustain competitive advantage. This thesis identified five factors that companies focus on to increase customer satisfaction: accessibility and visibility, targeting a specific customer group, minimizing the queue time, service quality, service design, and trust. Digital healthcare companies try to gain an understanding of customers through collecting data with different measurement systems. The data is then used to enhance product development based on customer needs which increase customer satisfaction. We outline how two different measurement methods, traditional, interviews and technical which include in-app interactions, analytics, and algorithmic, are used as distinct methods by companies to collect data that help the companies learn about the customers, thus improving and developing more customized services for the customers.

This thesis contributes to understanding how the digital transition in the healthcare industry is changing the competition on the market and the importance of customers in this shift to develop competitive products.

Keywords: Competitive Advantage, Customer-Orientation, Porter’s Five Forces, Customer Satisfaction, Digital Healthcare Industry, Measurement System.

Acknowledgment

This master thesis was conducted during the spring semester of 2021 at the Department of Technology Management and Economics at Chalmers University of Technology. The thesis was accomplished in collaboration with Kry, Min Doktor, Doktor 24, Capio Go and Närhälsan Online. This study was performed by Rama Hermez from the Management and Economics of Innovations program and Pegah Jahankhah from Entrepreneurship and Business Design program.

Firstly we want to thank interviewees who shared their knowledge and contributed with data which were very helpful in answering our research questions.

Secondly, we want to extend our gratitude to our supervisor Adrian Bumann, and our examiner Robin Teigland, for their contribution, constructive feedback and guidance throughout the whole project.

Finally, we would like to thank our families and friends for their support and encouragement during our studies at Chalmers, without them we would not have achieved anything.

Gothenburg, June 9th, 2021
Rama Hermez & Pegah Jahankhah

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NPS (net promoter score)
NPS is used as a metric for measuring customer loyalty. With an NPS each customer is asked to answer the question "How likely is it that you would recommend company X to a friend or colleague?" The customers then can choose between a rating scale from 0 (not likely)-10 (very likely).

Customer return frequency
Measures the number of users leaving the app in a specific amount of time.

Customer lifetime value
How much money a customer adds to the brand throughout their entire lifetime as a paying customer.

Customer churn rate
Measures the length of time that passes between visits from returning visitors.

SEO (Search engine optimization)
Search engine optimization is the process of improving the quality of website traffic and keywords to a website or a web page.

SEM (search engine marketing)
Search engine marketing is about optimizing the visibility of a company's advertisement using paid advertisements that appear on search engine results pages.

KPI (Key performance indicator)

KPI is a measurement indicator that measures the degree of an organizations' success in a particular activity.

1.Introduction

This chapter describes the background of the thesis, followed by a problem statement. After that, the purpose and the research questions are presented, followed by the delimitations and disposition of the project.

1.1 Background

Swedish healthcare has an internationally high standard and is characterized to deliver high-quality care (Blix & Jeansson, 2018; OECD, 2017)**.** However, according to Socialstyrelsen (2006), one of the biggest problems with physical healthcare is lack of availability and accessibility. In other words, long waiting times which lead to customer dissatisfaction in the healthcare industry. Factors such as rapid population aging, a growing number of chronic diseases, increased access to smartphones, and the outbreak of COVID-19 increased the shift from physical to digital healthcare (Mesko, 2019; Gleiss et al., 2021). According to PWC (2016), 44% of the Swedish people live with chronic diseases, and 24% are aged above 60, which means that the health system has to deal with more patients with complex needs (PWC, 2016). Many patients in Sweden feel that the healthcare organizations are more focused on industry needs than their needs and only 50% of the Swedish people are satisfied with their healthcare experience (Patient Huset, 2019). In the physical healthcare industry, patients are not involved in decision-making about their health and are entirely dependent on the decisions of healthcare systems (Meskó et al., 2017). Today's patients are more aware and insightful about their health, and therefore, the customer experience has become an essential part of the care providers' work (Gulati et al., 2016).

The emergence of digital development has led to technology becoming an increasingly important part of our lives and changed how healthcare processes are performed, which resulted in a shift from doctor-centered to patient-centered where the customer experience is in focus (Gulati, McKeering & Norton, 2016). According to Gulati et al.(2016), digital healthcare is about new technologies, developing new ways to solve current care problems, and creating new opportunities for patients to seek care. Sweden is one of the countries with a national vision for digital healthcare, good digital infrastructure, and technology (McKinsey & Company, 2016). In recent years the widespread adoption of digital healthcare apps in Sweden opened new ways to provide health care services (Aggarwal et al., 2014). These apps can help people manage their health and wellness, offer consultation, diagnostics, receipts, treatment, and access helpful information when and where they need it (Gummerus, 2004 & Yang, 2019; Aggarwal et al., 2014). Another benefit of digital healthcare apps is that patients can easily book doctor appointments without time and geographical limitations (Gordon et al., 2020). Therefore, extra costs associated with travel, time, and doctor consultations, can be reduced with digital healthcare apps. Factors such as COVID-19, advances in technology, increased access to smartphones, and growing demand for healthcare accelerated the adoption of digital healthcare applications, which had more than 206,000 visits in March 2020, compared with 126,000 in January the same year in Sweden (Cederberg, 2020; Han, 2021).

Providers of digital healthcare have only recently entered European markets and have grown quickly since then. In 2016, Kry and Min Doktor launched their first telemedicine app in Sweden, and since then, it has been possible for Swedish residents to make doctor visits via digital apps (Blix & Jeansson, 2018). Today, the Swedish digital healthcare market is dominated by local companies such as KRY, Min Doktor, Doktor 24, Capio, and apps developed by the regional governments, such as Närhälsan Online (Cederberg, 2020).

The presence of a large number of digital healthcare applications with similar services increased the competition enormously. Many online service-based companies, including digital healthcare apps, face the challenges of creating a sustainable customer base in a market where customers can easily find other healthcare apps (Gummerus, 2004). Further, the law of freedom-of-choice ("LOV") enacted in 2009–10 gives people the right to choose healthcare independent of geographical limitations in Sweden (SKR 2019a). Patients will no longer wish to be tied to a local or a single healthcare center. They will have higher expectations and demands on the way they receive care (Gu, 2018). Customers are no longer passive recipients of the products and services, they have more knowledge, information, and power (Li, 2009). They can easily find preferred doctor apps and make appointments for diagnosis and treatment based on other patient word-of-mouth (WOM) and experience (Gu, 2018). Consequently, customers become less loyal, therefore the risk of losing customers has increased (Wendlandt & Schrader, 2007).

1.2 Problem statement

The radical growth rate of digital healthcare visits and customers' power in switching between different healthcare apps has led to more attention towards sources of competition in the digital healthcare market. There is a fast shift from physical to digital healthcare that contributes to more competitors on the market. Digital healthcare apps allow for more functionality and have the potential to change patient-doctor interactions from being doctor-centered to patient-centered. Therefore, it is important to investigate crucial competition factors in the market and then compare them to determine the essential factors to sustain competitive advantage in the digital healthcare market. Moreover, customers are gaining more power in choosing the most suitable solution for themselves. Thus, it is essential for digital healthcare companies to understand customer needs and constantly integrate them in product development to make the customer revisit the app. This area requires further research about a customer-oriented approach to determine customers' needs to develop the services and sustain competitive advantage in the market.

1.3 Purpose & Research Questions

The purpose of this thesis is to identify the sources of competitive advantage in the digital healthcare market and to understand the role of integrating customer orientation in product development to maintain competitive advantages in this market.

1.4 Research Questions

To be able to fulfill the purpose of this thesis, two research questions have been formulated.

RQ1: What are crucial sources of competitive advantage in the digital healthcare market?

RQ2: How do companies developing digital healthcare applications integrate customer-orientation view into product development to sustain competitive advantage?

1.5 Delimitation

This thesis focuses on companies operating in the digital healthcare industry. Geographically, the research is restricted to companies operating in Sweden which means that there is a Swedish cultural perspective on the study since all selected companies are operating in Sweden. The study will only focus on large and established companies that have more than 1000 visitors every week. Moreover, in this study customer orientation is examined from the companies' perspective and how these companies implement customer orientation in the product improvement to sustain competitive advantage in the market. However, to gather more information and get the big picture, customer and service provider's perspective could be taken into account.

1.6 Disposition

This chapter gives an overview of the thesis procedure. It consists of six chapters that are explained in short below.

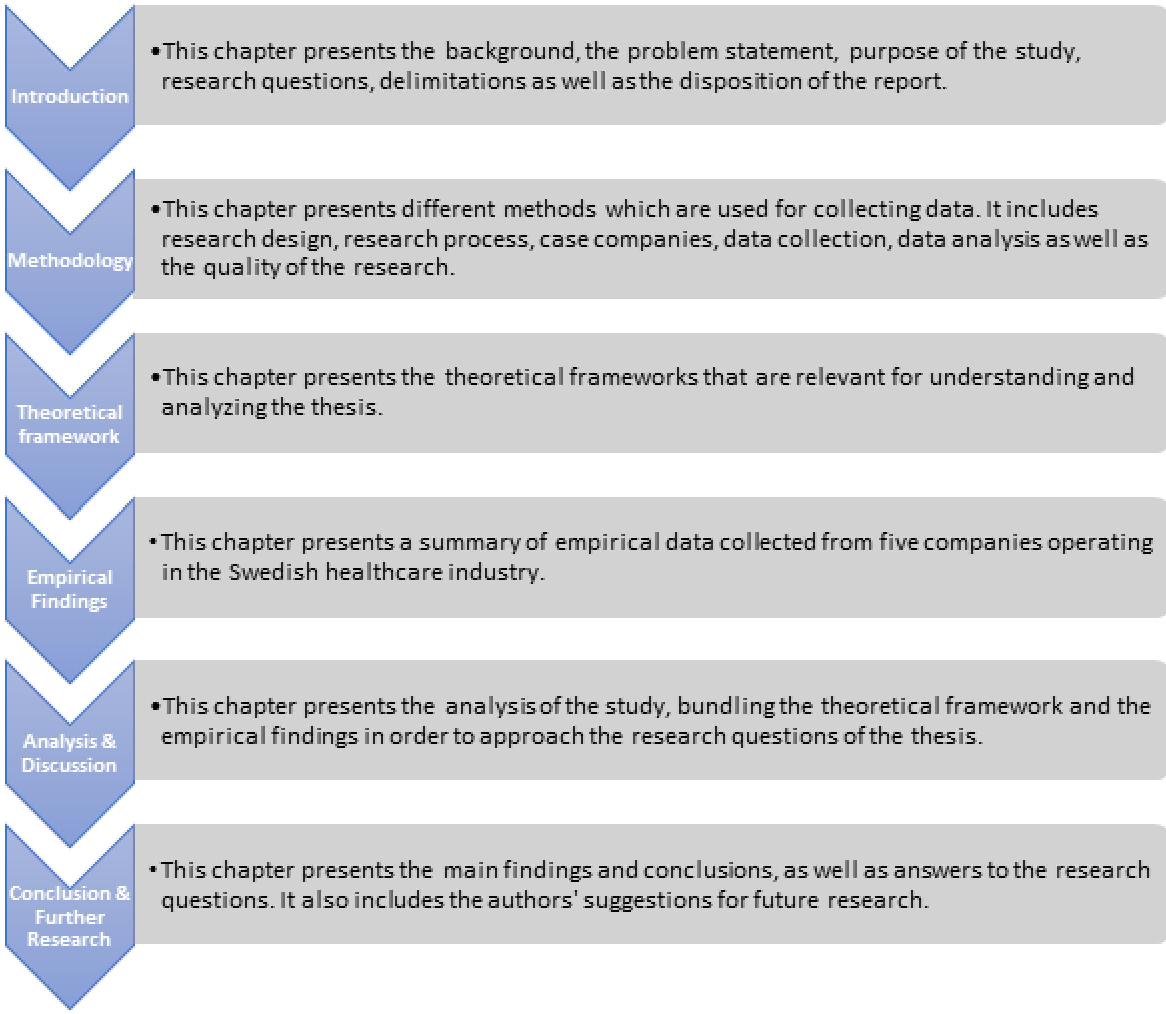

Figure 1: Disposition of the thesis

2. Methodology

This chapter presents the methods used to answer the research questions and fulfill the purpose of the thesis. Initially, the research design will be presented, followed by a research approach. Thereafter, different methods for data collection will be discussed. Lastly, data analysis and the data quality in terms of reliability, and validity are addressed.

2.1 Research design

The research design provides a framework for collecting data, explaining how and why data is collected and analyzed (Bryman & Bell, 2015). Since the research questions are exploratory, an exploratory method is useful to collect data (Saunders et al., 2009). According to Saunders et al. (2009), there are three different approaches when conducting exploratory research; Literature reviews, interviewing 'experts' in the subject, interviewing with focus groups. To answer the research questions and create a comprehensive understanding of the study , data triangulation has been used which refer to collecting data from different sources and at different times (Flick, 2004). The data collected for this thesis is mainly based on expert interviews, literature and company material .

According to Saunders et al. (2009), semi-structured interviews cover a list of themes and questions which can vary from interview to interview. The same method was used to collect data from the participating companies where the focus was on collecting and discussing many views and aspects of integrating customer-oriented approaches in the companies' product development to sustain competitive advantage in the digital healthcare market. The template of the semi-structured interviews consists of a set of questions adapted to the position of a respondent within the company to provide a richer picture of the research topic.

The purpose of the literature review is to review the most relevant literature within a specific topic in order to gain increased knowledge about the subject (Saunders et al., 2009) and to construct the interview guide. During the process, the literature has been used for different aims. At the beginning of the process, the literature was used to understand the problem and develop research questions. Later, the literature review was focused on identifying how integrating customer-orientation approaches in product development can help companies from the digital healthcare industry to maintain competitive advantage.

2.2 Research process

To give a good overview of the study, a description of the research process is provided in this section. The research process was conducted for 21 weeks and divided into six main steps that provided guidance during the process. The research began with an exploratory phase where an initial literature review was conducted to understand the problems facing companies in the investigated areas and formulate relevant research questions. In the planning phase, meetings with the supervisor at Chalmers were conducted in order to formulate and narrow down the purpose of the thesis. Then a planning report was written containing the preliminary background, research questions, methodology, and a Gantt schedule that was used to structure the time during the thesis.

Further, empirical research was done, and semi-structured interviews were conducted with five companies operating in the Swedish digital healthcare industry. The interviews were conducted with approximately one week gap and the reason behind this was the availability of the interviewees and the authors' ability to edit and improve the interview questions after each interview. The first four interviews were transcribed and analyzed before the fifth one because of the timing. After conducting the fifth interview, data saturation was reached. According to Saunders et al (2017) the saturation refers to the point when additional data do not lead to new information, themes or codes. In a qualitative research the saturation can be remarked when the authors hear the same comments repately which indicates that it is the time to stop data collecting phase and start analysing instead (Saunders et al., 2017). The authors of this thesis found out that the last interview did not contribute new information to the analysis and no new themes have been identified. Therefore, the data gathering process was stopped there as the research questions were answered thoroughly and this was tested with the last interview. One of the ways that helped the authors to reach the data saturation in this study is using data triangulation. Flick (2004) refers to data triangulation as the collecting of data in qualitative research as from different sources, at different times and from different people which help in creating a comprehensive understanding.

After that, the collected data from the literature and interviews were analyzed and discussed. In the last phase, the research process ended with a conclusion and recommendation for further research. Literature reviews were continuously done throughout the whole process to increase the knowledge about the research area. The process contained many iterations where changes have constantly been made during the process, and notes were taken during the meetings with the supervisor to gather important thoughts and improve the study.

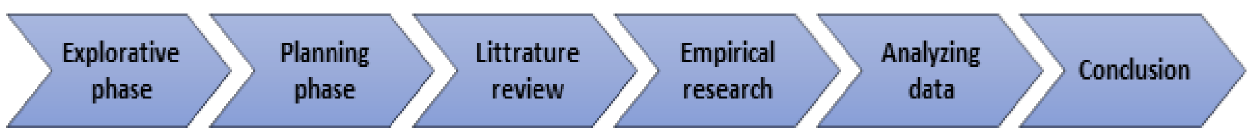

Figure 2: Illustration of the research process

2.3 Case companies

The companies have been selected due to a number of criteria such as: industry, geographical location, size, number of visits, well-establishment, and availability. The authors looked into the digital healthcare industry in Sweden for large digital healthcare app companies that have more than 1000 visitors per week. Number of visits were set as a criteria because of our research question that included data gathering from the customers. In order to get deep information from the interview, the authors focus on well established companies in the Swedish digital healthcare companies that possess a larger amount of data and experience about the customer and their behaviors. Further, the availability of these companies was also considered as important to be able to get in touch with them. There were several actors on the market but only seven of them were suitable for this study. The rest were either small, unpopular or for other purposes such as mental health or veterinary.

2.3.1 Min Doktor

The first company that participated in the interview was Min Doktor that was founded in 2013 with its headquarter in Malmö, Sweden. Min Doktor is a registered healthcare provider. The doctors at Min Doktor can see more patients per hour compared to if it had been at a health center, and it will be a slightly lower cost. The company has gone from 30 to 5,000 patients/ week. There are currently 75 people working at the head office, and of the employees, about 50 are doctors who work part-time today in addition to their regular jobs at a health center or hospital. In the future, Min Doktor also plans to invest throughout Europe as a healthcare player in the European healthcare market. The company has treated just over 140,000 patients in Sweden since 2015. According to Min Doktor, the company has 167 employees now by 2021 and 414.1k website visits.

2.3.2 Kry

The second company that participated in the interview was Kry. Kry is a digital health app and one of the largest digital healthcare providers in Europe, with its headquarter in Nyköping, Sweden. The company was founded in 2014 as a startup in Sweden and provides patients with qualified healthcare services in minutes. Today, they operate in Sweden, Germany, UK, France and have the ambition to expand more within Europe (Kry.se). According to KRY, the company has 681 employees now by 2021, 932.2 k website visits, and revenue of 234.2 MKR by 2018, which has had an increase of 135%.

2.3.3 Capio

The third company that interviewed Capio. Capio is a healthcare company both physical and digital, that offers a range of medical, surgical, and psychiatric services through its hospitals, clinics, and mobile app. Capio was founded in 2018. net sales of EUR 3.8 billion and approximately 36,000 employees. The healthcare operations in France have since operated under the Ramsay Santé brand. Thomas Berglund was the company's President and CEO for 10 years, till 2018.

2.3.4 Doktor24

The fourth company that was interviewed is Doktor24 healthcare AB. Doktor24 was founded in 2016, and in mid-2017, Doktor24 opened its operations to the first patients. Today Doktor24 consists of 200 employees with a mix of medical, consumer, and commercial backgrounds. Doktor24 has its headquarter in Stockholm, Sweden. Kry generates $4.87 million per year. There are also 284 companies in the Doktor 24 Healthcare AB corporate family.

2.3.5 Närhälsan Online

The fifth participant company in the interviews was Närhälsan Online. The online services of Närhälsan were founded in the year 2019. Today they consist of 5,450 employees with a mix of medical, consumer, and commercial backgrounds. Närhälsan Online has its headquarter in Västra Götaland, Sweden. This company generates 234M KR.

2.4 Data collection

In this part, two research methods have been used for data gathering. Primary data is gathered through interviews, whereas secondary data is collected with the help of literature reviews. After that, the sampling method of interviews will be highlighted and motivated.

2.4.1 Interviews

One of the research methods that help to collect new data is primary data. Primary data is original data gathered by the authors for the first time. It is data that has not been published or collected before. This kind of data is collected through interviews (Dawson, 2019). Saunders et al. (2009) mention three different interview approaches: structured, semi-structured and unstructured interviews. According to Saunders et al. (2009) the structured interview is suitable when conducting a quantitative study, however, due to the qualitative nature of this study the structured interview will not be used. Unstructured interviews are informal and used to explore areas in depth (Saunders et al., 2009). Structured and unstructured interviews are not preferred in this study, due to the difficulty to identify themes with unstructured interviews and lack of flexibility to add questions that are needed when conducting structured interviews (Bryman et al., 2015).

Therefore, the applicable interviews for this study were semi-structures which means that it started from some main questions in an interview guide (see Appendix 1) but with the possibility to spontaneously add and change the questions during the interview (Bryman et al., 2015). The reason for choosing semi-structured interviews over structured and unstructured interviews was that a well-thought-out basis for which questions were needed but still had the opportunity to explore other areas if they appeared during the interviews. To make interviews more effective and right to the point, an interview book *Qualitative Interview Design: A Practical Guide for Novice Investigator*s by Daniel W. Turner III (2010) has been used while designing the questions.

Five interviews have been held with five digital healthcare companies to collect primary and original data to discuss and analyze the theory. The purpose of the interviews is to understand five digital healthcare companies' perspectives on the competition factors in the market and their way of implementing customer orientation in product development. Regarding the interviewees, certain criteria had to be met by interviewees in order to be able to answer our questions and give us the data needed. The first criteria were that the person should at least operate in the digital or business analysis department to ensure that they have relevant experience and knowledge in the area so they can answer the interview question. Since our areas of focus in the research questions were customer orientation, product development and competitive advantage, business analysis and product development were two relevant positions.

2.4.1.1 Sampling

In order to cover a broad perspective of the digital healthcare industry, five interviews were conducted with companies of different sizes and geographical locations in Sweden. The selection of companies was a non-probability sampling, which means that the respondent has not been randomly selected but rather strategically based on their functionality in the company so they are applicable to the research questions (Bryman et al., 2015).

Every interview followed five phases: looking up potential respondents, selecting the respondents, designing interview questions, initial contact by email or Linkedin, execution of the interview, transcription, and coding. In the first phase, the process focused on looking for respondents with experts within relevant research areas. After that, respondents were contacted by email and on LinkedIn with a short description of the purpose of the thesis. Then, the interview questions were designed according to two concepts, customer orientation and competitive advantage. Further, an invitation was sent to the respondent with interview questions beforehand to invest the time better and give the respondents the opportunity to prepare for the interview and develop the answers deeper. The interview length varied from 30-70 minutes, and the interviewees got the same questions. However, follow-up questions were used to make the interviewees develop their answers further. Due to the Covid-19 pandemic, travel restrictions, and geographical barriers, the interviews were conducted over the internet using Zoom.

Both authors were presented in all five interviews to avoid the subjectivity and ensure that relevant follow-up questions were asked. The interviews were recorded, after the permission from all respondents. According to Bryman et al. (2015) recording helps in capturing all the information and eliminates the risks in losing information . Further, notes were taken to support the collected data. Interviews were held in Swedish, therefore the transcription was divided in two phases. After each interview, one of the authors was responsible to listen to the interview recordings and summarize the interviews in Swedish and divide them into color codes based on two main topics, and another author was responsible for English translation of the transcription and the arrangement of the data.

In table 1, the company, respondent, interviewee roles, interview type, date and duration are presented.

Company	Respondent	Interviewee role	Interview Type	Date	Duration
Kry	Respondent 1	Analytics	Zoom	2021-04-14	60 minutes
Min Doctor	Respondent 2	Head of Business Analysis	Zoom	2021-04-14	30 minutes
Capio	Respondent 3	Chief Digital Officer	Zoom	2021-04-16	60 minutes
Doctor24	Respondent 4	Product Manager	Zoom	2021-04-21	70 minutes
Närhälsan Online	Respondents 5	Development Manager	Zoom	2021-04-28	60 minutes

Table 1: List of interviews

2.4.2 Literature review

In contrast to primary data, secondary data is based on the collection of information from studies that other researchers have done. It means data that has been previously published (Dawson, 2019). The study was initiated by gathering secondary data through conducting a literature review. The authors started to first discuss the areas that are considered crucial in the digital healthcare industry according to prior research and then selected related literature. This was primarily based upon books, articles, scientific papers collected by searching articles in Chalmers library databases, Google Scholar, and ScienceDirect. The thesis includes research from 1980-2021. The keywords used in the study are: “ Digital healthcare”, “Competitive advantage”, “Customer-orientation”, “Porter model”,” Customer satisfaction”, “Loyal customers”, “COVID-19”. To initiate a study by browsing through literature has both its advantages and disadvantages. The advantages exist in performing a more accurate and reliable study. The disadvantages were that the literature might have biased the authors’ opinions about which areas that are necessary to include in the interview.

However, semi-structured interviews helped in halting this problem by asking follow-up questions during the interviews that would help the authors to ask questions outside the literature framework.

2.5 Data analysis

After collecting data from the literature and company websites, the qualitative research strategy moved on to generate empirical findings through conducting five semi-structured interviews where the same interview guide was followed for the all interviewees. However, follow-up questions were added during the interviews. One of the main advantages with using semi-structured interviews was the flexibility to add or adjust questions during the interviews and ability to ask follow-up questions depending on the interviewees' expertise within an area and their answers (Saunders et al., 2009).

Based on the research questions, some suitable positions that were expert in the research area, were defined for this study. The positions were first discussed and decided between the authors. But as availability of these persons were of concern, other positions in the company were contacted as well. But the authors got referred back to the suitable positions by others all the time such as the business analysis department. Conducting interviews with different positions in the company (see table 1) provided the study with different perspectives and insights on product development and data analysis which helped in reaching the data saturation.

An abductive research approach seemed most suitable for this thesis. According to Rose (2014), abductive research refers to the ability to go back and forth between empirical data and theories. This approach helped in developing or changing the theoretical framework before, during or after the collection of empirical data to make sure that new findings are supported by theories and to get a deeper understanding of a particular research problem.

A thematic analysis method has been used throughout the interviews to find themes by categorizing the data with codes. According to Bryman et al. (2015), thematic analysis is a qualitative method for identifying, analyzing, and reporting patterns within data. This method both uses a systematic way of gathering qualitative data to then be able to categorize them into themes to analyze the data (Bryman et al., 2015). All interviews were recorded and transcribed, thereafter important information was arranged and color codes were created to categorize and visualize empirical data based on two topics; customer orientation and market orientation. This categorization then was broken down into smaller categories called themes. The themes were then found based on the research queation as well as theoretical framework which include concepts such as digital healthcare, customer satisfaction, measurement systems, Porter five forces, and competitive advantage. Throughout this thematic and coding categorization, the research questions helped in excluding overload of information.

2.6 Research quality

This part shows the trustworthiness of this thesis. As this thesis aims to gain knowledge about certain themes from participant companies, the following three factors, reliability and validity were used to evaluate the quality of this research.

2.6.1 Reliability

According to Saunders et al. (2009), the reliability of the research can be separated into external and internal reliability. External reliability is the ability to replicate a study and provide similar results when the research is performed again. As the case companies are changing continuously with new technologies and processes being implemented, the results of this research can be different if researchers from the same background conduct the same research from these companies at another time.

Internal reliability explains the consistency of the results obtained (Bryman et al., 2015). The interviews that were conducted in this research are semi-structured interviews where additional questions, besides the interview guide, have been added to the interview. Bryman et al (2015) mentions that due to the open nature of semi-structured interview, the reliability can be limited when it comes to the standardization. Other researchers asking the same questions as in the interview guide could have generated similar results in this research but it totally depends on the additional questions and how the company answers those additional and spontaneous questions.

To increase the internal reliability, all the interviews have been recorded and both the authors attended the interviews to ensure the same understanding of the information. Moreover, the results of the research were assessed for reliability by comparing them to another researcher's work and theory on the subject.

2.6.2 Validity

Validity completes reliability, it implies if the research is measuring the right elements that are supposed to be measured and if the results are accurate. Validity can be achieved through studying the subject matter carefully and quality control of the research strategy (Saunders et.al, 2009). As there are a small number of established digital healthcare companies on the Swedish market the authors were limited in getting in touch with five companies. However, the data collected from the first four interviews helped us to answer the research questions and to find new factors that answered the what and how questions. The fifth interview was proof that new data does not contribute to new insights and conclusions. Therefore the data collecting process discontinued where the authors were not able to gather more fruitful data. The five interviews enabled the authors to gather enough data for comparison and analysis. Further, to find the appropriate positions to interview, a selective search was performed on Linkedin for each participant company. Therefore the interviewees had the most suitable positions in business analysis and product development. The result of the analysis and conclusion indicated that the data gathering from the case companies was adequate to answer the research questions.

Additionally, to enhance the validity of the results, the authors tried to get educated about the subject and use an interview guide to be able to design precise and accurate interview questions. Moreover, by educating ourselves about the industry and companies, we could place relevant follow-up questions as a completion to interview questions to make the results more accurate. Interviewing different companies would also give us a sense of comparison to see if the process is on the right track.

3.Theoretical Framework

In the following sections, the theoretical framework for this study is presented. The overall themes are competitive advantage and customer-orientation. The first sections start by an overview of competitive advantage theories and Porter's five forces, followed by a more comprehensive description of the digital healthcare market, which gives a clearer insight about the industry. Thereafter comes the customer-orientation view in the digital healthcare market that has a direct link with service design and service quality. Trust and customer satisfaction are mentioned last in the theoretical framework as everything leads to trust and trust leads to customer satisfaction.

3.1 Competitive advantage

Competitive advantage is an advantage that a firm obtains by adding value to a product or offering customers an additional value than competitors, either by providing lower prices or greater services (Porter, 1998), and this additional value can't be substituted or imitated by competitors (Parniangtong, 2017). The unique assets and resources that are difficult to imitate are referred to as a source of competitive advantage (Bharadwaj et al., 1993). Parniangtong (2017) argues that a firm can create a competitive advantage at any time, but sustaining it is what a firm must do over a long period of time. To sustain competitive advantage, a firm has to deal with imitation and substitution which is a viable threat to sustainability since it reduces the demand for a firm's unique products or services and it shifts elsewhere.

The global competition, demanding customers and slow growth industries have forced many firms to find new ways to sustain competitive advantage. Today, innovativeness is no longer a source of competitive advantage (Woodruff, 1997). The innovation can give a firm a competitive advantage and profits, but only for a short time. Competitors and imitators can copy the new technology and draw the customers away (Williams, 1992). Feng (2010), adds that the knowledge required for product and service development in a dynamic environment is not totally available within a firm. Therefore, instead of focusing on the internal processes and structure, a firm has to shift its focus outward to customer involvement and satisfaction to gain competitive advantage in the state of intense competition (Feng, 2010; Müller, 1991).

Customer involvement in product and service development increases a firm's ability to fulfill customers' needs, enhance flexibility, and increase satisfaction. It also strengthens firms' service quality and delivery reliability (Feng, 2010). Flint et al. (2009) states that customer value is one of the strong drivers for customer satisfaction. According to Tanwar (2013) value is obtained either by offering lower prices than competitors for equal benefits or by providing unique benefits than the price. However, value creation is time-dependent and changes over time, when the markets evolve, and new products and services arise, the value becomes obsolete or commodities (Seo & Lee, 2007). Therefore, in a dynamic environment, it is essential to anticipate and adapt to value shifts to satisfy the customers and maintain a competitive advantage by quickly identifying the new source of value and building the necessary capabilities to produce it (Seo & Lee, 2007).

3.2 Porter's Five Forces

Porter's Five Forces Model is one of the popular frameworks in the field of the business strategy used to determine the attractiveness, profitability, and weakness of an industry . The model is used to analyze a firm's competitive environment, increase competitive advantage, and is appropriate within all industries. Porter's five forces model comprises five forces, which shape the industry competition and determine a firms' profitability on their capital. These forces are (1) threat of new entrants, (2) threat of substitutes, (3) bargaining power of suppliers, (4) bargaining power of buyers, and (5) rivalry among existing competitors (Porter, 1998). The model is represented graphically in figure 3 below.

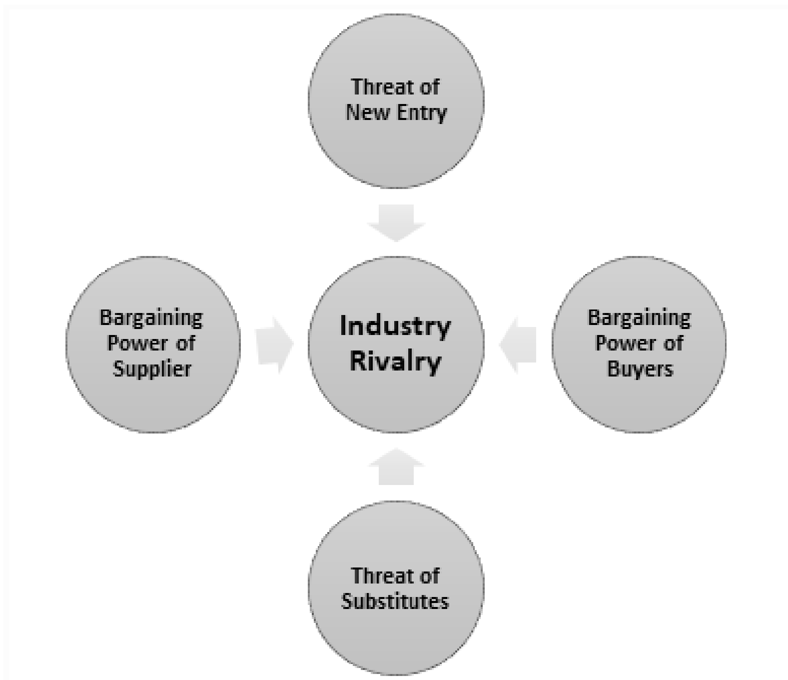

Figure 3: Porter's Five Forces

3.2.1 The threat of entry

According to Porter (1998), new entries to an industry pose a threat to the industry and decrease firms' market share by bringing new resources and capacity that puts pressure on prices, costs, and the rate of investment that is needed to compete. The threat of new entrants has a negative impact on the industry's profitability because when the threat is high and barriers are low, incumbents must either increase investments or hold down prices to discourage new entrants. However, low prices increase the intensity of the competition and decrease a firm's profitability. The threat of entry in a specific industry depends on the barriers to entry and the reaction of incumbents to new entrants. Porter (2008) defines entry barriers as "advantages that incumbents have relative to new entrants". According to (Grant , 2019) there are seven sources of entry barriers; *supply-side economies of scale, product differentiation, retaliation against new entrants, capital requirements, cost disadvantages, access to distribution channels, and governmental and legal barriers.*

3.2.2 The threat of substitutes

According to Porter (2008), a substitute is a product or service that can perform a similar function as the industry's product or service by a different means. Substitutes threaten the industry's profitability, place a limit on prices and make the industry less attractive (Porter, 2008). Further, the threat of substitutes depends on buyers' propensity to substitute, the switching cost, and the price and performance of the substitutes. The customers' willingness to pay depends largely on the availability of substitutes. The absence of close substitutes and the complexity of a product make the customer insensitive to the price (Grant, 2019).

3.2.3 The power of the supplier

Suppliers can exert bargaining power on firms and capture more value for themselves by raising prices or limiting the quality of purchased goods and services. They have the ability to limit the profitability in an industry by increasing costs (Porter, 1980). In an industry where the supplier is more concentrated, the dependency of the supplier and cost when losing them will increase (Grant, 2019). Further, suppliers' power increases the switching costs to a new supplier especially when the product is differentiated (Porter, 2008). According to Grant (2019) the uniqueness and complexity of a product or service increase the suppliers' bargaining power where less differentiated products increase the buyers' price sensitivity and willingness to switch.

3.2.4 The power of the buyer

The bargaining power of buyers is the ability of customers to put a firm under pressure and to play actors in the industry against each other. Buyers are vital for the survival of any firm and can capture more value by forcing down prices, requiring better quality and service, thus lowering the profitability in an industry (Porter, 2008). The power of buyers depends on several factors such as: *buyer's size and concentration to firm concentration ratio, switching cost, buyer's information availability and if the product is differentiated or standardized* (Porter, 2008; Grant, 2019).

3.2.5 Rivalry among existing competitors

According to Porter (1980), the fifth force is the most important force and the major determinant of profitability and attractiveness of an industry. Rivalry decreases the profitability of the industry but increases customers' value that can receive better quality and lower prices. Competitors seeking new positions through new innovative products and services (Porter, 1980). Factors affecting the rivalry are; *the concentration of competing firms, product differentiation, the diversity of competitors, excess capacity and exit barriers, and cost conditions* (Grant , 2019).

3.3 Generic strategies

Porter (1998) has presented three generic strategies that help to cope with the five competitive forces and strengthen competitive advantage against the competition in the market; these strategies are; cost leadership, differentiation, and focus strategy.

In cost leadership, firms are termed "cost leaders" and seek to derive advantage through low costs while firms that seek advantage through uniqueness are called "differentiators." In the "focus" strategies, firms focus on narrow market segments by emphasizing either low costs or differentiation depending on its orientation (Kim et al., 2004). Phillips (2002) mentioned that cost leadership and differentiation are about how to compete, while focus strategy is about where to compete. Porter (1980) suggests a firm choose between one of the generic strategies, rather than ‶stuck in the middle″ to ensure long-term profitability.

3.3.1 Cost leadership

Cost leadership focuses on gaining a competitive advantage by having the lowest prices in the industry, however, the cost advantage depends on the structure of the industry. Porter (1998) mentions that a company has to be a low-cost leader in its industry, not one of the several low-cost companies competing for this position. Cost leadership provides a competitive advantage in the markets where the customers are price-sensitive and are not searching for premium value, instead, their focus is on finding cheapest products. The cost leadership can be achieved by mass production and distribution, the economics of scale, access to raw materials and technology (Porter, 1998; Kurt & Zhir 2016).

3.3.2 Differentiation

The second generic strategy is the differentiation strategy. When standard goods and services don't meet customer needs, a firm has to find different solutions to customers' specific needs and differentiate itself from its rivals' (Kurt & Zhir 2016). According to Porter (1998) differentiation strategy seeks to create unique products or services that fulfill a customer's need and create superior value for them. However, Porter (1980) emphasizes that the differentiation is sensitive to imitation by competitors because features that were considered unique and valuable for customers before may have been copied to the extent where they have become a commodity, and customers are no longer willing to pay a premium. One way to manage the threat of competitors is by focusing on brand loyalty which can help to reduce customers' price sensitivity (Porter, 1980).

3.3.3 Focus strategy

The third generic strategy is focus strategy and has two variants;" cost focus" and "differentiation focus ". The main difference between focus strategy and the other two strategies is that focus strategy targets narrow target segments in the market. The target segment can be a customer, geographical, or product segment. Firms that use focused strategy serve the limited public, thus receive lower levels of revenue than their competitors (Porter, 1998).

Competitive Advantage

Lower Cost	Differentiation
Cost Leadership	**Differentiation**
Cost Focus	**Differentiation Focus**

Figure 4: Generic strategies, Porter, 1998

3.4 Digital healthcare

The healthcare industry is one of the industries that is undergoing rapid changes driven by digitalization and increased demand (Petersen, 2018). Digital healthcare is defined as the use of digital technologies to collect, share, and analyze information on health and wellbeing, which eventually contributes to improving individual health and enhancing the quality of healthcare. Digital healthcare also refers to delivering health services such as consultations, diagnostics, receipts, and treatment via digital platforms (Rezaei et al., 2021).

Lack of accessibility is stated in several reports as the major challenge for Swedish primary care. This applies to both difficulties in getting in touch with healthcare, meeting healthcare staff, in most cases doctors, for assessment and waiting time to get to a specialist or for further investigation and treatment. However, accessibility is more than just waiting time, and according to Socialstyrelsen's definition, this also includes other aspects such as opening hours and physical distance to healthcare centers, costs for care in the form of personal costs, access to healthcare staff with the right skills and the patient's ability to assimilate information from healthcare (Socialstyrelsen, 2018c). High accessibility is described by many as one of the great benefits of digital healthcare services.

Gabrielsson-Järhult et al. (2019) also showed that high availability was one of the most important factors for users of digital healthcare services. This applied both to accessibility in the form of getting in touch with care providers quickly and easily, but also in the form of the possibility of quick assessment by healthcare staff. Some users also mentioned accessibility, for example during a trip abroad, as an important advantage of digital care services (Johansson et al., 2014).

The American doctor Eric Topol has argued that the power over healthcare will increasingly be shifted to the patient (customer) and that the industry is facing the same transformative effects as affected other services (Topol, 2015). The difference between a patient's role and a customer is that the patient is not looking for the best deal; instead, their role involves active participation, trust with the professional, and even self-care as part of the value co-creation process (Keijser et al., 2016).

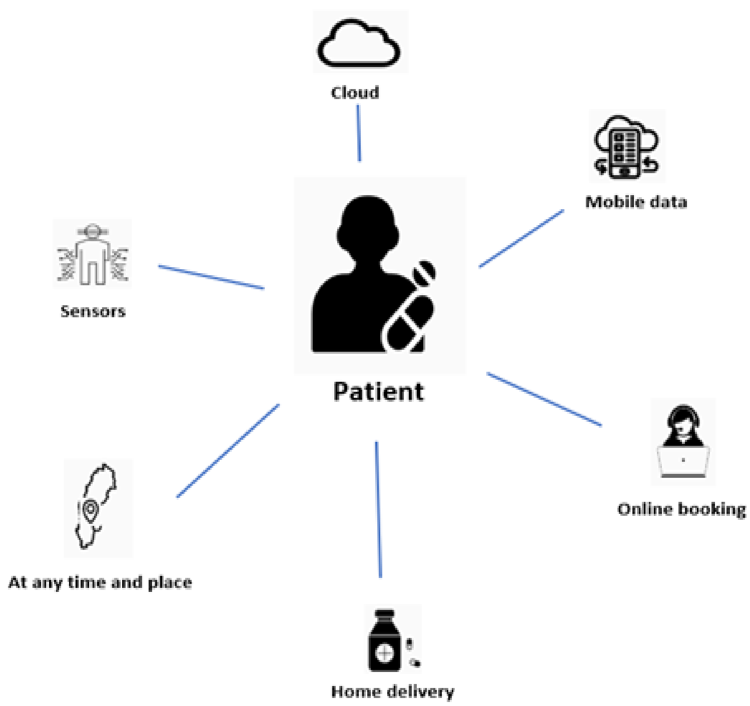

Figure 5: Digital healthcare

3.5 Customer-orientation view

The customer orientation view was introduced in early 1950, this concept has been associated with marketing strategies as the foundation of market orientation. The marketing concept has a crucial role in merging the role of the customer in the planning and execution of market strategies (Jaworski and Kohli, 1990). To be more clear, customer orientation appeared early in marketing literature in the center of market orientation since it directly put the concentration on marketing activities towards satisfying customer needs. By companies focusing on the customers with the mission to create customer value, they generate higher levels of satisfaction, loyalty, innovation, and performance (Frambach et al., 2016). Customer satisfaction is seen as an immediate factor to customer loyalty, and will subsequently lead to increased shareholder value and asset efficiency (Homburg and Giering, 2001). Therefore customer orientation is a key factor for any company's relationship to the market (Deshpandé et al., 1993; Kohli & Jaworski, 1990; Leeflang, 2011).

Customer orientation in digital healthcare is slightly different than in a company that offers products. In the past, the relationship between patient and healthcare staff was thus clearly asymmetrical where healthcare professionals had the power, but in recent decades this relationship has undergone fundamental changes. From being an unequal and medically controlled relationship, the relationship has become more and more democratic and equal where the patient is more involved in their own health care (Gulati et al., 2016). The balance of power is thus less heavy on the doctor's side (Schiavo, 2007). Utbult (2000) means online health reinforces this development towards more demanding patients who are supported by legislation. Moreover, the concept of "patient centering" has been used extensively in recent decades to describe communication between care workers and patients. Today we can see that the patient's customer experience becomes an increasingly important part of healthcare providers' work therefore both the patient centering and the importance of the patient customer experience are thus crucial parts of how the balance of power has shifted from doctor to patient (Gulati et al., 2016).

3.5.1 Service quality and service design

Service design is a crucial factor in developing digital healthcare platforms. Service design is the development of products and services to customize them based on customer needs to enhance service quality. This is done by listening, understanding, and getting to know the customer's needs. A company should pay attention to what they consider important for their company. This can be achieved through observation, research, survey, and /or talking to customers about how they perceive or want a service to be (Stickdorn & Schneider, 2011). The involvement of patients in developing and redesigning digital healthcare processes and services has been growing for the past years. Studies show that improvements in service design lead to better health and increased empowerment for the patients. On the other hand, service design has great benefits for healthcare providers as it leads to better processes and results. In return, it gives positive effects such as lower costs, care at the right level, and trust (Stickdorn & Schneider, 2011).

3.5.2 Trust

Another major factor for customers to come back in a digital healthcare environment, according to Wu et al., (2018), is trust. Customers in digital healthcare build trust mostly from the e-service quality, past experiences, and recommendations from others. Customers therefore also rely on what is called word of mouth (Shi et al., 2016) to get information about the quality of the services. Not least in digital healthcare is trust-inspiring communication and loyalty important because care is something we demand several times during our lives. We continuously build up experiences from our previous contacts with healthcare, and the experience of each new meeting is compared to and influenced by our previous experiences. To create trust and loyalty an organization must put money, time, and resources to be able to generate profit. The downside of this is that trust can be destroyed very quickly (Norberg, 1992).

Within digital healthcare systems, trust is an important component of doctor-patient relationships. It enhances diagnosis and treatment outcomes that lead to patient satisfaction. A high degree of trust from the customers contributes to a greater commitment and therefore also a greater willingness to invest more in the relationship (Peelen & Beltman, 2013). In order to get the customer to use digital healthcare services, some degree of trust must be built through caregivers' enthusiasm and their ability to perform the desired service (Doney & Cannon, 1997). Trust is needed at each step of the relationship-building between the patient and the doctor (Hillen et al., 2011). Calnan et al. (2006) state that a relationship based on trust enhances patient satisfaction and, consequently, improves the results of the treatment (Calnan et al., 2006). Lastly, customer satisfaction and trust are critical factors to achieve customer loyalty in digital healthcare (Pham & Ahammad, 2017).

3.5.3 Customer satisfaction

Satisfaction is defined conceptually as an outcome of purchase and use which is a result from the buyer's comparison of rewards and costs of the product or service in relation to the consequences. Operationally, satisfaction is similar to attitude in that it can be assessed as the sum of the satisfactions with the various attributes of the product or service. Customer satisfaction is defined as a customer's belief of the probability of a service that will lead to a positive feeling and experience (Udo et al., 2010). LaTour and Peat (1979) suggest the primary difference between satisfaction and attitude to provide a clearer definition of satisfaction. This distinction comes from temporal positioning: attitude is positioned as a pre-decision construct and satisfaction is a post-decision construct.

According to Kotler and Keller (2006), customer satisfaction is the result of customer experiences during the usage of the service which affects customer's future behavior such as online repurchase and loyalty (Pereira et al., 2016). According to Pereira et al. (2017), satisfaction is one of the most crucial factors in measuring success in the business-to-consumer (B2C) online environment. A satisfied online customer is likely to come back to the same digital healthcare environment and recommend it to others while on the contrary a dissatisfied online customer would sometimes leave without any complaints (Pereira et al., 2016).

Satisfaction sometimes leads to customer retention can be defined as a customer's willingness to use the service from the same company again, based on previous experiences (Filieri and Lin, 2017). Prior research shows that e-service quality leads to trust which then leads to customer satisfaction and retention (Chang et al., 2013). Customer satisfaction and trust are critical factors to achieve customer loyalty (Pham and Ahammad, 2017).

4. Empirical Findings

This section includes data gathered through interviews with five case companies. These companies are; Min Doktor, Capio, Kry, Doktor24 and Närhälsan Online.

4.1 Min doktor

Respondent 1: Head of Business Analysis

4.1.1 Customer-orientation

According to respondent 1, head of business analytics at Mindoktor, the company uses both qualitative and quantitative data gathering methods to analyze data from customers. When it comes to incremental changes for their app, they gather quantitative data from customers by observing how they behave when using Min Doktor service (App), this data can be gathered through tools like Google Analytics in form of numbers and percentages. Additionally they use a tool called NPS (Net promoter score). With a NPS each customer is asked to answer the question "How likely is it that you would recommend company X to a friend or colleague?" The customers then can choose between a rating scale from 0 (not likely)-10 (very likely).

Furthermore, as a qualitative method they use something called VSM (value stream mapping), which lets the company identify areas that need improvement in the process by having a flowchart of the process. After having an incremental change or improvement so they run a pilot test to see how well the new feature works. To measure customer satisfaction Mindoktor uses a method called "customer acquisition funnel" which is a framework that helps the company to track and monitor the effectiveness of the process of attracting and retaining customers. This process also helps the company to make changes to the process in order to improve the end result.

Min Doktor uses a customer churn rate that measures the number of users that leave Min Doktor in a specific amount of time. This gives them the opportunity to monitor if customer needs are implemented in the product. They also monitor "customer return frequency", which measures the length of time that passes between visits from returning visitors and last but not least they measure "customer lifetime value" is how much money a customer will bring to your brand throughout their entire time as a paying customer.

4.1.2 Market-orientation

According to respondent 1, competitor analysis is needed to be able to acknowledge the unique resources of the company in different time spans because the market changes over time. One of the competitive advantages of Mindoktor is that they have more physical centers than the other competitors and have been around for 2 years although other competitors have had physical centers for 6-8 months now. Mindoktor caregiving on the app is chat- and text-based, so if they then want to collect and analyze data, they have access to the information in the chats. With text-based data, they will be able to use machine learning to do predictive analysis and use it as decision support to improve the product and make it close to customer needs. On the other hand, other competitors have video chat and voice calls. Another competitive advantage for Min Doktor pays the doctors per case. In other words each doctor gets paid for the amount of cases (chats) they take in a month, so it is voluntary if a doctor wants to visit a patient online or not. "We get paid per patient and pay per patient". It will be much easier to scale up the more doctors come in. On the other hand their competitors pay their doctors hourly. Another competitive advantage for Mindoktor is their wide range of vaccines and easy to reach vaccine centers. The doctor visit fee on Mindoktor is 0 like their competitors.

4.1.3 SWOT-analysis

According to respondent 1, the strengths for Min Doktor is that they provide vaccines and possess vaccine centers that are very easy to access for patients and high quality healthcare. Having this strategy of having doctors that operate per mission and not time-based. So they get paid per mission and not per hour which increases the marginal profit, time efficiency, less risks for patients' to infect each other and less geographical limits. However their weakness is that they need to improve their SEO and SEM to be near the customer. In addition, they need to educate people to use digital healthcare in society. Dependent on the internet connection and availability of a smart platform. The opportunities for them is that they are the first with physical healthcare (especially vaccines) so they have this opportunity to expand their physical centers even more. The threat on the market for them would be political issues and other actors on the market as competitors.

4.2 Kry

Respondent 2: Analytics at Kry

4.2.1 Customer-orientation

According to respondent 1, Analytics at Kry, the company uses qualitative and quantitative methods to analyze data collected from the customers. To understand users and their needs, Kry has a research team, where their main responsibility is to interview users, send surveys, and identify new customer segments. Customers can easily leave feedback and complaints to the customer service on their app. Complaints are taken seriously and customers who are dissatisfied are called to understand their problems, so Kry improves what feels less good from the customers' perspective.

The company has 30 analytics, and their role is to identify customer flow and understand customer behavior and their movement in the app to understand their needs.

According to the respondent, Kry focuses on different customer segments and continuously develops services that improve the patient's overall experience. The company allocates resources for pregnant and patients who have chronic diseases such as diabetes, and high blood pressure. Further, Kry builds the app so that it becomes more adapted and appealing to children.

Respondent 1 from Kry states that the company aims to increase customer satisfaction and trust to implement the belief that online healthcare is as convenient and efficient as physical health care. This has been achieved by marketing strategy, increasing trust in their brand, educating the public through showing the benefits of using online healthcare. The respondent mentions also the amount of effort made on social media to increase knowledge among the general public.

In addition, customers can be matched with a specialist doctor who has the right skills to solve their problems. To increase customer satisfaction and create value for customers from different backgrounds, Kry offers doctors who speak different languages, thus minimizing the risks of misunderstandings that may arise between the patients and their doctor, thus increasing the quality of care service. The Kry app is available in English and Swedish in order to attract as many patients as possible. Customers also have the opportunity to choose the doctor themselves, which increases security and satisfaction among customers.
Furthermore, the company is working on increasing the accessibility for people with disabilities such as the deaf and dumb who cannot get help with video calls, but this service has not been launched yet.

Respondent 1 mentions that they try to make the app as simple as possible for everyone regardless of age, gender, and background. One of the challenges is older people who are less good at mobiles and digitization and right now they do not have anything that can make the app easier for them but they are working to get better all the time.

4.2.2 Market-orientation

Respondent 1 from Kry mentions that due to the low switch cost and high customers' bargaining power, there are no barriers that bind the customer in the app. The respondent claims that Kry tries to increase customer satisfaction and take customer feedback seriously, to turn dissatisfied customers into satisfied ones. The company builds products that create a lock in effect, for example by offering prescription renewal, vaccination, and reminding services.

Respondent 1 states that the competition in the Swedish market is high. Kry distinguishes itself by focusing on customer experience. To give the customers the best full service, Kry has opened physical health centers in certain regions, such as Stockholm, Lund, Malmö, and Nyköping. The respondents mentioned that the differentiated services and products can be easily copied by the competitors. The company invests effort into understanding the customers and their need to quickly develop new services and release them in a short time, therefore, compete with the competitors.

According to Respondent 1, the threat of new entrants is high due to low barriers to entry in the digital healthcare industry in Sweden. Kry has the advantage since they were well established and first on the market, they are the fastest at offering innovative services and responding to customer needs. However, Respondent 1 adds that the company is ready to buy or consolidate with new companies that possess new and innovative ideas that other competitors do not have yet.

The respondent emphasizes that the main focus is on building customer satisfaction in order to attract many customers in the market. Currently, Kry has huge numbers of customers, which gives them the opportunity to offer fast service, high availability, and short queue times. He mentions that profitability and the ability to offer short waiting times are based on the number of customers. The low percentage of customers or dissatisfied customers will be costly and expensive for them when many doctors are without patients, therefore threatening their existence. He added that our generation today has high expectations on the quality and accessibility of digital healthcare. People's behavior has changed, they do not want to call, they want to book in the app instead, they require short queues and quick solutions to their problems.

Kry predicts the change in the market by market research, communication with customers. One of the most recent changes in the market was COVID-19, which placed high demands on them when completely new customers' segments started using their app, especially older people. During the pandemic, they developed their digital healthcare services and this challenge showed their ability to quickly adapt to the new changes. Respondent 1 adds that the company has a clear vision about how they will make healthcare better.

4.2.3 SWOT-analysis

According to the respondent, Kry's key strengths compared with other competitors are high accessibility, innovative service, agility, and high quality. They are quick to predict the future and adapt to customer behavior and market trends. However, he also mentions some weaknesses such as myths about online doctors where some patients will always prefer physical doctors. According to him, not all people will find it easy and comfortable to use the app and meet the doctor online. Therefore, they need to get better at educating people about online doctors to prevent myths and get support from the community. Thus the company needs to get better at communicating its purpose and focus on marketing to reach many customers.

The respondent claims that Kry has some opportunities that the company can take the advantage of. They have a strong existence in France, Germany, Sweden, and the UK. They want to grow in the international market in Europe more than Sweden due to the lower intensity of competition there in comparison with Sweden. Further, the company wants to become better at taking care of several symptoms, diseases and helping customers both physically and online.

4.3 Capio

Respondent 3: Chief Digital Officer

4.3.1 Customer-orientation

According to respondent 3, Chief Digital Officer, in Capio, customers can get help digitally both via Capio's mobile app and their health center website where customers can communicate with them. One of the main strategies that they use that differentiate them from other competitors to have an even more customized app according to customer needs is that they have provided some sensors for patients who suffer from chronic diseases such as diabetes and blood pressure. Patients can enter information about their symptoms and health issues all the time and send them to Capio via the app to help Capio make the app more customized for them. This is one of the strategies that make Capio differentiate itself from other competitors on the market. They also make life very easy for patients with chronic diseases because they do not have to do the regular doctor visit (check-up) once a year. They do this by having an algorithm data-based systems for people with chronic diseases that keep track of patients' health (they receive, for example, information about their measurements such as blood pressure or blood sugar and then get reminded to do their daily activities and sends them push notification if they miss an activity they are supposed to do).

Another strategy is to collect data directly from the customers (patients). Capio conducts in-depth interviews with certain customers to be able to figure out their needs. Capio's healthcare staff who have direct contact with patients try to understand and capture their needs in the form of data. Capio also tries to follow trends on the market to stay up to date, because according to respondent 3, in this industry it is about being accessible for the customer and understandable about how customers behave and what their needs are. They also look at competitors and what attracts customers to them. In all physical and digital contacts, they take quality measures such as NPS to gather data about how likely it is that the user recommends Capio to others. According to respondent 3, Capio also has a quality department that performs regular follow-ups where they interview the customers to understand the customers to gain more knowledge about the needs.

They also use analytics systems in the app to interpret customer behavior and gather data about which services customers check more on, incoming customer volume, what type of keywords customers use more to search, how long it takes to process, where in the process customers choose to exit the app. They follow this carefully and this helps to understand customers better and to help them improve their product.

Except NPS and digital channels where customers can leave feedback on what they think about their received treatment and service, another way to follow customer satisfaction is that they look at how many are listing themselves in Capio health center and how many are listing themselves out. So both customer index and listing trends give the indications of how satisfied the customers are. If a customer is dissatisfied, they perform a follow-up by sometimes calling the customer to understand what their issue is, especially when it comes to medical issues.

According to respondent 3, in the beginning when they started the digital channels, the customer could primarily chat and if necessary be supplemented with video and call or physical treatment, but the basis is the chat. For the past six months they have made it possible for customers to choose whether they want to just chat with doctors or go directly and get video contact and this was done because they had observed that customers also want the opportunity to use video. This also helped them to compete with other competitors on the market. Visually impaired people can also get help via phone call but there is no special feature for them.

To sum up they try to have good availability, meet customers in a professional way, and keep high service quality. In the future they also want to work to promote health so that healthy customers also turn to them when they are not sick. They have provided health schools such as schools for sleep problems and rehab for smoking and drugs so that they can attract customers that are not sick but want to prevent themselves from getting sick.

4.3.2 Market-orientation

According to respondent 3 it is the government that sets the price and quality standards for them so Capio has no influence on this and can not have the compete with having the lowest price on the market, while they try to implement differentiation strategy in the market to differentiate themselves from their competitors, which they have been able to succeed in by now and mentioned above.

The competition is special in this market because you do not sell products but you take care of the customers and they try to find the best possible way to be more accessible for patients. They have this patient promise that patients will get help within 15 minutes and this may vary a bit depending on the number of patients waiting in the queue. According to respondent 3, they use other strategies to battle the competition on the market. One of them is that they work “digi fysisk” in comparison with the competitors, so they offer digital services to treat customers who have mild symptoms or problems that need quick help to lessen the pressure on the physical healthcare and increase speed and satisfaction of customers who need quick help.

Capio works a lot and invests a lot in customers and their satisfaction. They exist both physically and digitally and now they have over 100 health centers and they also have special activities like mass vaccination, sampling during a pandemic and chronic disease tracking.Compared to competitors other online doctors, Capio takes care of all customer segments from all ages and diseases. This includes people before they are born, in the middle of life and those who get very old, in a nutshell the whole community. Not like other competitors (local doctors) who can only take care of customers as parents of young children, people who have simple disease symptoms.

According to respondent 3, some services can be copied but they are so well established so it will be difficult for competitors to copy them so easily and win over their customers. If another actor copies them, Capio continues to improve and develop the existing services based on customers' and employees' needs and ideas to not fall behind, this shows that they invest a lot in product development. Capio also believes that they have been on the market for so long that customers know them and have trust with them so it will be difficult for new competitors to copy them and then tackle them out of the market.

4.3.3 SWOT-analysis

Their strengths lies in that they have many employees, physical health centers and not just digital, they can combine digital with physical depending on customers' needs and preferences. They work on their medical quality and that they can take care of every group in the society. However, the weakness according to the respondent from Capio is the company’s size (the disadvantage lies in their large size and there is more coordination needed between different departments) so this can create some lead times, therefore they may not be as fast as smaller companies that have some people working in and offer video online doctors. Additionally the opportunities are mentioned to be to do things differently and offer better services. The threat on the market would be COVID-19 that makes them have to prioritize things and put aside some development work consequently this can delay new things.

4.4 Doktor24

Respondent 4: Product manager

4.4.1 Customer-orientation

According to respondent 4, customers can get help both digitally and physically. Doktor24 has teams that try to build the product according to patients’ needs by conducting interviews with 2-4 customers weekly. When the company wants to test a new feature or functionality, they do it by testing a mock with customers or with drawings and sketches. One example would be the functionality of having access to medical records in the app for each patient. The patients currently can not see their medical records and to test this idea the company did interviews to see if this is appreciated by customers and if it works before launching it. Like other digital healthcare apps, they also use analytics platforms to gather data on how people behave on the app (quantitative data) which helps to see if there is a problem with the service or the app. According to respondent 4, they also run focus group research to test special services and discuss their needs (e.g. for people who have chronic diseases). There is also a marketing team that is always in touch with people to understand the need and problems to develop the service and improve it accordingly.

Customers can also give feedback and send complaints themselves to Doktor24 customer support about anything from technical problems in the app to a service from a doctor or a nurse. The company gathers data that helps them to understand how many customers come in, log in and use the service for real, which helps to understand if there is any technical or other problem and in what step in the process is the problem through the data that helps to interpret the customer behavior in the process. Collected data about the customer also helps to match the patient in the best way and get the right advisor. According to respondent 4, if a patient has an urgent matter then they get priority (faster accessibility) and this is determined by their system where the customer submits data about medicine and answers questions to get the right help or priority depending on the situation, this method is called the "decision tree". To sum up, Doktor24 uses different ways to collect data such as customer support, data about customer behavior on the app, marketing team, focus group, qualitative data through the decision tree, etc.

According to respondent 4 to measure customer satisfaction they also use something like NPS where they ask people to rate the visit on their app with stars from 0 stars to 5 stars. They also collect the data about customer retention, in other words, how many customers reused the app through analytics data gathering tools. According to respondent 4, their system is chat-based but if there is a need for video to talk to the doctor, the customer has the opportunity to do it. They use machine learning in the interactions between the patient and the doctor to help optimize queue times to be able to provide the best customer experience, machine learning helps them calculate exactly how much each customer should wait. Another satisfactory work that they do is that they have good communication with the customer when they visit them, this especially applies to queue times which can be frustrating for some customers who want quick help and to avoid dissatisfied customers.

According to respondent 4 to make the customer come back (loyal) they have implemented some marketing strategies such as having a customer base (patients who have been customers of them) that helps them categorize and contact them through email, newsletters that they can segment by age (e.g. now the vaccination newsletters and tips are sent to a certain group's age). Moreover, they try to focus on service quality. They believe that their service must work as it is expected by customers and that their product and service must be simple and effective and provide a good experience for the customer. Additionally, respondent 4 states that it’s a combination of good service quality, good product plus high-quality doctor visits that makes the customer come back. So they constantly work on all three aspects. They have one of the biggest vaccination actors on the market. They also provide help for slightly urgent things to get customers satisfied (e.g recipe renewal).

4.4.2 Market-orientation

What makes them different from competitors, according to respondent 4 is that Doktor24 has a great connection with a large network compared to other competitors which help the company to refer customers not only digitally but to physical reception and in this way provides good customer experience and complete service. Another thing that sets Doktor24 apart from the competition is that the advisory function is AI-driven. Before talking to a doctor, the patient can answer questions about their condition and be guided by artificial intelligence. It relieves and ensures an equal assessment, according to the company.

According to respondent 4, in healthcare politicians decide, and healthcare is publicly funded therefore it is difficult to compete with prices. They compete to provide the best experience, they help with more things than others because they have physical receptions everywhere even in small towns. He also mentioned that in this industry there is room for many. But in comparison with others, they have a large network and they are good at collaborating with other players (health centers, pharmacies, labs, insurance companies…) in the healthcare market. Through cooperation (partnership) the companies help each other and they support advertising and help to obtain patients and to become known in the market.

They get copied all the time, they try to be the best at availability on the market. For example, they were the first ones taking antibody tests in Sweden, and then other players came in and did the same test. They also have more physical receptions and collaboration with other players from the healthcare industry which gives them the advantage of greater accessibility to customers and availability in small towns.

Their current situation in the industry is that they are mainly digital, but they are also “digi fysisk”, i.e they do not really have health centers but have health clinics that can help customers with certain physical needs, which is effective. They are good to recognize if the patient should seek physical care based on symptoms, for example, they would recommend the patient the closest pharmacy for blood sampling, or if they should call 112, or that they should visit the health center and then they can follow the rest digitally, so the collaboration helps to complement their digital service. The company also has some advantages when it comes to new entrants on the market according to respondent 4, they have a certain strategy that they should keep their eyes open but they should also focus on themselves. According to him, their advantage is that they are established and have a strong position in the market. They also had the right timing in the market which gave them this position that they have in comparison with new players in the market

Doktor24 also has some strategies to predict the market changes as it has a very rapid development pace. Even though they are among the first ones, others can quickly jump in and imitate the same thing. They were the first with an antibody test for COVID-19 but quickly after came other actors in the market. Further, according to respondent 4, many things are happening in this market such as new technologies and COVID-19, which are constantly changing the market.

Their target customers include mostly people who need constant contact with the doctor like patients with chronic diseases and other diseases. They target patients that use digital platforms so it will not be patients who are +90 according to respondent 4. They deliver value by being accessible and being fast by being close to the customer.

4.4.3 SWOT-analysis

According to the respondent from Doktor24, the flexibility in launching new services quickly, and right timing is one of the company's strengths. However, their weakness lies in developing new services and products the best way so that the service fits /works for as many as possible. Respondent 4 also mentions that in Sweden (the market is developing rapidly and there is the infrastructure that has helped such apps to get so far and fast in marketing, for example, that there is BankID in Sweden, but still not in other countries) opportunities are international because most countries are behind Sweden in digitizing. Another opportunity for them is that they have a flexible platform to be able to work in the international environment. From experience and technology, they are ahead of many other international and big names in the market. The threats for them are the regulations that change all the time and politicians that make decisions.

4.5 Närhälsan Online

Respondent 5: Operations manager/development manager

4.5.1 Customer-orientation

When the users enter the app, they get to answer some questions so that the system recognizes through AI what kind of doctor to match the patient with according to their symptoms. They continuously improve and further develop both to ensure the quality of the medical content but also to simplify the booking process for the patient. Further, AI helps to sort customers in the best way, as it can understand that this patient needs to see a doctor, not a nurse or a psychologist, which helps to use the service in a better way and reduce the time for both.

Patients can also meet online doctors from the health center where they are listed. The app can adapt offers and services based on listed patients, for example, it customizes the service for older people where the nurses are also more trained to be able to answer elderly patients. The respondent from Närhälsan Online also mentioned that they have about 600-1000 booked visits in the app which helps to generate more data, and this data is generated through AI.

They look at data collected from customers (rating, or free text where customers can write what they thought after the visit) to understand if the customer is satisfied or not. The patient can also leave a review in the app, they also check if there are recurrent patient visits (e.g. families with children, ...).According to the respondents, Närhälsan Online looks at the feedback and the rating they received after each online doctor visit. They have teams that go through patient reviews (every other month). Närhälsan Online is more patient-based than profit-based. One of their main goals is to inform people, to prevent unnecessary visits and to hold a place for others who are more in need of online care. They work a lot with counselors, choice of doctors or nurses, psychologists, who must be permanent employees and have a high degree of education before they can work there (to provide good quality) ie one who is still a student should not work there, and the same requirements that apply to a physical physician apply to online (standards that they follow).

Further, Närhälsan Online improves their service quality by checking on how professional the reception is ie doctors also in online meetings must have doctors' clothes and nameplates so that they look professional. They also have some quality standards if a doctor will start to work from home to provide online service as they make digital home visits to check that this doctor can have professional service from home (i.e. check that the place is adapted to be able to perform the service from home). They want the doctors to maintain a high level of service and give the best professional impression for the customer to gain satisfaction, therefore they have continuous conversations with their employees about how to use the technology when it comes to digital meetings, body language through digital meetings and this to make customers feel that they are taken seriously. All of the doctors working with Närhälsan work both online and in physical centers.

According to respondent 5 from Närhälsan Online, they are also video-based which is good because some residents can not communicate in Swedish so it will be difficult to make an assessment from the chat. But patients have the opportunity during the video call to chat and write with doctors to send pictures or clarify things. Patients can book appointments with language interpreters or those with hearing impairments, they can also get an interpreter who can help translate during the video call.

There are integrated systems, i.e. that the customer can start online visits and then they should send referrals or send the customer for X-rays or sampling as all these belong to them and in this way both physical and online doctors who belong to them know the patient's medical record and can share information between different online and physical and in this way they complement each other to manage several symptoms and take care of the patient in the best way.

4.5.2 Market-orientation

Närhälsan Online cannot compete with prices like other actors on the market. They instead compete with increasing their accessibility and offer help for people in need. However, they only work with booked times with no drop-ins.

In comparison with other apps where patients need to pay a patient fee plus that the app sends an invoice to regions that are paid from tax money. While patients who are listed in local health and then use their online app they only need to pay a patient fee which is 100 without more costs so more benefit to society as the money can be used more efficiently. The patient fee for them is 100 while for others it may be higher sometimes. There are also opportunities for the patient to meet the same doctor physically and online, which increases customers' security.

They promote research on digitization and digital consultation. They keep track of what is happening in the market and trends and what competitors are doing to improve. In comparison with competitors, they are an integrated system, so a patient who visits them physically can then be followed up online and vice versa as they have access to a common patient journal.

4.5.3 SWOT-analysis

One of the strengths of this company is the opportunity to work "digi physically" with integrated flow. The weakness is mentioned to be the rules that limit their work which put some restrictions for them. The respondents also mention that digitization and developing innovative services are one of the most important opportunities that will help customers with chronic diseases. Further, according to the respondent one threat can be that they need legislation that deals with compensation for private actors (network actors).

5. Analysis & Discussion

The purpose of this thesis is to identify the sources of competitive advantage in the digital healthcare market and to understand the role of integrating customer-orientation in product development views in achieving sustainable competitive advantages in this market. To find this out, large companies in digital healthcare have been investigated in Sweden. This section is an analysis of empirical data based on the theoretical framework together with a discussion that is based on the authors' understanding and findings through this study, which helped construct the conclusion of this work.

5.1 Porter's Five Forces

This section aims to analyze the digital healthcare sector in Sweden using Porter's Five Forces approach to assess sources of competitive advantage. The evaluation of the industry is made through the examination of five forces: the threat of new entry, rival competition, bargaining power of customers, bargaining power of suppliers, and the threat of substitution.

The threat of new entry	Medium to high
Rival competition	High
Bargaining power of customers	High
Bargaining Power of supplier	Low to medium
Threats of substitute	Moderate to high

Table 2: Summary of Porter's Five Forces

5.1.1 The threat of new entry

Recently, the number of digital health consultations has grown dramatically, attracting new entrants to enter the market (Blix & Jeansson, 2018). Other factors that increased the popularity of the digital healthcare market are increased demand, rapid advancement in technology, smartphones, COVID-19, and increased prevalence of chronic diseases, which increase attractiveness of this market, resulting in higher threat of new entrants . According to the case companies, new entrants have become an increasing threat to the established digital healthcare companies, even though there are some limitations regarding regulation, quality standards, knowledge, and high investment in new technology. To start a healthcare company in Sweden, the Health and Social Care Inspectorate (IVO) has to give regulatory approval and the county council where the online and physicians healthcare companies are registered is responsible for setting quality and price standards (Blix & Jeansson, 2018). The respondent from Doktor24 mentions they possess some advantages when it comes to new entrants because they have strong partnerships with laboratories, pharmacies, and health centers for vaccination and blood sampling. According to him, the partnership increased their accessibility and service quality to the customers; further, it helped build credibility, leading to higher customer satisfaction. In addition, case companies point out that they are protected due to the economies of scale involved in acquiring huge amounts of data. They have more stored data and information which yields more value over time and gives them a competitive advantage over new entrants that don't have access to too much data.

Further, case companies have also built up a large base of experience over the years which helped them learn more about the customers and increase service levels. Entering this market requires possessing the knowledge and innovative techniques which require up-to-date and intelligent software development. However, it has been concluded from interviews that the new entrants lack this kind of expertise. It is technically challenging to develop health solutions and high technological standards, which means high entry barriers for new entrants. The threat of new entrants in the digital healthcare industry can be considered medium to high. The differentiation strategy that is based on customers' involvement is the key to keeping the customers and satisfying them when the competition is high.

5.1.2 Rival competition

Most interviewees state that the level of rivalry in the digital healthcare industry is high due to the high numbers of competitors competing for the existing customers. The respondent from Capio explains that the competition is exceptional in the healthcare market because the focus is not on selling products but on taking care of the patients, which requires a high level of service and quality. Moreover, the switching cost to a competitor is very low, and today they do not have lock-in effects which have been mentioned by most of the respondents. However, the respondent from Kry says that although today there is no lock-in effect, instead, they try to customize services to let the customers stay by offering prescription renewal, vaccination, and reminding services.

According to Kry, the international digital healthcare market is more attractive than the Swedish market due to less competition and more opportunities to expand. However, the high competition between different digital healthcare companies can decrease their profitability but at the same time enhance service level, thus increasing customers' satisfaction.

5.1.3 Bargaining power of customers

The bargaining power of customers in the digital healthcare industry is high. Today, customers' expectations are changing, and they have more information and control over their decisions (Porter, 2008). One of the main reasons behind the growing customer bargaining power is the high number of substitutes in the healthcare industry. According to Kim (2004), online technologies increase customers' accessibility to information about products and services. Most case companies have mentioned that today's customers can easily find relevant information about different services and compare them. In 2009, Sweden enacted the law of freedom-of-choice ("LOV"), which gives the patients the right to choose any healthcare center they want (Blix & Jeansson, 2018) which increased customers' power to switch. Due to the low switching cost and bureaucracy in Sweden, customers are empowered and can easily switch to new healthcare apps if they are not satisfied, driving up the competition in this market.

Today the customers are demanding and require more value for their visits, according to all respondents. Based on the interviews, the focus on customers and customer experience is much higher than before because they are the main source for competitive advantage. Bad reviews lead to bad word of mouth that shows customers' power to demolish reputation, decreasing the customers' retention rate, therefore, low profitability received by the companies.

5.1.4 Bargaining Power of supplier

The bargaining power of suppliers in the digital healthcare industry can be considered low to medium. The power of suppliers is when firms cannot find alternative services or products (Porter, 1980). The identified suppliers for these companies are the doctors, pharmacies, technical suppliers who provide services such as servers. In most cases, companies, digital healthcare apps, in negotiations with suppliers, are usually in an advantageous position as there is a wide range of suppliers. Private digitalhelthcare companies such as KRY, Capio, Min Doktor and Doktor24 have more power over the supplier compared to Närhälsan Online, which is developed by regional governments. The respondents from Närhälsan Online, mentioned that the county council decides the supplier they have to collaborate with, which means that the supplier has higher bargaining power. In addition, the number of doctors is limited in Sweden, consequently the bargaining power of doctors is medium to high. As a result, the industry with high supplier bargaining power will limit digital healthcare companies from choosing the best platform and skilled doctors that may affect the service quality.

5.1.5 Threats of substitute

Substitute is a product or service that can satisfy the same needs as a product or service by different means (Porter, 1980). Substitutes for digital healthcare providers are the physical healthcare that serves the same needs for the customers. Physical care can handle all customer segments and all symptoms, however, in Sweden, there are many dissatisfied customers regarding waiting times and accessibility in healthcare services. According to all respondents, digital apps offer more flexibility and accessibility, however, they need to improve their systems to recognize more diseases and symptoms to reach out to a broader range of customers and satisfy their needs. Capio, Närhälsan Online and Kry are "digi fysisk". Doktor24 and Min Doktor do not have healthcare centers but have health clinics that can help customers with certain physical needs, limiting their ability to take care of all diseases and symptoms. According to the respondents from Capio and Närhälsan Online, the companies take care of all people of different ages and diseases, while online doctor apps only can help with easy symptoms. The threat of substitutes is moderate to high, and the high numbers of substitutes increase the propensity of customers to switch to alternatives, therefore companies have to increase customer satisfaction to gain loyal customers with low incitement to switch.

In conclusion, the digital healthcare industry in Sweden is in high growth with medium to high threat of entry, high competition between existing players, low to medium supplier bargaining power, high customer bargaining power, and moderate to high threats of substitutes. Based on the market analysis it has been concluded that the price is of little importance in this industry and the innovation can be easily copied due to the high competition. Further, there is a cultural shift where focus is more on customers plus a higher competition with low entry barriers, therefore the customer and their satisfaction is key to sustain competitive advantage in the digital healthcare market.

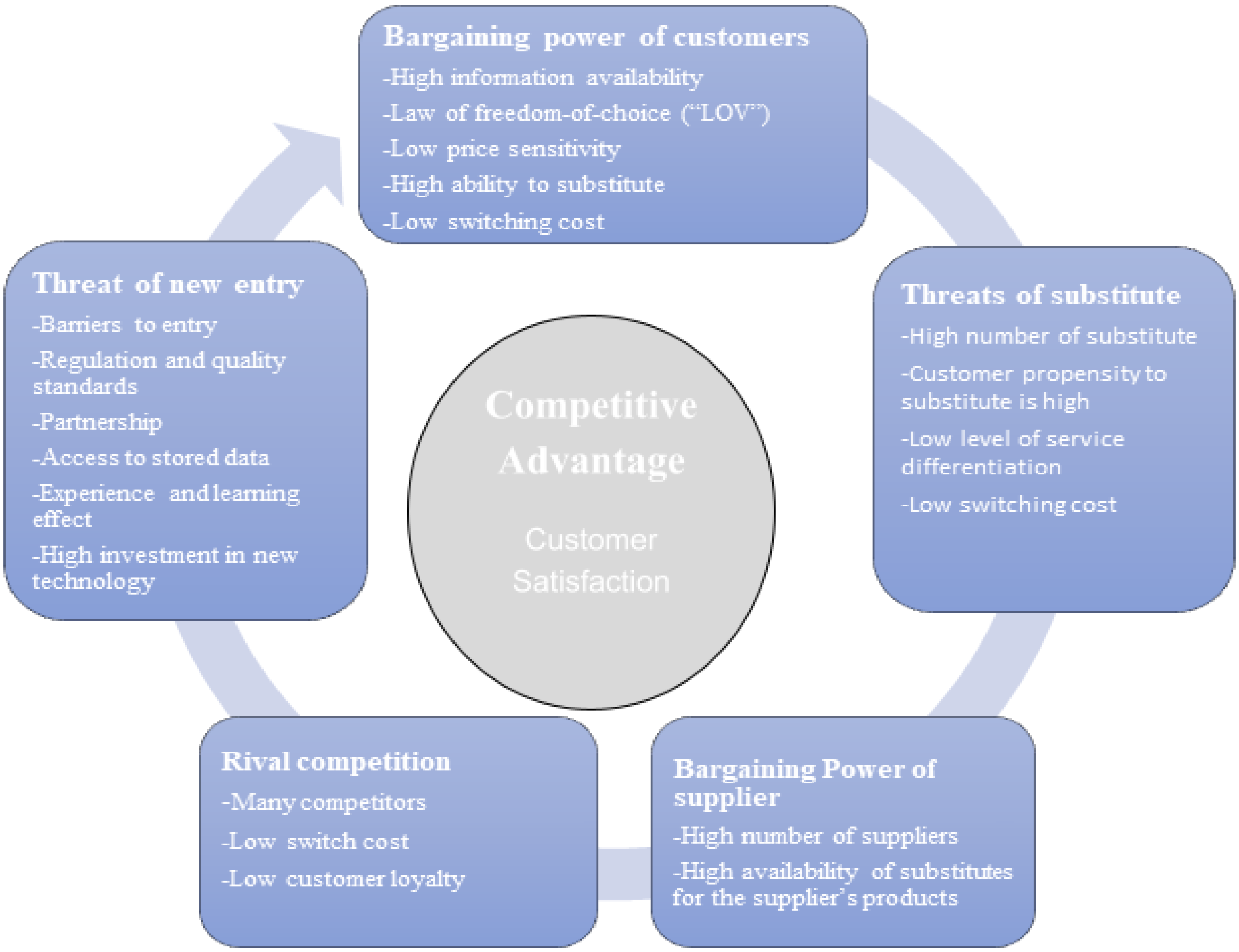

Figure 6: Overview of Porter's Five Forces in digital healthcare market

5.2 The source of competitive advantage

Porter outlines three generic strategies for companies to gain competitive advantage: cost leadership, differentiation, and focus. According to Porter, cost leadership focuses on having the lowest cost in an industry where the customers are price sensitive (Porter, 1985). In Sweden, politicians and the county council set the price and quality standards, which can differ between different regions (Blix & Jeansson, 2018). Customers' price sensitivity in Swedish digital healthcare is not very high, which means that the number of healthcare visits does not change when the price changes (Blix & Jeansson, 2018). Instead, it has been concluded from the interviews that other factors such as high service quality, short waiting times, and high availability are more important for customers in the digital healthcare industry. All the respondents claim that they have no authority to set their own prices to compete with the lowest price on the market; thus, cost leadership can not be used to attract customers. They compete to provide the best experience by using a differentiation strategy that increases customer satisfaction and helps in sustaining competitive advantage in the digital healthcare market.

Most of the case companies differentiate and improve their services by collecting data about customers' behavior in their platform, which helps them learn about customer value. According to Lützenberger et al. (2016), collected data is important for product and service development because it gives the companies valuable knowledge about the customer's usage of products, their expectations, and complaints. In comparison with other digital healthcare apps, Capio and Närhälsan Online have a strong physical presence with over 100 healthcare centers in Sweden, giving them the advantage to collect more data about the customer and enhance disease tracking, diagnosis, and monitoring of patients' health. More collected data about the customers help the companies to differentiate their services and thus increase customer satisfaction by being more customized. Differentiation strategy is crucial because once the customers reach their satisfaction level, it increases their incentive to continuously consume the service and share their experiences with other people, which will attract new customers and increase the amount of data collected by the companies.

However, differentiation strategies are sensitive to imitation; therefore, services that were unique for the customers may have been copied to the extent that they have become a commodity (Porter, 1980). Most of the respondents agree with Porter (1980) on that fact and add that differentiated services based on innovation can be easily copied by competitors and therefore, they need to be quick in predicting customers' needs to gain long-term customer satisfaction and stay competitive on the market. However, respondent three from Capio states that some services can be copied, but they are so well established so it will be difficult to copy all their differentiated services so easily and win over their customers. Additionally, the respondent from Capio mentions that new changes in the market and crisis such as the COVID-19 can force them to prioritize things and put aside some development work that can delay new differentiated services and products.

5.3 Digital healthcare market characteristics

As discussed in section 5.1 and 5.2, customer satisfaction is one of the crucial factors to compete in this market. It is also shown that the competition in this market is high and that the customers have high power over their decisions. The interviews revealed two main characteristics of the digital healthcare industry that show the actors' unique market competition perspectives and improve companies' business offerings which increases customer satisfaction. This industry is characterized by both high "accessibility" and high "customer orientation". Lack of accessibility is stated in several reports as the major challenge for Swedish primary care both on a market level and on a company level. On a market level, it applies to both difficulties in getting in touch with healthcare, meeting healthcare staff, in most cases doctors, for assessment and waiting time to get to a specialist or for further investigation and treatment (Socialstyrelsen, 2018c). Based on the interviews' findings, easy accessibility is considered important by customers and enabled by digital means because lack of accessibility is a problem for physical healthcare, and patients are dissatisfied due to the long waiting times. Therefore one of the main characteristics of the digital healthcare industry is to be accessible.

The participant companies are trying to show that these companies have solved the difficulty in accessibility of the physical health centers. The accessibility problem is one of the important reasons why these apps are on the market and operating. One way for the companies to show their accessibility through their slogans which reflects their marketing message. An example of such a slogan would be Capio: “Slipp sitta i väntrummet” which would be translated to “skip sitting in the waiting room”. This also shows what the company promises to deliver, which can be translated to fast service.

The second characteristic, customer orientation, explains how important customers are, which mainly are patients in this industry. Customer orientation means understanding the customer needs and implementing them in the product development which then leads to customer satisfaction that is the crucial factor to sustain competitive advantage in this market. According to this research’s findings, both accessibility and customer orientation describe two essential elements on a market level that lead to customer satisfaction. These factors have also been found to be important on a company level that will be further discussed below in section 5.4.

5.4. Customer orientation view

Customer-orientation puts the concentration directly on activities towards satisfying customer needs (Frambach et al., 2016). Based on the case interviews, different types of measurements and activities are conducted to implement customer needs in product and service development to gain customer satisfaction. Hence, by companies focusing on the customers with the mission to create customer value, they generate higher satisfaction and loyalty levels (Frambach et al., 2016). Five factors have been found that companies strive to improve and compete with to reach customer satisfaction and sustain competitive advantage. These factors are visibility and accessibility, targeting a specific customer group, minimizing the queue time, service quality, service design, and trust. The factors will be further described in detail and why they are crucial in this industry.

5.4.1 Customer satisfaction

The first factor, visibility, and accessibility are according to Gabrielsson-Järhult et al. (2019) one of the most important factors for users of digital healthcare services because it increases customer satisfaction. On a company level, visibility and accessibility are defined as being visible on the internet and accessible through strong feedback and support systems for customers, based on this study.

The patient journey starts from developing symptoms and then Googling about the symptoms to find digital healthcare services. All the participant companies use tools such as SEO (search engine optimization) and SEM (search engine marketing), which makes them more visible and accessible on the internet. By improving their SEO, the respondent companies try to stay updated with the relevant keywords that customers and patients use when searching for their symptoms, digital healthcare apps, and websites. Some keywords might change according to the trends, i.e., COVID-19 and vaccination, which are trendy now. Therefore, constant keyword improvement work is needed to be among the first search results on the search engines, making the company in close access for the customers in need. The closer the company is to the customer, the more customers they can attract, the more customer makes it possible to gather more data about customer needs and enables the company to develop a more customized product. According to the respondent from Doktor24, they also consider partnerships with other actors on the digital healthcare market. Partnerships help companies to increase their visibility on the market and therefore allows them to attract more customers. As stated by all the respondents, visibility and accessibility go hand in hand here as the only way that patients and customers can have access to them is through the internet; hence they make themselves more visible to be more accessible to the customer.

Accessibility is more than that, and it also includes other aspects such as opening hours (Socialstyrelsen, 2018c). According to this study, opening hours are crucial for saving time and resources. Kry, Min Doktor and Doktor24 are open 24/7, while Capio and Närhälsan are open 7-22. The reasoning behind having shorter open hours, according to Närhälsan and Capio, is that it is not profitable for them to give service after 22:00 o'clock in the evening because there are not so many patient visits in the middle of the night plus that patients that seek help online are often people with mild symptoms. They should put in much more resources and time than necessary, which can be used for other improvements in the company than to be available 24/7.

According to Johnson et al. (2014), another accessibility factor that users mention is, for example, during a trip abroad, as an important advantage of digital care services (Johansson et al., 2014). The respondent from Kry mentions that Swedish people who travel and live abroad also have access to their services without geographical limitation. To sum up, the visibility and accessibility on the internet through technical tools such as SEO and SEM is useful for all companies.

The second factor that would help these companies differentiate themselves on the market and become more competitive, is to target a specific group of customers. According to the interviews, the digital healthcare companies' target is both people who are patients and others who count as customers. All the participant companies ought to include everyone in the society with slightly extra service for some target groups such as children or people with chronic diseases because these target groups are in constant need of being in contact with the healthcare and there is a higher chance that they will have more visits with the app. In comparison with other companies, Capio has a different viewpoint here. According to Capio, besides targeting everyone in the society, they even target healthy people who need help with sleeping, preventing disease, and even rehabilitation. By providing service to healthy people, they expand their target customer reach, making them more accessible and giving them the ability to satisfy a more extensive spectrum of customers' needs.

Another way for companies to differentiate by targeting a particular group would be to make the app as simple as possible to be more adapted for older people. According to Blix and Jeansson (2018), today older people above 65 years old represent a low level of use of digital care apps in relation to their large population share in Sweden (Blix & Jeansson, 2018). Most of the respondents agree on that and express that they are missing this customer segment which has the greatest need for simple and fast care, but at the same time, they are behind digitization. According to Kry, today, they do not have technology that makes the app easier for older people, but they are working on improving that in the future to attract older people. Consequently, by targeting a specific customer group and by giving that target group an extra service, some companies increase customer satisfaction and customer retention rate, which helps them gather more data about customer needs to develop a more customized product according to that news. This in turn, helps them strengthen their competitive advantage.

The third factor that the respondents seemed to be both worried about and both willing to improve to stay more competitive is the queue time for the patients. Queue times are one of the considerable problems with the physical healthcare center that has long queue times, sometimes for months. Case companies try to use machine learning to give the customer the exact waiting time needed for them to visit a doctor on the app. This machine-learning system gets updated all the time to be more precise with the time it tells the patient to wait. The more accurate this prediction is, the more convenient it will be for the customer when they know how much they should wait. However, they use different methods to improve queue times. The respondents from Min Doktor state that they are trying to shorten the queue times by paying the doctors based on the number of visits they do on the app and not hour-based. By this method, they encourage the doctors to take more visits online. By making more doctors take more visits, they make the queue time much shorter, leading to more satisfaction compared to the physical healthcare that has long queue times, sometimes for months.

Moreover, the fourth factor that was pointed out many times during the interviews was both service quality and service design, which are defined as the involvement of patients in developing and redesigning digital healthcare processes and services that have been growing for the past years (Bates and Robert, 2006). According to all the case companies, better service design and quality can be achieved through observation, research, survey, and /or talking to customers about how they perceive or want a service and in return, which gives positive effects such as lower costs, care at the right level, and fewer doctor appointments. Another method to increase service quality according to all the respondents is to match the right skill (nurse or specialist) to the customer. This happens via algorithms and decision trees that improve AI and machine learning systems. Hence, there is competition around improving the matchmaking system, which enhances the service quality and service design.

Further, according to Kry , they enhance service quality by offering services in 30 different languages which increase the trust between the doctor and its patient and reduce misunderstanding that can arise due to the language limitation. However, the quality of the service can easily be affected due to special occasions. The respondent from Capio mentions that new changes in the market and crisis such as the COVID-19 can force them to prioritize things and put aside some development work and this can delay new services and products. The measurement systems and how the companies use them to make changes in the product so that it is closer to what exactly the customers need will be further discussed in the next section.

5.4.2 Measurement systems

To gather and analyze data about customer needs and customer satisfaction from the patients, all five participant companies use a mix of traditional and technical methods. Traditional methods include interviews and phone calls with the customers, and the technical methods include in-app interaction, analytical and algorithmic methods. The traditional approach is a more direct way of collecting data which has a more human approach because the company is in direct contact with the customer, the technical methods include a more technical approach to data gathering through in-app interactions, analytical and algorithmic measurement systems. By using these tools, the companies will improve their product from two aspects: service encounter quality and app quality. This then leads to developing products that are more customized to gain higher customer satisfaction.

According to some respondents, the first traditional method, which is conducting interviews with the customer, is one effective method, as it is pure and direct data collected from the customers. This helps the companies to gather more valuable data about the customer's needs and feedback. Capio stated that they conduct in-depth interviews with the customers to collect more precise data, in contradiction, Närhälsan Online interviewee said that they prefer collecting the data with more technical methods; hence they do not use any traditional method. Based on Kry, they do the interviews by dividing the customers into focus groups. In that case, they would design interview questions according to what they exactly need to collect from each focus group. Another way of collecting direct data is to call the dissatisfied customers that are identified through technical methods or those who contact the support team themselves to make a complaint. After gathering the data through interviews, the company can consider improvements and changes in the app with help of mind mapping and categorizing the data. This data will then be used to improve fundamental problems in the product and service, plus planning for new future features, as interviews help the company understand the needs on the market more precisely. There is a link between five competition factors and measurement systems. Interviews help the company measure primarily customer satisfaction and service quality. More in-depth interviews allow the company to gain more insights about the accessibility and customer groups that are in need of more attention. This helps them decide if they need to target a specific group.

The in-app interaction methods that the interviewed companies use are mainly similar to each other like NPS, which is short for net promoter score and is a way of getting feedback from the customer right after the customer is done by receiving service from the app, which is visiting a doctor online. The patient will also have the chance to write their feedback immediately after receiving the service, such as constructive feedback or complaints. This helps the company to gather more accurate feedback from customers immediately after receiving the service. This feedback will then be used in improving the service quality, including the doctor-patient service encounter. These types of data are very useful in gathering data and improving the service quality which all respondents have mentioned.

Another effective technical method that the case companies have claimed is the analytical method which aims to gather analytics about the users' behavior on the app. This method measures so many KPIs:s such as where the users tap more, how much time they spend on each page, customer churn rate, which measures the number of users leaving the app in a specific amount of time. In comparison with interviews and in-app interaction methods that give the company more insights into the service and future needs on the market, analytical methods provide more technical insights about the app features to the company. The technical insights help the company improve the app's features and make the app more user-friendly. For example, if the company identifies a problem with the login process or that patients seem not to be using the app features the way it is intended, they consider changes in the features and the service design to make it as convenient as possible. The analytical system gives, in addition, more insight about the companies' visibility and accessibility due to analytics about where the user found the app in the first place and then downloaded it. It also allows the company to categorize customer groups and find out which group uses the app more frequently according to i.e. age or disease.

The respondent from Capio states that they also monitor customer return frequency, which measures the length of time that passes between visits from returning visitors; furthermore, they measure customer lifetime value which shows how much money a customer will bring to your brand throughout their entire time as a paying customer. These help the company gain more information about their service quality, which directly affects customer trust and the degree of customer satisfaction about the service. These KPIs enable the company to focus on the quality of how the service is delivered when a patient is visiting the doctor and using the app features. The more and the deeper these tools measure customer behavior, the more accurate data the companies will be able to gather. Consequently, the more customized and high quality their service would be designated, which leads to customer satisfaction that is a source of competitive advantage in this market.

Another way to gather the data technically is through algorithmic methods. Algorithmic methods include AI, machine learning, and tools such as decision trees. According to Min Doktor, their service is more chat-based; therefore they can use AI and machine learning to gather data more efficiently about the service encounter and quality. Analyzing the data from the chats between the doctor and the patient helps Min Doktor find out customer needs and frequently asked questions through chat visits. The companies can then categorize the information with the help of decision trees and improve the system through AI and ML, which are systems that constantly learn. In the background of all these lies an algorithmic system that connects all the information and categorizes them. Another use of algorithmic methods for the company is to make the app smarter in matching the patient to the right specialist. This data is gathered when patients enter information about their symptoms and health issues in the app. Efficient and right matching is related to accessibility, where the app provides the best match for patients, which in turn enhances the service quality. The AI and ML updates constantly and automatically to be more efficient. Further, according to Capio, the company uses sensors for patients who suffer from chronic diseases such as diabetes and blood pressure.

The last factor, which is the main element and the main reason for all these activities and measurements, is gaining customers' trust. Customers in digital healthcare build trust mainly from the service quality and past experiences. Customer satisfaction and trust are critical factors to achieve customer loyalty in digital healthcare (Pham & Ahammad, 2017). In digital healthcare, trust-inspiring communication and loyalty are essential because care is something we demand several times during our lives. We continuously build up experiences from our previous contacts with digital healthcare, and the experience of each new meeting is compared to and influenced by our previous experiences. To create trust and loyalty, an organization must put money, time, and resources into generating profit (Norberg, 1992).

All respondent companies use the measurement systems and methods mentioned above to constantly gather data about customers' experience and improve each service encounter to make the customer come back. As noted by Närhälsan Online, they even educate the doctors to have a more professional behavior while visiting the patients online. The doctors, for example, are obligated to have their work uniforms on, sit properly, and talk politely and professionally to increase the service quality and enhance customer experience. According to the respondent from Kry, there are many myths about online doctors that can increase mistrust among the patients; therefore, some patients will always prefer to visit doctors in person. However, digital healthcare companies try to educate people about this service and its trustworthiness through their websites, social media, marketing strategies and advertisements to ensure that the service they receive is equally effective. All the interviewees stated that they aim to increase customer satisfaction and trust to implement the belief that online healthcare is as convenient and efficient as physical health care. Capio mentioned the amount of effort they have made on social media to increase knowledge among the general public. All of the respondents have implemented other activities, such as sending out customized emails to the customer base that are categorized according to their needs, diseases, and age.

Another factor that possibly can have a negative effect on patient trust and also service quality would be the technical issues that can arise when using these services. As the company has no control of the patients' internet and technical devices, the only solution here would be to ensure that their internet connection and technical system work without any problems. Moreover, as mentioned, trust-building is dependent on service quality. Based on the study, all participated companies try to focus on service quality. These companies believe that their service must work as it is expected by customers and that their product and service must be simple and effective and provide a good experience for the customer. Additionally, Doktor24 states that it's a combination of good service quality, good product plus high-quality doctor visits that makes the customer come back. Hence, they constantly work on all three aspects.

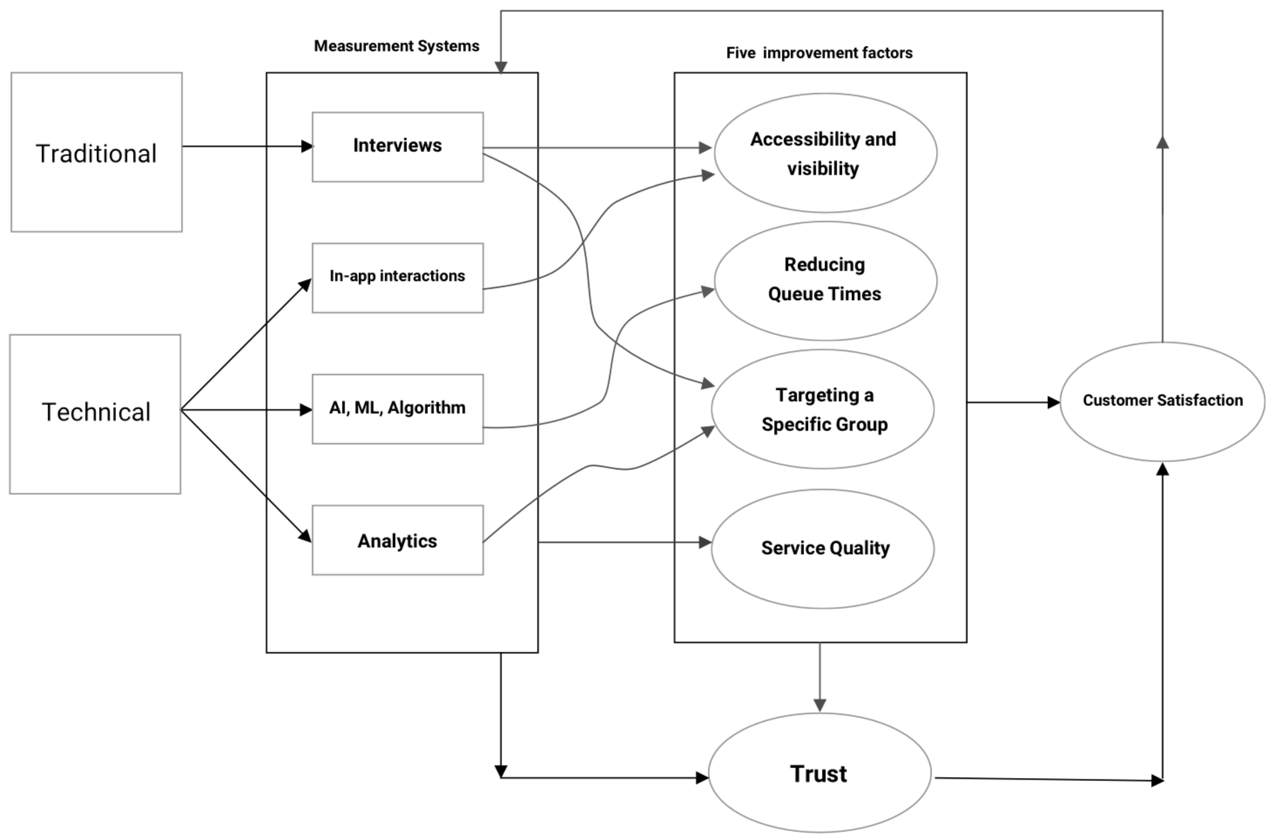

Figure 7: Five factors leading to customer satisfaction and the measurement systems

6. Conclusion

This chapter describes the essential findings identified to fulfill the aim of the thesis. It starts with answering the research questions, followed by the limitation of the study and further studies.

RQ1: What are crucial sources of competitive advantage between digital healthcare companies on the digital healthcare market?

In the digital healthcare market, the competition is high due to market attractiveness and the high number of actors that offer the same services, which empowers the customers to switch to other competitors easily. Based on the study, price and innovation are minor factors of competitive advantage in this market. The competitors can easily imitate new innovative technologies; therefore, innovation can not be used by the case companies to compete and differentiate on the market. Further, it is the politicians and the regions that regulate the price and quality standards in the digital healthcare industry; consequently, the companies are limited to use price differentiation as a factor to compete and attract customers.

Our findings show that customer satisfaction is a key source of competitive advantage because satisfied customers are most likely to increase retention and attract new customers. This will result in a loop where more customers lead to more collected data, which can be used to offer more customized and differentiated products that increase customer satisfaction.

RQ2: How do companies developing digital healthcare applications integrate customer-orientation view into product development to sustain competitive advantage?

There are two different measurement factors found by this study, traditional which includes interviews and technical, which includes in-app interaction, analytical systems, and algorithmic. These measurement systems help the company improve customer satisfaction and gain insights from the customers about both the service encounter quality during doctor-patient visits and app features. To gather data about the service encounter quality, the traditional measurement systems and in app-interactions are most useful. They give insights about the customer needs and feedback. More technical systems such as algorithmic and analytics systems enable the company to gather accurate data about the app features and the app design.

Additionally, five factors have been identified with this study that are crucial for customer satisfaction in the digital healthcare market, such as being more visible and accessible, targeting a specific group of customers, reducing queue times, service quality and service design, and last but not least trust. Case companies compete around these factors and strive to gather data from the customers through measurement systems to improve these five factors that lead to customer satisfaction. Based on the study, there is a link between improving each of the five competition factors with measurement systems.

The first factor, visibility, and accessibility are measured and analyzed through interviews to collect direct feedback from the customers and from analytical systems. These measurement systems show them the result from their search and advertisement engines improvement which show them the number of times customers clicked on their websites and advertisement. The second factor, targeting a specific group of customers, is measured through an analytical system that helps the company first categorize customers based on age and diseases and then gives them precise statistics about their most loyal target audience and the target audience that require more constant care. In-depth interviews are also used that enables the companies to decide which customer group needs more care and attention.

The third factor, reducing queue times, is measured by technical systems such as AI, ML, and algorithmic systems that measure the queue time. AI and machine learning systems learn all the time and improve automatically; this helps the system to give a more exact queue time estimation. The fourth factor, service quality, and design are measured through a mixture of all these methods. It can be measured and enhanced by conducting interviews with customers, looking at the result of the in-app interaction, categorizing customer feedback, and also analytical systems that generate statistics about the customer behavior on the app. Service quality and design can be defined here as the quality of both service encounters between doctor and patient and app features. Therefore, it can be argued that all the measurement systems are needed to measure quality factors. The last factor, trust, is the main and important reason that the case companies strive to achieve by using all the measurement methods and implementing them in product development. Trust is measured mainly through analytics systems such as customer retention rate and customer churn rate that indicates customer loyalty, and also through traditional methods such as interviews that give the company direct data. Therefore, trust is something the companies need to gain and constantly build through all the activities to increase customer satisfaction.

In conclusion, both traditional and technical methods are needed in digital healthcare companies to be able to gather the data needed to both improve the service and the app design. These measurement systems are complementary to each other so that the improvement work can not be complete and satisfactory if one method is missing.

6.1 Limitations

There are several factors that limited the research of this thesis. Firstly, the authors tried to contact a lot of companies and their employees, but five of them participated in the interviews due to data sensitivity and time limitations because of their workload during the COVID-19 pandemic. To gather adequate data that enabled more accurate analysis five qualification criterias were chosen when searching and contacting companies in Sweden such as industry, geographical location, size, number of visits, well-establishment, and availability. Among several digital healthcare companies in Sweden, a few of them fulfilled the qualification standards. Some of these companies were eliminated from the study because they were either small, unpopular or for other purposes such as mental health or veterinary. These two factors made the authors limited in contacting companies and conducting more than five interviews.

6.2 Further Research

As in previous research, there is a lack of the role of customer orientation in product development to sustain competitive advantage, in other words, how digital healthcare companies implement customers' needs in their product and service development to appear strong on the market, we have only examined this topic in our study. As our research has had an internal perspective, it would be interesting to do a complementary study that examines the communication between doctor and patient in digital care from a user perspective. This is to be able to compare how users view the digital health centers' quality work and thus provide a broader picture of the phenomenon. It would also be interesting to conduct a comparative study with both physical health centers and digital healthcare to identify similarities and differences in the work with brand-building and relationship-building that leads to customer trust and loyalty. Furthermore, it would be valuable in the future to investigate how COVID-19 has affected the work of digital healthcare apps, in other words examining a comparison between pre-COVID-19, during the COVID-19, and post COVID-19 times.

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Appendix

	Interview Questions
1	How do you integrate customer orientation in product development?
2	How do you gather data about customer needs? KPI:s, surveys?
3	How do you measure customer satisfaction?
4	How do you work on customer satisfaction which will lead to customer loyalty? Or how do you work to make the customer come back? ● What is the company’s strategy to build trust with customers to implement the belief that online healthcare is as convenient and efficient as physical healthcare?
5	How do you analyze the data you gather and apply the result in product development?
6	What is the source of competitive advantage at Company Y and how has the company can sustain that?
7	Porter mentioned three different generic strategies; ● Cost Leadership Strategy (The focus is on cutting costs) ● Differentiation Strategy (The focus is on differentiation the company’s products/services by offering something unique that create value for the customers) ● Focus Strategy (The focus is on a specific segment in the market and satisfies that segment. -Which strategy of these strategies company Y uses and why? Do you think that this is a successful strategy?

8	How does the company deal with the competition? ● What are the main factors affecting competition in the digital Healthcare market? ● What are the main struggles in competing in this industry?
9	What will Company Y do if their service is copied by other competitors?
10	How does Company Y deal with substitution in the current industry?
11	How does the company deal with the threat of new entries?
12	How does Company Y predict the change in the market?
13	Have the demands of the company's business and services changed?
14	Who are the company's target customers ?
15	How Company Y delivers value to its users and customers?
16	How Company Y delivers value to its users and customers?
17	How Company Y delivers value to its users and customers?
18	What are the company's key success factors?
19	What are the strengths, weaknesses, opportunities and threats of Company Y?

20	Do you have anything to add?

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