

THE COMMERCIALISATION OF THE HEALTHCARE SECTOR

What is the opinion of people towards the new system

A quantitative research on the possibilities of hospitals to attract patients, and to find a way that connects with the patients wants



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FOREWORD

I am very happy that the paper you have in your hand at this moment is my thesis, that was written on behalf of my graduation for the Marketing program of the Master Economics & Business of the Erasmus School of Economics.

Over a year ago, I started with thinking about a research topic, and the first ideas came up very quickly. After some problems during the process, I found my inspiration to start writing and I am very pleased that my thesis is finished at this moment. During this period I came to new insights for the case of the free market in the healthcare business, and that doing scientific research might be interesting, but is really not my cup of tea.

First of all, I would like to thank my supervisor, Isabel Verniers, who coached me, and made sure that I did not make the subject too big. Without these advices there would not be a paper yet, and the piece of paper that would lay down in front of you when it was finished would be immense.

The second person I have to thank is Laurette. Without her I probably would not be here at all. Thanks to her coaching and feedback, I found the new inspiration to go on with the thesis. She was very supportive on my ideas and helped me where it was needed.

Finally my parents, who supported me in almost every choice I made during my studies and they were always there to help me. They are the ones who made it possible for me to study over the last six years, even when I blew up a year, they made it possible for me to graduate today.

By handing in my thesis, my years as a student are behind me, and it is becoming time to look forward. I am really happy that I can walk out the door here with a diploma in my hands. The real life is about to begin now.

I wish you lots of reading pleasure with this paper!

Maurice van Leeuwen
Rotterdam, Maart 2011

MANAGEMENT SUMMARY

The background of the research

Over the past decades, the process of privatization in different sectors of the economy has been an item that is discussed a lot. Now, the healthcare sector is the sector that will be privatized and some special things are going to be seen here. First of all, the difference with other sectors is that a patient in a hospital is not an ordinary customer, but someone in need. The transformation also contains that hospitals are going to have to find ways to attract the patients to choose for their hospital. Are the marketing tools that we already are familiar with, the same as the ones that are used in other sectors, or do we have to find new ways to attract customers? It can also be that the marketing tools stay the same, but that they have to be used in another way. By the knowledge of the things that patients prefer, or by knowing what incentives that people have when they choose for a hospital, it is possible to play in on the needs and wants of the consumer. The application of these tools will make that either people are attracted to the hospital or they will be negative about a hospital.

Since the fact that people became more mobile over time, it is not the case anymore that people always choose for the hospital that is the nearest by, and with that the service area of the hospitals became larger. This mobility makes that people can be more sensitive to incentives that in the past seemed not to be very important.

This research focuses on the preferences of the patients about different factors. Next to that, the attitude of people towards the new healthcare system will be discussed. The factors that will be discussed are service, price, quality and integration of services. These are important, because these are mainly the ones that hospitals can distinguish on, when compared to other hospitals. Next to that the attitude of people towards the new system will be measured, based on the factors that came out of the factor analysis, that was done on the Servqual criteria. These factors are service, safety, trust in healthcare and reliability of healthcare. After this, the collected data will be used to find common characteristics of people in the answers, and with that, to segment the people. The result of this must be that managers of hospitals are able to target their possible patients with information that can convince the skeptics, and affect the rest of the people.

The core thought behind this research, is that by creating groups of people, managers of hospitals are able to find ways to influence the choices of the patients. Although every individual is different from another, it might be possible that some people have the same thought and critics on a system, and this makes it possible to make a collective message for people.

The results

Because of the fact that the data were not applicable for a real cluster analysis, the analysis mainly consists out of a descriptive research. There are some identifiable groups, but they will be discussed later. When looking at the first analysis, the data reduction based on a factor analysis, the Servqual factors did not hold for very long. The only factor that really came back was reliability. After this, the importance of service quality, integration and price was being researched, as well as the attitudes towards the commercialism of the people and the healthcare.

Out of this analysis came that men and older people see healthcare as a commercial product and that women do have to be convinced on this topic. On the other hand, this is not too hard, due to the fact that women say that they are more sensitive to commercials than men. Commercials can be a good way to inform and convince women. Next to that, the higher educated people do not think it is necessary to integrate all the kinds of healthcare, they want to be totally free in their choice for healthcare institutions. The less higher educated people think that it is very good to integrate the different kinds of healthcare, probably because it will decrease their searching costs a lot. To finish this part of the analysis, men are more rational towards the reason they are in a hospital. They say that the only target for a hospital is to cure a patient, while women think that the service part is also very important.

When only looking at the factors price, service and quality, there was asked to the respondents whether they think the factors are important, and how they would rank the three. Here the surprising fact came up that every respondent means that quality is more important than service. Only some lower educated people have the opinion that price is the most important factor, and in total quality is by far the most important factor. This means that the main criterion for hospitals to distinguish on to other hospitals is quality.

When looking at the regression analysis that was done, no real segments came out. Only some important variables scored high. A variable that was important in this analysis was the living situation. Especially on the reliability factor it scored high. Unfortunately not too many variables were significant in this test, so another describing test, a two step cluster was done to find more information.

This little cluster information showed way more information than the regression analysis. There became two identifiable clusters. Important aspect here is that in cluster one are mostly younger people, with a high education, hardly any visits to hospitals and almost no children. We can speak here about a young professional. In cluster two, the older people with children and a relatively high rate of hospital visits, can be differentiated. We can speak here of families. When it comes to service, the older people see this as more positive than the younger people do, so they think the service will increase. When looking at safety, the younger people are the one with a more positive view towards this factor. Maybe because they have more trust in the developments of research in the medical world. The trust in healthcare will on the other hand increase more in the group of older people than in the group of younger people. On reliability, the younger group thinks on its turn that it will increase. This factor could be closely related to the safety factor.

When looking at the last results, there are, on the first view, some contradicting results. A reason for this can be that the sample was too low and that, could also be the reason why a full cluster analysis failed. This means that next time a research like this wants to succeed, there has to be a bigger sample.

Conclusions on this research

This research showed on the one hand, that the healthcare in the Netherlands becomes too expensive. With this fact goes that there has to be done some radical changes. The government cannot finance the sector as a whole, so other parties have to jump in. The idea of a free market has some potential, but there has to be looked very well that there will be no party with absolute power. This power at the moment is in hands of the insurance companies, and this is not the right one because they have the target to spend as less as possible to medical healthcare. This conflict in interests, can create very unethical situations, and at the same time is all the power to the hospitals also unethical, because a patient can in my opinion never be seen as a consumer.

Hospitals have to get to say more about their way of doing business, and they can distinguish themselves via different factors. The most important one is quality, but service is definitely a point where people can make their decisions on. This is due to its intangible character. Make sure that there becomes a basis for this new system that is strong enough, and then people will orientate themselves on what hospital will fit with him.

When the consumer preferences are totally clear the system has to be changed in a way that hospitals do not have a limit anymore on their number of treatments. Only then the free market can succeed. The preferences of the people are really useful to use when people have to be targeted and convinced of the opportunities a hospital gives. Maybe in the and people become loyal to a hospital, instead of a hospital hopper. This is in the future the main target of hospitals, because people are very mobile and the information basis becomes bigger and bigger.

CHAPTER 1 INTRODUCTION

In this introductory chapter the reasons and the objectives of this research are explained. In addition to this the central research question and its relevance is explained. Finally a description of the methodology of the research is provided and the way this study is conducted.

1.1 Reason to the research

The question whether profit in medical healthcare must be introduced is a topic that has been unanswered for several decades. The liberal parties state that it must be implemented, since profit stimulates people to work harder. In other words: it results into a higher level of efficiency (VVD, 2010). At the same time, socialist parties state that it is unethical to privatize medical healthcare, since it will result in a situation where this service will only be available to those who can afford it.¹ A major discussion is going on. At this point in this discussion it seems like, with respect to Dutch hospitals, free markets will soon be introduced. It is expected that this will have an impact on for instance service and quality.

This specific topic is the main focus of this research: is a sufficient level of service and quality sustainable in hospitals when profit becomes the main goal to hospitals? Or, on the other hand, will service become a point of difference to hospitals? And will hospitals specialize in different treatments to improve quality or in different areas of healthcare?

One of the main motives that raised this discussion is the growing amount of organisations in medical healthcare who develop profit making activities, despite the inexistence of a profit target. The market of (healthcare) insurances is already a free market. As a result insurance companies are very powerful actors in the Dutch healthcare system. An important note in this sense is that patients transforms into customers. This might be seen as unethical. Therefore quality must be monitored closely, in order to prevent of increasing the importance of the quantity of treatments.

We have to keep in mind that our healthcare market is a truly unique sector (Boer & Croon, 2009; Putters, 2003). First of all, a very high rate of influence by moral and ethical believes appears to affect our healthcare system. In this essence good medical healthcare is seen as a principle right. We simply feel that it is unacceptable that essential healthcare for people won't be available to the ones that are in need of it. A 'problem' in this sense (and a problem in this research too) is the absence of a perfectly fitting definition of good healthcare. There is already an insurance company (CZ) that lists the best hospitals making the distinction between different treatments. A lot of discussion is going on with respect to the question of who can decide what level of healthcare should be delivered to who and which people have right to a higher level of 'sponsored' care.

Although our healthcare market is liberalising at high pace, our constitution states that the government is responsible to the level of quality delivered by our healthcare providers. The reason to this relates to the fact that consumers who use healthcare should be protected. Think of for instance the use of confidential patient information and unethical activities by healthcare providers.

Our government has a major role in the supply of healthcare. Think of for instance the amount of treatments executed by a supplier, their tariffs and the level of quality that is provided. As a result our government adds a few conditions to the market. Namely, the guarantee of accessibility to all citizens and

¹ <http://www.zorggeenmarkt.nl/manifest.php> (visited at December 27th, 2010)

insurance companies must accept everybody who wants to get insurance. The system doesn't allow healthcare institutions to make a lot of money. Liberal parties state that the market must be opened, in order to let healthcare institutions act like 'normal' companies, resulting in the fact that healthcare becomes more efficient and cheaper to the patient.

Question remains why such high resistance exists towards this new, still to implement, system. First of all, because it is very difficult to the patients to take the role of (rational) consumers. This relates to the following: most often when the patient is in need of healthcare he is very vulnerable, making him highly dependent to the supplier of healthcare. For example, when very acute healthcare is needed, the patient cannot choose the hospital or doctor he prefers. Next to this a high level of information asymmetry exists between the patient and the doctor. And finally, it is true that some patients ignore diseases on purpose, where other patient fake or exaggerate their problems. In economic theories this is known as moral hazard.

What also must be kept in mind are the growing expenses in medical healthcare due to aging of the Dutch population. As a result it is simply not a sustainable system to the Dutch government. Between 2000 and 2007 expenses grew with 25 billion Euros from 40 billion to 65 billion Euros (Boer en Croon, 2009), an increase of 62,5% in 8 years. Over 50% of this money relates to hospitals and first line healthcare like GP's, dentists and pharmacists.

In practice this means that it is will be hardly possible to cover all problems that medical healthcare will be facing in the (near) future, when sticking to the current system. The entire topic of liberalization of the Dutch healthcare system is too big to tackle in this thesis. Therefore this research is limited of a subpart of this debate. First , not the entire healthcare market is studies, but hospitals only. The feelings of patients with respect to the sustainability of service and quality provided by hospitals after introduction of the new system is investigated. A second topic questions the opinions of patients with respect to horizontal and vertical integration: will this increase when hospitals focus (more) on service and quality?

In general the topic of this research is what patient belief are the consequences of introducing this new system.

1.2 Objective of the research

This research studies ways to attract what we now call patients and who we will become consumers in the future, to buy the care they need at the institution we want them to. This means that hospitals have the tools to locate and attract patients. Ways to attract patient can be done by making a difference in the offer, for example by price, quality and service. As a result hospitals have to brand themselves. We will probably hear more often from hospitals than we do at this moment, for instance in commercials.

A problem we are facing at this moment is that the average age of our population is increasing quickly. This means that the costs of healthcare are increasing as well. As a consequence healthcare becomes more expensive to everybody. At the same time our government has to pay a lot as well. To avoid this they decided to make it possible for hospitals to gain profit and to open up the market. Advantages that are seen by the government are that hospitals can attract money by for example attracting shareholders and find ways to increase efficiency by keeping costs low. Disadvantages seen are that patients become clients and that only wealthy people are able to get good healthcare.

The central theme in this research is the service and quality issue. Will service and quality reach a good standard to patients? Do people feel these aspects are important, or do they just want to get better? And finally, will people feel these aspects as points of difference to make their decision for a certain hospital? Next to the service and quality issue, the ethical issue arises. How ethical is it to turn a patient, who probably is in need of care at the moment he visits the hospital, into a consumer? Or worse, how will hospitals react when there are two people entering and the doctors will check first which patient will result in highest profits, because the shareholders have to make profit as well. Do people feel this will be the case? This kind of adverse selection is absolutely a situation that must be avoided at all time. Unfortunately, this is already sometimes the case.

Positive results are that, when hospitals have to compete, they are probably going to compete by pricing. This would mean that the prices become lower. Everybody will agree that this is a positive result to consumers, but hospitals have to start cutting costs in order to reach lower price levels. This on their turn will mean that 'things' will disappear. This can be doctors, the number of beds or treatments, or just the coffee machine in the waiting rooms? The question that rises here is whether quality will be the same when there will be competition by price?

The final point is that hospitals will not be an institution that you only 'see' when you are in need of (urgent) care. Hospitals will become brands with a customer base and extra departments for customer loyalty. Are we going to see hospitals in commercials? Will hospitals specialize in several cures because that is what they are good at? Or will hospitals just focus on those cures where margin and profits are highest?

Summarizing, the objective of this research is what the consequences are of a profit objective in the market for hospitals. The themes that are studied are the ethical issues and the efficiency issues. After that, the focus of the thesis is whether service and quality will be sustained. In this case the things that are studied are what scientists think about these issues. Next to this it is studied what people expect will happen. Finally, the conclusion will be made whether differences exist between the ethical and efficiency issue.

Meanwhile the research has a closer look at the opinions of people with respect to price, service and quality as factors they will use to make their choice. The results will make managers of hospitals aware of the things they have to focus on when the new system is fully implemented. With these results they might differentiate from competitors in their business, and make a more aligned offer with the needs and wants of their customers.

All above leads to the following central research question.

How do hospitals deal with the free market, and how will they be able to sell their company to the world, and how does this affect to the attitude of different people's view to the hospital market?

This research question contains of several components. At first, we see the free market and what this change means to hospitals and their clients. Secondly, it is mentioned how a sector, that has been a non profit sector until now can be commercialized? How to deal with the issue of branding a hospital, and what are exactly the differences with the current situation? The third aspect consists of the points of difference service and quality, and at a lower level of pricing. How to use these in favour of your own organisation and as a possible way of convincing your customers?

Component 1: Free market

- What is a free market and how does it affect hospitals?
- How does a free market affect patients?

Component 2: Commercialization of a non profit sector

- What is profit and what are the (dis)advantages that go along with it?
- What is non profit and what are the (dis)advantages that go along with it?
- What are the possible consequences of a change in thinking and governance?

Component 3: Points of difference

- What is service, and how will it be affected by the switch from non profit to profit?
- What is quality, and how will it be affected by the switch from non profit to profit?
- How can points of difference like price, quality and service help hospitals attract patients?
- How can integration, both vertical and horizontal, contribute to a feeling of satisfaction with the patient?

The answers to the questions that are stated above will probably result in an answer to the central research question that will be answered later in the thesis. In the answer to the central research question the results of the survey that will be done to find out the opinion of the population will be integrated as well.

1.3 Relevance of the research

This thesis is relevant in both a practical and theoretical sense. Both of these will be explained below.

1.3.1 Theoretical relevance

Most of the literature is focussed on organisational consequences that a switch from non profit to profit brings with it. It is also studied a lot what one of the systems means to organisations: they focus mainly on the advantages to an organisation dealing with either one of the two systems. So, in a theoretical way it is interesting to have a look at the switch from one system to another.

Next to this, many studies focus on the governmental sector or at all possible sectors when talking about this topic. The hospital sector is hardly mentioned in research like this. In this research all of these factors will be combined, so that there will be a focus on both profit and non profit situations while focussing at the hospital market.

Second, scientific research on this subject is mostly American. This results in the fact that most of the research is based on the American system of healthcare. There are indeed reports concerning the Dutch market and the consequences of this system, but none of them are truly scientific. That is why it is important to study the Dutch system with respect to the new system in a scientific way.

Finally this research will discuss the themes service and quality with respect to hospitals. With this discussion, there will be a new source of information of what people want in this particular market. This research combines academic literature that is focused on the different topics and tries to present new solutions and options in the upcoming free market of hospitals.

1.3.2 *Practical relevance*

The practical relevance of this research finds its way in the fact that people will get another system of healthcare and with that the question raises what this will mean to patients. Because of the new system people are going to have to choose where they will be treated when they need medical care. To the patients this is a very important step. At the same time hospitals will have to attract potential patients to make a choice for their hospital. During this research it will become clear what factors are important to patients, how they can be attracted and what can hospitals can do to make sure patients will come to them.

Since service and quality are important to people, these are probably the easiest factors to differentiate on, compared to competitors in the market. At the same time it can be the biggest failure to a company in the market. This research is new to that extent, that in the decision to introduce the free market mainly estimations are used based on efficiency and price: the factors that are important to the hospitals and to the government, but in a lower extent to the patients.

The results of this research will give managers in hospitals a guideline for the things that are important to their patients and what the patients expect of them. Managers can act on those things that patients are afraid of at the moment and what the potential patients feel is relevant when they have to be cured in a hospital. When a manager can use this information correctly, or just better than a competitor, this information can open windows when trying to attract consumers. Because there are so many hospitals, it can give a boost in their market position when using this information in a way that patients are attracted. Maybe they can even stay ahead of competition when they find the way to serve consumers perfectly, to deliver a product that fits an individual patient, or (if possible) to a segment.

1.4 **Object of research**

The main objective of this research is the Dutch hospital market and the Dutch population (measured with a sample). What is interesting in this case is how they can be linked to each other. This will be based on the preferences of both of them. The hospitals want to have more patients to cure, and probably the patients prefer to pay less, get better quality and better service. As a result almost every hospital is subject to this situation. On the hand almost every patient is subject to the situation too, since everybody has the risk to become a patient at anytime. As a result the object of research is close to the entire Dutch population.

The main issue of the research is to give hospitals an tool to customize the healthcare to the patient's needs and wants. The is mostly relevant with respect to polyclinic treatments, since situation where the patient is out of consciousness he is not capable of choosing the hospital of his preferences. On the other hand a solution to this might be that people have some kind of a form with them where they want to go in case of emergency. Since every Dutch citizen is an object of research, the sample must be as representative as possible to the Dutch population. The next paragraph explains the way the sample is conducted.

1.5 Methodological justification

The research consists of three phases. In the first phase the focus will be on a literature study. In this study the concepts free market, profit, non profit, service, quality and integration will be studied and it is will be explained in what way these concepts can be combined.

The second phase of the research is a survey. Via the online tool 'www.thesistools.com' a survey is distributed to collect usable data. The main source of respondents is the researcher's personal network. A more detailed description of this survey will be explained later on in thesis.

In the third phase the data will be analysed. In this phase we will first look at individual preferences of possible patients and the existence of segments is studied. This is important, because when hospitals try to customize their care to the each patient, it is way cheaper when they can customize towards segments as a whole. Next to that it is way more effective and it probably makes it possible to serve clients quicker and better.

1.6 Guideline

Below a guideline to this thesis is presented. It will be explained were to find what part of the research. In the first chapter, the research was introduced. This means that is clear now what the idea behind the research is and why this research is relevant. It also introduces the steps of the research.

In the second chapter the focus will be on the theoretical background of the first major topic of the research: the process to get to a free market and the commercialisation of a non profit market.

In the third chapter the points that hospitals can compete on will be discussed. This is the second major topic of this research: a theoretical background of the most important points of difference is presented.

The fourth chapter consists of the context of the research as a whole. Here the Dutch hospital market will be discussed. This means that the characteristics of the market will be mentioned and that the market will be placed in the view of the research.

In the fifth chapter the expectations of the research are discussed, the hypotheses will be explained and a conceptual framework of the expectations is shown.

In chapter six the research and the analysis will be done. In the first part it will be explained how the research is done and how the questions of the survey were created.

Chapter seven will discuss the results of the research. It will be explained what participants responded in the survey. It will also be shown whether it is possible to segment the patient base or not.

In chapter eight the results will be discussed and there a conclusion will be drawn based on the research that is executed.

In the final chapter, chapter nine, the answer to the central research question will be given. This answer will be based on the results of the research. Concluding, this thesis there will give recommendations to managers. Also the limitations to this research will be discussed and options to further research on this topic are mentioned.

CHAPTER 2 A PROFIT MARKET, AND WHAT TO DO NOW?

The second chapter of the thesis will focus on two of the three concepts that will be spoken about. First, the free market will make its entrance followed by the profit item. These two will be explained based on literature and even combined because the two are hard to be seen separately.

2.1 Free market

The main issues of this thesis are in the end quality and service. The starting of thinking for this thesis has its funding in the introduction of a free market for hospitals. To understand what all the consequences in the end really are, we need to know first, what is meant by the free market.

2.1.1 *Free market for hospitals*

To characterize a free market, there are several options. In this research a free market refers to a market where competition is possible. The following definition of ‘free market’ will be used: “the stimulation of competition” (Putters, 2003: 8). We speak of competition when consumers have a real exit option to step over to another supplier and that this supplier, feels the threat of this possible step of the consumer (Putters, 2002). What does this really mean for hospitals?

When hospitals really feel that they are going to have to compete for their customers, they are going to have to offer things to their patients that make them want to come to their hospital. At this moment, the healthcare market is for a surplus in the hands of the government and when there is a money shortage, the government will most of the time jump in. The thing with a free market is that hospitals can attract investors to invest money and when there is profit, they will gain profit. The advantages are that innovation probably will take a flow forward. The expectation is that introducing a free market makes sure that hospitals have to compete for their patients, and therefore deliver more efficient healthcare for a lower price which should result in shorter waiting lists.

The free market has a great potential. This means that hospitals have to make sure that their balance sheet is all right. This also means that when a hospital performs bad, it can go bankrupt. Is this a bad thing? When shortages keep being filled by a government, every sense of delivering good care or service is gone (Canoy, 2009). This way of organising a market can stimulate entrepreneurship. This has some good and some bad aspects in it. On the one hand the healthcare can become less expensive, for example when the efficiency will be higher. On the other hand it can become more expensive when it goes along with high bureaucracy (Canoy, 2009). The entrepreneurship issue comes back when there will be spoken about the profit issue later in this chapter.

Concluding on the free market for hospitals it means that hospitals will become targets for entrepreneurs in the future. This can be private parties, but also investment companies or insurance companies. The only problem that can be seen here is that ethical values will be harmed. Doctors might want to take care only of people where they can make profit on, or the care will decrease in level because of the fact investors simply ask to cure the patients faster because then they can take care of an extra patient.

2.1.2 *Free market for consumers*

What will this free market mean to consumers? It means that they have to start thinking themselves about where they want their care. They have to start focusing on what they actually want in a hospital. What are the factors that a patient wants to get? At the same time it will probably mean that the waiting lists will become shorter and with that goes that patients will be served faster. Hospitals cannot do anything else than offering excellent care because otherwise patients will leave. On the other hand there are probably also a few possibilities thinkable where insurance companies force the patients to choose for hospitals where they have good contracts with. That is a disadvantage of the free market, and at the moment, it is also forbidden. Even though this is already the fact in healthcare nowadays when looking at the free market for health insurance companies. When an insurance company buys organs they are not free anymore for hospitals but a patient can only use it when he is insured at that specific insurance company. This is also a danger when opening the market for hospitals. Doctors swore that they would help everybody who needs medical care at a certain moment. Problems come when somebody is not a “member” of a hospital and in that way has to pay more or he will not get care. This is an ethical problem that has to be banned out before introducing the new system, because this is in contradiction with the constitution, which says that everybody is the same and there may not be any way to not see people as the same.

2.2 **The commercialisation principle**

Since the free market concept is hard to see as an individual theme, the commercialisation principle comes very fast after it. In this part of the chapter will be looked at the commercialisation of the healthcare sector, the profit and not for profit issues and the problems that come along with these items. At the end there will be discussed whether hospitals should or should not change to profit companies and whether a free market also means that you have to go for a profit market.

2.2.1 *Commercialism*

As probably is pretty obvious, the distinction between profit and non profit firms is not very easy to make. This is mainly because non profit organisations are becoming more and more like private firms (Weisbrod, 1998). At this moment the market for hospitals is one of not really competing companies, because there is no real incentive to compete. The government will most of the time jump in when it goes bad with a company. The only competition there is at this moment is the competition for capital and labour (Tuckman, 1998). The commercialisation of healthcare mainly becomes visible in the fact that more and more, healthcare institutions are focusing on a niche of the market. When the market is commercialising more and more there must be a level playing field for all organisations (Putters, 2002). All organisations have to be even on several things to avoid uneven competition and cherry picking. At the moment the strange fact is going on that the academic hospitals have the better instruments and the difficult patients to cure, and these are at the same moment the institutions where the doctors are paid less than in a peripheral hospital. This paradox has to be taken away, because else there cannot be a fair competition on for example labour. The difficulty that comes with the commercialisation of healthcare is that it is seen as a public good and everybody has the rights for it. It just feels wrong until now to make healthcare a commercialised product.

To commercialise a product or company, it is very important that a product is recognizable. The best way to do this is with a brand. A brand is something that people cannot touch but at the same time is a very valuable intangible asset (Keller, 2008). Principles that are very important for the communication from a company to the consumer, are that a brand gives an identification with the source of the product, it is a search cost reducer, and it is a signal of quality. For firms it also can be very important on the points of legal protection like for instance patents, but it can also be a competitive advantage. When the brand is very strong, it can even be a source of financial returns (Keller, 2008). There are with a brand several possibilities how to bring it into the market and several strategies that can be used to stay in peoples mind. A strategy can be to deliver healthcare for a low price and be a price fighter. On the other hand there is the possibility deliver for a high price and focus on the wealthier people. There can be a focus on different kind of groups like people who work in medical care or people who work in education. Several ways of distinguishing are possible, and are often needed to be visible for your customers. Another point where will be spoken about in the paragraph about integration is to create extensions on your company (Keller, 2008). For example a physiotherapist which is incorporated in the care of the hospital. These kinds of extensions are examples of distinguishing from competitors to attract people to choose for your company.

2.2.2 *The American situation*

In the old situation in the United States, there was a kind of the same situation as in the Netherlands at this moment. The hospitals were state driven, just as in the Netherlands right now. In the United States the federal support for hospitals stopped since 1973 (Goddeeris & Weisbrod, 1998). The conversion from non-profit to profit started in the early 1980's. From that moment on, in the next fifteen years, most of the hospitals converted from public ownership to private ownership. The reasons for conversion were obviously the possibility to gain profit and the easiness to attract investors. In the United states now, most of the hospitals are privately owned. This means at the same time that patients have become customers. Nowadays these conversions are accepted by the people. They see that by the simple attraction of money the research became better, and with that the overall quality of healthcare increased (Goddeeris & Weisbrod, 1998).

2.2.3 *For profit in medical healthcare*

Because of the growing waiting lists in the hospitals there have been several initiatives to make sure that patients would be served quicker. Most of them were investing money in the hospitals to create capacity. This seemed not to work out as well as they thought. The main reason for this is that capacity is not the problem. The problems are a shortage of doctors and a lack of incentives to solve the waiting list problems. The overall thought is that something might change when for profit will be introduced. We can speak about profit in medical healthcare when a private company provides care with private money; when this is in a market where competition is with other possible suppliers or financers; finally eventual profits will be paid to shareholders (Putters, 2002).

Because of competition, there are expectations that hospitals do have to compete on all kinds of things. Examples are price, quality, service, speed and efficiency. Mainly the efficiency is a factor that hospitals, governments and the patients go for. The reason for this efficiency motive can be found in the fact that privately owned firms are more efficient than publicly owned firms, and next to that unregulated companies are more efficient than regulated firms (Atkinson & Halvorsen, 1986). These statements are not confirmed by several other researches in this field that are done. For example, Di Lorenzo and

Robertson (1982) conclude that there is no significant difference in public and private efficiency. Neuberg (1977) and Pescatrice and Trapani (1980) even conclude that public firms are more efficient than private. Taking this in mind, it is very hard to confirm or reject this statement. This means that the efficiency motive might be interesting, but is absolutely no guarantee for shorter waiting lists. One of the causes of this problem might be that there will become a lot of extra bureaucracy (Putters, 2003) which makes the processes just less efficient.

Another reason why for profit should be introduced is to attract money. With this money, it should be possible to do research on diseases and do innovations so the quality can be upgraded. In fact this might be a very nice reason to make it a profit sector. But investors have other interests than doctors and probably other interests than the possible patients. The health care has its funding on the next public values: Accessibility of healthcare, a fair distribution of resources, enough volume and quality of healthcare and an efficient use of resources (Putters, 2002). These values do not stroke at all with the values that a private investor has. He thinks that efficiency, effectiveness, profit, innovation, creativity and good business are the main values (Putters, 2002). Consequences can be that the professionalism of doctors can conflict with his personal motives. These conflicts of interests, where the government as a supervisor must be very aware of, and has to make very straight guidelines for the business so that the public values will be kept in mind.

So when this is also not a good option, what is it then. The hospitals can compete on something else like quality, service or price. These are more open resources and easier for patients to compare. These are points where hospitals can distinguish on compared to competitors. There are already lists where the quality of a hospital on specific cures is measured and made public. Service is a feeling that is different for every consumer, so he can do whatever feels the best for him.

The final point is that hospitals are going to specialise. This will have some positive and some negative effects. Positive is that some treatments will become better than they are now and in this way the quality of healthcare will improve. Negative points on this are that the hospitals who specialize will probably only take the cherries where the highest profit margin is on. This on its turn has some negative side effects. Firstly, it means that treatments with lower profit margins will not get the attention that they should get. Secondly, it means that those treatments with lower profit margins must be done in hospitals that do not specialise on certain treatments, and with this the level playing field is gone (Putters, 2002).

2.2.4 *Non profit for hospitals*

It would be very easy to use all the points above to say that non profit would be better than for profit in the hospital market. The non profit market has as a main characteristic that they do not work for investors, but just for the public interest. The governmental support though, makes that the focus will only be on making people healthy instead of efficiency and gaining profit. So for the overall health it could be better, but for the quickness of the medical care, it may not be. This finds its way because there is no sense of stimulant to improve or do things quicker.

Based on the plans of the government it is obvious that changes will occur in the near future in the non profit market for hospitals. Commercialism in the non profit sector seems to be a paradox, because the expectations from non profit hospitals are different from privately organised and financed hospitals (Weisbrod, 1998). Why is it then interesting to use a system with non profit hospitals. When a society is very homogenous, it is very easy to organise it and it is easy to organise the facilities for people. In this case the need for non profit organisations is low (Weisbrod, 1975). Since our society is very heterogeneous the need for non profit organisations is not there. The relationship with the business is there that non

profit hospitals have to compete for resources with other non profit hospitals. When the non profit market grows, it will in the end be indistinguishable from a profit market (Weisbrod 1998).

Non profit organisations are not only competing with non profit firms, but also with profit firms. The fact that a non profit firm competes with governmental money, makes that there in this case is no level playing field. To create this level playing field, the market should be opened. On the other hand there is for example a difference between academic and peripheral hospitals in their role as an educational hospital. This educational aspect is a reason to give a subsidy to an academic hospital (Becker, 1995).

In fact, this means that until now there is no real preference for one of the two. That might mean that there is no reason for change until now.

2.2.5 The process from non profit to profit and adverse selection

Of course we can look at both of the systems separately, but there will also be a process when changing from one to another. When in the United States in 1973 the subsidies from the government to the hospitals stopped, the market share of the government dropped very fast (Goddeeris & Weisbrod, 1998). Probably because of this fact, lots of other hospitals followed the path of privatisation. The main reason for this is that the commercial activities of a non profit hospital are nearly the same as for a profit hospital (Goddeeris & Weisbrod, 1998), with that difference that there is now access to new capital, that because of the profit principle can be reached now. A problem that is really going to exist, is that the assets do not belong to individuals so who is the exact owner?

The conditions that have to be recognized are different. The main difference is that in fact, people work for the shareholder. This means that there can be a shift in focus from quality to quantity. The focus can go from treating patients to realising patents for new drugs. Another ethical point that is suggested that can happen is, that patients without an insurance will not be served because there is no guarantee that the patient can pay the bill. In the same line of expectations is the problem of adverse selection. This means that “the uninformed side will get the wrong people trading with it” (Rosen, 2008; p.230). Patients with a lower expectation of life can be charged higher, or just small polyclinic treatments will be served later or will not be treated at all. The doctors and the hospitals are always in a big advantage because of the big asymmetric information there is. In the Netherlands it is fixed by law, when the market for insurance companies became open that it is strictly forbidden to reject people or to charge them higher when there is a suspicion of moral hazard or higher costs due to a unhealthy lifestyle. Think in this case about smoking or drinking people. So this is something that must be ruled by law.

The danger of this conversion is also in the fact that quality may suffer under the fact that economic efficiency will get higher priority (Goddeeris & Weisbrod, 1998). This will be spoken about in the next chapter. What is important, that there can be reasons for the government to open up the market. These are most of the time exogenous. For example, the situation in the Netherlands is a good one to do so, because at this moment the costs of healthcare will only grow in the next years, because of the population which is getting older and older. This means that the costs will be made somewhere else, and the profit can go to investors. At the same time the risk is also there. Goddeeris and Weisbrod (1998) argue that the rules for the conversion from non profit to profit should only be possible, when there is no private gain as a motive to invest in medical healthcare. If the government does not achieve this, the social costs will become extremely high, and that is especially with healthcare not what this conversion should accomplish.

CHAPTER 3 HOW TO DIFFERENTIATE FROM YOUR COMPETITOR?

In this chapter we are going to take a look on how hospitals can differentiate themselves from their competitors. This will be done based on different points of parity and points of difference. The main points are price, service and quality. An item besides these three is integration. This item is spoken about a lot as an option for hospitals to differentiate from the way things are being organised at this moment. At the end of this chapter will be spoken about Servqual. This is a framework to see through the quality of service. With the Servqual method there can be made a diagnoses of the shortages of the service that is offered.

3.1 Price

First of all it is important to see the difference between a point of parity, and a point of difference. With the commercialisation aspect there has been spoken about the positioning of a brand. Points of parity and points of difference are very important in this situation. A point of parity is not necessarily related to a brand. It is more a point that can be compared. This is in contrast with a point of difference. This is something that is strongly related to a brand (Keller, 2008). Examples of both are that a point of parity is hand soap which cleans your hands. An example of a point of difference is the innovativeness of Apple. There is not really another company that can come close to Apple when we speak about innovativeness.

One of the reasons that our government wants to go to a system with competition is the assumption that the prices will decrease. It is important to know that it is just an assumption. Research showed that there will come other costs with competition which are higher, and this will almost for sure raise the prices of healthcare (Robinson & Luft, 1985). On the other hand this increase in price may have a very positive effect. "If competition raises costs and prices in this way, then the limiting numbers of hospitals and regionalizing expensive services might save money by limiting redundant equipment and could even improve quality by concentrating services" (Keeler, Melnick & Zwanziger, 1999: p. 71). It is even so that there seems to be a very strong evidence, that the nature of hospital competition became one that is mostly on the price, and that there is a steady increase in costs.

What can be very important in the price case, is that private firms on average pay 10-15 % less than public companies for the instruments they need (Ohlsson, 1996). With this decrease in costs, it is maybe possible to keep the prices steady. It is very obvious that the theoretical vision on this new system is not totally convinced on what will happen. Clear is that when a hospital is capable of keeping the prices low, they can have a competitive advantage on hospitals which are more expensive. In this way pricing of the care can be a point of difference. When a hospital is capable of finding a way to get this mark to their hospital it can definitely be a reason for people to choose for this hospital. Also insurance companies will think about advising their customers to choose for this hospital, because the costs of care will be lower for them as well.

3.2 Service

Service on the other hand, is a completely other instrument for hospitals to be different from a competitor. Service is in contrary with price a subjective criterion. Service is a subjective point. It is what people feel that they get from a service company. Service is what people experience. The quality of service can be defined as the difference between what a customer expects and what he really gets. Because service is something that is very hard to measure, it does not mean that it is less important. The quality of service

can make the difference whether somebody goes to company A or company B. Many people will say that service is not worth any money because you cannot see directly what you earn with it. The hard point of service is that it is intangible, which is the opposite of selling hard products. Later on in this chapter there will be spoken about service some more when talking about Servqual. Service is, maybe because of the intangibility, definitely a point of difference.

3.3 Quality

The most important point to distinguish from a competitor and probably the most important factor in medical healthcare, is quality. Quality is the most important value in healthcare and the question is whether the quality and the professionalism will stay on an acceptable level. There are two main values that are very important in the discussion about shifting to an open market for healthcare (Putters, 2002). The first one is profit versus profession and the second one is profit versus solidarity. The first one is in the case of quality the most important one. In this case economic rationality and medical ethics are against each other. On a certain level it is possible that doctors, criteria like costs use, to base their decision to cure on. In cases like this the risk is there that human values become secondary on the economic motives. This will create a lower basis of trust in the new system (Putters, 2002).

With the case that is described up here, the professionalism of doctors and their integrity can be in doubt. One of the most important ideologies in healthcare is that professionals have a higher priority for doing useful and needed work, than earning big economic profit. Although this ideology is the funding of the healthcare market, it is what is slowly fading away (Relman, 2007). So their professionalism is in doubt. Relman (2007) even goes further and states that doctors will put their personal gain above the patients and curing them in a honest, competent and passionate way. In the United States it is do that a lot of doctors contributed to this way by accepting that healthcare is some kind of business as well. With this facts it is obvious that medical healthcare is not only there for the patients, but very much also for the gains of investors, managers and doctors in hospitals.

3.4 Servqual

3.4.1 *What is Servqual?*

Servqual is a very important part of the thesis. Especially because the most important things to distinguish on to competitors are service and quality. Servqual is a combination of the words service and quality and it offers us a framework to measure the quality of service (Leenders, 2001). Because service is very hard to measure in the way that there are a lot of feelings concerned with the feelings of service, it is all a subjective perception of the consumer (Leenders, 2001). The starting point of servqual is the difference between expectancies and reality. The judgement will follow in the fact whether the experience is in common with the expectation (Leenders, 2001). The servqual model is built up out of 5 carefully chosen dimensions. These are:

- Tangibles
- Reliability
- Responsiveness
- Assurance
- Empathy

The tangibles have a focus on things people really see and feel when there is talked about a company. The reliability is about the fact whether people trust the company and about how safe the people feel when dealing with the company. The responsiveness is about the fact whether people have the feeling that they are served quickly and about the helpfulness of the employees of the company. The assurance issue is about the fact whether people can rely on the company and whether people give you a nice and happy feeling. The last dimension is empathy. In what way do people of the company feel with you? Do employees take some time to talk, and those kind of aspects.

The developers of the servqual model have also spoken about gaps. These five internal gaps explain the failure of communication between a consumer and the company. The gaps talk about the fact that the experiences of the consumers detain on what they expected (Zeithami, Parasuraman, Berry, 1990).

The first gap is that a company does not know what a consumer wants. There are a lots of possible causes for this gap, but the most plausible are that there is a failure in the use of market research. Another reason is that the wishes of the consumer are not translated in the right way. The second gap is possible to find in the service guidelines. This happens when people carry out the message of a company completely wrong. They can be very dedicated then, but when the message is wrong the consumers will not come. The third gap contains the differences between what is expected from an employee, and what he does. The main problem here is communication and responsibilities (also lack of responsibilities) (Leenders, 2001). The fourth gap lies in the problem that a company promises more than it can handle, and by this creates a wrong view in the community. The final gap is the result of all above. This is when the consumer finds a difference between perception and reality and the focus of the company is directly on this specific issue.

3.4.2 *Critics on servqual*

Next to the positive contributions that servqual can deliver to companies quality of service and to the ideas of managers, there are some criticasters as well. The first criticaster is Andersson (1992). He has three big disturbs with the servqual model. The first is an economic principle which says that there are costs coming with the ideas servqual delivers, which may be higher than the value for the consumer. Secondly, the statistical background is not in common with the conclusions that are drawn. By this the correlations that are drawn are not allowed. The third critic is based on the fact that there are several psychological assumptions done, without speaking of the theoretical backgrounds of it.

Also the scales that are used do not withstand the critics. The critics on the scales are that there are very high expectations on the results which also can be seen in a different way. There can also be a change of expectations in time so results are not always applicable because the situation has changed. The questions can be asked in a wrong way, which creates unusable answers. And the last one, is the five dimensional factor solution, which may not be complete in its dimensions (Lemmink, 1993).

3.5 **Integration**

An item that comes back many times when looking at service in medical health care, is integration of activities and services. There are two ways of integration possible, horizontal and vertical. Horizontal integration means that next to the normal activities of a company, in the same line there will be another activity. An example of this is that a bed store will sell couches and other furniture as well. Vertical integration means that a company takes over tasks that were earlier or later in the process (backward or forward integration) (Besanko, Dranove, Shanley & Schaeffer, 2004). An example of this is that the same bed store that is used before will also build the furniture. One of the reasons for vertical integration is to decrease the powers, as explained by Michael Porter, of the demand and the supply side of the market

(Brandenburger & Nalebuff, 1998). When we look at the hospital market, horizontal integration does not occur very much. The only way horizontal integration in hospitals becomes visible, is with the hospital shop or a taxi service. Vertical integration is possible in lots of other ways. Several different kinds of services are very logical to integrate. For example, follow up departments like a cardiologist who can send you to somebody under whose supervision you can build up your overall condition again. Is integration of different kinds of care a wise step to take?

Proponents of this kind of integration say that integration will lead to increased effectiveness and quality of care. This cost effectiveness can possibly lead to cost savings (Thaldorf & Liberman, 2007). On the other hand research has also found that integration of healthcare networks, did not really have an effect on improvements on organizational efficiencies or profits (Thaldorf & Liberman, 2007). Sceptic people doubt that this integration will lead to higher efficiency on the long term. There is of course a big chance that organisations become too big and with that the rate of bureaucratic cost will raise. One of the reasons that people are sceptic is because this is a new way of thinking and it is a different thought of mind. The research of Thaldorf et al (2007) showed that vertical integration is most effective when there are large parties in the regions they serve. Even though, whatever the increase or decrease of efficiency may be, the service level to a consumer increases, and that on its turn is a point of difference a hospital can profit from as well.

In the end, it looks like vertically integrated hospitals, profit or non profit, seem to be more efficient and well organized than hospitals that are not (Mick & Conrad, 1988). It is even though easy to say so, because almost every hospital is vertically integrated in some way (Mick & Conrad, 1988). There are several ways, a company or hospital can use vertical integration. The systems can be very easy and for themselves, but they can also be very complex, including other hospitals and external divisions and departments (Harrigan, 1984).

CHAPTER 4 THE DUTCH HOSPITAL MARKET

In this chapter, the context of the research as a whole will be spoken about. This means, that there will be an overview of how the hospital market looks like at this moment. What are the factors that influence the choices of the patients? What are the differences between different kinds of care, and is there a difference between public and private hospitals at this moment?. Are there differences between academic and peripheral hospitals, and what is the role of insurance companies on the healthcare and its accessibility for the consumers? To close this chapter, the hospital market will be placed in the context of the research, so that it is clear how this research is relevant.

4.1 History of the hospital market

This research will not contain a total history research of the Dutch hospital market. It would simply not be very relevant for the research. The starting point is in the middle of the nineties, where there was a trend of privatisation of governmental institutions. Examples are the Dutch railway system (NS, Prorail), the market for mail delivery (TNT) and the Royal Dutch Airlines (KLM). These are all ideas from politicians in the nineties, that efficiency and profit were the new incentives. When we look now, there are lots of critics on the privatisations. At the same time, there was another idea, which was the privatisation of the healthcare market. This contains the insurance companies, but also the providers of healthcare. The first one already is a fact. For some years now, the market for health insurance companies is an open one, and with that, there was started competition within the market. The discussion now is partly, is it wise to open up the market for healthcare providers as a whole, and how do these have to compete? This research focuses mainly on the second of these questions, but maybe gives a part of the answer to the first one.

As said above, it all started with opening up the market for insurance companies. The reason for this was that some socialist parties thought that the current system at that time was unfair. There was a system that people had an obligatory insurance where they paid for via their work. This system meant that everybody had been insured. There was in fact a difference for people. Next to the basic insurance, (sickness fund) people could insure themselves with a private insurance. This was almost the same as a sickness fund insurance, except for the fact that the second line in healthcare, like physiotherapists, general practitioners and dentists were not insured in the sickness fund. The consequence of this system was that only the people with more money to spend were able to get access to private insurance and with that to all the types of healthcare that are needed. This was seen as an unfair situation, because not everybody had the same accessibility to needed healthcare, and for that there became a new system.

This system is the one we have at this moment. Everybody is obliged to have an insurance, and it is free to insure extra for things that people think are that important for themselves. In the beginning it was for insurance companies important to gain as much customers as possible, and because of the lack of information, the only thing that they were really able to distinguish on was price. Later on, points of difference became service, waiting list mediation and other things that make life easier for people, became really points of difference. Until here there are no problems and it seems to be fair.

The problems we can see now is that since the introduction of the new system, there became a large increase of costs for general practitioners. The reasons for this are the new declaration system of general practitioners, but also the way people are insured (Maarse & Paulus, 2010). Also in the Physiotherapy business we see an increase in price after 2006. This is probably because of the increasing demand.

	2003*	2004*	2005*	2006**	2007**	2008**
GP care	103	102	102	119	124	127
Physiotherapy	48	20	22	21	24	27

* Only sickness fund insured

Source: CVZ (2009)

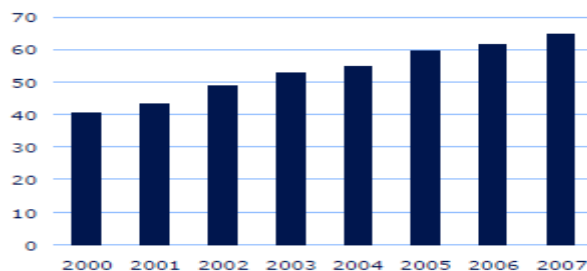
** All insured

What we can see here, is that the risk of free riding maybe here. People are tend to see a doctor faster because it will be paid anyway. This, in combination with the new system, where doctors are supposed to make profit, can be a very dangerous combination for the affordability of our system.

4.2 The current hospital situation

In this paragraph there will be a look on how the market looks like at this moment. There will be looked at some key figures that exist in this market. Examples are how big the market is, what the production is and how the evolution of the market is now. There will be tried to explain these figures and to tell what the possible consequences are. This is important, so that there can be tried to absorb these data in the research questions.

To start, it is interesting how big the hospital market really is. The size of the total healthcare market is 72 billion Euros in 2009. This really big amount of money is divided into several divisions, and one of them is the hospital market. About 20 billion Euros is spent to the hospitals (Boer & Croon, 2009). In combination with the fact that our population is getting older and bigger, and with that the consumption of medical healthcare increases, it is obvious that there has to change something in this business to keep it affordable.

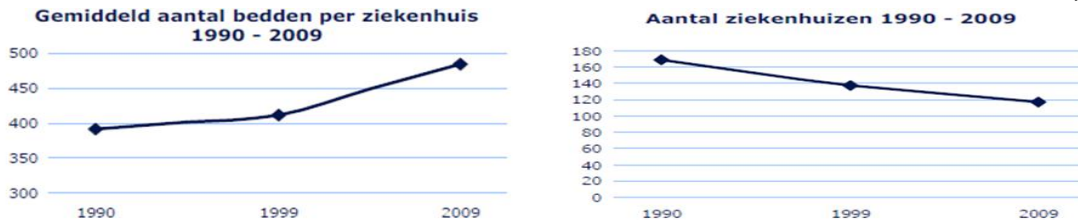


Source: CBS Zorgrekeningen

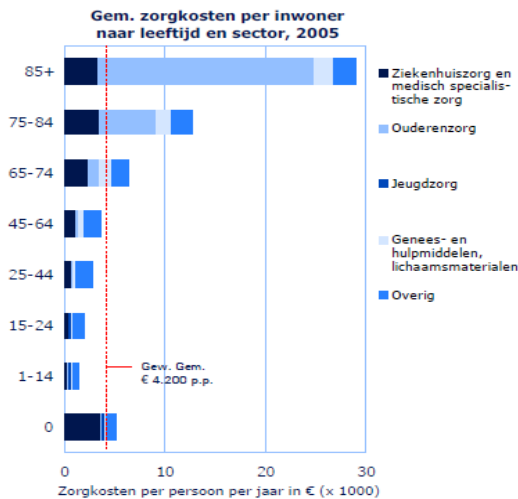
There are, as mentioned before some options that can be used. One of them is to specialise in a certain direction of healthcare. The problem of this is, as also mentioned before, the phenomenon of cherry picking (Putters, 2002). The market and the number of specialisms make it very attractive to focus on something that is lucrative to cure. At this moment there are 47 specialisms in the hospitals (Nivel), which make it reasonable to think that when some hospitals specialise, the quality of the treatments will raise. At the same time we have to think about a level playing field for the hospitals and also about the affordability of the healthcare (Putters, 2002).

But what will happen when hospitals are going to have to compete? There will be more sharing of knowledge and services between hospitals (Swart & Kinnie, 2003). A possible consequence of this is, that hospitals will merge or that hospitals will grow more. Over the past two decades, this is in the Netherlands a trend we can see at this moment. There were a big amount of mergers in the years, and at the same time there was a giant increase in the average number of beds per hospital. From this we can read that there were big scale increases in the hospital market.

Source: Boer & Croon, 2009



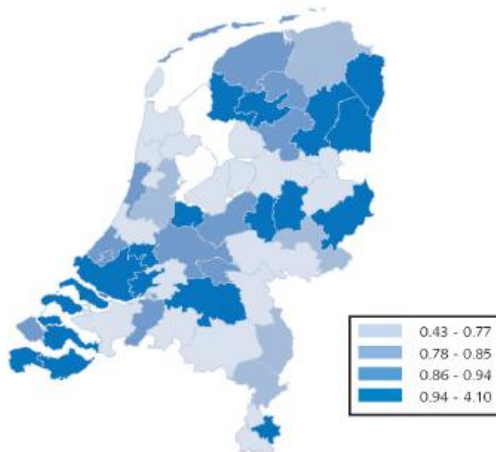
A few characteristics in the market are, that age and the economic class of people seem to have the biggest influence on the patterns of healthcare consumption. This can of course be explained, by the fact that people who are younger do not suffer from for example a flu as badly as older people do. Also people who are wealthier have more money to spend on good and healthy food and to ways to keep a body in shape. Next to this, we can see that women consume healthcare more than men do, but this is mostly because they live longer and with that use more care for elderly people (Boer & Croon, 2009). We can see these facts in the graph below. What has to be mentioned though, is that these facts do not count for dental care. There the cost do decrease when the age becomes higher, and the costs are higher for the people with higher education levels (most of the time wealthier people) (Boer & Croon, 2009).



Source: RIVM, "Costs of diseases", 2005

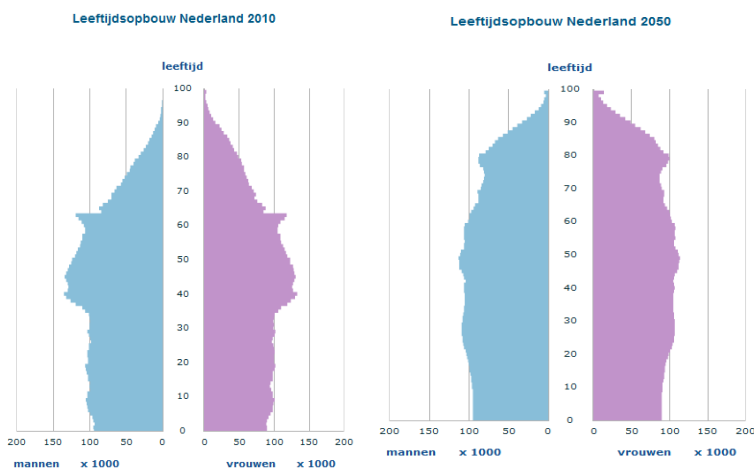
When we look at the accessibility of hospitals, it is important to see the density of the population per hospital. Out of research came that the density in the regions Rotterdam, The Hague and the north east of The Netherlands is very high per 100000 citizens, and that in the regions Amsterdam, Flevoland and the south east of the Netherlands the density is very low. For the north east there is a very simple explanation, because there are just a low amount of people that are living there. The same reason, but then contradicted, is there for the Amsterdam region. The population is that high, that there is just a low rate of hospitals per 100000 citizens.

Number of hospitals per 100000 citizens per region



Source: Boer & Croon, 2009

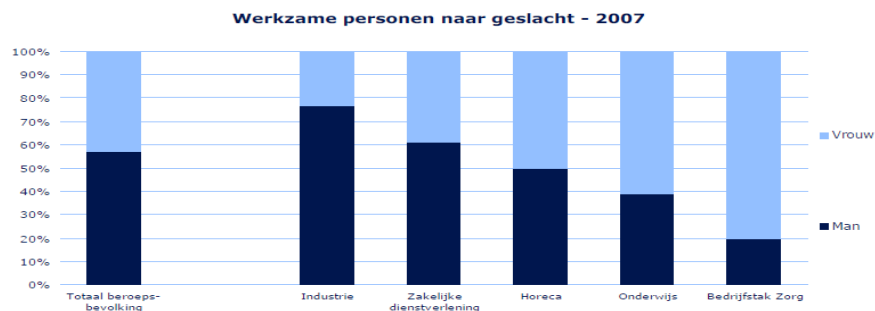
As already mentioned before, the average population will become older, and with that the ask for healthcare will not stop increasing. This is just a start of the evolution on the demand side of the market, and there are several more. As showed below, in 2050, a quarter of our population is older than 65 years of age. Because of our unhealthy behaviour, about fifty percent of our population will suffer chronic diseases. Innovations of our healthcare will cause an increase in the costs of healthcare. Finally, the healthcare consumer of the future is focused on luxury, comfort, result and quality (Boer & Croon, 2009). On the other hand, there are some developments on the supply side of the market as well. There are coming initiatives to build chains, for multidisciplinary cooperation and for forming alliances. This is mainly to become bigger, to gain more influence in regions. This also this makes it possible to offer better quality of healthcare for possibly lower prices. There becomes more and more transparency in services because of the decrease of information asymmetry. There is also the idea of incorporating a lot of tasks into ICT systems. The healthcare business is far behind to some other sectors when it comes to sourcing by other parties. The main issue here is that there are lots of privacy issues here, which are not easy to solve within a short amount of time. This makes the implementation of ICT usage very slow (Boer & Croon, 2009).



Source: CBS

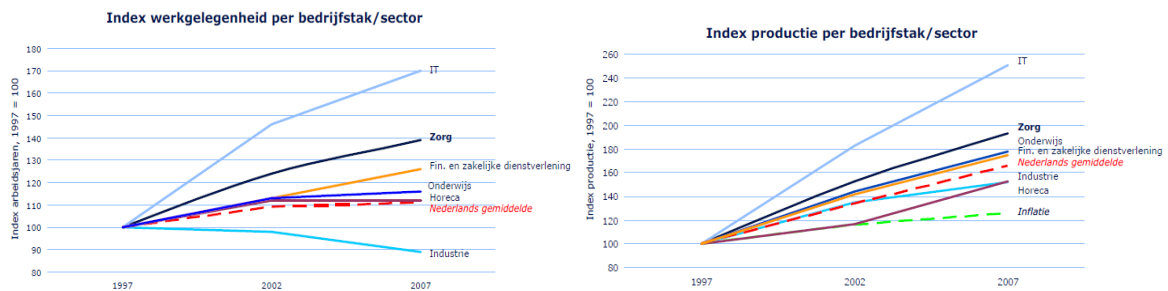
When looking at how much people use healthcare, we can see that for hospitals counts that 6,7 million people had contact with a medical specialist. There are 1,1 million hospitalisations with an average stay of six days. What becomes important now, is that for these people on average 4,8 people per day are coming for a visit (Boer & Croon, 2009) It is for the service of a patient important that these visitors are served very good as well. Examples are a good restaurant for them, or are there enough parking lots?

When comparing the healthcare business with other businesses there a few things that really come out. The healthcare business has by far the highest rate of women. A reason that can be given for this is that this business gives the opportunity to work part time a lot, and that women want this a lot to take care of the children next to their job.



Source: Boer & Croon, 2009

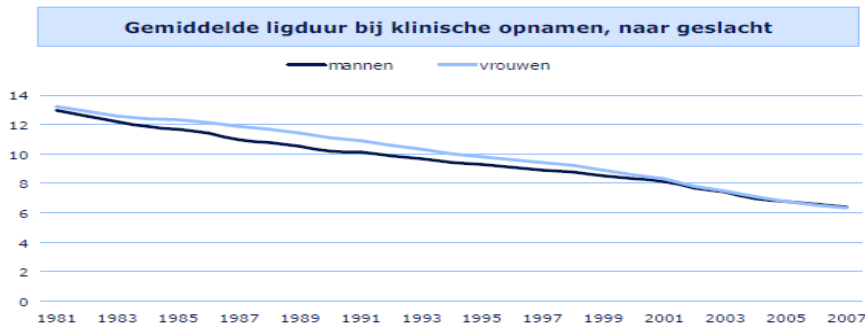
The rewards in the healthcare business are relatively low, while the level of education is above the average. The reason for this is that the average reward stayed low compared to other businesses. The business grows more than the Dutch average. This counts for the production as well as for the employment rates (Boer & Croon, 2009).



Source: Boer & Croon, 2009

What finally is expected, is when we introduce profit in the hospital market, is that the efficiency will increase so that the waiting lists will decrease. When looking at the rates over the past three decades, there must be concluded that there is already a trend in this. The average laying time in a hospital already decreased from about thirteen days to about six. When looking at this fact, is it reasonable to think whether the introduction of profit in healthcare will bring an even shorter laying time in the hospitals. The reasons for this are at the moment: innovations in processes, medical equipment and hygiene which make people recover faster from heavy treatments.

The second reason is that it is easier to organise the healthcare better at home, so the patients can recover at home and be fired from the hospital quicker. A very positive point in this is that the costs will decrease over time.



Source: Boer & Croon, 2009

4.3 How do hospitals gain money?

Hospitals have to gain money in some way. Of course, when somebody was treated, the hospitals get their money. But how can they make profit then? The system we have in the Netherlands is, that when somebody has an indication of a disease, the insurance company says that it could be solved within a certain amount of money. This can be a little too much when there are no complications, or it can be a little bit too low when there are complications. This is exactly where hospitals are making profit on. But the risk of this is, that hospitals are going to refuse to do treatments with a high risk of complications, and that they will specialise on the treatments with low risks. This phenomenon is the already mentioned as cherry picking. With this, there comes the big difference between academic hospitals on the one hand and the peripheral and private hospitals on the other hand. The academic hospitals get from the past on, the patients which are hard to cure. These are most of the time the ones that have a high risk of complications. This means that these hospitals cannot really pick out their patients like some other hospitals can do. The consequence is, that they will probably make losses on these patients, which really makes clear that one of the conditions of the profit system for hospitals, namely the level playing field (Putters, 2002), is not there. When it comes to an example for this, there can be two hospitals in 5 kilometres distance from each other. The one hospital is specialized in a big stomach surgery which is very hard to execute, where the best specialised doctor is needed and there is a high risk of complications and so losses. On the other hand, the other hospital is specialised in hernia surgery which is relatively easy, not that dangerous, low chance of complications, and so a high chance of profit. Those little hospitals will all specialise on the little and easy surgeries, since the big academic hospitals cannot get the best doctors, while they do not make as much profit, so they cannot afford the best doctors. This really is the first obvious example where the quality improvement of specialisation can also be a bad thing for the quality and the market.

What is now the case? The insurance companies do have contracts with the hospitals. This means that they will cover the costs for treatments for their consumers. Another example of the market is that when an insurance company buys organs for their insured people, they are not reachable for others anymore. This can and will lead and even already led to the next situation. Some patient needs for some reason a new heart. This means that there must be a donor heart. Now comes the problem that the patient is not a customer of insurance company X but from insurance company Y. Then insurance company X does not deliver the heart for this patient. This can also happen for separate hospitals, and has a direct influence on the accessibility to the medical healthcare. So when we look at this part of opening up the market, we cannot speak about an improvement.

The next issue already played in The Netherlands, and that is the bankruptcy of a hospital. It can be very harmful for the people who live in the direct service area of this hospital. It happened to the IJsselmeer hospitals, where at a certain moment some private investors, invested money, to guarantee the sustainability of the hospital. Of course they want to see money back. Because of the fact that this kind of business was prohibited there became a problem, that only could be solved when the minister of health would declare this hospital as a system hospital that could not be missed in this region (Maarse & Paulus, 2010).

Another practical point is vertical integration which was also prohibited and at the same time called as a solution to make an open market work. The case here concerns the Vlietland hospital which was in financial trouble. A consortium of doctors, general practitioners and an insurance company bought a big part of the shares. The discussion that was started was whether the patient had a freedom of choice when they needed help, or would it only become possible for them to visit the healthcare within this consortium. A possible lesson from this may be that the objectives of this market reform conflict with each other (Maarse & Paulus, 2010).

The final actual happened case that will be mentioned, is the idea of the Kennemer Gasthuis. They wanted to give their patients an option to be treated quicker, but people had to pay a little bit extra. The treatments would take place in the evening hours and at night. To make this idea work, the idea was to invest the extra profit in the hospital itself. This would mean that eventually everybody would gain from it. This idea is like the Robin Hood model (Putters, 2003). This idea got a lot of critics because it would conflict with the basic value of equal access to a hospital for everybody. This case though does not stand on itself. There are also hospitals who offer extras to patients like single rooms for some extra payment (Putters, 2001).

What we can conclude is that there has to become a major shift in thinking, and that some values have to become a large evolution before it will work the way it is pointed out at the moment. A lot of things are contradicting with each other, so there must be found a way to keep respecting the basic values of medical healthcare.

CHAPTER 5 HYPOTHESES

After the background of the research is described now, the theoretical framework is explained and the contextual situation of the research is described, it is time to explain the hypotheses of the research. With this, there will be shown a conceptual framework.

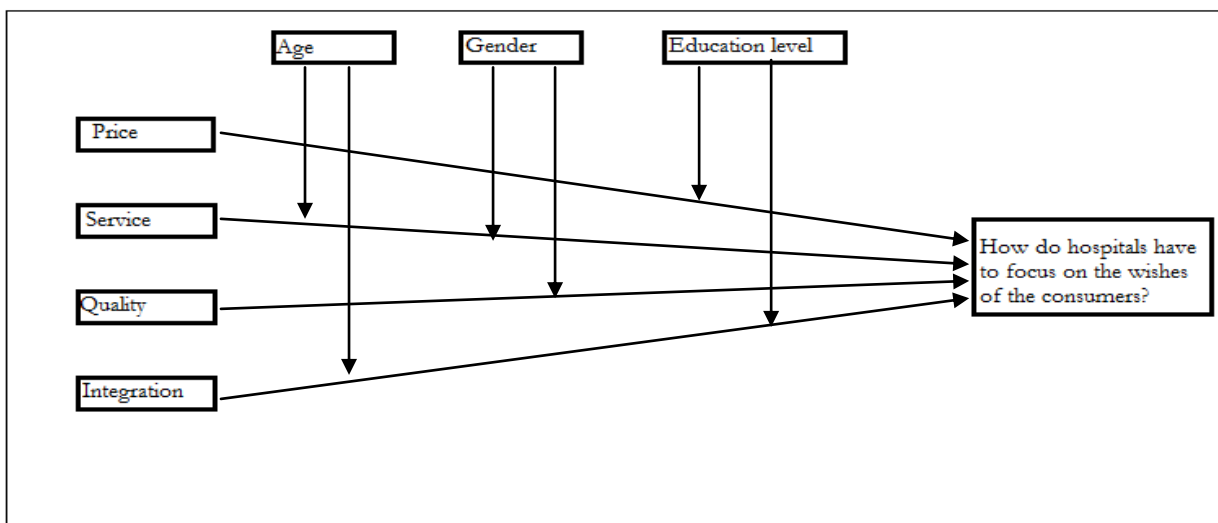
5.1 The hypotheses

This research contains a few aspects which are basically all coming down on the five forces model of Porter (Besanko et al, 2004). On the one hand there are the things that hospitals can offer, and where they can be different on to competitors. In fact we are talking here about the threat of substitutes. On the other hand it is the power of demand, which is the patient. There are lots of different patients, so there will be tried to focus on some ways to segment patients and other consumers of hospitals which are important to hospitals.

5.1.1 The different instruments

As discussed in earlier chapters, the hospitals have some ways to distinguish from each other. The instruments that they can use for that are: service, quality, price and integration of services. The expectations are that people with different backgrounds, value these items totally different. The segmentation criteria for that will be spoken about later. The other important factors in this research are the tangibles, the reliability, the responsiveness, the assurance and the empathy. These also will be set out against the different characteristics of people. With these two researches we can see on the one hand, what criteria for a hospital are important to attract people to come to a hospital. On the other hand we can see how different groups of the population see the introduction of a free market in healthcare, and which different parts of the servqual criteria they see as decisive and guiding. The expectations will be shown below here.

Conceptual framework:



When we take a look at the different instruments that hospitals can use, service is the first one that comes out of the context. In the research survey there will be some questions about the item service. These questions are ranged from non direct questions to very direct questions. Examples of this are that in questions, there will be asked for an opinion about different aspects of service in medical healthcare, and in other questions there will be directly asked what the opinion is of the importance of service. After this, they could rank it with quality and price. These questions will when they went through a factor analysis, be checked on different characteristics of people, to check whether it is possible to cluster people based on their common answers and characteristics. When looking at service, the expectations are, that everybody will see this as important. The only thing is that there can be expected that older people, which need more help, value service higher than younger people. Also can be expected that women rate the importance of service higher than men. This leads to the next hypotheses.

H1: The service factor is more important to older people when compared to younger people.

H2: The service factor is more important to women then it is to men.

When looking at the second instrument, quality, there is the same route followed as with the service instrument. Here too, there will be direct and indirect questions to check the opinion about quality of the different people, in different segments. On the quality part, the expectations are that everybody will see this as the most important instrument. This is because without quality of healthcare it would just be a bad situation for people. There can also be expected that men appreciate quality even more than women.

H3: The quality factor is a more important factor to men when compared to women.

When looking at the instrument price, there will be followed the same route as in the last two instruments. When thinking about this, only the people who do not have an insurance, which probably most of the time are the people who cannot afford this, think this is important. Most of the time people who have less money to spend, are lower educated. Further, the expectations are that people do not mind very much at this moment because normally everybody is insured, and they will not make any costs for a hospital.

H4: The factor price is a more important factor to low educated people than it is to high educated people.

On the integration part, the expectations are that people with lower education and younger people will react very positive because they don't have to search for a doctor, and that they don't have to think about their choice for a doctor a lot. That makes that they have time for other things.

To close these factors, the question has been asked to people, how they would rank the instruments service, quality and price. The expectation is that people see quality as the most important factor, service on the second place and price as the third important factor. The expectation is also that service can be seen as a very important factor as well.

H5: Quality is the most important factor, followed by service and then price.

H6: At least 25% of the people see service as the most important factor.

With the data of the research based on the servqual framework and the different people characteristics, segments can be made. These segments are important so that hospitals know how to approach the people in these segments. These segments will be formulated based on a cluster analysis. After this analysis, it can be said how different clusters of people think about the different dimensions of servqual or other dimensions when comes out of the factor analysis that the original factors cannot be used all. This is based on the questions that are presented to the people about the introduction of free market in medical healthcare.

5.1.2 The people characteristics

There are several different characteristics for people chosen based on the research that has been done so far. The first of these factors is age. The reason for the factor age is that the demand for healthcare differs for different ages. Next to that the vision of people of different ages probably differs between young people and old people.

The second factor is education level. This is also a factor where people might differ on. People might have other preferences based on information they have.

Factor number three which could be important is gender. This might play a role because men most of the time rationalise things, where women make their decisions more based on emotions. This could play a role in their decisions whether to be positive or negative to a free market.

Two other factors that could make a difference are the origin of people. Out of the earlier research came that non western immigrants are consuming more healthcare than Dutch people or western immigrants. The other factor that is probably related to the origin is where the people are coming from in the country. In the west of the Netherlands are more foreign people than in the east.

What could be an important factor is the family situation. People with children do possibly have another view on healthcare than somebody who lives on his own.

In the factor explanation were also stated some expectations about how people could respond based on their own characteristics. This all results into on the one hand the conceptual framework as stated below, and on the other hand, it is for the research that will be done with servqual, very hard to call some expectations. This is caused by the fact that it is not clear yet how the segments will form and what items will be compiled in the factor analysis.

On the other hand there will be done a regression analysis on the servqual items. With this there will be tried to make different clusters of people. With the outcome of this analysis we hope to see how different groups of people's attitude is toward different aspects of a free market in medical healthcare. This could be important for managers because with this information they can focus on the different aspects people are sceptical about at this moment. They can be convinced on the points they see as problems and also the managers can pay extra attention towards these issues.

CHAPTER 6 THE RESEARCH APPROACH

Now that the theoretical and the contextual background of the research both have been discussed, there will now be spoken about the research approach and the methodology in this chapter. Afterwards the analyses and its results will be discussed in further chapters. This means that in this chapter the phases of the research and the main research will be looked at.

6.1 The research set up

This research was built up out of several steps. In the end there will be formulated an answer to the central research question as it was mentioned earlier on in this thesis. Below here the several phases of the research will be explained.

During the first phase of the research there was a study on the available literature which could help to study on the theoretical concepts this research contains. In chapter two there was an explanation of the things that are about to happen and there is a short explanation of how the conversion of systems went in the United States. In chapter three there has been an explanation of how the different aspects of medical healthcare exist in the real situation, and where has to be taken care of. Next to that there was an explanation of what Servqual is and how the dimensions of Servqual come back in this research. The expectations that came out of it, are written down in chapter five.

With the information that was gained in the first phase of the research, a research was formed. This research is partly based on the dimensions of Servqual, and partly on the rest of the literature and the aspects that from the literature seemed to be important for people when they are talking about medical healthcare. To collect data there has been used a questionnaire that was set out via the online tool: www.thesistools.nl.

The third and last phase of this research is to analyse the collected data. The results of this analyses will be presented in the chapters seven and eight, where also will be tried to answer the central research question. The last chapter, which will be the ninth, will draw a conclusion to the research, a conclusion to the plans that are introduced and will talk about the limitations and recommendations to this research.

6.2 The main research

6.2.1 *The questionnaire*

With help of the questionnaire there was tried to collect as much data that is needed to do a well funded research and to give possible recommendations, that will stand on enough data. In the first part of the questionnaire there is the basis of the questions the Servqual method. According to the five dimensions there are there were formulated four questions that were going along with the dimensions. On all of these twenty questions were possible to answer with answers that were placed on a five-point Likert scale. On this scale the answers were ranged from ‘This is not important at all’, to ‘This is very important’. Next to that there was an option for people which really did not know an answer to the question, to say ‘I don’t know’.

The second part of the questionnaire has a focus on the personal characteristics of the people that are questioned. Examples of the characteristics are age, gender, living situation, ethnical background and some more. With this information it will probably become possible to make a distinction between people, and that may help to segment them in the end. The full questionnaire can be found in Appendix A.

6.2.2 *The data collection*

As already mentioned, the data collection was via the online tool ‘www.thesistools.nl’, which is a free online tool to set up a survey, to distribute it afterwards. It also collects the data, which in the end lead to an excel file with all the data in it. First the questionnaire was made, and it was tested by five different persons. Some improvements were done and the final questionnaire was entered into thesistools. There became a link which was distributed after the questionnaire set up.

The final distribution of the survey was introduced with a short explanation of what a free market in medical healthcare exactly means, so people could understand what they were filling in. The channels that were used to distribute were some different ones. First the link was sent to whole of my personal network. After that, it was placed on twitter and facebook several times. These social media instruments seemed to be a very good tool to attract people to fill in the questionnaire. Next to that the personal networks of friends and family were used to find people that wanted to fill in this questionnaire.

There has been tried to keep the groups very general, so that the range of different people became high and the reliability of the sample also became high. This meant that the survey was not distributed in the university, not distributed in a hospital and not only to the researchers own personal network. Really general social media groups were questioned to work along in this research.

The research was online from January 12th, until February 2nd 2011. In this period some reminders were sent. As well per email as in the social media.

6.2.3 *The sample*

On the online link that was distributed there were 161 persons who have responded to the questionnaire. Only 133 persons completed the questionnaire in a way that it could be used for the actual research. The respondents were first analysed on their usability before the data were transported to SPSS. In SPSS there have been done several tests to see whether the sample was representative to the total population.

When looking at the different descriptive characteristics of the respondents, to see whether the sample population is representative to the Dutch population it turns out that the similarity is quite high. Below here will they be watched individually.

When looking at the distribution of gender comes out of the data of the Central Office for Statistics (CBS) that in the Netherlands are 51% of the people female and 49% of the people male. The sample for this research contains 54% female and 46% male. This is very much the same so it can be seen as representative.

When looking at the variable age, the CBS data give an average age of the population of 40,26 years old. The sample data give almost the same average age and comes at 40,1 years old. This means that also on the variable age, the sample is representative to the actual population.

When looking at the highest education level, the sample says that 80% of the people have an education on the HBO or a university. This is not representative to the Dutch population where only 40% of the people have a degree at the HBO level or higher. The reason for the difference between the two can be found in the use of personal networks of the researcher. This will be taken in the research as a limitation.

To the question, ‘in what region in the country do you live?’, most respondents answered that they either live in the west of the country, or they live in the east of the country. The west of the country can be explained in two things. The first is that most people live in the west of the country due to the big cities there are in the west. The second reason that counts for the west, as well as for the east is the personal networks of the researcher are mainly there. When this factor is ignored, the distribution over the regions is actually pretty realistic and gives people from all over the country. Only the north of the country stays a little behind to the rest, with only four respondents.

When looking at the home situation, the way that families are compiled, the CBS says 36% of the households in the Netherlands is a one-person household and 64% is a multiple-person household. When looking at the research sample, it says that 27% is a one-person household and 73% is a multiple person household. This a representative sample.

When looking to the ethnical background of the people the sample says that only five percent of the people in the Netherlands has a foreign background. The CBS actually says that is twenty percent. To this number of twenty percent has to be added that this contains first, second and third degree immigrants. The number of five percent in the sample could end up higher when second and third degree immigrants filled in that they are Dutch because they were born here. Despite the fact that the results of the CBS and the sample could end up more the same than they do now, this factor will not be taken in the analyses of the sample.

The last question to differentiate people on is whether they are already familiar with the plans of the government to implement the free market system. To this question 62% of the people answered that they are familiar with the plans. 6% of the people did not hear from the plans, and 32% of the people did somehow hear about the plans of the government. These numbers are beyond the expectations of the researcher, but really raise the validity in the answers.

6.3 The plan of approach for the data analysis

6.3.1 Step one, the exploration of the data

In the first step, the exploration of the data, as already said the descriptive characteristics will be spoken about. In this general exploration, characteristics like gender, age and level of education will be analysed and compared with the average of the Dutch population, if there are enough data for it. This all is important to check the reliability of the sample.

6.3.2 Step two, the factor analysis

The second part of the data analysis contains a factor analysis over the first 20 statements. These are the statements based on the dimensions of Servqual. These twenty statements can be allocated into the five dimensions of Servqual. Every dimension contains four statements based on the Servqual topics.

With the help of the factor analysis can be determined if the five categories of questions are seen in the same way by the respondents, as they are by the Servqual method. If this is not the case, there will be determined whether these factors can be interpreted in another way. When this is the case, then a Cronbach's Alpha reliability analysis will help to see whether the typed scales are reliable enough to use as an analysis.

There are now three options:

- The factor analysis does not show any interpretable/usable results, which means that in the rest of the research it is not possible to use the factor scores.
- It is also possible that the results are interpretable/usable, but they are not reliable enough (even after elimination of items), and therefore the factor score cannot be used in the continuation of the research.
- The last option is of course that the factor scores are usable and interpretable. In this case it is just a fact of going on with the these factor scores.

A possibility to handle an eventual case of unusable factors and to fix this problem, is to create a new variable based on the items of each of the five categories. It is important to check these new variables by a Cronbach's Alpha reliability analysis, to see whether the scale is now reliable enough to do follow up analysis on these data.

6.3.3 *Step 3, analyses*

The third and the last part of the analysis contains the part where the segments have to be established and to determine whether different patients with different characteristics have different attitudes towards the factors of a free market in medical healthcare. For this analysis, regression will be used.

In a regression analysis, there will be a set of independent variables set out against a dependent variable. By this can be determined whether respondents can be grouped based on different personal characteristics upon their attitude towards a free market in medical healthcare.

Based on the regression analysis will be determined whether patients look against the free market differently based on the peoples characteristics or not. Also can be looked then, on which aspects they differ from each other.

CHAPTER 7 ANALYSES

In this chapter the analyses of the variables will take place. After we have seen in the last chapter that the sample has enough commonalities with the total Dutch population to be reliable we are going to use the data to come to more specific output. The method that will be used to do so is the factor analysis. The idea of the factor analysis is to reduce the amount of different variable to check whether it is possible to group the variables. These groups of variables are factors (Johnson & Wichern, 1998). This factor analysis can help us to reduce the amount of variables and with that it is easier to segment later on. What has to be noticed, is that it looks like that there are not much differences between chapter seven and the next chapter, chapter eight. Of course, they will be there, and they are in the basis of the analyses. In chapter seven the foundation for the further analysis will be made in the factor analysis, and the items that measure some personal thoughts and background of the people are discussed here. In chapter eight on its part, there will be a discussion about the dimensions of servqual and the possibilities to form clusters based on those analyses.

7.1 Factor analysis

To see whether a dataset is applicable to use for a factor analysis we need to see what the Kaiser-Mayer-Olkin value (KMO-value) is. In this dataset this value is equal to 0,717. According to Field (2005) this value is high enough because he states that a KMO value of 0,600 is already high enough to assume that the dataset is good for the execution of a factor analysis.

When this analysis is done, twenty different factors occur. But when there are Eigenvalues requested with a value of at least 1.00, then 6 factors remain. The factor analysis is the test for the validity of the research. The results of this analysis can be found in appendix B.

The second condition that is important is that the loadings of the variables to factors are at least 0.400. This leads to exclusion of a lot of variables. Because it is important to see some variables with lower scores than 0.400, we will see some of them back into the table you can see below. They will be marked yellow. The reason that they could be important is that it could be possible that they do not fit with the factor they are adjudged, or that they might fit better somewhere else.

7.2 The reliability of the factors

In this part of the chapter will be decided whether the factors are reliable, and there will be looked at the fact whether it is useful to move variables between factors. There will also be taken a look at what component of Servqual, or any other characteristic can be adjudged to the factor so that it can be taken along in the cluster analysis further on in this paper.

The reliability test will be done based on a Cronbach's alpha test. The results will be set right above the explanation of the table.

Table 7.2.1 Build up of factors

Factor	Variables
Service	Better facilities, Helpful personnel, Better complain completion, Friendlier personnel, Shorter waiting lists, Successive caretakers
Safety	Bigger knowledge by personnel, More empathy by personnel, Higher efficiency
Trust in healthcare	Patients interests first, Hospitals see their own interest, Bigger trust in healthcare services
Reliability	Less medical mistakes, Better quality of care, More effort for quicker healing

7.2.1 Service

In table 7.2, the data go along are that the Cronbach's alpha for the complete table with seven variables is 0.707. There can be seen that this reliability can even be higher if the item successive caretakers is deleted. This will not be done, in fact the variable, more commercials will be deleted. The reason for this is that this one will move to factor six. The exact explanation for this will follow later on. Successive caretakers is a variable that connects very well to the other five variables that will stay in this factor. There is no direct Servqual dimension to find in these six, but there is a common aspect. That is service. All of the six different variables are service to the patient. The Cronbach's Alpha will decrease from 0.707 to 0.677 but this is still way widely above the critical 0.600, so factor 1 contains six variables with the name Service.

7.2.2 Safety

Table 7.3 in Appendix B is the table that belongs to the variables of factor 2. The Cronbach's Alpha of the three variables together is 0.617. This number can even be higher when the variable higher efficiency will be deleted. This will not be done because there is a link between the three variables. This is the feeling of safety and reliability. These are important factors for patients so the three together get the name safety. When looking at the first and the third variable can also be found a connection in the gaining of knowledge. Either way, the Cronbach's Alpha of 0,617 is above the 0,600 and with that a reliable factor to use here.

7.2.3 Trust in healthcare

Table 7.4 in appendix B shows the results for the reliability analysis. The Cronbach's Alpha that belongs to this factor is 0.505. There is a possibility to create a reliable Cronbach's Alpha and that is when the atmosphere variable is deleted. This is actually what the researcher his plan was, because just like the commercial variable in factor one, this one will move to factor six. This means that the Cronbach's Alpha will raise to 0.624, and with that it is reliable. There has to be noticed that in the first analysis there was a negative Cronbach's Alpha. This problem came through due to the fact that not all questions were asked into the same direction. The solution for this problem was to transform the answer categories. The result is that there is a reliable factor now. The common thing in this factor is the feeling of safety and trust that everything is in favour of the patient. This leads to the name trust in healthcare for this factor. This is not a dimension of Servqual.

7.2.4 Reliability

In Table 7.5 in appendix B we can see the results of the reliability analysis for factor four. The Cronbach's Alpha for the three of these items 0.613 which means that it is reliable. None of the variables will be deleted because this is the first factor that consists out of only variables of a Servqual dimension. This is the second one, namely reliability.

7.2.5 Factor 5

The fifth factor did exist with the variables, variable times of treatments and own choice of doctor. Because the Cronbach's Alpha was negative in the first time, and way to low in the second time (0.236), there has been decided not to take this factor to the cluster analysis. The variable scores were also to low and not usable for another factor.

7.2.6 Factor 6

Factor six is the last factor that has an Eigenvalue higher than one. In the next paragraph there will be said some more about this value. Because the variable of successive caretakers went to factor 1, the two removed factors had a value that was high enough, and they were interpretable factor six will go along in the cluster analysis. In the first analysis, factor six only had 2 variables which were very hard to link to each other.

The Cronbach's Alpha is too low, namely 0.353. It is possible to raise this number a little bit, but the variables like these are also a dimension in Servqual, and that is tangibles. Despite they come along here quite well, and they are a dimension together in Servqual, this factor cannot be used in this analysis.

7.2.7 Conclusion of the factor analysis

As explained above there are in fact four reliable factors to take to the cluster analysis. This was also confirmed by the scree plot that was made after the factor analysis.

Even though there will be done a cluster analysis with, and without factor six. There will be looked at the fact whether it is useful to take factor six along in the cluster analysis.

7.3 Other data analysis

In the survey there were four other questions asked. These questions were not directly related to the dimensions of Servqual, but they can probably have some extra insight into how people think about medical healthcare. Because the subjects of these questions differ so much from each it is useful to do a little cluster analysis on these variables too. These statements are:

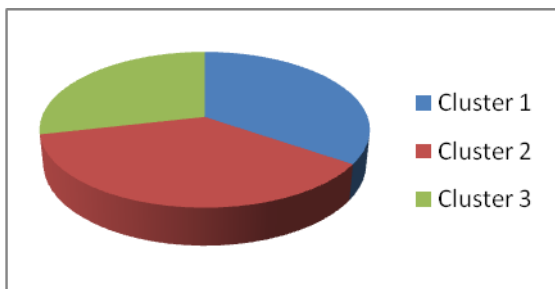
- I am sensitive to commercials.
- Healthcare is a commercial product.
- There must be more cooperation between different suppliers of healthcare.
- A hospital has as only target to heal me.

When we do this, there are three clusters coming out of the test that can be separated. Below here there will be a description of how the clusters look like.

- Cluster 1 is a group of people where the most people are men. The age category where they belong to is the older group. This means that most of the people have an age of above the 55 years old. The level of education is over these people pretty high, which means that most of the people have an educational background at a university. The regions of the country where they are coming from are the east and all of the people from the south. They are well known with the new system. They do not have kids in most of the times, but they can also be out of the household. This is due to the fact that this is the category with most of the older people. They do not visit hospitals a lot.
- Cluster 2 has a more equal distribution of men and women. They almost equal on this specific characteristic. The age category where they belong to is the category below 35 years of age. This is the category with the highest education level. Most of the time they did HBO or university. They are almost all from the west of the country. They hardly anytime visit a hospital. This group does not have a lot of children. Their knowledge about the new planned system is quite average.
- Cluster 3 is the last cluster. Most of the people in this cluster are women. The age category where they belong to in this cluster is between 35 and 55. Their education level is overall quite low. The regions of the country where they come from are actually even distributed over the country. They bring a lot of visits to the hospitals. This is the group of people who most of the time have children. Just as the second cluster is their knowledge about the system quite average.

The distribution of people over the clusters is very good. Cluster one has an amount of 46 people, cluster two has an amount 49 people and cluster three has 38 people in it.

Figure 7.2 Distribution of people over the clusters



When taking a closer look at how the different clusters have responded to the different questions, some interesting things come passing by.

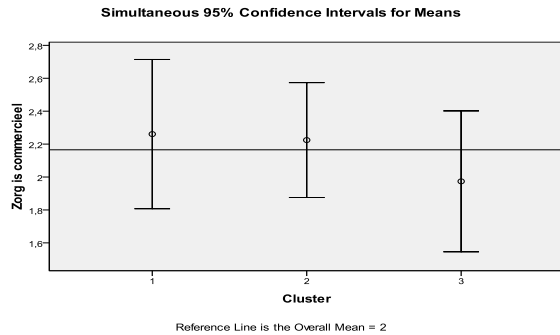
When people say whether they are sensitive to commercials, cluster one says on average that they are not really sensitive to commercials. Cluster two is a little more sensitive than cluster one, but still not really. Cluster three on the other hand says that they are indeed sensitive to commercials. The reasons that can be given for this fact are that in the third cluster are most low educated people and, when looking at the line up from cluster one to cluster three, there are more women in each cluster. On average, there is a little surplus that says that they are sensitive to commercials. Probably the main reason for the fact that cluster two and three score higher here is that younger people are the ones who are most easy to attract and influence with commercials (Takens, 2005)

Figure 7.3 Within cluster variation to commercial sensitivity



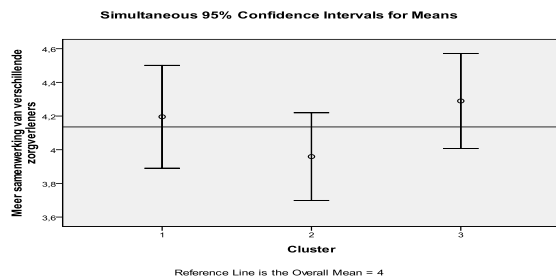
When looking at the question whether healthcare is a commercial product, we see exactly the other way as in the first question. Here the men in cluster one are slightly above average, while the women in cluster three say really no to it. Cluster two is somewhere in between of these two. What has to be noticed here is that on average people do not think healthcare is a commercial product. The reason that can be found for this is that people see healthcare more as a right than as a product. So it is mainly an ethical reason that people are sceptical about healthcare as a product (Putters, 2003).

Figure 7.4 Within cluster variation to healthcare as a commercial product



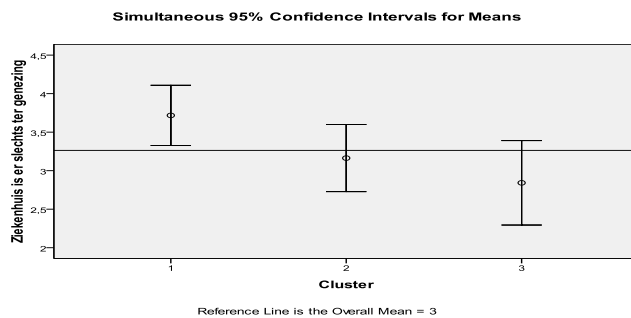
When looking at the question about the cooperation between different suppliers of healthcare, the average says really yes. All of the three clusters are really positive. The only cluster that scores below average is the second cluster. The only possibility for this difference is that they are overall higher educated. The difference does not look to be that high that there can be drawn any conclusions from it.

Figure 7.5 Within cluster variation to the cooperation of healthcare suppliers



When looking at the last question about the main task of a hospital, there is an obvious difference between the three clusters. The cluster of older people and men says that this is indeed their task. When the percentage of women becomes higher, the enthusiasm about this statement decreases. Cluster three is the only cluster here that scores below average. The most reasonable factor for this is that women do care more about other things than quality like service and care.

Figure 7.6 Within cluster variation to the primary task of a hospital

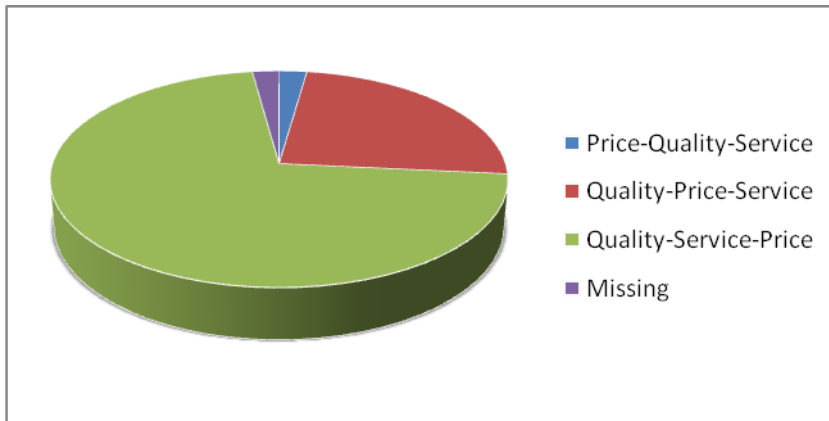


7.4 Analysis on service price and quality

When looking at the variables service, price and quality separately, there we can see that all of the three factors can be seen as important. The only factor that stays a little behind here is price. The average opinion about price is that it is only a little bit above the agree nor disagree score. A very plausible reason for this is that in the Netherlands, when you are insured, you do not have to pay for the hospital services. The only thing that this costs is the own risk of people. When looking at the values for service and quality, we can see that the average value for service is important and for quality it is very important.

When we check the question where people could rank the three for themselves in a way that the most important of the three comes first, the second comes at number two and the third comes at number three, there is a very remarkable fact that nobody ranks service at number one. Only three people choose for price as the first one and quality at number two, to rank service at number three. This means, and that is surprising, that everybody thinks that quality is more important than service.

Figure 7.7 Importance of the different variables



The chart above is very interesting for hospitals, because out of this chart can be found that curing people is the most important aspect. This probably where hospitals do have to focus on. This also is a very interesting aspect for the people who rank hospitals on several aspects. They should really load quality way higher than they are doing right now.

CHAPTER 8 THE ANALYSIS ON SERVQUAL

As already mentioned in the last chapter, the differences between the two chapters (seven and eight) lie in the fact that they measure totally different things. To analyze the data of the survey, there will be used a regression analysis to check whether there is relationship between the different factors that came out of the factor analysis and the personal characteristics of the different respondents. In the paragraphs below will be spoken about the regression analysis based in the different factors. Because of the low amount of respondents in comparison to the whole population there will be used a critical P-value of 0,15.

8.1 Factor 1: Service

The P value of the model that belongs to the F-test is equal to 0,015. This shows that this model as a whole is significant. This means that the results of this analysis can be seen as reliable. The table will follow below and the results of this analysis will be discussed below.

Onafhankelijke variabelen	R	R ²	Bèta (β)	Sig.
	0,489	0,239		
(Constant)			-0,608	0,383
Familiar with, slightly x age			0,010	0,439
Familiar with, yes x age			0,000	0,950
Familiar with, slightly x level of education			0,771	0,041
Familiar with, yes x level of education			0,572	0,117
Familiar with, slightly			-0,805	0,389
Familiar with, no			1,391	0,251
Origin, non western foreigner			-0,367	0,618
Origin, western foreigner			0,285	0,650
Family situation, together, with children			-0,353	0,351
Family situation, living together			-0,374	0,307
Family situation, alone with a child			-0,126	0,835
Family situation, alone			-0,586	0,113
Region, west			1,202	0,000
Region, south			1,671	0,000
Region, east			1,215	0,000
Region, north			1,357	0,056
Gender			0,156	0,396
Highest level of education			-0,655	0,057

Dependent variable = Service. The significance of the model as a whole is: P = 0,015

The r-squared value shows that 23,9% of the attitude towards service can be explained out of the variables that are this model. In this model, eight different variables are significant. The first two significant outcomes the ones that combine the familiarity with the highest level of education. They show that there is a positive relation between the familiarity with the new system and the level of education towards the service in the new system. The following variable with a significant positive effect is the of people who live on their own. They see the service level in the new system decreasing in the new system. Regions are obviously a very significant variable. Compared to the centre region of the country, every other region is way more positive than the centre region. What also is a very obvious variable, is the highest level of education. This has a very negative influence on the opinion towards the level of service in the new system.

8.2 Factor 2: Safety

The P- value of the regression analysis of the second factor is equal to 0,218. This means that even with the critical P- value this model as a whole is not significant. In fact, this means that the results of this analysis are not reliable enough to be seen as right. But, to be complete, the results will be discussed below. First will be the model below here.

Onafhankelijke variabelen	R	R ²	Bèta (β)	Sig.
(Constant)	0,409	0,168	0,238	0,732
Familiar with, slightly x age			0,014	0,247
Familiar with, yes x age			-0,007	0,402
Familiar with, slightly x level of education			0,014	0,970
Familiar with, yes x level of education			-0,039	0,915
Familiar with, slightly			-1.397	0,137
Familiar with, no			-0,973	0,422
Origin, non western foreigner			0,217	0,768
Origin, western foreigner			0,624	0,321
Family situation, together, with children			0,142	0,708
Family situation, living together			0,174	0,634
Family situation, alone with a child			0,231	0,703
Family situation, alone			0,498	0,178
Region, west			0,573	0,066
Region, south			0,014	0,972
Region, east			0,472	0,159
Region, north			0,362	0,608
Gender			-0,443	0,017
Highest level of education			-0,032	0,925

Dependent variable = Safety. The significance of the model as a whole is P = 0,218

Out of this analysis come just a few results which are as already mentioned not reliable enough to interpret. The results that are significant are when people are slightly familiar with the plans. These people are way more negative about the safety in the new system than people that are completely familiar with the system. The second significant variable is the region west. This region is the most positive one when it comes to safety. The last variable is gender. Here we can see that women are more negative than men when it comes to the safety issue. The r-squared value is 0,168. This means that 16,8% of the model can be declared out of this model. The only thing that has to be taken in mind here is that the model was not significant.

8.3 Factor 3: Trust in healthcare

The P- value of the regression model of this third factor is 0,754. This means that there is absolutely no significance in this model and there can be concluded already that the results of this model are not reliable enough. In this case too, the analysis will be discussed, just to be complete.

Onafhankelijke variabelen	R	R ²	Bèta (β)	Sig.
(Constant)	0,325	0,106	-0,454	0,526
Familiar with, slightly x age			0,014	0,287
Familiar with, yes x age			0,013	0,096
Familiar with, slightly x level of education			-0,054	0,888
Familiar with, yes x level of education			0,295	0,429
Familiar with, slightly			1,370	0,155
Familiar with, no			1,274	0,306
Origin, non western foreigner			-0,099	0,896
Origin, western foreigner			0,044	0,945
Family situation, together, with children			-0,521	0,182
Family situation, living together			-0,773	0,042
Family situation, alone with a child			-0,442	0,478
Family situation, alone			-0,528	0,164
Region, west			-0,036	0,911
Region, south			-0,163	0,686
Region, east			-0,161	0,639
Region, north			-0,041	0,954
Gender			-0,091	0,630
Highest level of education			-0,175	0,617

Dependent variable = Trust in healthcare. The significance of the model is: P = 0,754

The two significant variables in this model are familiar with, and age compared to the trust in healthcare. This means that people who are familiar with the system and that are older, are slightly more positive than people who do not have the familiarity of the people who are familiar with the new system. Also people who are living together with one person are way more negative than all other family compilations. The model has not very much of a declaring power with only a r-squared value of 0,106.

8.4 Factor 4: Reliability

In this fourth factor the reliability will be discussed. The regression analysis shows a P- value of 0,117. This means that the model is significant and reliable. This means that the results in the analysis can be interpreted. Below here, the model will be showed and the results that are significant will be discussed.

Onafhankelijke variabelen	R	R ²	Bèta (β)	Sig.
(Constant)	0,433	0,188	-0,457	0,518
Familiar with,slightly x age			-0,007	0,587
Familiar with, yes x age			-0,009	0,236
Familiar with, slightly x level of education			-0,255	0,502
Familiar with, yes x level of education			-0,311	0,400
Familiar with, slightly			0,050	0,958
Familiar with, no			-0,811	0,509
Origin, non western foreigner			-1.204	0,109
Origin, western foreigner			0,539	0,397
Family situation, together with children			0,785	0,043
Family situation, living together			0,762	0,042
Family situation, alone with a child			0,431	0,483
Family situation, alone			0,823	0,029
Region, west			0,155	0,622
Region, south			0,121	0,762
Region, east			-0,134	0,692
Region, north			0,842	0,240
Gender			0,113	0,546
Highest level of education			0,274	0,430

Dependent variable = Reliability. The significance of the model is: P = 0,117

What becomes very clear in this model is that there is a relation between the compilation of the family and the reliability in healthcare. People who live on their own, people who live with one person and people who live with a total family are more positive than people with another family compilation when it comes to the reliability of the hospitals. Compared to Dutch people, non western foreigners are very negative about the reliability in the new system. We can argue this, because the amount of non western foreigners is very low and therefore hard to see as a reliable variable. The declaring power of this regression model is an r-squared of 0,188. This not very high because this means that only 18,8 percent of this factor van be declared out of this model.

8.5 Extra analysis

In this part of the chapter will be spoken about the two step cluster analysis with the factors that came out of the factor analysis. The reason for this is that the results from the regression analysis were not very satisfying. Via this descriptive two step cluster analysis there can be possibly found some extra characteristics. For this reason in the rest of this chapter, there will only be spoken about the analysis with the reliable factors. There are coming out some more identifiable characteristics.

8.5.1 *The clusters*

When looking at the clusters, comes out that there are two clusters separated based on the data there are. In the next paragraph these clusters will be compared to the different factors and there will be looked at the results. Below here there will be explained what the clusters look like. The first thing that is really remarkable here, is that there are only two clusters appeared. This is remarkable because in chapter seven there were three clusters. The reason for this fact is that in the analysis of chapter seven, the characteristics of the people differed more when looking at the questions. While in chapter eight, these characteristics were less easy to distinguish from each other. For this reason, here are only two clusters which on some points say more than in chapter seven and on some points say less. What has to be noticed, is that when the amount of people in the clusters is higher, the reliability is probably higher as well.

Cluster one has 57 of the 133 people in it. The distribution over men and women is about the same for both. The ages there are in this cluster are almost all below the 35 years of age. The level of education is relatively high, so we can speak here about young professionals. The region of the country where the people are coming from is most of the time the west of the country. They visit a hospital just a few times per year maximum. Their knowledge about the plans of the government is just average. The compilation of their families are almost always without children.

Cluster two on the other hand has 76 of the 133 people in it and of those 76 there are a little more women than men in it. The ages are most of the time above 35. The level of education is well divided over the different people. The regions of the country where they are coming from are most of the time the east of the country, but also the most of the rest of the country. Only the west is relatively low here. They visit a hospital relatively a lot and just like in cluster one, the knowledge about the plans of the government is just average. Almost all of the cases where children live are in cluster two.

When trying to really give explanations for the characteristics, we can see that younger people obviously do not visit hospitals as much as older people. They might think that some factors are less important than they are for older people. The older people of cluster two might also have a higher rate of responsibility, because they are the ones that take care of the children.

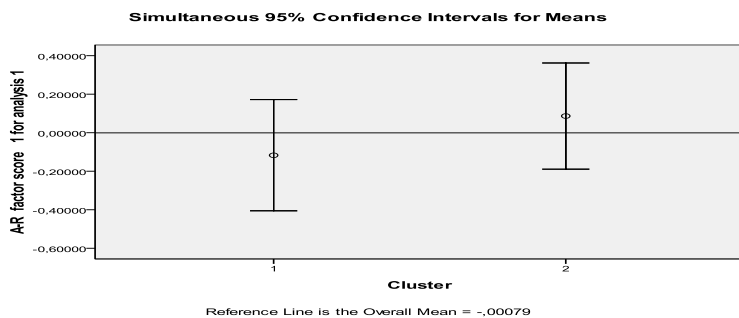
8.6 The results

8.6.1 Factor 1: Service

Below here in this paragraph, the results of the different factors, will be compared to the different clusters. The first factor is service. As already determined in the past chapter, the different variables that belonged to this factor were all service related.

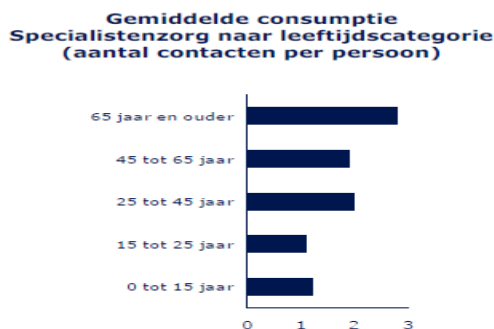
On the next page will be shown the graph of the distribution of the clusters.

Figure 8.1 Factor one clusters



As we can see in the figure that stands above, the overall mean on this factor service is slightly negative. This means that overall the people think that the factor service will get worse than it is right now. What we also can see is that cluster two scores are higher than cluster one. From this can be concluded that the people in cluster two are more positive about service than the people in cluster one. Possible explanations for this fact can be that women are more service focused, but very much also that older people are more focused to service. They are probably more aware of the fact that their chance of going to a hospital is higher than for the younger people and they might see this as an opportunity. This is also something that this cluster proves, that older people visit a hospital more often than younger people. Other prove for this fact is the costs that older people make compared to younger people. Conclusion of this factor service is that people, even though it is close, think that the quality of service is decreasing.

Figure 8.2 Consumption of healthcare

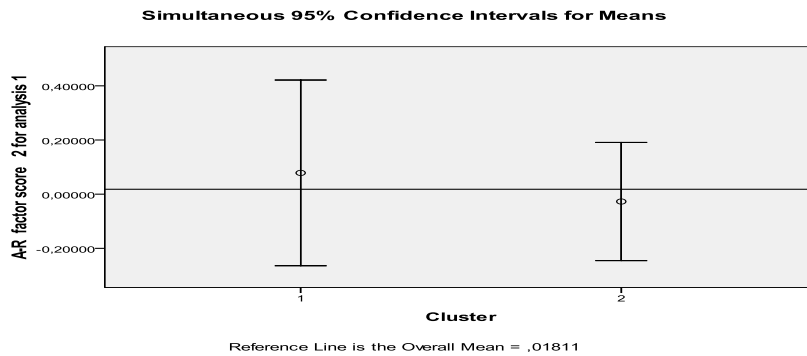


Source: Boer & Croon, p.177

8.6.2 Factor 2: Safety

The second factor that came out of the factor analysis is safety. This factor was built up out of just three variables, but the reliability of this factor was actually pretty high. In the figure below we can see how the distribution of the clusters through the factor safety.

Figure 8.3 Factor 2 clusters



What can be seen in this factor is that the overall mean is quite strongly positive. This means that people are relatively positive about the factor safety. They think this factor will increase. What can also be concluded is that cluster one sees this factor in a more positive way than cluster two. Possible reasons for this are that the people from cluster one are younger than in cluster two and for this reason they like efficiency better than older people. This could be because younger people grew up in an environment of development and with that a higher sense of efficiency and quality. They see the improvements in efficiency and techniques as a good thing. Everything just has to be quicker, better and more efficient.

8.6.3 Factor 3: Trust in healthcare

Factor three is a factor that is highly related to factor one. This factor is about the interests of the hospital and the feeling of trust in medical healthcare. This is of course a component that is highly related to service for the patient. The results of the cluster distribution on factor three will follow in the graph below.

Figure 8.4 Factor 3 clusters

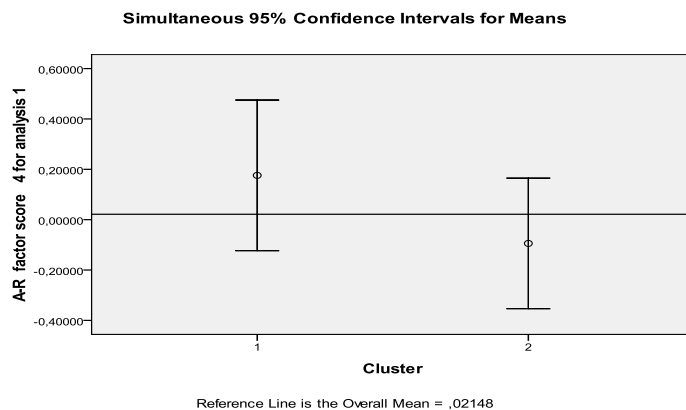


What we can see directly is that the overall mean is just as in factor one negative. This one is even more negative than in factor one. We can conclude from this that the interests and the trust according to the people in this sample are not going to be in favour of the patients. We see, that just like in the analysis of factor one that cluster one is even more negative than cluster two. Reasons for that can again be that women and older people do have more trust in the professionalism of the doctors. What also can be a factor is that the mentality of the people in the west of the country is more “no-nonsense” kind of mentality in comparison to people from other regions of the country, and for that they can imagine more that hospitals are going to see their patients as clients.

8.6.4 Factor 4: Reliability

When we take a look at factor four, there comes a dimension of Servqual back. It is the reliability dimension. The variables that come back in this variable are mostly quality and efficiency related. According to the analysis on just a few variables that was done in the last chapter, the scores on this factor should be very high due to the fact that quality was by far the most important factor. The results of this analysis will be shown down.

Figure 8.5 Factor 4 cluster



What can be seen is that indeed the overall mean is very high. This is a prove that the people think that quality will raise when a free market will be introduced. This is important to know because this is the most important factor in healthcare to the people. We can see that this factor is higher rated by the people in cluster one than by the people in cluster two. This is again evidence that men and younger people see this as more important than women and older people who are tend to go more service aspects instead of quality aspects.

8.7 Conclusion with respect to the clusters

When looking at the clusters, there is a big difference between older and younger people. The younger are more in favor with the clean efficiency side of healthcare and also do trust more that the changes in the system will have good impact to especially quality, while the older people and the women are obviously more attracted to the service side of healthcare and are more positive about the quality of this side of

healthcare. Another reason for this can be that the older people in cluster two are the ones with children and they expect only the best service for their kids.

CHAPTER 9 THE SOLUTION

Chapter nine answers the central research question like it is mentioned in the first chapter. This answer will follow out of a discussion about the different subthemes. Next to the answer to the central research question, there will be discussed what the implications of this research are to the Dutch hospitals. To finish, the limitations to the research and the recommendations to the hospitals and follow up studies will be mentioned.

9.1 Significant hypotheses?

In chapter five, the hypotheses for the research were discussed in expectation of the research. In this paragraph the expectations will be discussed in short, based on the results of the last two chapters.

- *Hypotheses 1: The service factor is more important to older people when compared to younger people.*

The service factor is the first factor that came out of the factor analysis. When looking at the cluster analysis in chapter eight, it is showed that older people do think more about the factor service. As already mentioned in the last chapter, the reason for this can be found in the fact that older people probably need more medical care than younger people. This first hypothesis can be confirmed based on this research output.

- *Hypotheses 2: The service factor is more important to women than it is to men.*

This second hypothesis that is also linked to the factor service is also confirmed out of the analysis. In the two step cluster, came out that the second cluster that is built up out of more women and older people do see this factor as more important. They are also both more positive about the service aspect in the new system than the men and the younger people in the first cluster. What in relation to the factor service also becomes visible is that lower educated people look more positive to the new system than higher educated people do. People from the western region of the country look slightly negative in comparison to the people in other regions of the country. The people in the south of the country are the most positive about the service in the new system. The second hypothesis can be confirmed based on the output of this research.

- *Hypotheses 3: The quality factor is a more important factor to men when compared to women.*

This hypothesis is related to the quality issue. Despite the fact that this issue did not become a clear factor out of the factor analysis, there are some things that can be said about this item. Out of the extra analysis in chapter seven came that men think of quality as the most important factor of all. They see this factor as way more important than women do. Also for this third hypothesis can be said that it can be confirmed based on the output of this research.

- *Hypothesis 4: The factor price is a more important factor to low educated people than it is to high educated people.*

This hypothesis is also not something that came back in the cluster analysis. But in the extra analysis of chapter seven this issue did come back. What came out is that this looks to be true. Of the three clusters that came out the analysis there came out that the cluster with the overall lowest education level did see

price as a more important factor than higher educated people did. For this fourth hypothesis can be said it can be confirmed based on the output of this research.

- *Hypothesis 5: Quality is the most important factor, followed by service and then price.*

For this hypothesis is absolutely no discussion. As expected, quality is the most important factor to people. This means that this is the best way to distinguish yourself as a hospital from other hospitals. Service is a good number two in this ranking, but where really nobody said that service is more important than quality, actually a third of the people think price is more important than service. To be honest, I think this is a strange outcome, because people in the Netherlands are normally insured for hospital costs. The overall ranking showed even though that this hypothesis can be confirmed true based on the results of this research.

- *Hypothesis 6: At least 25% of the people see service as the most important factor.*

This is actually a hypothesis that goes on, on the last hypothesis. Here comes out actually nobody sees service as the most important factor. There are a lot of people who see service as an important factor, but none of them sees it as the most important factor. This means that based on the output of this research this hypothesis has to be rejected.

9.2 The central research question

This research tried to find out what factors of medical healthcare are important to people and which they think that are most important to them. By asking questions about different instruments of healthcare there was tried to find out whether people thought the new system would improve things or that the people think that thing will decrease in quality. The central research question that was formed for this research is 'How do hospitals deal with the free market, and how will they be able to sell their company to the world, and how does this affect to the attitude of different people's view to the hospital market?'

To answer this research question well, three different components of this research question will be discussed separately first. After all these components have their answers, we can say that the research question is answered.

9.2.1 Component 1 – Free market

This first component that will be discussed below is free market. Two questions were formed to guide this part of the research.

1. What is a free market and how does it have effects on the hospitals?
2. How does a free market have effects on patients?

The free market concept in medical healthcare comes originally from the United States, and the concept is planned to be introduced in the Netherlands at this moment. It means that stimulation of competition between hospitals becomes possible (Putters, 2003: p.8). A part of the patients is just going to hospital that is the nearest by, but some of the patients are going to check first whether a hospital has a high quality of healthcare for a certain treatment. The preferences of the consumers differ from person to person, but to approach them, a hospital has to distinguish itself from competitors.

The effects that it will have on hospitals is that hospitals have to show to the patients why they have to choose for them. The research was firstly based on the items, service, quality price and integration. Later on they were completed with the factors of the factor analysis. What becomes very clear is that when people have their own choice on a hospital, hospitals will have to make people go to their hospital. They have to be different on certain aspects, but what obviously came out of the research was that quality was by far the most important factor. Because this whole system is relatively new to the people in the Netherlands, it is important to be the hospital with the most clients. They have to be convinced with quality, but service issues like parking lots and coffee machines for visitors are also very important. There are of course different approaches needed for different people. There was tried to do a segmentation, but except for the factors service, price quality and integration, they did not really come out. The two things that are really going to change for hospitals is that they really have to compete for customers based on mainly quality. The other thing is that they are going to have to approach the patients instead of the patients that are going to their hospitals.

For the patients, or consumers, changes the fact that they are going to have to focus on the best hospital. Where in the opinion of the researcher a hospital has to try to get customers as some kind of a member for their hospital, hospitals are probably going to focus on treatments that gain the highest profit margin. A possible consequence of this can be that hospitals are going to merge to share the patients while they both have different departments where they have a high rate of specialization.

Negative consequences can be that the healthcare, despite the fact that there is competition, becomes unaffordable for some people or for the insurance companies. Also some hospitals can go broke when there is competition because they simply cannot give the care that people expect from a hospital. A very positive consequence can be that hospitals can attract money very easily, which can improve the quality of treatments in healthcare as well as the quality of the healthcare in total.

9.2.2 Component 2 – Commercialisation of a non profit sector.

The second component of the research is the commercialisation of a non profit sector. The questions that were formed with this component are.

1. What is profit and what are the (dis)advantages that go along with it?
2. What is non profit and what are the (dis)advantages that go along with it?
3. What are the possible consequences of a change in thinking and governance?

When we use the word profit, we always think of gaining money. Profit in healthcare means more than that. It means competition, it means another approach of the customer and another approach of running the hospital. Most hospitals at the moment are in hands of the government, so that quality and ethics will be saved. When investors take over hospitals, they want a share of the profit, what makes a needy person into a kind of a product with a profit margin. This effect has to be banned out. Next to that adverse selection might become an issue here and that is also something that in a civilized country like the Netherlands never can happen. Profit has also some advantages. People might work more efficient. This only in the case that managers can keep the bureaucracy low. Next to that, when hospitals can attract money, more money will be there for research and this can lead to better quality of healthcare. The system could work, but the only thing that absolutely may not happen is that hospitals are going to specialize. The danger with this is that hospitals, completely understandable choose to specialize on cures with high profit margin and that cures with low profit margins decrease very much in quality. Next to that this would mess the level playing field between hospitals, for as far as it is there at this moment.

When looking to non profit, the overall thought goes to soft people who live for the nature and walk in socks of goat wool. These people forget that the non profit sector in the Netherlands is quite big. Most hospitals in the Netherlands are officially still non profit. There are led as profit companies but they are not. The main advantage of non profit is in the case of hospitals that they are state owned. This means that there are no real financial risks for the hospitals. The biggest disadvantage for the society is here that they do not act as efficient as they could do. At least that is what our government. The only fact in this case is that non profit organisations are not obliged to work efficient because there is no real punishment when they do not. The reasons are vague and there is no real reason to change the system at this moment.

The third item is what the consequences are. Nobody really knows, but what we can see already is that peripheral hospitals are cherry picking at this moment. This is the most dangerous trap in the new system because this would decrease the quality of healthcare a lot. The reason for this is that some treatments will not get the attention they deserve. The other very dangerous development is the difference in quality and the difference in payments. The strange fact is that the hospitals with the best equipment and the best facilities (academic hospitals) make less profit due to the low profit margins on difficult cures, while hospitals with lower quality equipment make more profit and pay two or three times as much to their personnel. People see, coming out of this research quality as the most important factor of healthcare, while the best qualified doctors earn the lowest amount of money. To create a level playing field, these differences should be cleared, or else the fundament of the new system is not there.

9.2.3 Component 3 – Points of difference

The points of difference are really the issues that matter in this research. Out of the literature research came that the issues that looked important to people are service, quality, price and integration of services. The questions that are relevant for this component are.

1. What is service, and how will it be affected by the change from non profit to profit?
2. What is quality, and how will it be affected by the change from non profit to profit?
3. How can points of difference like price, quality and service help the hospitals attract patients?
4. How can integration, vertical or horizontal, attribute to a feeling of satisfaction at the patient?

The first question about service is about the feeling of people. Service is not a criterion that people can simply calculate. Therefore the definition of service is the difference between what people get and what they expect. Service is that there are facilities for patients and visitors, but also compassion of personnel of a hospital when they see that something is bothering you. Service was by nobody of the research population seen as the most important factor. On the other hand, it was seen as a very important factor. The risk is of course very high that when hospitals will lower their budget for extra's because they have to gain profit, the service will be a factor they will save money on. On the other hand there is in my opinion a big gap for hospitals here. When this new system was started to be implemented there was started with the fact that it became impossible to get more services than others due to a change in the insurance system. The possibility for hospitals lays in the extra's they can offer like one-person rooms, internet and other luxury things that people in hospitals could appreciate. This is a part of the hospital market that is not discovered yet a lot but may become very interesting.

The second question about quality is harder to answer than the question about service. Quality seems to be very objective factor. The problem is that quality exists out of some different things like pre-care, after-care and care of families during a period in a hospital. Next to that, when looking at the amount of people where the cure or surgery was successful, is also hard because every cure has its own complication risk and

some hospitals are not even able to do those kinds of surgeries. The overall thought is that the quality will raise and I agree in that for just a part. The overall thought is that when there is more money available for, for example research, the outcomes of this research will help the quality of research. On the other hand there is the danger of the fact that hospitals are going to specialise on cures and surgeries that have the biggest profit margin. This means that the level playing field must be there for every hospital in the start. Only then, the quality is in good hands with the new system.

The third question is not too hard. Out of the results in chapter seven came just as in the hypotheses that the factors service, price and quality came out as very important. What we can conclude from this is that these factors can make a difference to the patients. This means that when hospitals want to play into the new market situation these factors have to be taken care of. Probably the hospitals will, although most of the hospitals do not seem to be taking care of their marketing communication too much at this moment, where it would be wise to do so.

The last question is based on the integration of services. Out of the servqual dimensions this factor did not come forward, but out of the theories it did. This kind of service has several advantages. First the consumer does not have to find a new doctor or other kind of caretaker. This factor is mainly popular with the lower educated people and women. Especially the lower educated people was expected because they do not have the right information to find the right supplier of healthcare most of the time. On the other hand it is for hospitals and insurance companies probably way cheaper. For the hospitals it is less expensive because on the one hand they gain extra money and on the other hand there is less paperwork and with that less bureaucracy and less costs. For insurance companies who also have to pay for all the paperwork in the hospitals because that is in the overhead it is also more interesting due to the lower costs. This is in my opinion one of the biggest improvements that hospitals can make in the new system. Also the cooperation with other hospitals to share knowledge and specialisms would be a very good step in saving money and creating efficiency.

9.2.4 *The central research question*

The central research question of 'that was formed for this research is 'How do hospitals deal with the free market, and how will they be able to sell their company to the world, and how does this affect to the attitude of different people's view to the hospital market?'

In the last part of the paragraph, the different aspects of the central research question were discussed, the answer to it can be given, and it will follow below here.

The answer to the question is as follows. Hospitals will establish a system where they are going to act more like normal business companies, they are going to compete for the patients and the recourses based on variables like service, quality, safety and reliability and the view of the people to this new market will not change a lot. Although it is very hard to really segment the people of the survey, there came out that on different aspects men and women, younger and older people and higher and lower educated people differed from each other in many ways in what they thought that is important.

In the service case it is very important to deliver a distinguishing service as an important point of difference to competitors. Every other kind of service delivery can make the difference, because most people make decisions with their heart instead of their mind.

Finally, the quality will raise in the first time because of successful specialisations. This unfortunately will lead to specialisms that are neglected. This will be an important point in the future, whether this gap can be filled up.

9.3 Implications

This research shows how different people with different characteristics have different preferences when it comes to medical healthcare. This research has some different parts. On the one hand there was a factor analysis on the servqual variables, with following a regression analysis to see whether there are links between the characteristics and the different factors. Because the amount of information that came out of this analysis was too low in my opinion there was also a two step cluster analysis on these factors to see whether there came out some extra details. On the other hand there was a two step cluster analysis on different factors like service, quality and price, as also to the vision of people when it comes the commercialisation of the healthcare.

Out of the first part came that there were two real segments to approach with a group of younger people who are relatively high educated, they visit hospitals not so often and they do not have kids. The other cluster contains older people with children and they visit hospitals on average more than three times a week. What can be seen here is that on the factors service, safety, trust in healthcare and reliability need another approach for younger people versus older ones, families with children versus families without children and higher educated people versus average educated people. They have other opinions about different things about the new system. With this information and the information of chapter eight can be proved that different groups have to be approached and convinced in a different way. With this, a little bit of the clusters is visible now, and there are reasons to approach the people with different characteristics in different ways.

With the other two step cluster analysis where three clusters were found we see different clusters on service, price and quality, but they look quite the same with overall the same preferences. Almost everybody sees the ranking Quality, Service, Price as the ranking of factors. When it comes to the commercialism of the healthcare there are big differences between different characteristics of people. Here are age, gender, level of education and knowledge about the new system are really variables that make a difference. With this becomes very clear that there are different people who have to be approached in a different way, because they have different opinions about the new system.

9.4 Limitations

Unfortunately there are also some limitations to this research. These will be discussed below here.

- The first limitation relates to the type of data that is used. All the questions are based on what people expect and what they think. This means that not the actual behaviour of the consumers is researched. This can mean that the results do not reflect the reality. This could be solved by doing this research once more in a few years when the system is totally implemented.
- The second limitation is the way that the data was analysed. The original plan was to use a cluster analysis, but the data that came out was not applicable to analyse. Therefore the combination of a regression analysis and a two step cluster was done.
- The results do not show for every factor of the research how important people think it is. It shows where people think that the quality of a factor increases or not. Next to that, in reality the people will be influenced by marketing campaigns and they are not already there so all the results are expectations and cannot be proved yet by the real situation.
- Only the marketing tools are being taken along in this research, while there are so many more issues like ethics, law and governmental issues that have to be looked at to see whether this introduction can really become a success. This research is really only on the marketing tools for the hospitals.

9.5 Follow up studies

The results of this research and the limitations of this research imply that there are some possibilities for follow up studies. There are three possibilities that will be discussed in the text below.

The first interesting follow up study that can be done is a research with more respondents which are a little more divided over the different characteristics so that a good cluster analysis is possible. This has a great potential when hospitals really specific want to approach the possible patients.

The second interesting follow study is to see what the actual thought of the people is when the new system is really introduced. This shows the actual behaviour instead of the expectations. People know then what the consequences of the new system really are and can then give a well underpinned answer. This is mainly based on the biggest limitation of the research.

What to finish is a really interesting follow up study is whether people think the new system where needy people like patients or people who have less information than the doctors have to make a choice for a hospital, is ethical. This discussion is something that really bothered me all through this research because there is in my opinion no real way that you can make profit on people who are needy due to an illness they cannot do anything about.

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Appendix A The survey

Van harte welkom bij mijn survey. Dit survey is deel van het afstudeertraject voor de opleiding Economie aan de Erasmus Universiteit Rotterdam. Thema van dit onderzoek is marktwerking in de zorg: een geplande maatregel van het nieuwe kabinet. Ik wil door middel van dit survey onderzoeken hoe mensen staan tegenover de verschillende aspecten van dit nieuwe systeem.

Uw antwoorden worden anoniem verwerkt. Daarnaast geldt dat er geen foute antwoorden bestaan.

Vriendelijke groet,

Maurice van Leeuwen

Deze enquête is gericht op de invoering van marktwerking in de zorg. Aangezien dit in veel vragen terugkomt, wordt eerst toegelicht wat daar onder wordt verstaan.

Marktwerking in de zorg is het mogelijk maken van competitie tussen verschillende ondernemingen (bijvoorbeeld ziekenhuizen en verzekeraars). Dit houdt in dat deze instellingen als 'normale' bedrijven om de gunst van de patiënt moeten concurreren.

Geef voor onderstaande stellingen aan in hoeverre u het ermee eens bent.

Antwoordopties zijn:

Sterk oneens - Oneens - Eens noch oneens - Eens - Sterk eens

	Sterk oneens				Sterk eens Weet niet	
Door de invoering van marktwerking zal de sfeer in ziekenhuizen killer worden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Door de invoering van marktwerking zullen ziekenhuizen er voor kiezen om minder faciliteiten voor gasten aan te bieden. Voorbeelden zijn: computers, koffieautomaten, tijdschriften.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Er zullen door de invoering van marktwerking meer reclames komen voor ziekenhuizen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
De faciliteiten voor bezoekers zullen na de invoering van marktwerking beter worden. Denk hierbij aan parkeren, restaurant etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Door de invoering van marktwerking in de zorg zal er meer moeite worden gedaan om de patiënt sneller te genezen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
De kwaliteit van de service ten aanzien van klachten zal na invoering van de	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>

marktwerking beter worden.

Er zullen door de invoering van marktwerking minder medische fouten gemaakt worden binnen de ziekenhuizen.

De kwaliteit van de zorg in ziekenhuizen zal stijgen door de invoering van marktwerking.

Het personeel zal na de invoering van de marktwerking meer klaarstaan om de mensen te helpen.

Patiënten zullen na de invoering van de marktwerking sneller geholpen worden, waardoor de wachtlijsten korter worden.

Geef voor onderstaande stellingen aan in hoeverre u het ermee eens bent.

Antwoordopties zijn:

Sterk oneens - Oneens - Eens noch oneens - Eens - Sterk eens

Sterk oneens

Sterk eens Weet niet

Er zal na de invoering van marktwerking in de zorg doelgerichter gehandeld worden in ziekenhuizen.

Het is goed als verschillende hulpverleners elkaar opvolgen in een keten. Dit betekent dat de zorgverleners elkaar aanwijzen als opvolger in het proces.

Artsen zullen na de invoering van marktwerking het belang van de patiënt voorop blijven stellen.

Het vertrouwen van de patiënt in de zorg zal stijgen na de invoering van de marktwerking.

De vriendelijkheid van het personeel in het ziekenhuis zal toenemen na de introductie van de marktwerking.

Het personeel van het ziekenhuis zal beter in staat zijn om vragen van patiënten te beantwoorden na de invoering van de marktwerking.

Van het personeel mag verwacht worden dat het inlevingsvermogen in de patiënten zal verbeteren na de invoering van de

marktwerking.

Het is in een situatie van marktwerking niet realistisch dat alleen het belang van de patiënt in het oog wordt gehouden, maar dat ziekenhuizen ook hun eigen belang gaan zien.

Een patiënt kan na de invoering van de marktwerking niet van het ziekenhuis verwachten dat het haar tijden van behandeling aanpast aan de patiënt.

Het is belangrijk dat ik mijn eigen zorgverlener kan kiezen, en niet gedwongen word door mijn arts of zorgverzekeraar.

De volgende vragen hebben betrekking op uzelf.

Wat is uw geslacht? *

- Man
- Vrouw

Wat is uw leeftijd? *

Wat is uw hoogst afgeronde opleiding? *

- Middelbaar onderwijs
- MBO
- HBO
- WO
- Anders

In welke regio van het land woont u? *

- Noord (Groningen, Friesland, Drenthe)
- Oost (Overijssel, Gelderland)
- Zuid (Limburg, Noord Brabant, Zeeland)

- West (Zuid Holland, Noord Holland)
- Centraal (Utrecht, Flevoland)

Hoe is uw gezinssituatie? *

- Alleenstaand
- Alleenstaand met kinderen
- Samenwonend
- Samenwonend met kinderen
- Anders

Wat is uw nationaliteit?

- Nederlands
- Westers allochtoon
- Niet-westers allochtoon

De volgende vragen hebben betrekking op uw kennis ten aanzien van marktwerking in de zorg.

Was u reeds op de hoogte van de plannen voor marktwerking in de zorg? *

- Ja
- Nee
- Enigszins

Geef voor onderstaande stellingen aan in hoeverre u het er mee eens bent.

Antwoordopties zijn:

Sterk oneens - Oneens - Eens noch oneens - Eens - Sterk eens

	Sterk oneens			Sterk eens		
Zorg is een commercieel product.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben gevoelig voor reclames.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ziekenhuizen zouden meer samen moeten werken met andere soorten van zorg.

Een ziekenhuis is er slechts om mij beter te maken.

Geef voor onderstaande stellingen aan wat op u van toepassing is.

Antwoordopties zijn:

Totaal onbelangrijk - Onbelangrijk - Neutraal - Belangrijk - Zeer belangrijk

	Totaal onbelangrijk			Zeer belangrijk	
Ik vind de prijs van zorg...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik vind een goede service in een ziekenhuis...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik vind de kwaliteit van zorg in een ziekenhuis...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Wanneer u kijkt naar de drie factoren prijs, kwaliteit en service, wat vindt u dan het meest van belang?

Hierbij staat '1' voor de factor die u het belangrijkste acht. *

- 1. Prijs - 2. Kwaliteit - 3. Service
- 1. Prijs - 2. Service - 3. Kwaliteit
- 1. Service - 2. Kwaliteit - 3. Prijs
- 1. Service - 2. Prijs - 3. Kwaliteit
- 1. Kwaliteit - 2. Prijs - 3. Service
- 1. Kwaliteit - 2. Service - 3. Prijs

Hoe vaak komt u per jaar gemiddeld in een ziekenhuis, zowel als patient als bezoeker? *

- Nooit
- 1 tot 3 keer
- 4 tot 6 keer
- 6 tot 10 keer

Meer dan 10 keer

Dit was de laatste vraag van het onderzoek. Hartelijk bedankt voor uw deelname.

Appendix B Tables chapter seven

Table 7.1 Rotated Varimax factor loadings

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Variables						
Better facilities	0,731					
Helpful personnel	0,725			0,240		
Better complain completion	0,605				0,471	
Friendlier personnel	0,603	0,323				
More commercials	0,588					0,339
Shorter waiting lists	0,499	0,301				
Bigger knowledge by the personnel		0,762				
More empathy by the personnel		0,642				
Higher efficiency		0,637				
Patients interests first			,728			
Hospitals see their own interests		0,403	-,629			
A chilly atmosphere			-,517			0,388
Bigger trust in healthcare service		0,409	,435			
Less medical mistakes				0,741		
More effort for quicker healing				0,695		
Higher quality of care	0,363		0,310	0,562		
Variable times of treatments		0,101			-0,745	
Own choice of doctor					0,622	
Less facilities						0,777
Successive caretakers	0,348					0,590

Table 7.2 Cronbach's Alpha factor 1

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Better facilities	19,68	16,070	0,485	0,654
Helpful personnel	20,38	15,556	0,635	0,620
Better complain completion	19,89	16,454	0,452	0,662
Friendlier personnel	20,36	16,395	0,466	0,659
More commercials	19,29	17,673	0,405	0,677

Shorter waiting lists	19,94	16,634	0,428	0,668
Successive caretakers	20,22	16,736	0,191	0,758

Table 7.3 Cronbach's Alpha factor 2

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Bigger knowledge by the personnel	6,29	2,591	0,534	0,356
More empathy by the personnel	6,18	2,447	0,432	0,519
Higher efficiency	5,07	3,506	0,333	0,635

Table 7.4 Cronbach's Alpha factor 3

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Patients interests first	7,4806	3,939	0,253	0,523
Hospitals see their own interests	8,3643	4,780	0,137	0,420
A chilly atmosphere	7,2868	3,737	0,314	0,624
Bigger trust in healthcare service	8,0078	4,742	0,186	0,372

Table 7.5 Cronbach's Alpha factor 4

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Less medical mistakes	6,24	3,159	0,406	0,536
Better quality of care	5,53	3,169	0,436	0,495
More effort for quicker healing	5,35	3,000	0,424	0,511

Table 7.6 Cronbach's Alpha factor 6

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Less facilities	6,82	2,265	0,292	0,068
Chilly atmosphere	6,31	2,348	0,197	0,286
More commercials	5,12	3,319	0,130	0,389

Figure 7.1 Scree plot of factor analysis

