

Entry Strategy for a Finnish IT Start-up Entering the German Hospital Market

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ABSTRACT

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The world economy has become one global marketplace and more and more companies decide to expand their operations internationally, including the commissioner of this thesis. In order to comply with confidentiality obligations, the commissioner was called Company X and confidential material has been removed from the public report.

Company X is a Finnish IT start-up that provides a customizable mobile device service. Since the commissioner plans to enter the healthcare market in Germany, the objective of this thesis was to determine how the start-up could enter this new market successfully. To make the results as targeted as possible, the study concentrated on the hospital market. Data was collected from books, articles, reports, and digital sources, which were enriched by personal interviews with medical professionals and experts in the German hospital sector.

Results of the research showed that the hospital sector is a large and complex part of the German healthcare system, that it is influenced by health insurance companies and the state, and that prevailing trends are the lack of qualified personnel, cost and efficiency pressure, and digitalization. In international comparisons, the German hospitals are still falling behind, especially the small, regional hospitals. The installation of new IT solutions is usually triggered by new legislations or the IT department and the final decision lays with the business management which is responsible for the hospital finances. For end-users such as nurses and doctors, it is crucial that new systems, devices, or applications support the clinical processes. Many companies are already providing hospitals in Germany with systems, software, digital devices, and applications that can be integrated into the existing infrastructure to improve processes. Distributors are not yet widely specialized in combinations of mobile devices and software, but many young IT companies are open to partnerships that could add value to their product portfolio.

The findings indicated that the commissioner should attend different events in Germany to meet potential customers, distributors, and partners. The service should first be introduced in pilot projects in small hospitals, and thereby it could be beneficial to partner with a company that already has a trusted reputation in the market. The main contact persons in German hospitals at an initial stage are the potential end-users of the solution, such as nurses.

Key words: market entry, hospital market, germany

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ABBREVIATIONS AND TERMS

CEO	Chief Executive Officer
CIO	Chief Information Officer
COVID-19	Corona Virus Disease 2019
DVG	Digitale-Versorgungs-Gesetz (Act to Improve Healthcare Provision through Digitalization and Innovation)
eGK	Elektronische Gesundheitskarte (electronic health card)
EMRAM	Electronic Medical Adoption Model
EPR	Electronic Patient Record
GDP	Gross Domestic Product
HIS	Hospital Information System
ICT	Information and Communications Technology
IT	Information Technology
TI	Telematics Infrastructure

1 INTRODUCTION

1.1 Research background

The world economy has shifted away from domestic markets towards one global marketplace where not only goods, resources, and services but also culture, ideas, and beliefs are being exchanged. The international marketplace enables businesses to reach new customers more rapidly and efficiently and offers seemingly endless opportunities for business growth. It is therefore not surprising that more and more companies are deciding to go global with their activities, although not all companies are following the same objectives. The most common reasons for companies to internationalize are access to new markets, access to local talents, business expansion and growth, gaining competitive advantages, and establishing regional centers. (Sinead 2019.)

The thesis commissioner Company X is a Finnish startup that provides customizable mobile device services that can be used by different user groups, such as doctors, nurses, and patients. These services are already used in more than 400 organizations around the world. As a next step in its internationalization process, the company aims to enter the German healthcare market. By increasing its international involvement, Company X pursues the objective of building a new customer base in Germany, improving business growth, and staying ahead of the competition.

Having a thorough understanding of the target market is key for successful market entry and since the German healthcare market is particularly large and complex, an in-depth research is inevitable to gain this understanding. Also, it will be necessary to focus on one part of the market at a time and proceed with the penetration step by step.

1.2 Research objective and research questions

The objective of this thesis is to provide the commissioning company with an in-depth understanding of the factors shaping the German healthcare market in order to assess what kind of efforts will have to be undertaken to successfully expand its operations to the new target market. The intended outcome is to deliver a starting point from where Company X can take the first step in entering the German healthcare market.

To make the results as targeted as possible, the thesis will concentrate on the hospital market and provide a general overview of the healthcare system in Germany and its current situation. Yet, the results will also provide an outlook on other aspects of the German healthcare market for future research.

By analyzing the target country, the commissioner will gain a comprehensive overview of the current environment and trends in Germany and understand how the external factors could impact the business. An investigation of the German healthcare system and the hospital market, supported by expert interviews, will serve the purpose of understanding the legal bases, internal processes, and challenges of potential customers. This includes that the degree of digitization in German hospitals will be analyzed and the decision-makers in the hospitals will be identified. Thus, the outcomes will help the commissioning company prepare to meet the requirements and expectations in the German hospital market. A competitive analysis will reveal the strengths and weaknesses of the existing competitors and thereby indicate where the commissioning company itself stands and how it can differentiate from the competition. Further, potential distributors and partners will be identified and analyzed. The results will enable the commissioner to set up a concrete market entry strategy and take the first steps in introducing their service to the new customers.

The ultimate stage in the thesis process will be the development of a comprehensive market entry approach that can be applied to other markets and countries if the commissioner decides to internationalize further in the future.

Based on the desired outcome of this study, the main research question is:

- How can a Finnish IT start-up successfully enter the German hospital market?

The following sub-questions have been formulated to support the main question:

- What are the characteristics of the German hospital market?
- Who are the potential customers and what are their needs and expectations?
- Who are the competitors and what are their strengths and weaknesses?
- How to introduce the service to the new target market?

1.3 Research methodology

1.3.1 Data collection

The success of market research underlies the collection of relevant and high-quality data which can only be achieved using effective data collection methods. Data can be collected from both primary and secondary research sources. Primary data is original data that is collected first-hand by the researcher, for example in interviews or questionnaires, while secondary data derive from already published information such as books, articles, statistics, or web pages.

Research can be further divided into qualitative and quantitative research. The qualitative research approach focuses on understanding ideas, motivations and opinions, and qualitative data is mainly collected in interviews, focus groups, and observations. Quantitative data, on the other hand, can be collected by surveys, questionnaires, or observations that produce numerical data that can be used to test hypotheses and formulate facts. (Blythe 2012, 100-104.)

This study started with the collection of secondary data from books, articles, and internet sources in order to obtain solid background information about the external factors and trends that are influencing the German country, its healthcare system, hospital landscape, customers, and competition. This information was then used to design primary research to receive more specific results. The primary research was conducted in personal expert interviews with German medical staff and industry experts. These interviews aimed to gain insights into the daily routines and challenges of medical and managerial staff. Thereby it was possible to get a deeper understanding of the market dynamics, needs and wants of the hospitals, and the decision-making processes regarding IT (information technology) investments in German hospitals.

1.3.2 Data analysis

The qualitative data were analyzed by comparing findings from secondary sources with the information obtained in the expert interviews. Further, a SWOT analysis, Porter's Five Forces, the Marketing Mix, and the Foreign Distributor Evaluation System were used to analyze and summarize all the data collected during the research process to demonstrate the complex interaction of different factors and key players in the German healthcare market.

2 THEORETICAL FRAMEWORK

2.1 Marketing Mix

The marketing mix is a strategic toolbox that helps companies create the right marketing strategy that will guide every business decision. The marketing mix includes the product or service itself, its price, promotion, and the place where the product or service is sold. The product can be both tangible and intangible and is usually characterized by its functions, physical features such as design and packaging, and related services. The price is the value that customers need to exchange to receive the product and determines the profits that a company will get. Place refers to where customers look for the product and how the company distributes the products or services. Promotion includes all activities that are meant to communicate with customers and inform them about the products or services. (Solomon, Marshall & Stuart 2006, 28-30).

If a company plans to expand internationally, it must be decided to what extent the marketing mix has to be adapted to the local settings in the new countries. A distinction is made between standardization and localization strategy. Choosing a standardization strategy means entering a new market with the same marketing mix as used in the home market. On the other hand, implementing a localization strategy means adapting the product, price, promotion, and distribution to the new market. While some marketers argue that due to advances in globalization, the needs and wants of customers from different countries have become similar, others hold to the idea that each culture is unique, and therefore, companies should tailor their strategies to local environments. Regarding the product, companies have the choice between selling the same product in the new market, modifying it, or creating an entirely new product. Similarly, it has to be evaluated whether the same promotional message will appeal to customers in different countries or whether the product promotions need to be customized. A far more difficult decision is pricing, particularly for international markets. Customers in different countries may have different price perceptions, and at the same time, offering products to international customer groups involves higher costs for the company. When selling to foreign countries, companies need to take into account

that extra costs such as transportation costs, tariffs, and currency exchange rates will occur. Moreover, if the products will be sold via distributors or sales partners, they will take their shares from the profits. Establishing a reliable and effective distribution network is particularly important if the company itself does not plan to open subsidiaries in the new market. (Solomon et al. 2006, 94-96.)

In addition to the so-called 4 P's of the marketing mix, Lauterborn (1990, 26) suggests that companies should not solely focus on the product, but rather on the wants and needs of the consumers, the cost to satisfy, the convenience to buy and the communication. Instead of simply producing as much as possible, companies should study the wants and needs of their customers and ensure that they only sell products that are wanted. Further, Lauterborn wants companies to consider that the price is only a minor part of the overall cost that customers are paying to acquire the product. For example, the cost to satisfy can include the time spent to get the product, the conscience during its consumption, or its implementation. Thanks to advanced technologies, customers are no longer bound to purchase a product from specific locations, but they are able to freely choose the most convenient place to buy. Therefore, companies have to think beyond traditional distribution channels and focus on creating an excellent buying experience. Traditionally, promotion has been used as a one-way tool to push products out to customers. Communication on the other hand creates a dialog between companies and their customers based on their wants and needs. Thus, it focuses on the entire buying experience and enables companies to build meaningful customer relationships. (Lauterborn 1990, 26.)

2.2 Foreign Distributor Evaluation System

Since small and medium-sized companies often lack the necessary resources to export directly to new target markets, it is an attractive option to sell the products or services through foreign distributors. Market-based distributors can have important knowledge and contacts and represent a low-cost way of market entry. Yet, exporters find it challenging to find appropriate distributors that act in the best interest on behalf of the company.

Cavusgil, Yeoh, and Mitri (1995, 300) developed an expert system of 35 evaluation criteria that can help to compare and assess potential foreign distributors. The evaluation criteria are divided into five major dimensions: Financial and company strengths, product factors, marketing skills, commitment, and facilitating factors (Figure 1).



FIGURE 1. Criteria for evaluating foreign distributors (Cavusgil et al. 1995, 300, modified).

The financial and company strengths dimension aims to analyze the product and market expertise of the distributors, their past and present customer relationships, and financial standing. Product factors determine whether the distributors are dealing with similar product lines, have the right technical knowledge, and are trustworthy to respect intellectual property. The marketing skills dimension includes the market coverage and established networks, appropriate marketing competence to promote the product, and the ability of the distributors to reach the target customers. Commitment covers the willingness of the distributors to assume responsibilities such as investing in advertising and sales training or dropping competing product lines. Finally, the exporter should evaluate the previous work experience of the distributors with other export companies, their knowledge of the local business procedures and regulations, connections with influential people, and their personal goals. (Cavusgil et al. 1995, 301-302.)

3 GERMANY AS A TARGET MARKET

3.1 PESTLE analysis

PESTLE stands for Political, Economic, Social, Technological, Legal, and Ecological and is a tool for analyzing the macro-environmental factors of a specific target market of a business. The results of a PESTLE analysis provide a business with a deep understanding of the market and is especially useful when starting a new business or entering a foreign market. (PESTLE Analysis n.d.)

3.1.1 Political

Germany is a federal, parliamentary democratic republic governed under the German constitution ("Grundgesetz"). The political powers are divided into executive, legislative, and judiciary branches, whereby the judiciary is fully independent and the most powerful branch. The head of the state is the Federal President while the Chancellor functions as the head of the government. Every four years, the German citizens elect a new parliament ("Bundestag"). The country itself is divided into 16 federal states ("Bundesländer"), each of which has its local government and state leader in order to protect the local identities and strengthen the democracy. (Luyken 2017.)

3.1.2 Economic

"With a GDP of \$3.86 trillion, Germany is the fourth-largest economy in the world and the largest economy in Europe" (Bajpai 2020). The country benefits from excellent infrastructure, a highly skilled labor force, and a relatively low unemployment rate of 3,1%. The highest turnover remains to be generated by the automotive industry, which is also the largest sector of the German economy, followed by healthcare and construction. (Make it in Germany n.d.) Germany is the second-largest export economy in the world and its biggest export groups are

machinery, vehicles, pharmaceuticals, and optical, technical, and medical equipment (Workman 2020). In 2019, 29 German companies were listed in the Global 500 by the Fortune magazine (2019), with Volkswagen in the top ten and Daimler in the top twenty. Given the current situation caused by the epidemic outbreak, the German Council of Economic Experts (2020) anticipates that at best, the GDP will decline by 2.8% during 2020, at worst by 5.4%. Despite this downturn, the experts also estimate that in 2021 the German economy will grow again by 4.9%.

3.1.3 Socio-cultural

With more than 82 million inhabitants, Germany has the highest population in the European Union. Around 20 million inhabitants come from migratory backgrounds, making Germany home to a wide range of different cultures, languages, and religions. (Make it in Germany n.d.)

Population aging has been a serious issue in Germany over the past years and according to the Federal Statistical Office (Statistisches Bundesamt 2019), the percentage of people aged 67 or over already surpassed the percentage of people under the age of 20 in the year 2010. The number of people aged 67 or over will reach at least 21 million people by 2039 and thereby this age group will make up 25% of the German population.

Germany's official language is German, but with a countless number of dialects, the pronunciation and vocabulary vary markedly from region to region. Germans are generally known for their direct and functional communication style. Especially in business meetings, Germans do not spend a lot of time on small talk but get down to business quickly. (Evason 2015.)

3.1.4 Technical

Traditionally, Germany is a country of technology and innovation, and well known for its inventions and discoveries. The most remarkable inventions include the car, the computer, the jet engine, and x-ray technology (Goethe-Institut n.d.). In

its latest Global Competitiveness Report, the World Economic Forum (2019) ranked Germany as the third most innovative economy in Europe. Nonetheless, according to the report, the biggest shortcoming of the country is the low level of ICT technology adoption. The IMD World Competitiveness Center (2019) comes to similar results and ranks Germany 17th in the Digital Competitiveness Ranking 2019. This low rank indicates that Germany is leaving great potential untapped and has to catch up in ICT technology and digitization. More details are provided in the Germany Index of Digitization 2019 by Opiela, Tiemann, Gumz, Goldacker, Thapa, and Weber (2019): On the one hand, the results of the study show that there has been positive overall progress in the digital infrastructure over the past years. However, the country is still far from achieving the desired overall coverage with fast broadband connections, not to mention fiber-optic connections. Further, it can be observed that levels of digitization vary greatly from region to region. Berlin is clearly the forerunner, just before the other city-states Hamburg and Bremen. They are followed by Saxony, North Rhine-Westphalia, Hesse, Baden-Württemberg, and Bavaria, which are all economically strong and populous states. (Opiela et al. 2019, 36-40.)

3.1.5 Legal

The German law is founded based on the constitution and is generally divided into private and public law. At the core of the German legal system stands the civil law, which contains regulations for everyday civil life, for example for purchase and sale, marriage and divorce, or guardianship. The private law regulates the relations between private legal entities, while the public law regulates the relations between private persons and the state. (Plötzsch 2009.) The Federal Constitutional Court (“Bundesverfassungsgericht”) is the highest authority in the German legal system and monitors compliance with the constitution. Its decisions are unappealable, and all other state bodies are bound by its jurisdiction. (Bundesverfassungsgericht 2020.) The federal government has 14 ministries, among them the Federal Ministry of Health (“Bundesministerium für Gesundheit”). The main focus of the Ministry of Health is health protection, disease control, and biomedicine. Thereby, the work focuses on the preparation of draft laws, ordinances, and administrative regulations. (Bundesministerium für Gesundheit 2014.)

3.1.6 Environmental

Climate change is an international challenge, and Germany is doing its best to contribute to the achievement of the climate protection goals of the United Nations. The German government has enacted an energy reform to protect the climate and promote renewable energies. Core elements of this reform are wind power and electro-mobility, and in the short-term the government aims to shut down all nuclear power plants by 2022 and coal-fired power plants by 2038. The main objective is to reduce greenhouse emissions by 70% by 2040 compared to levels from 1990. (Facts about Germany n.d.)

3.2 Healthcare system in Germany

The German healthcare system was established in 1880 and is one of the oldest healthcare systems in the world. It is based on the principle of solidarity, meaning that all people who are insured receive the same medical care regardless of their age, risk of disease, or financial situation. All citizens and permanent residents in Germany are obligated to have health insurance, which is provided by both statutory and private health insurance organizations. (Germany HIS n.d.) At the end of 2018 more than 73 million people were insured by statutory insurance. Over 56 million members thereof were paying contributions, while 16 million people were co-insured through their family members. (vdek 2020.)

Distribution between statutory and private health insurance companies

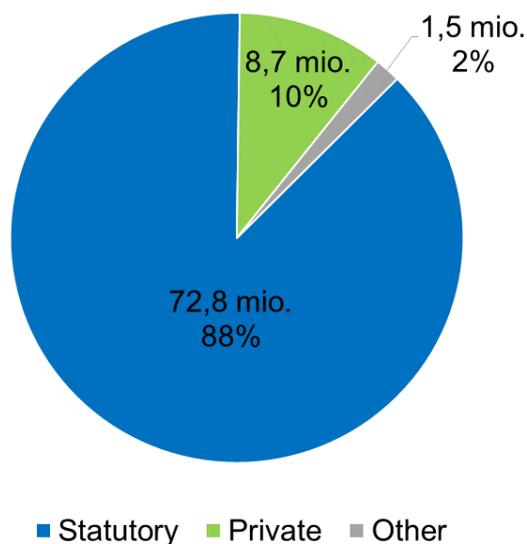


FIGURE 2. Distribution of insured persons between statutory and private health insurance companies in Germany

Traditionally, the German healthcare system is divided into outpatient care, inpatient care (hospital sector), and rehabilitation facilities. Outpatient care is mainly provided by self-employed health care professionals in their private practices. The hospital sector is segmented in public, private, and non-profit hospitals that provide high-quality medical care to all insured patients throughout the country. At the moment, Germany is counting more than 1,900 hospitals, the majority thereof private hospitals (720), followed by non-profit hospitals (662). Altogether they are equipped with around 500,000 beds and treat over 19 million patients annually. Despite the fact that public hospitals account for the smallest number of hospitals in Germany, they provide nearly half of all the beds available. There are around 40 university hospitals in Germany, both state-owned and privatized. (IQWiG n.d.; Deutsche Krankenhausgesellschaft 2018, n.d.)

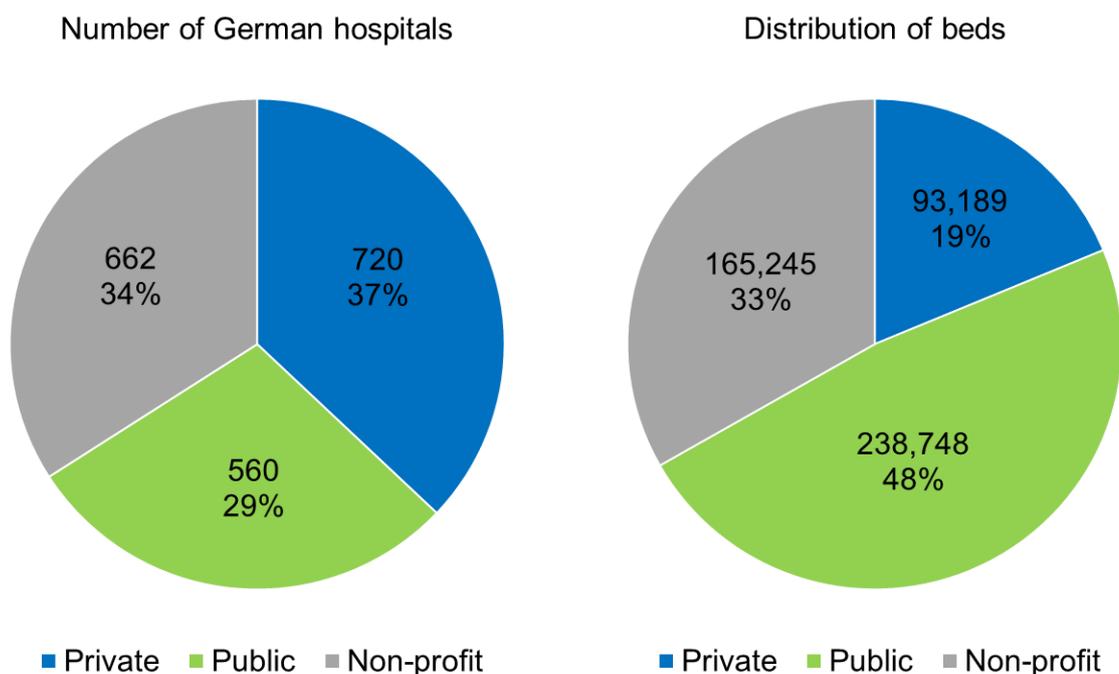


FIGURE 3. Number of hospitals and distribution of beds among them

A total of 5.7 million people, i.e. over 10% of the German workforce, are working in the health sector. 1.2 million thereof are employed in hospitals, including around 185,000 doctors and 400,000 nurses. (Deutsche Krankenhausgesellschaft n.d.) Despite this seemingly large number, German hospitals are confronted with a high lack of qualified staff. Nationwide there are 17,000 unfilled vacancies; four out of five hospitals cannot fill vacancies for nursing staff, and 76% of the nearly 2,000 hospitals struggle to find physicians for open positions (Blum, Löffert, Offermanns & Steffen 2019). Statistics of the Federal Labour Office (Bundesagentur für Arbeit 2019, 8) show that in response to the shortage of nurses, more and more foreign nurses are being recruited. In 2018, 40,000 foreign nurses were employed in German hospitals, making up 7% of the total nursing staff.

The public hospitals are financed by both the Federal States and the statutory health insurance companies. While the insurance companies are covering treatment costs, the Federal States are investing in the hospital infrastructure and procurement of medical equipment. Accordingly, the Federal States decide where a hospital is to be built, extended, or closed. (Ortenau Klinikum 2018.)

Private hospitals on the other hand do not receive any investment grants or financial support from the Federal States nor the statutory insurances. The financing of private hospitals is based on treatment contracts with patients, which means that the patients are obligated to reimburse the hospitals themselves. Subsequently the patients are later reimbursed by their private health insurance companies. (Bundesverband Deutscher Privatkliniken e.V. 2017.)

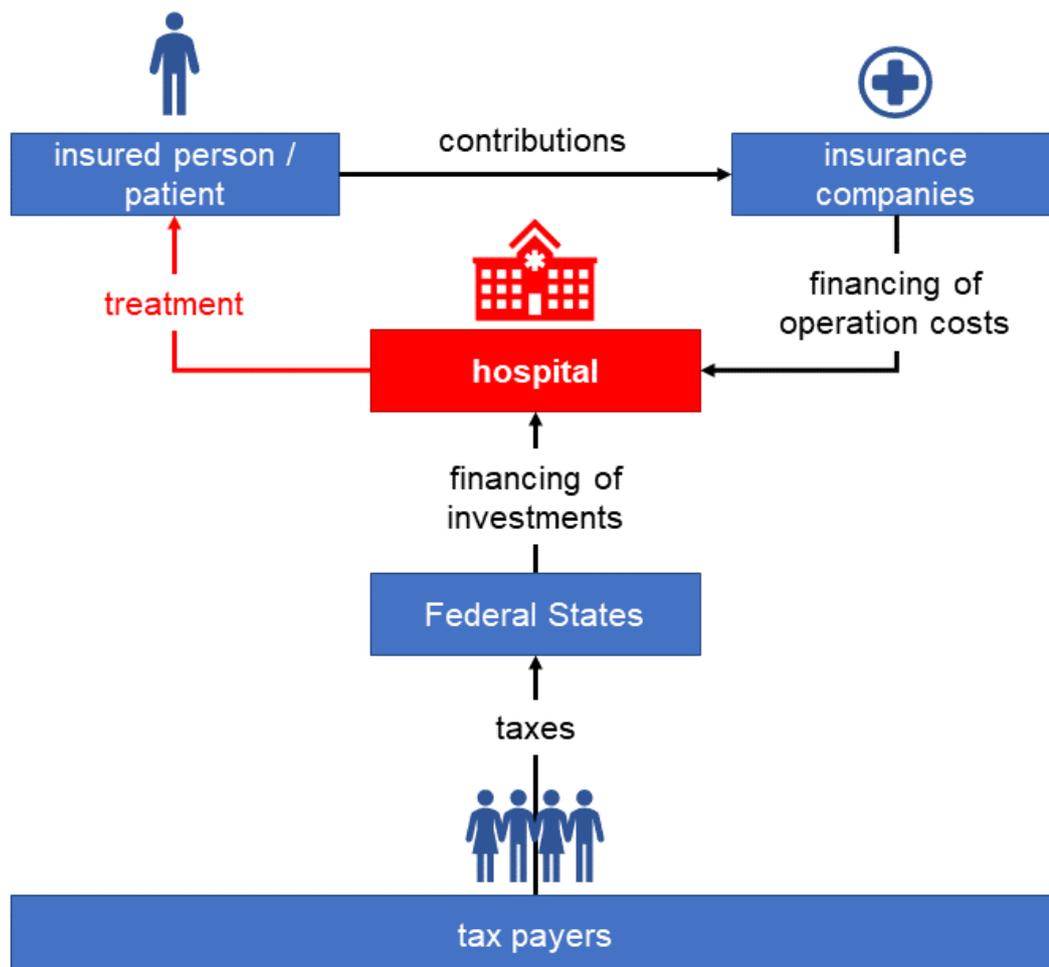


FIGURE 4. Dual hospital financing system (Ortenau Klinikum 2018, modified)

In 2017, Germany spent 376 billion euros (11.5% of the GDP) on healthcare, indicating that Germany has one of the highest healthcare expenditures among the EU member states (Statistisches Bundesamt 2020). Unfortunately, the recent study of the German Hospital Institute (Blum et al. 2019) indicates that in 2018

40% of German general hospitals made losses. For 2020 only 17% of the interviewed hospitals expect an improvement, and 44% even expect their economic situation to deteriorate.

For many years there have been complaints that the dual financing system is not suitable for ensuring needs-oriented care due to conflicting interests between the funding bodies. While operating costs are rising steadily, the Federal States continue to reduce financial subsidies. (Klafki 2017.) According to the German Hospital Federation (Deutsche Krankenhausgesellschaft 2019, 76), the investment rate of the Federal States decreased by nearly 50% compared to 1991. This situation often leads public hospitals to carry out unnecessary treatments or use expensive treatment methods in order to finance its operations through the health insurance funds. In a study by Roland Berger (2019), nearly 70% of the respondents complained that their hospital is not investing enough. If investments are made, the primary motivations are to maintain or increase attractiveness for patients, enhance efficiencies, increase medical quality, and improve the ease of maintenance.

In view of the current coronavirus crisis, hospitals are expecting to face even more severe financial problems in the foreseeable future. Many planned surgeries that would have provided important income are canceled in order to free up enough beds. The German government intends to support the health care system with up to ten billion euros to protect hospitals from economic damage as a result of their help in the crisis (Die Bundesregierung 2020). However, Josef Düllings, president of the Association of Hospital Directors, fears that the support will not reach all hospitals on time, which could cause many German hospitals to become insolvent in 2020 (Düllings & Zurheide 2020).

3.2.1 Digitization in German hospitals

In an international comparison, German hospitals are still far behind in the implementation of paperless systems. In the Electronic Medical Records Adoption Model (EMRAM), which ranks the level of digitization in healthcare facilities from 0 (no paperless solutions) to 7 (fully digitized), Germany only receives a score of

2.3. Thus, it is below the European Union's average of 3.6. The lack of digital transformation is particularly evident in the case of small hospitals with less than 200 beds, which only reached a score of 1.3. The share of German hospitals that are still on level 0 in the EMRAM model is 40%, and only two hospitals met the requirements of level 6; none achieved level 7. (HIMSS Analytics 2019.)

A closer look reveals that 74% of hospitals in Germany have a wireless internet connection. In those hospitals where Wi-Fi is available, it is only used in 70% of clinical organizational units, and less than 60% of the wards have mobile access to patient data. The majority of medical staff are provided with computers on ward-trolleys to access patient data; only 5% have the possibility to use smartphones and tablets. (Hübner, Esdar, Hüsters, Liebe, Naumann, Thye & Weiß 2020, 30.) In addition, a study by Schnürer, Wieland, Benthin, and Koch-Büttner (2018) revealed that 80% of hospital staff rate HIS (hospital information systems) and cloud solutions as important, however, also 80% evaluate their own HIS as only moderately or even hardly satisfactory. A study by McKinsey (Hegner, Liese, Loos, Möller, Schiegnitz, Schneider, Oellerich, Plischke, Donath & Erk 2018) confirms that, instead of rolling out comprehensive digitization initiatives, the majority of German hospitals rely on pilot projects to validate the benefit of mobile devices and digital solutions for their facilities. Only if the pilot project proves to be successful, it will be considered to implement the tested system or application integrally.

Stephani, Busse, and Geissler (2019, 29) see the causes for this hesitant development in German hospitals firstly in the financial burden of investing in hardware, software licenses, and staff training. Secondly, there are still doubts and skepticism about the benefits of IT-supported processes and their user-friendliness. The criticism includes that displays are often too small, and the systems too slow or even crashing. Surveys among medical staff show that more than two-thirds are unsatisfied with the user-friendliness of the IT-systems available and that it does not matter what kind of HIS is used or from which provider it is. More important for the user-friendliness is whether it has been adapted to the local needs, harmonizes processes, and whether employees have been trained to use the system. (Stephani et al. 2019, 29-30.) Similar results were found in the

survey by McKinsey (Hehner et al. 2018). Besides insufficient financing, respondents argued that the lack of compatibility or interoperability of IT systems, the lack of standardized processes, and data protection are the main reasons for the restrained development of digitization in German hospitals. In interviews, nurses from South and East Germany (Lefèvre 2020; Spreemann 2020) confirm that financing, data protection, and staff training are the biggest challenges in digitization, but at the same time, they express that new mobile devices and systems could save about one to two hours of their work per day. The main advantages are seen in the possibility of documenting promptly at the bedside, accessing patient records simultaneously, and communicating more efficiently.

Regarding the patients, the study by Schnürer et al. (2018) shows that 60% of patients are not involved in digital processes at hospitals at all. For example, only 15% of surveyed patients had access to information on their treatment. The study also found out that hardly any mobile IT equipment, such as tablets, is used by doctors and nurses to provide information, for example about conditions or treatments. 85% of the respondents expressed a wish to be informed about current waiting times, followed by information and recommended behavior for the time after the hospital stay. Between 60% and 70% would also like to have the option of electronic appointment planning, information on the course of treatment, and status information for relatives, for example in the case of surgical operations. (Schnürer et al. 2018, 11-13.)

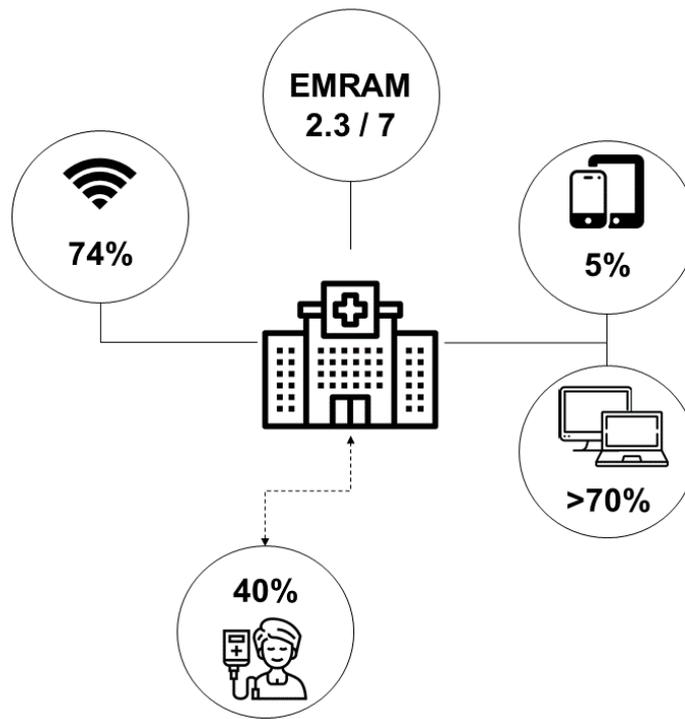


FIGURE 5. Current state of digitization in German hospitals

One of the first steps taken by the German government to modernize the healthcare system was the introduction of an electronic health card (eGK) in the course of the “E-Health Act” (Act on Secure Digital Communication and Applications in Health Care). Since 2015 the eGK is the only valid proof of entitlement to benefits from the statutory health insurance. The eGK is a chip card that initially only stores mandatory administrative data such as name, address, date of birth, and insurance number. In the future, also so-called emergency data or medication plans can be stored on the health card; provided the insured person wishes to do so. All data is encrypted and can only be accessed if the cardholder authorizes access and if the doctor has an electronic health professional card. PIN codes are only provided by the insurance companies if an insured person wants to use medical applications, such as storing emergency data on his or her health card. PIN codes are not required for checking data online or updating master data, nor for using the card as proof of insurance or for reading out emergency data. (gematik GmbH n.d.)

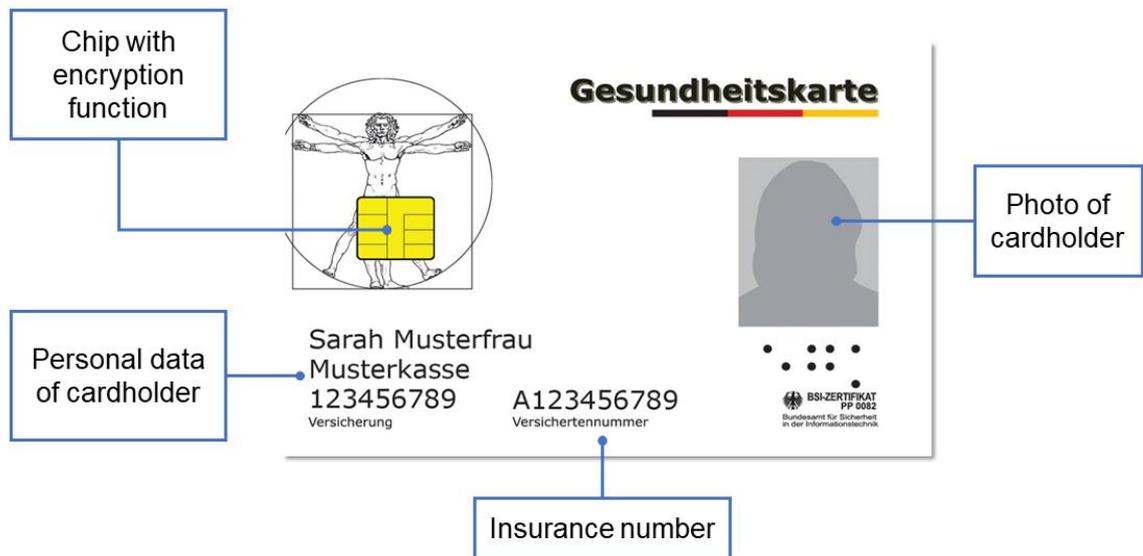


FIGURE 6. Front of German electronic health card (gematik GmbH n.d., modified)

As of 2021, everyone with statutory health insurance can receive an electronic patient record (EPR) from their health insurance company, but in order for all patient data to be stored digitally, medical facilities must be connected to the telematics infrastructure (TI). The TI connects all stakeholders in the health care system and ensures a secure exchange of information. To fulfill this requirement, the German government implemented the “Act to Improve Healthcare Provision through Digitalization and Innovation” (DVG) in January 2020. With this act, pharmacies and hospitals will be obliged to be connected to the TI latest until the end of 2021. The three main focus areas of this act are the prescription of eHealth apps, online video consultations with medical professionals, and access to patient records from anywhere. Healthcare apps are already used by half of the German patients, and from now on, doctors will be able to prescribe such apps at the expense of statutory insurances. (Bundesministerium für Gesundheit 2019a, 2019b, 2020.)

Another important contribution to the digitization of German hospitals is made by the Medical Informatics Initiative (“Medizininformatik-Initiative”), a project supported by the Federal Ministry of Education and Research that brings medical professionals, IT professionals and scientists of various disciplines together. The goal of this initiative is to digitally connect all patient data that is generated during a hospital stay and thus improve research opportunities and patient care. The exchange of data from patient care and clinical and biomedical research across

institutions opens up the possibility for scientists to conduct research that will enable faster and better healing of diseases in the future and simultaneously improves the treatment of individual patients. All university hospitals in Germany are currently working together with research institutions, companies, health insurance companies and patient representatives to develop the framework conditions so that research findings can reach patients directly. Until 2021 the Federal Ministry of Education and Research plans to invest around 160 million euros in this funding program. (Medizininformatik-Initiative 2019.)

When taking a look at the innovators and thought leaders among the German hospitals, several rankings continuously prove that the Charité – Universitätsmedizin Berlin is the best clinic in Germany and one of the best in the world. According to the yearly hospital ranking of the FOCUS magazine (Niehaus 2019, 58), Charité leads in 21 clinical areas, including Alzheimer's, various cancers, and trauma and spine surgery, and convinces with an excellent standard of patient service. Moreover, the Charité is working on a completely digital structure of medical records and aims to achieve level 7 of the EMRAM model by 2028 (kmaonline 2019). Based on the hospital ranking, Charité is followed by Universitätsklinikum Carl Gustav Carus, Universitätsklinikum Heidelberg, Klinikum der Universität München and Universitätsklinikum Tübingen. An extract of the hospital top list can be found in appendix 1. (Niehaus 2019, 58.) Regarding the digital transformation, the Universitätsklinikum Essen and the Universitätsklinikum Hamburg-Eppendorf are considered pioneers in digitization. In fact, the Universitätsklinikum Hamburg-Eppendorf was the first university hospital in Europe to introduce the digital patient record in 2011, while the clinic in Essen strives to become the first smart hospital in Germany. Artificial intelligence, robotics, and most modern IT solutions are being implemented to automate and thereby improve clinical processes. (Niehaus 2019, 16-20.)

Concerning the private German hospitals, Helios Kliniken is leading the top list as the largest and best-rated clinic group. Helios is closely followed by Asklepios Kliniken, Sana Kliniken, Rhön Kliniken, and Amedos Gruppe (see appendix 2). (praktischArzt 2020.) All of these top clinics have been investing in the digitization of their facilities over the past years. In 2015 Helios launched the first German accelerator hub for founders and start-ups developing digital solutions such as

patient apps for hospitals (Helios Kliniken n.d.), and Asklepios have set themselves the goal to be fully digitalized by 2024 and become a market leader in digital healthcare services (Asklepios Kliniken n.d.).

By comparison, smaller regional and rural hospitals are in a worse position than the university hospitals and private clinics. Although small hospitals (with less than 200 beds) tend to invest more in digitization in relation to their total annual budget, the vast majority of their digitization projects are not implemented successfully. Only every third small hospital in Germany has a digitization strategy. (Hehner et al. 2018; Hüsters 2020.)

Interviews among CEOs of German hospitals reveal that the decision-making process about IT investments is usually initiated by new legislations or the IT department, and in rarer cases by the top management or doctors. The final decision is either made by the CEO or by a collaboration of CEO, CIO, and end-users such as doctors. If the facility belongs to a hospital group, it must comply with the group strategy, which means that the parent company holds the final vote. (Thye, Hübner, Hüsters & Babitsch 2017, 114.) Hüsters (2020) adds that also medical management and nursing management can propose the implementation of new systems or devices and play an important role in the decision-making process. Since the success of the installation of new IT solutions will ultimately depend on the satisfaction of the end-users, doctors and nurses are usually the primary points of contact for IT firms such as Company X. However, the final decision depends on business management, since they are responsible for the hospital finances. New IT investments require a large budget and unfortunately, hospitals in Germany do not receive special investment promotions for the acquisition of new software, systems, or digital devices.

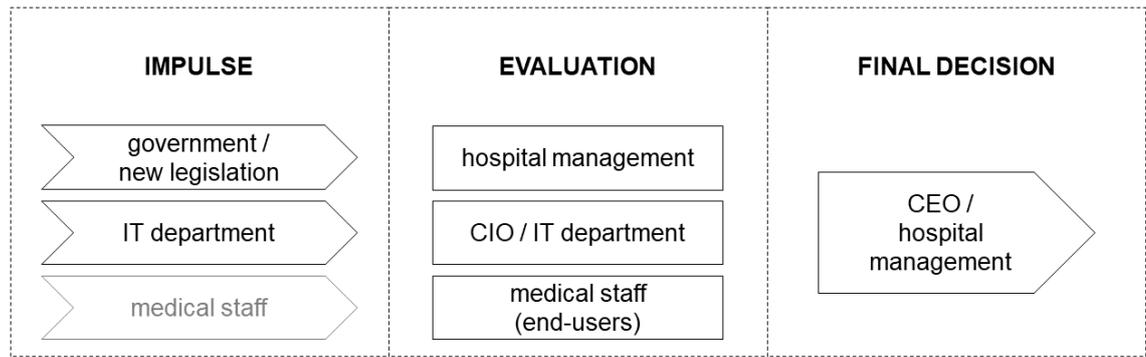


FIGURE 7. Decision-making process about new IT products in German hospitals

3.3 Competitors

3.3.1 Company A

Segment A is a strategic growth segment of Company A, a large telecommunications company in Europe. It was founded in 2014 and is structured into Segment A and Segment B. Company A offers different digital solutions for different stakeholders in the healthcare system, including health insurers, hospitals, doctor's offices and laboratories. The hospital portfolio comprises, among other things, Product A, the accompanying Product B, and Product C. Product A is used daily in more than 200 hospitals in Germany and 1,000 hospitals worldwide, and around 100 clinics even confide their entire IT-system to Company A. Product C can be used on a bedside terminal and offers patients TV, movies, and internet access to make the hospital stay as pleasant as possible. (Competitor A.)

3.3.2 Company B

Company B was founded in 1995 in Germany and develops hardware and software solutions for hospitals. The company's product portfolio includes mobile devices with customizable user interfaces, and Product D. With a market share of 75%, Company B is a market leader of infotainment solutions in Germany. From a global perspective, more than 200,000 of their mobile devices are in use by

100,000 customers. In 2019, Company B employed 140 people and achieved a turnover of 20 million euros. The mobile devices offer patients the possibility to order meals, control the heating, get information about their treatment or simply entertain themselves. The mobile devices can also be used by hospital staff to display medical content without data protection concerns. Product D can be used by both patients and hospital staff on personal or professional devices. It enables patients to check-in on their own, upload documents, or access information about the hospital and the team before starting the treatment. During the stay, Product D can be used for entertainment, to support the therapy or collect feedback, and after the stay, doctors can follow-up with their patients. Thus, it can be integrated into the whole patient journey and thereby optimize the processes and resources in hospitals. (Company B a; Company B b.)

3.3.3 Company C

Company C is a German company founded in 2002. The offering includes mobile devices and bedside terminals and a hospital app platform that allows a digital connection of patients and clinical staff throughout the entire care journey. Meanwhile, Company C installed more than 18,000 devices in over 70 hospitals in Europe and the United States. Company C sources its mobile devices from a South Korean manufacturer and the bedside terminals from a Taiwan based hardware manufacturer. The app accompanies patients from the moment they are signed up for treatment until they are completely recovered. During the stay at the hospital, the doctors can monitor the condition of the patients, while the patient can stay in touch with the family and use the entertainment services. The bedside terminals offer the possibility to create different profiles for different users, i.e. patients, nurses, and doctors. (Company C.)

3.3.4 Company D

Company D is a software company founded in 2012 in Germany that developed Product E. Product E is a mobile device with software specially developed for

medical practices that enables paperless anamnesis and maintenance of electronic patient files. Information sheets can be displayed in the native language of the patient and then translated into German, and regular updates ensure that the forms are always adapted to new developments such as legal requirements. According to the company's website, customers can obtain Product E already for less than five euros per day. (Company D.)

3.3.5 Company E

Company E was founded in 2008 in Germany, but nowadays has its headquarters in New York, United States. The company has subsidiaries in Germany, Switzerland, Austria, France, Spain, Gibraltar, and the United Arab Emirates, and specializes in customized digital solutions for hospitals. The software and hardware platform of Company E integrates patient check-in, infotainment, digital meal ordering, bed and room control, nurse calling, and access to patient data onto one single platform. In addition, Company E provides innovative bedside terminals, ward trolleys, and an app that can be used by patients on their own mobile devices instead of bedside terminals. (Company E.)

3.3.6 Company F

Company F was founded in 1987 in France and has subsidiaries in Germany and the United States. The company provides customizable hardware solutions for professional use and has developed more than 250 products. Over 7,000 customers in 50 countries are using mobile devices tailored to their individual industry needs. Among others, the customers include construction, logistic and forestry companies, as well as police and hotels. (Company F.)

3.3.7 Company G

Company G is a leading manufacturer of industrial and medical computers, screens, and mobile devices. The company was founded in 2010 and has its

headquarters in Charlotte, United States. Over the years, Company G established various offices in Europe and Asia and continues to expand its global presence and product range to support the vision of becoming a global top brand. According to the CEO, industrial computers are sold at a very high price while consumer computers on the other hand are built to only last about one year. For this reason, Company G manufactures its devices in Taiwan where low costs meet high levels of quality. (Company G.)

		Company A	Company B
Company specific	Founded	2014	1995
	Home country	Germany	Germany
	Employees	~700	> 140
	Key competitive advantage	<ul style="list-style-type: none"> • Strong reputation and brand image • Partnering with start-ups • Market leader of HIS in Europe 	<ul style="list-style-type: none"> • Long experience in healthcare sector • Market leader of infotainment solutions • Developing own devices
Product specific	Products	<ul style="list-style-type: none"> • Product A • Product B • Product C 	<ul style="list-style-type: none"> • Mobile devices with customizable user interface • HIS • Product D
	Strength	<ul style="list-style-type: none"> • One of the most modern and most used HIS in Germany • Complete solution 	<ul style="list-style-type: none"> • Winner of Reddot design award • Customizable solution
	Weakness	No own hardware/devices	Customers bear responsibility for maintenance
	Target customer	German hospitals, hospitals worldwide	German hospitals, hospitals worldwide
Positioning	Home market	<ul style="list-style-type: none"> • Leading provider of healthcare ICT • More than 100,000 users in around 200 German hospitals use Product A daily 	<ul style="list-style-type: none"> • 2/3 of university hospitals in Germany use Company B's products
	Export markets	<ul style="list-style-type: none"> • More than 350 HIS implementations worldwide • 100 clinics confide their entire IT-systems to Company A • More than 1,000 hospitals worldwide use Company A's solutions 	<ul style="list-style-type: none"> • >1000 customers worldwide • >200,000 mobile devices of Company B in use worldwide

FIGURE 8. Comparison of two main competitors

3.4 Porter's Five Forces

According to Porter (2008, 25), competition does not only occur among direct competitors but also among four more forces; namely customers, suppliers, potential entrants, and substitute products. Understanding how these five forces jointly shape competition is crucial for the strategy of both existing companies and new entrants to the market (Porter 2008, 26-28).

3.4.1 Competitive rivalry

The main competitors for Company X in the German hospital market are medium to large-sized hard- and software companies that have an established presence, years of experience, and a loyal customer base in the market. The major threat comes from Company A since it already had a strong presence in around 50 countries before expanding its business to the healthcare sector and with the founding of the new strategic segment Segment A, the company quickly became a leading provider of healthcare ICT in Germany. The main focus lies on the installation and maintenance of Product A and the accompanying Product B, but besides, the company is also actively equipping hospitals with mobile devices from other manufacturers. The biggest competitive advantage of Company A, besides having a good reputation and solid customer base, is that its offering covers the entire IT value chain, not only of hospitals, but also of other key players in the healthcare market. There might be a chance to overcome this threat by partnering with Company A. A partnership could be established on the base that Company A specializes in software solutions and only provides hospitals with mobile devices in order to enhance the customer experience, but the combination of mobile devices and software services of Company X could be an even better complement to this solution.

Other direct competitors that Company X needs to pay attention to are Company B, Company C, Company D, and Company E, which are all based directly in Germany and target primarily the hospital sector. In addition, Company F and Company G offer a range of industry products and services that can easily be customized to meet the needs of hospitals.

The closest resemblance to the product offering of Company X comes from Company B and Company C. Both companies provide mobile device service that can be used by both medical staff and patients, and Company B is even manufacturing their own devices. The difference to Company X is that both companies are providing different types of mobile devices and their software is solely tailored for the needs in hospitals. Besides, both companies developed their own apps that can be used by patients and the hospitals to support the patient journey and facilitate the processes and communication between both parties.

3.4.2 Buyer power

The potential customers of Company X have different providers to choose from and almost all of them offer customizable services that can be integrated into the existing systems at the hospitals. The internet is an efficient tool to compare the providers and their portfolios since every company has its own website that showcases the company and its products and services. This includes references to past projects and positive customer stories. In addition, the content on most websites is available in German which adds a lot to the convenience of potential German customers. Since public hospitals in Germany rely entirely on the investment financing of the Federal States, they are highly sensitive to prices. Despite seeking top-quality products and services, there is a high probability that hospitals would look for more affordable alternatives if the price of a certain proposal exceeds their budget. Also, the likelihood that hospitals that already have a digital solution would switch to a new provider is fairly low since the integration of a new solution involves a great amount of time and effort.

3.4.3 Threat of substitution

Traditionally, healthcare professionals have relied on paper forms for patient check-in, documentation, medication plans, prescriptions, feedback, and so forth. New reforms, such as the DVG oblige hospitals to adopt digital solutions and create a paperless environment. Therefore, the threat of substitution by paper forms is very likely to decrease, however, it should not be completely ignored yet.

More considerable threats are presented by stationary and mobile computers that allow doctors and nurses to access patient data. Results of the study by Hübner et al. (2020, 50) show that stationary computers are available in all facilities and mobile computers on ward-trolleys are used by 40% of the respondents. One advantage of computers and mobile workstations is that they can accommodate mice and keyboards which offer higher ease of use than mobile devices. The increased comfort due to keyboards, mice, and large screens could beat smaller, portable devices in the decision-making.

Another threat of substitution is posed by apps and systems that can be used on personal devices of both clinical staff and patients. Worldwide nearly 320,000 mHealth apps are available and more than 60% of people have downloaded such an app (Mobius MD 2019). About 65 million Germans have a smartphone (Brandt 2019) and in most hospitals it is nowadays permitted to use them. Patients can simply use their own devices to find information or entertain themselves, thus substitute the service of Company X.

3.4.4 Threat of new entrants

The demand for digital solutions in German hospitals is expected to grow because of legal requirements and the need for more efficient processes. This makes the market attractive for both large technology companies and start-ups from Germany and abroad. Large companies can easily expand their portfolio to healthcare solutions by developing their own hard- or software or by partnering with other specialized companies. Thanks to the DVG, health insurance companies will have the possibility to support the development of digital innovations financially so that successful approaches can be quickly transferred to the healthcare system (Bundesministerium für Gesundheit 2020a). In the future, this will give start-ups the chance of a secured funding and a quicker admission procedure to the market after proving the medical quality and economic efficiency of their product. Thus, there is already a significant threat of new entrants which is likely to increase even more in the close future.

3.5 Potential distributors and partners

3.5.1 Company H

Company H is a German IT service provider with more than 30 years of experience in the development and distribution of IT solutions for the German healthcare market. In addition to its head office in Brandenburg, the company has 15 subsidiaries and nearly 30 partners across Germany. The product portfolio of Company H includes their own medical office software, document manager, and an app solution that allows personnel to access patient data comfortably on mobile devices, and in addition, Company H distributes the product of Company D. The company offers a service and support hotline and regularly hosts training sessions and seminars about their products. (Company H.)

Company H convinces as a potential distributor due to long market experience, a well-developed network of German healthcare providers, and geographic coverage of the entire country. The company's portfolio further includes complementary product lines, a similar mobile device service that provides Company H with product experience, and reliable customer service. Shortcomings can be seen in the fact that Company H is distributing a competitive product and that the company has no working experience with other foreign exporters.

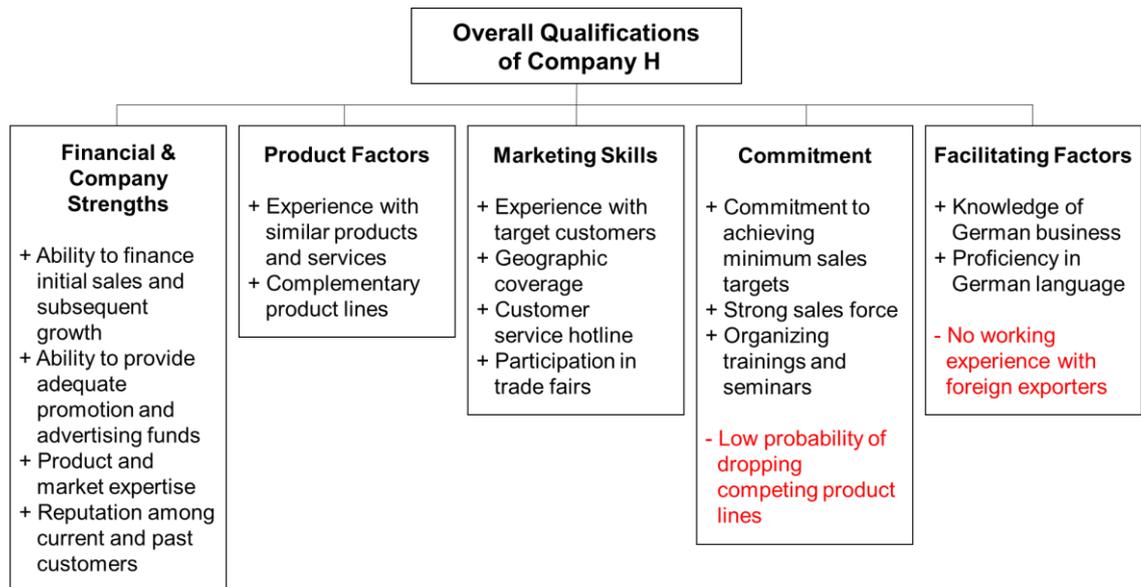


FIGURE 9. Distributor evaluation of Company H

3.5.2 Company I

Company I is a company that was founded in 2015 with the mission to support clinics and practices in setting up and operating IT solutions. The company has three offices as well as five branch offices and partners in the Midwest of Germany and serves clients nationwide. The portfolio comprises consultations for medical professionals, IT systems, software, hardware, and the product of Company D. (Company I.)

Company I has been operating for six years, but its team members that come from both business and medical backgrounds have a much longer history in the German healthcare market. Company I has experience in providing German hospitals and practices with IT services tailored to their individual needs and the company has the ability to serve clients across the whole country. In addition to software solutions, Company I also have experience with the distributions of hardware products. Simultaneously this can be seen as a shortcoming since Company I also distributes Product E, which is a competitive product for Company X.

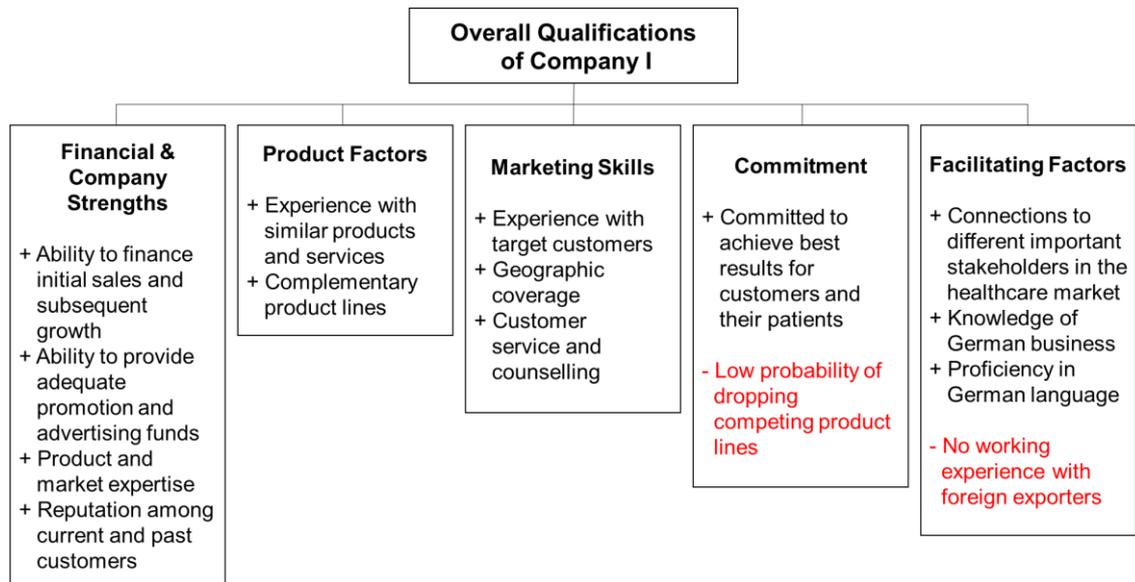


FIGURE 10. Distributor evaluation of Company I

3.5.3 Company J

Company J is a group of companies that was founded in 1982 in North Rhine-Westphalia, and offers a broad portfolio of IT infrastructures, IT system solutions, applications, and software. With subsidiaries in nine German cities, Company J is nationwide available as a leading IT service provider. The main focus area of Company J's services is the healthcare industry, which they support with Wi-Fi installations, hard- and software solutions for the EPR, content management systems, IT security, storage, network installations, and IT ward trolleys.

Company J is looking back on decades of market and product experience and has product lines that are complementary to Company X's service in their portfolio. The company is serving a nationwide client base with both soft- and hardware solutions and round-the-clock customer service which makes Company J a favorable choice as a distributor for Company X. Company J is actively participating in trade fairs, roadshows, and conferences and organizes training sessions and webinars for its customers. The only shortcomings are the wide range of different products that Company J is offering, the low probability that the company would drop competing product lines, and the lack of experience in working with foreign exporters.

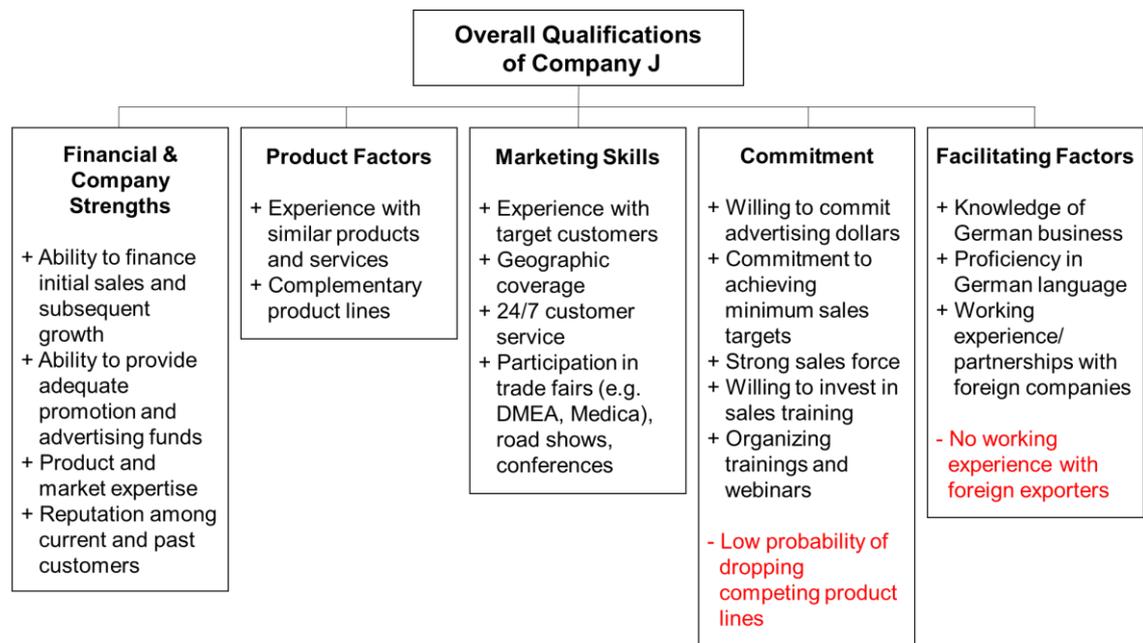


FIGURE 11. Distributor evaluation of Company J

3.5.4 Company K

Company K is a hospital technology company founded in 2016 in Berlin. The products range from asset and patient tracking to process analyses, temperature monitoring, and bed management. Company K's software is developed for both mobile and stationary devices and collects live data via wireless networks. The hardware includes signal receivers that can be attached to hospital assets such as beds and wheelchairs in order to track them and manage all assets efficiently. (Company K.)

Company K is a relatively young, but fast-growing company that is actively looking for partners that can complement its solution. The company is working closely with customers from hospitals to develop and test their new products in order to ensure an uncomplicated introduction and high level of acceptance. Company K could be an ideal partner for Company X since they share the same objectives and have complementary product lines. Apart from that is Company K familiar with the target market and has established relationships with target customers in German hospitals.

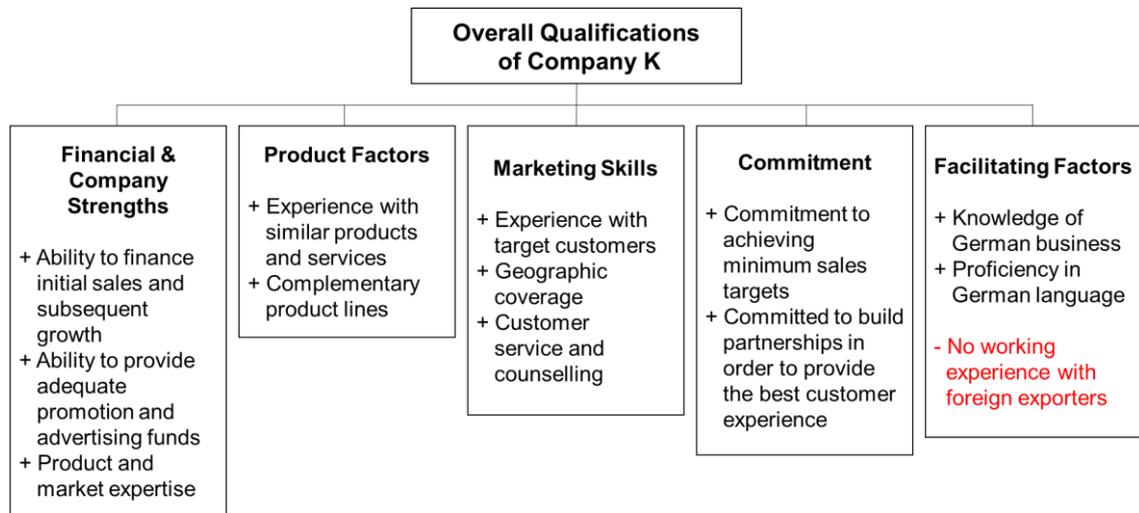


FIGURE 12. Distributor/ partner evaluation of Company K

3.5.5 Company L

Company L was founded in 2007 in Germany and offers different kinds of medical technology systems, including staff training and maintenance. The portfolio contains hardware such as digital medical devices, software programs for medical practices, Product E, and network installations and configurations. Company L's team supports customers on the phone, as well as on-site with maintenance, device testing, training sessions, and consultations. (Company L.)

Looking at Company L, the company has great experience in the German healthcare market and digital solutions, and above all, is very active in supporting its customers. On the downside, it has to be recognized that the company is focusing on practitioners that are running their own practices rather than on hospitals. Furthermore, Company L distributes the product of one of the competitors of Company X.



FIGURE 13. Distributor evaluation of Company L

3.6 SWOT analysis

The SWOT Analysis is an efficient method to identify the strengths, weaknesses, opportunities, and threats of a company and its target market, and thereby it supports the company in making a business decision. A SWOT Analysis should be performed before committing to new company activities, such as entering a new market, in order to develop a strategy to overcome weaknesses and threats and leverage strengths and opportunities. (Schooley 2019.)

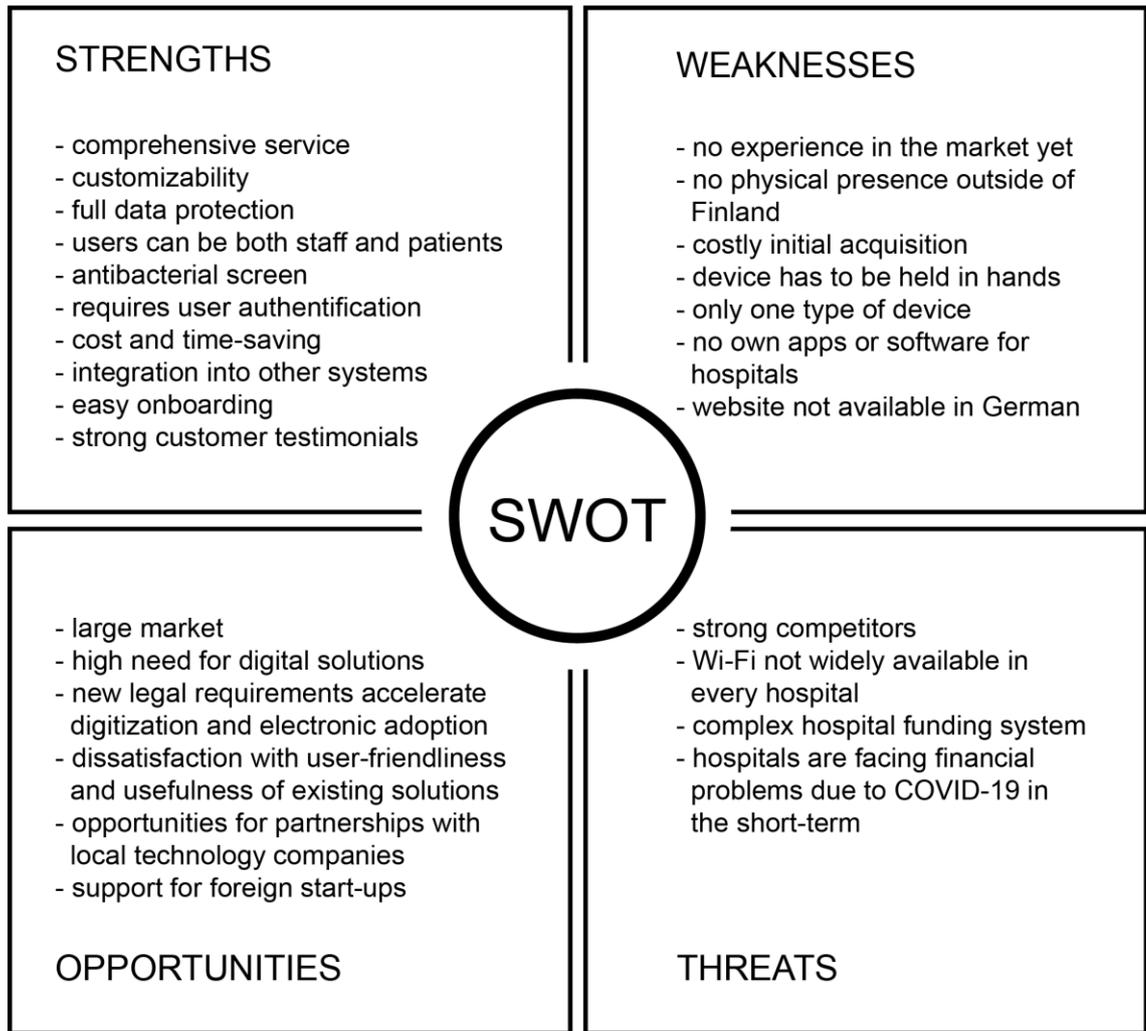


FIGURE 14. SWOT Analysis of Company X

Company X has a wide range of strengths that could facilitate the establishment of the company in the German hospital market. First of all, Company X offers a comprehensive service that includes both hard- and software and takes care of updates and data protection on its own. Another advantage is that the devices can be used by both patients and staff because the content can be customized for different user groups. The special cover prevents the devices from breaking, and in addition, the devices have an antibacterial screen protector. To lend a device, the user must authenticate himself. This frees up valuable time for the medical staff since they do not have to take care of data privacy issues, or charging, updating and lending of the devices. Moreover, the service enables full customization of the content that is displayed on the devices and can be integrated into other systems as well. In the long-term, this service is very cost-efficient and

can save a high percentage of the IT costs since it requires little maintenance and support and the onboarding and staff training is very easy. Besides having a strong product, Company X already received a lot of positive reviews from Finnish customers that integrated the service into their hospitals. Such references from satisfied customers reinforce the brand image and are particularly credible and convincing. Thanks to the feature that deletes all user data after usage of the devices automatically, Company X is less vulnerable to changes or tightening in data protection laws.

Despite possessing a lot of strengths, Company X also shows some weaknesses. The missing experience in the German healthcare market can be considered the biggest weakness of the company which is simultaneously the hardest to overcome. This goes along with the fact that Company X has no physical presence outside of Finland, making it dependent on the expertise of partners and distributors. The service itself is expensive to purchase and due to their limited investment budget, hospitals could be deterred to acquire the service of Company X. Regarding the functionality of the devices, it is important to keep in mind, that Germany is digitally not as advanced as most Nordic countries and that not every hospital has Wi-Fi or satisfactory IT-systems yet. Some competitors provide devices that can be attached to a monitor arm on the bedside which increases comfort and user-friendliness for patients. Since Company X's devices do not have such a feature yet, users always have to hold them in their hands or place them on a flat surface which could be seen as another weakness since it reduces comfort. Further, Company X offers only one type of mobile device, but as the research and interviews show, hospitals are relying on different devices to communicate and entertain patients. According to the interviewed nurses (Lefèvre 2020; Spreemann 2020), televisions are still regarded as the best devices for patient entertainment and phones and tablets are favorable means of communication for the staff. Also, contrary to other companies, Company X does not provide its own apps or HIS that could further support the optimization of processes in hospitals. The company's website is very modern and functional; however, the content is only available in Finnish and English. Multilingual websites have become a necessity for companies in the internationalization process because they expand the reach, prove customer-centricity, and build trust (Fowler 2018). Considering that the vast majority of internet users prefer to browse and buy in their

native language (CSA Research 2014) and that there are over 130,000 German speakers worldwide (Devlin 2018), Company X seems to pass up a great opportunity here.

Regarding the hospital market, Germany offers many opportunities for companies like the commissioning company. Not only is it a very large market, but at the same time the need for digital solutions is still high. The current lack of digitization and the high dissatisfaction with the user-friendliness of existing devices and IT-systems provides the right basis for Company X to introduce its offering as user-friendly, customizable, and time-saving service. Furthermore, new legal requirements such as the DVG are accelerating the digital transformation in the German healthcare market and oblige healthcare providers to convert their systems and processes from analog to digital. Consequently, this leads to a higher need for mobile devices in hospitals and other healthcare facilities. Furthermore, both local and foreign start-ups have the possibility to rely on the assistance of accelerators or start-up centers in entering the healthcare market in Germany. Examples for such support are Flying Health, health innovation hub, or MedicalMountains GmbH. Flying Health is a Berlin-based ecosystem that supports digital health start-ups in all stages by connecting them with the right partners, helping them participate at events, or initiating pilot projects (Flying Health n.d.). The health innovation hub is a platform of the Federal Ministry of Health that aims to identify, evaluate and develop digital solutions and applications for medical care and builds bridges between start-ups and relevant stakeholders in the healthcare sector (hih-2025 n.d.). MedicalMountains is located in a cluster of medical technology companies in South Germany and considers itself to be an initiator and bridge builder that brings players of the industry together. It has set itself the goal of networking small and medium-sized companies, promoting their growth and further expanding their competitive advantages regionally, nationally, and internationally. (MedicalMountains n.d.)

Nevertheless, Company X will also have to face major challenges in the German market. The main threat is posed by the existing competitors that already have a secured position in the healthcare market, as described above. Besides strong competition, the complex funding system of German hospitals may present an

entry barrier for foreign start-ups. The dual financing system makes public hospitals dependent on the support of the Federal States, while private hospitals must bear all costs alone. For this reason, the hospital management is assessing costs and different options carefully before making a purchase decision and thereby start-ups have the disadvantage that they usually do not have an established presence and reputation in the market yet. Moreover, the current coronavirus epidemic is afflicting the entire healthcare system and causes hospitals to focus only on their indispensable needs. Once the crisis has flattened and restrictions have ended, investment projects could be planned to make faster progress in digitization in order to avoid some of the shortcomings in the future. (Hüßers 2020; Nelde 2020.) On April 27, 2020 the Federal Health Minister introduced a plan consisting of ten points to reinforce health authorities in Germany. These points include, amongst others, the digitization of the reporting channel of new confirmed cases, a program for digital upgrading and equipping of the public health authorities, and a so-called quarantine diary as a platform for health authorities. (Bundesministerium für Gesundheit 2020b.) If, and when this plan will enter into force is uncertain, but it exemplifies the efforts of the German government to improve the situation in healthcare in the future. Nonetheless, the end of the epidemic is unpredictable and the damage incalculable. This is why the only way for Company X to overcome this challenge in the German healthcare market is to wait and see how the situation develops.

4 MARKETING MIX

4.1 Product

The product of Company X is a combination of mobile devices and software. For customers in the hospital sector it is crucial that new digital products support the clinical processes and, in the best case, increase their efficiency. Bad experiences in the past have led decision-makers to evaluate the needs of the hospitals more carefully, taking the opinions of other stakeholders into account. End-users such as doctors and nurses are explicitly expressing their requirements and expectations and have a strong influence on product selection.

When specifically asked about the functionalities of mobile devices, interviewed nurses stated that devices should be able to contain patient records and laboratory values, all of which should be interconnected. Further, a good camera for wound documentation is an essential element. Ultimately, the use of shared mobile devices must lead to faster communication between the wards, facilitate patient documentation, and enable faster and clearer diagnoses. (Spreemann 2020; Lefèvre 2020.) Nelde (2020) adds to that, that many medical facilities have complained about the theft of their mobile devices in the past. Under consideration of this fact, it becomes apparent that reliable anti-theft protection is another significant aspect of this product in a hospital environment.

4.2 Price

The service of Company X comes at a premium price; however, customers can save costs and other resources in the long-term. When selling to customers outside of Finland, transportation costs, profit margins for distributors, and taxes will be added to the price. Customers in the hospital segment are bound by limited investment budgets and therefore highly price sensitive. Moreover, the acquisition of a new IT-product or service can imply additional efforts such as staff training and restructuring of processes and systems. Keeping these overall costs in

mind, decision-makers are evaluating different alternatives cautiously and must be fully convinced before making a purchase decision.

4.3 Place

Company X has decided to export its services indirectly using distributors in the target markets, and the same strategy will be applied to enter the German healthcare market. Consequently, Company X will not have any physical presence in Germany. All activities required to pass the product to the customer will involve a third party as a channel intermediary. For this reason, it is crucial to take the needs and expectations of both the company and the customers into account when choosing a distributor or partner in the new market.

4.4 Promotion

While scientific journals, congresses, and discussions with colleagues are still the main sources of information for German doctors (Eckmann 2018), they are increasingly active on social media. Social media platforms offer doctors the possibility to network with colleagues from all over the world, convey specialist information, present themselves, and acquire patients (healthcare-in-europe 2019). Besides doctors, also nurses and the nursing management inform themselves about current topics concerning digitization and the healthcare sector out of their own motivation. Specialist journals and magazines that are specially targeted at nursing staff are a commonly used medium. (Hüser 2020.) Both social media and printed media prove to be effective means to educate target customers in German hospitals about new products, services, or solutions and will, therefore, be important promotional channels for Company X.

In order to get physically in contact with different stakeholders of the German healthcare market and gain personal experiences on the new target market, local events such as trade fairs are an excellent channel for Company X. One of the most popular platforms for digital healthcare is the DMEA (Digital Medical Expertise & Applications) trade fair that is held once a year in Berlin. With more than

11,000 attendees from around 50 countries, it is the largest event for digital health in Europe. At this trade fair visitors from all over Europe come together to learn about current developments and new products and make valuable contacts. Since eight out of ten visitors of the DMEA are decision-makers, this is the perfect platform for Company X to meet potential customers, network with distributors and partners, and introduce their service for hospitals. (Messe Berlin 2020.)

Besides DMEA, the MEDICA is a leading trade fair for medical technology. It is held once a year in Düsseldorf and showcases new trends, products, and solutions for the healthcare market. In 2019 the trade fair counted 5,500 exhibitors and 121,000 visitors including practitioners, nursing staff, hospital managers, and technical managers. The venue is divided into five segments, namely electromedicine / medical technology, information and communication technology, diagnostics, orthopedic technology, and commodities and consumer goods. Exhibitors in the ICT segment get the chance to show and explain connected health and health IT solutions and find out where the digital journey is heading in different countries. (Messe Düsseldorf 2019.)

Another great meeting point for IT companies, medical technicians, and institutions from the healthcare sector is the eHealth Europe fair in Freiburg. The organizer offers start-ups free consultations and a separate area in the hall at reduced rates. (eHealth Europe n.d.) Such trade fairs offer an excellent opportunity for Company X to find connections in the new target market, meet potential customers, partners and distributors and identify trends and competitors.

Even though Company X will not establish a physical presence in the target market, the website will represent the company online and serve as a tool to communicate with customers. It provides visitors with all the information about the company and its products. Visual elements grab the attention and customer testimonials prove credibility, expertise, and quality. However, the content is only available in English and Finnish right now. In order to strengthen its brand image and build trust with the new target audience, Company X might need to consider translating the content into German. The biggest benefits of having a multilingual website are a wider reach, enhanced user experience and the proof of customer-centricity (Comben 2016).

Once the networks and partnerships are established, pilot projects can prove useful in the promotion of the service in the new target market. The goal of pilot projects is to get the service tested by some of the target customers, collect their feedback and use the obtained information to promote Company X and its service to the entire market in Germany. The results of the pilot projects will enable Company X to prove the benefits of their service and mobile devices for German hospitals and provide them with valuable experience on the behavior and expectations of their new customers.

5 CONCLUSION

The main objective of this thesis was to investigate how a Finnish IT startup could successfully enter the German hospital market. This included determining the characteristics of the German hospital market, the needs and expectations of potential customers, and the strengths of the competition. Furthermore, potential distributors and partners, as well as effective marketing communication channels were researched.

Since the prerequisite for any mode of market entry is a solid understanding of the target market, the first step was to conduct a market analysis. The results of the analysis prove that the German healthcare market is particularly large and complex and that it is influenced by different internal and external factors. Key players in the market are the nearly 2,000 private and public hospitals, ambulatory practices, health insurance companies, and the state. The observation showed that nowadays, the lack of qualified personnel, cost and efficiency pressure, and digitalization are the strongest trends in the German hospital sector. Concerning digitization, the findings proved that German hospitals still remain underdeveloped in an international comparison. Although hospitals generally see digitization as an opportunity, low investment capitals hinder most facilities from utilizing these opportunities. Furthermore, the use of disruptive or unsatisfactory systems and products in the past caused medical staff to become more hesitant towards the acquisition of new IT solutions. Pilot projects are a common means of testing digital products before they are introduced in their entirety to the hospitals and help to overcome the hesitation.

In order to improve the digitization process of the healthcare system, the German government has passed several acts that will open up new possibilities for healthcare providers and simultaneously oblige them to connect to the tele-infrastructure. Further actions to catch up digitally are taken by the Medical Informatics Initiative, in which all university hospitals are involved. University hospitals are seen as the forerunners in developing and implementing digital solutions and thus play an important role as innovators in the German hospital market. Also, the private hospitals are sophisticated in implementing digital solutions and mostly

have clear goals for the transition from analog to digital technology in their facilities. Smaller and regional hospitals, on the other hand, are less advanced and generally do not have set any specific objectives or digitization strategies yet.

The impetus to implement new technologies in hospitals is usually given by new legal requirements, the IT department, or occasionally the medical staff. As end-users, doctors and nurses are increasingly taking part in the decision-making process, but the final decision lies with the top management that is responsible for the hospital's finances. The decisive criterion for choosing a new IT solution is its user-friendliness and the benefits for the hospital routine. In the specific case of mobile devices for shared use, the devices must be able to provide the staff reliably with all patient data, ensure data protection, have a good camera for wound documentation, contribute to a faster communication between different wards, and have protection against theft.

The research revealed that the German healthcare market is very competitive since several technology companies are specialized in serving German hospitals with mobile devices and apps, software, and systems that support the daily hospital routine of medical staff and patients. Their biggest strengths are a strong foothold in the German healthcare market and products and services that are explicitly targeted at customers in the healthcare sector. In addition, the German government supports start-ups in introducing new solutions to the market, while several hospitals lead their own innovation projects, which increases the threat of new entrants and substitution for the service of Company X.

During the market research it was further found that the number of businesses that are solely specializing in the distribution of mobile devices and IT services is still very limited. The reason might be that digital solutions have not yet been consistently established in German hospitals. However, there are many software companies that are showing interest in partnerships with providers of other products that could complement their own offering and thus provide customers with an enhanced solution.

The best places to meet such partners are trade fairs in Germany that have a focus on innovations and digital solutions for the healthcare market, such as

DMEA and MEDICA. These are also the ideal platforms to showcase the own products to potential customers and make important connections.

5.1 Recommendation

As the findings of this research show, there are a lot of opportunities for tech start-ups in the German healthcare market and the hospital sector in particular. Many hospitals are facing a number of challenges in digitization: financing, user-friendliness, data protection, staff training, and protection against theft of digital devices. Company X has the potentials to solve all these challenges with its unique service.

Since all of the German university hospitals are actively working on promoting digitization and process optimization, they are very likely to be open to new digital solutions. At the same time, they mostly have some type of digital systems and devices already in use, which is the reason why Company X should consider approaching smaller, regional hospitals first. They are generally less advanced than university hospitals and private hospitals and offer therefore the right starting point to introduce the innovative service of Company X to optimize clinical processes and contribute to the entertainment of patients. The most important contact persons in hospitals that Company X should approach first are nursing management and doctors. As potential users of the devices, they are the ones who must be convinced about the service, and they also have the power to suggest the implementation of the service in their facility.

The first recommended step in entering the hospital market is to attend events such as medical trade fairs in Germany in order to meet potential customers, distributors, and partners and start to build a network in the new target market. The most recommendable medical trade fairs for Company X are DMEA in Berlin, MEDICA in Düsseldorf, and eHealth Europe in Freiburg. At the same time, scientific journals for doctors and nurses should be considered as important marketing communication channels for introducing the company to German hospitals and educating potential customers about the service. This could be done by publishing articles about success stories that Company X already achieved in other

countries or pilot projects in Germany. Besides, it would be worth considering offering the website content in German in order to be more appealing to prospects that wish to gain more information about Company X.

As for the distributors in the German market, it is advisable to establish partnerships with IT companies that are specializing in hospital management systems and software, and already have a customer base in the hospital sector. Such companies have the right knowledge about the market, experience with the target customers and they have product lines that are complementary to what Company X is offering. Moreover, they already have a trusted reputation among potential customers, hence, a partnership with such companies could facilitate the introduction of the service of Company X remarkably. Help in this process could be obtained from accelerators, such as start-up centers and hubs that are specialized in digital innovations in the healthcare sector. Such accelerators have the right experience and contacts with different stakeholders in the market which could facilitate the preparations for market entry significantly.

Once the necessary networks and agreements are established, the next step should be to start a pilot project in one of the smaller hospitals. A pilot project will enable Company X to learn firsthand about the customers, their processes and requirements, and predict how well the target user group will adopt the service. Feedback collected during the pilot project about features, performance, and user experience is necessary for the commissioner to take corrective actions to manage and minimize possible risks. Ultimately, the results will not only prepare the company for the launch but also serve as proof of the benefits of the service.

The final step, after conducting successful pilot projects, will be the launch of Company X and its service to the entire hospital market in Germany. Here too, it will be essential to stay in close contact with the users of the service and collect feedback on a regular basis to ensure the satisfaction of the new customers.

In all of this, it should be kept in mind that it takes time to build a network in the target country and make contact and establish a customer relationship with individual hospitals (Nelde 2020).

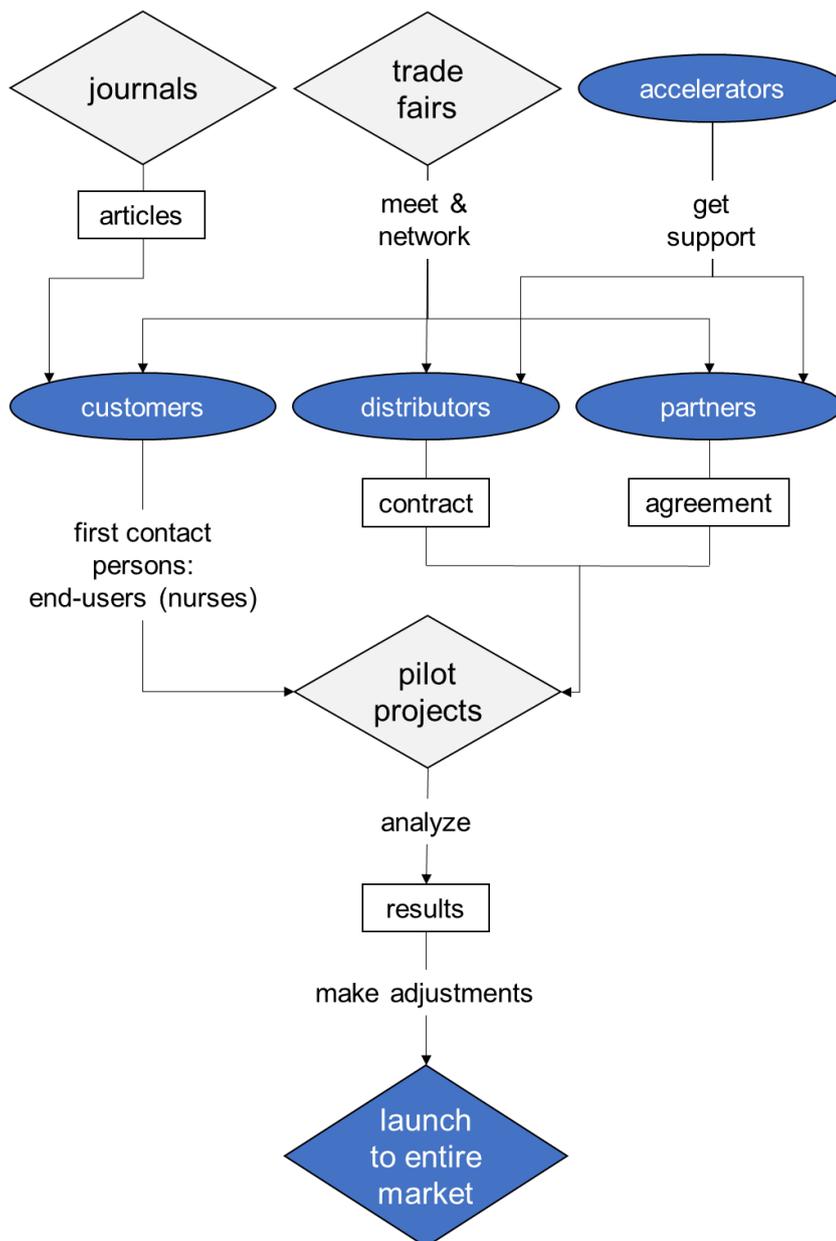


FIGURE 15. Recommended implementation process

Regarding the current state of emergency due to COVID-19 (Corona Virus Disease 2019), all hospitals are in many ways at their limit. Right now, they are only making the most essential investments and it is expected that even after the crisis has leveled off, many health facilities will remain with financial damage. Against this background, no concrete recommendation about the timing of the market entry can be made, other than the obvious, which is to wait and see how the situation develops. In the long-term, the epidemic could promote the digitization of German hospitals and thus create a favorable starting point for Company X to introduce its service.

A similar process could be applied if the commissioning company decided to expand its business operations even further to new markets or new countries. Same as in this study, the process should start with a thorough market analysis to determine the size of the market, the legal framework, the behavior of the potential customers and their demand for the product or service, the strength of the competition, and potential distributor or partners. The results will enable the company to evaluate its strengths and weaknesses and possible challenges and opportunities that exist in the new target market.

If the results of the market analysis match the needs and goals of the company, or in other words, if the new market is found to be suitable, an entry strategy should be specified. This should include the entry mode, the objectives to be achieved, how the company plans to position itself in the new market, which customer groups to target and how to communicate with them, as well as a selection of the distributors and partners. Furthermore, the timing for the market entry should be scheduled, the price for the product or service determined, and a place chosen where the offering will be made available to the customers.

Finally, it will be possible to implement the entry strategy and launch the business operations to the new market. In the course of the implementation representatives of the company could attend events and trade fairs in the target market to introduce the company and its services, and initiate pilot projects. After the launch it will be crucial to measure the performance, follow-up, and review the work of the distributors and partners and adjust the operations accordingly. If the market entry has been accomplished successfully, the business operations can be further expanded to serve the entire market.

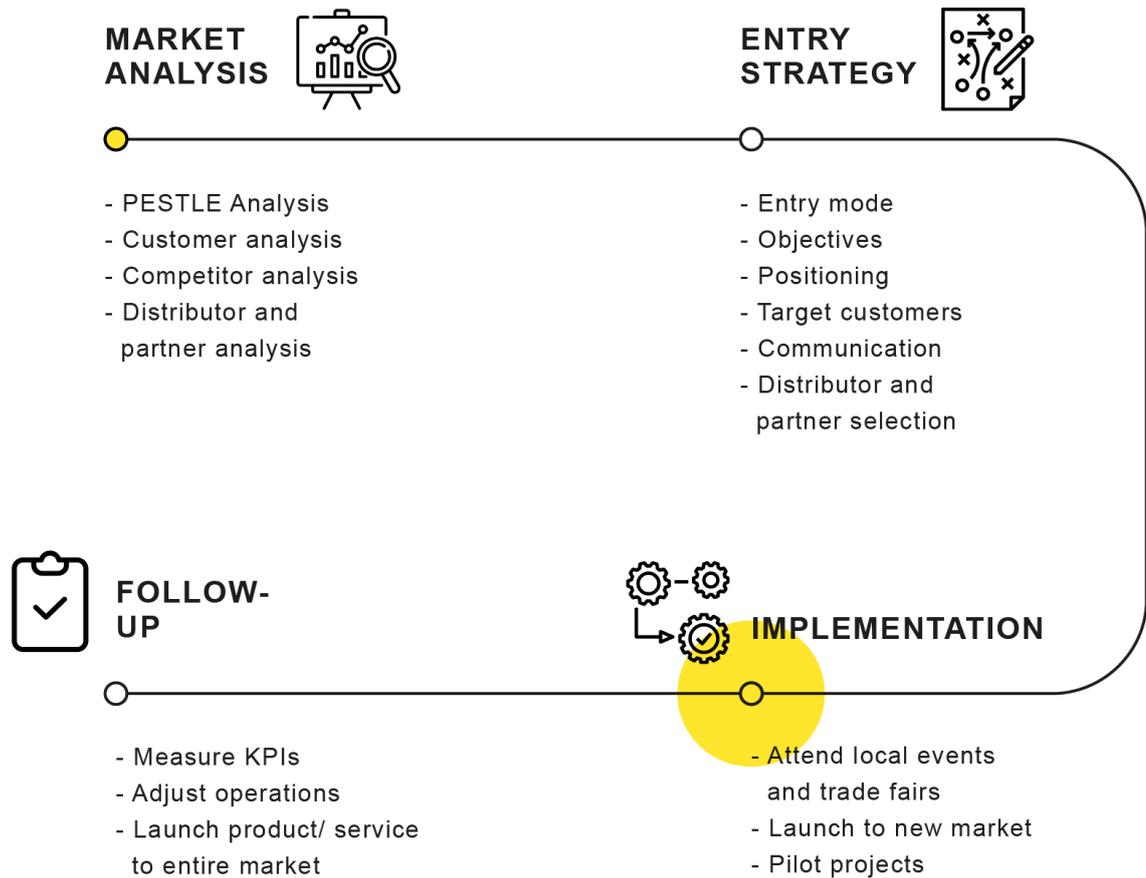


FIGURE 16. Market entry process

5.2 Limitations of the research

This research aims to investigate the German hospital market and gain insights into the routines and challenges of medical staff and managers. However, the findings have to be seen in the light of some limitations. While planning the data collection, it was expected to reach several representatives of different professional groups within the healthcare sector to collect their insights and opinions. Unfortunately, the data collection process was seriously disrupted by the rapid spread of the COVID-19 virus. Therefore, only exemplary opinions and experiences of nursing staff could be obtained. Due to the low sample size, the results cannot be generalized and serve only as an exemplary presentation of the challenges of German hospitals and their expectations about digital solutions. In order to increase the knowledge about experiences, thoughts, and opinions of medical professionals, it is therefore recommended to conduct further surveys or interviews at a later time, when the situation has stabilized.

Another limitation occurred during the search for potential distributors for digital devices. Since digital solutions are not yet implemented extensively across the German hospital landscape, the number of distributors specializing in the fields of mobile devices and IT services for healthcare is very low. Most distributors are specialized in hospital software and systems and digital devices are only a sub-category in the product lines. Nonetheless, as the results of this study show, trade fairs and congresses are great possibilities to meet potential distributors and partners and should, therefore, be considered as a way to overcome this limitation.

5.3 Opportunities for further research

Given the anticipated scope and time of a bachelor's thesis, this research focuses solely on the German hospital sector. However, during the data collection process, it was noted that there is also a growing need for elderly care in Germany. It is expected that people above 67 will make up one-fourth of the entire population in the close future. From 2007 to 2017 the number of nursing homes in Germany raised from 11,000 to 14,500 and already now 3.4 million people are in need of long-term care (Statistisches Bundesamt 2019). The comfort and functionality of nursing homes play an essential role in making everyday life as pleasant and worth living as possible for both residents and nursing staff. The service of Company X could enhance everyday care at German elderly care homes by entertaining their residents and thereby increasing their living comfort.

It would also be interesting to investigate more about the need for this kind of service in private practices of self-employed healthcare professionals. The Federal Health Reporting counted over 100,000 medical practices in Germany in 2019 (Gesundheitsberichterstattung des Bundes 2020). The service of Company X could contribute to the entertainment of patients in the waiting rooms and support staff in their daily tasks, for example in data entry or explaining conditions and treatments to patients.

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APPENDICES

Appendix 1. The top 30 university hospitals in Germany

TABLE 1. Extract from the Top 100 Clinics (Niehaus 2019)

Nr.	Clinic name	Federal State
1	Charité - Universitätsklinikum Berlin	Berlin
2	Universitätsklinikum Carl Gustav Carus	Saxony
3	Universitätsklinikum Heidelberg	Baden-Württemberg
4	Klinikum der Universität München	Bavaria
5	Universitätsklinikum Tübingen	Baden-Württemberg
6	Universitätsklinikum Leipzig	Saxony
7	Universitätsklinikum Frankfurt	Hesse
8	Universitätsklinikum Köln	North Rhine-Westphalia
9	Universitätsklinikum Bonn	North Rhine-Westphalia
10	Universitätsklinikum Würzburg	Bavaria
11	Universitätsklinikum Jena	Saxony
12	Universitätsklinikum Freiburg	Baden-Württemberg
13	Klinikum r. d. Isar der TU München	Bavaria
14	Universitätsklinikum Hamburg-Eppendorf	Hamburg
15	Universitätsklinikum Erlangen	Bavaria
16	Medizinische Hochschule Hannover	Lower Saxony
17	Universitätsmedizin Mainz	Rhineland Pfalz
18	Universitätsklinikum Düsseldorf	North Rhine-Westphalia
19	Universitätsklinikum Essen	North Rhine-Westphalia
20	Universitätsklinikum Gießen und Marburg	Hesse
21	Universitätsklinikum Ulm	Baden-Württemberg
22	Uniklinik RWTH Aachen	North Rhine-Westphalia
23	Universitätsklinikum Augsburg	Bavaria
24	Universitätsklinikum Münster	North Rhine-Westphalia
25	Universitätsklinikum SH, Campus Kiel	Schleswig-Holstein
26	Universitätsmedizin Mannheim	Baden-Württemberg
27	Universitätsmedizin Göttingen	Lower Saxony
28	Klinikum Stuttgart	Baden-Württemberg
29	Klinikum Nürnberg	Bavaria
30	Universitätsklinikum SH, Campus Lübeck	Schleswig-Holstein

Appendix 2. The top 9 private clinics in Germany

TABLE 2. Germany's top 9 private clinics (praktischArzt 2020)

Nr.	Clinic name	Facilities in Germany	Turnover (euro)
1	Helios Kliniken	216	6,000,000,000
2	Asklepios Kliniken	160	3,408,000,000
3	Sana Kliniken	59	2,703,000,000
4	Rhön Kliniken	5	1,233,000,000
5	Ameos Gruppe	80	843,000,000
6	Schön Klinik	17	835,000,000
7	Mediclin	36	645,000,000
8	SRH Kliniken	16	622,500,000
9	Paracelsus Kliniken	27	400,000,000

Appendix 3. *Confidential*

Confidential information has been moved to a separate information sheet.