

Bachelor Thesis B.B.M. Boenders

'External growth by internal improvement'

A study into the possibilities of the German and US market for PT Dharma Medipro



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Management Summary

Dharma Medipro (DM) is struggling hard to find new customers and besides this they are facing severe quality problems which does not stimulate finding new customers. One of DM's goals is to acquire a large German or US customer. In the past they supplied two large American customers but this stopped due to quality problems. After that DM did not succeed in finding a new partner in the US market and till now there still are difficulties keeping the quality at a constant and proper level. Logically, these quality problems influence sales very much, because there are many complaints of customers. That is why in this report an answer is found on the question: *'What strategy is needed in order to acquire new customers in the German and US market?'*

In order to answer this question two well-known analyses were executed; the SWOT and the PESTEL analysis. After analyzing the 'SW' (strengths and weaknesses) it became clear there are more weaknesses than strengths. The most important weaknesses are: price is not competitive enough, quality problems, high reject rate, and delivery problems. In this research it became clear that problems in production influence the rest of the company very much. So, before entering markets like Germany and the USA successfully, the internal situation at DM has to improve dramatically.

The PESTEL analysis indicated the 'OT' (opportunities and threats) DM has to be aware of. The most important findings were that there is high market potential in Germany and the USA. The choice of these markets seems logical because these are the two largest medical markets in the world. Besides this, there are a lot of forces which are favorable for DM. Another important thing is that DM is also innovating instead of only 'make-to-order'. The new digital device they developed can become a competitive advantage in the future. Finally, it is quite likely DM will acquire the ISO 13485:2003 certification within a few years. This certificate will definitely improve DM's credibility. On the other hand of opportunities, there are threats. Competition from China is the biggest one. Price is key in this market and to stay in business price will become even more important to fight against the Chinese competition.

So, there are a lot of opportunities for DM to remain in business and be successful, but there is a strong need for change.

First of all, quality has to be improved and this has to be a continue process. DM also has to focus on what they are offering to certain customers, whether this is latex products, neoprene etc. To do this, they have to carefully segment the market and map needs of their potential customers. Next, in order to acquire new customers they can attract them by lowering the price. Also important is to retain the customer once you attracted him, a CRM system is a very useful tool to do this. However, CRM is too expensive and not realistic for DM. However, their mother company already has a CRM with Honda, in this way it can be a serious option.

Actually, all the things mentioned in this report is a vicious cycle. When quality would be better and reject would be lower, the price would be lower and customers would be more satisfied. This also would make it easier to sell more and expand the business. All in all, it starts with internal improvements before external growth can be realized.

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Chapter 1 – Introduction

In this chapter I start with a short outline of Dharma Medipro (DM), the background. After this, the problem is introduced and the corporate objectives are stated. In section 1.3 the research questions are stated and in the last section information about DM is presented in order to give you a clear overview of the business processes and products of DM.

1.1 Background

In this report, which is the result of a 3 months internship in Indonesia executed at DM, I will present a study into the opportunities in the German and American market for blood pressure equipment. The blood pressure equipment market is a highly competitive market and DM struggles to stay in business. Therefore, I have analyzed how DM possibly can acquire new customers and what kind of strategy they should use to achieve this.

DM is an Indonesian manufacturing company which produces blood pressure equipment and parts. In Indonesia they sell complete blood pressure sets and the export market exists of components which they sell to big well-known manufacturers in Japan, Europe, other Asian countries, USA, Australia and Cuba. At the moment, export is more than 95% of their total sales which is something around 10 million products per year. With this, DM is the second largest supplier of blood pressure kits and equipment in Indonesia. Rather, at the moment they are facing strong competition so in order to strengthen their position at the global market, there is a need for new customers. In chapter 2 I will give a detailed analysis of DM and their current activities. The Dharma group is an Indonesian company consisting of 10 manufacturing companies within the West Java Region. In the board of directors of the Dharma group every director is responsible for one or more Dharma companies. The main goal is to make all the separate companies (more) profitable by introducing innovations and improvements throughout the Dharma Group and using “best practice” to stimulate learning between companies.

DM is one of the companies of the Dharma Group. As a manufacturing company they produce blood pressure equipment and parts. At the Indonesian market they sell complete sets, for the export market they only sell parts. In section 1.4 you can find detailed information about the different parts a blood pressure set consists of. Before DM was incorporated by the Dharma Group, it was called Inter Medi. Inter Medi was founded in 1993 in Indonesia by Yoshiyuki Kanomata. This entrepreneur from Japan had experience and knowledge about latex processing and took this technology to Indonesia as the starting point of a new company. In 1997 the Dharma group took over the company.

A board of directors controls the organization at DM. They control seven departments. All departments have a head of department, although some persons are head of two or more departments. The total number of employees at DM is around 220, which makes it one of the smaller divisions of the Dharma Group.

Already stated above, DM is a manufacturer of blood pressure equipment and parts. There are different kinds of blood pressure equipment. The first one is the *aneroid* type, which is still the best sold one. The second one is the *mercurial* type which is especially used in hospitals, because it is the most accurate type. The last one, the *digital* type is the type mostly used for home use, because it is the most user friendly. In the next part of section 1.1 more details about the products are presented.

Every year more than 10 million products are produced and shipped, making DM the second largest supplier of blood pressure equipment in Indonesia.

DM customizes a lot of products to the specific needs of their customers. Therefore a large variety of products is produced at their factory. To get an overview of all the products I categorize them into five main categories (latex, cuff, neoprene, complete sets, stethoscopes and others). Before reading about the product, it is useful to look at the picture below, so you know what ‘bulb’ for example is and can imagine how a blood pressure meter looks like.

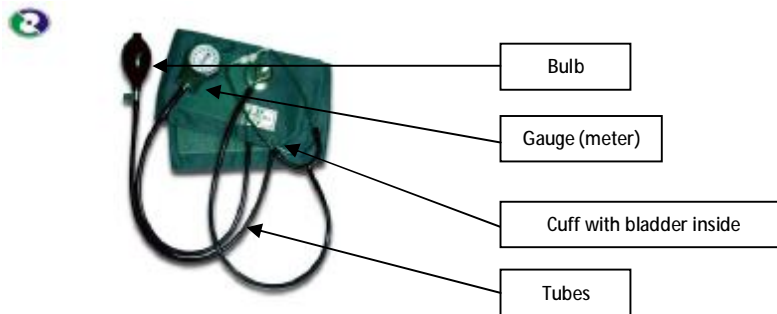


Figure 1.1: Aneroid blood pressure meter (with separate stethoscope)

Latex

All latex products are produced by dipping a mould in a latex mix after which they are dried and processed. For most customers a specific mould, a specific kind of latex or a different finishing process is used. Because of all this variation there are many different latex products. But within the latex product group we can distinct the following sub groups which can be produced in 8 different colors:

- Bulb (used for inflating the bladder)
- Bladder (latex part which is inside of the cuff)
- Preformed tube (tubes used for digital devices)
- Tube only
- Outlet tube
- Coiled tube (like a traditional wire from a house telephone)

Cuff

Cuff components are those parts made of nylon or cotton. They are produced by sewing, sometimes with additional parts like zippers and Velcro. The Cuff cotton/nylon is the part which covers the bladder and is tied around your upper arm or wrist when measuring the blood pressure.

- Cuff Cotton (made in 8 different colours and sizes from newborn child to very large ones for your thigh)
- Cuff Nylon (the cheaper and less durable variant which is also available in 8 different colours and different sizes)
- Zipper cases for storing the blood pressure meter

Neoprene and PVC

Neoprene, synthetic latex, is a new raw material used at DM. The same products as described at 'latex' can be made by almost the same process, dipping the mould in this synthetic latex. The advantage is that some material characteristics are better than those of natural latex (less allergy reactions for example). Because there are only a few customers of neoprene products at this moment and production is still done in small scale, not all possible products are actually produced. The disadvantage from Neoprene is its price; it is almost 5 times as expensive than latex. Besides this, at DM they underestimated the production process of Neoprene. They still do not have the ability to produce error-free neoprene products. The 2 customers they supplied Neoprene to, have cancelled this because of the poor quality.

PVC is another alternative for latex. PVC is not made by dipping, but by welding. PVC is a very cheap product, but will probably not replace latex, because latex is far more durable material than PVC.

So, the main reason why latex still is popular in this market is because of the price/material characteristics comparison.

Complete sets

When the latex and cuff parts are put together including some extra components bought from suppliers (meter, valve), a complete blood pressure measurement set is assembled. These complete sets can be sold directly to end users or to companies for further customization. DM produces *aneroid* (the analog one with manual inflation) and *mercurial* (the one which use mercury to measure the blood pressure, also manual inflation) complete sets. However, mercurial sets are only a small part of total production.

Stethoscopes

Also available at DM are different types of stethoscopes. There are stethoscopes with double tubing for better results and normal stethoscopes with single tubing for a better price. Stethoscopes they buy from a supplier.

Others

Next to all these products some other products are produced, for example rubber steps and seats. Because these products are produced temporary or are still in development this report will not look in to these products.

Organization chart marketing department

In figure 5 you see the organization chart of the marketing department at DM. The person with the main responsibility is the marketing manager. He is responsible for all the activities within DM concerning marketing and sales and he has to justify his decisions to the head of marketing of the Dharma Group. He is supported by a secretary who is also the secretary of the company's director. Below the marketing/sales manager, there is a head of export and of domestic activities. They are supported by somebody doing administration and somebody who sort out lots of other things to support them. The marketing department is located in an office which is shared with the purchasing and financial department.

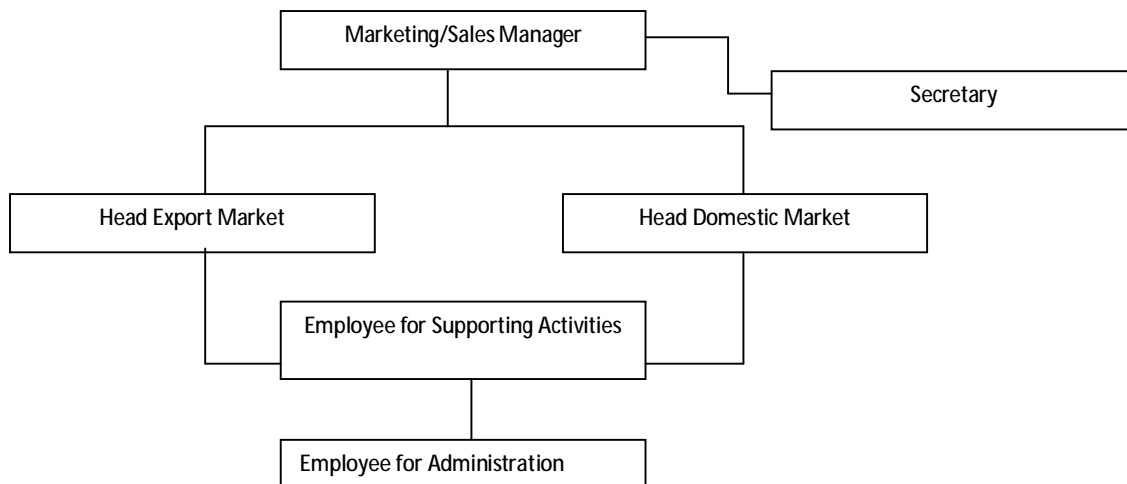


Figure 1.2: Organization chart marketing department

After the company analysis in this chapter, a good overview of the company is given plus an insight in the products DM is selling. The information in this chapter can be used as background information when reading the next chapters. A lot of this information about the company I collected from the research report two students carried out in 2006 (Gatsma, M. and Haspels, E.).



1.2 Problem introduction and corporate objectives

Concerning Marketing there are some objectives which I will mention. In this way, it is clearer why I will execute this research. In a meeting with the management we discussed about the topic marketing and the desired situation DM wants to be in. At the moment, DM is facing strong competition and in order to stay in business, new customers are required. DM is dependant on some 'big buyers' and when a buyer suddenly stops their orders, this is major problem for DM. In October 2005, such a thing happened. Having more customers is safer in the position DM is in right now. What DM wants is expanding their foreign activities and acquire new customers in the USA and in Germany, because these markets are growing and besides they already exported products to Germany and a couple of years ago they have exported to the USA. So, from this point of view, I can identify the following objectives.

- Increase market share
This means taking some market share from others in new markets, but also in the Indonesian market itself
- Entering USA and German market
These markets have large potential according to market data. For example, reasons for this are the ageing of people and the growing wealth of people
- Exporting end product to foreign countries
Before that, DM has to grow in Indonesia first, enlarge their brand awareness and they will need specific certificates like 5 10k in the USA and CE in Germany

1.3 Research questions

What is actually going on at DM? The most important that continuously came back to my mind was their dependency on a few customers. That is alright as long as they are placing orders, but it will become a major problem when one customer stops ordering. What they need is a new customer. From the information mentioned until this point and bearing the corporate objectives in mind, the following main research question could be formulated.

What strategy is needed in order to acquire new customers in the American and German market?

What DM need is new customers and the American and German market seems very suitable for this. In chapter 4 I will explain about these markets. When DM would succeed in getting a new customer in the recent future, this will give them a stronger position and a growth of the company. The future target is to export their own end product and therefore, financial resources are necessary, for example to buy certain certificates. In order to answer this main research question, it is necessary to answer some sub questions. In the next chapter I will explain how I will answer these questions by providing a theoretical framework. So, for every question an approach will be described.

- 1) *What are the strengths and weaknesses at DM?*
- 2a) *What are the opportunities and threats in the German and US market?*
- 2b) *What are the characteristics of the potential customers?*
- 3) *What are the strategic options for Dharma Medipro?*
- 4) *Which improvements are needed to reach the desired situation and how can these be achieved?*

In this first chapter I introduced the company DM and the problems they are facing. From this, research questions could be deducted. In the next chapter I will explain how I want to find answers on these particular questions. This chapter was very important for introducing company information, goals and research questions and will be very important for the rest of this research. On the next page a figure of the outline is presented.

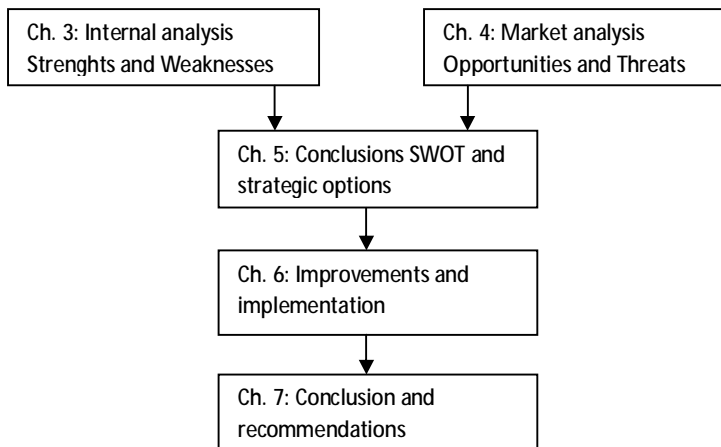


Figure 2.1: Outline report



Chapter 2- Theoretical framework

In this chapter the theoretical framework will be provided which I will use in order to structure the report and to answer the research questions stated in the former chapter. This means, per research question I will mention in which way I found answers and what the purpose is of the particular questions.

However, first of all it is important to explain the ideas of strategy and marketing.

According to Johnson, Scholes and Whittington (2006) a strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations.

According to Kotler (2003) marketing is typically seen as the task of creating, promoting and delivering goods and services to consumers and businesses. Important hereby is how to position yourself between your competitors. This research is more a strategy kind of one instead of e.g. the development of a promotional campaign or what so ever with which marketing often is associated.

This research is carried out according to the 'ABP' (Algemene Bedrijfskundige Probleemaanpak) from Heerkens, translated: General Managemental Problem approach. It starts with the identification of the problem, then formulating the problem approach, the problem analysis and finally the introduction of solutions.

2.1 Theories for Internal analysis

Sub question: What are the strengths and weaknesses at DM? Ch. 3

I will look at the current situation, from how customers are acquired in the past to the way the selling process is carried out, who customers are and what part of total production they purchase. Another important case is why a big American customer stopped their orders in October 2005.

The internal analysis is an analysis of the strengths and weaknesses I found at DM. The 'SW' is the first half of the so-called SWOT analysis. This analysis is very useful in order to identify the most important issues at a company in order to evaluate its strengths, weaknesses, opportunities and threats.

In the optimum situation, strengths have to developed to a maximum level where weaknesses have to be eliminated as much as possible in order to be gain the highest turnover. This is easier said than done.

By observing the daily procedures, analyzing all kinds of documents and interviewing certain people within the company I was able to write the internal analysis as presented in chapter 3. So, not a very special tool was used for this, only concepts that I found in Kotler (2003).

2.2 Theories for Market analysis

Sub questions: What are the opportunities and threats in the German and US market? Ch. 4

What are the characteristics of the potential customers? Ch. 4

By using the PESTEL framework of Ball et al. (2006) I will analyze the first sub question about the market characteristics of the German and American market. PESTEL stands for: Political, (Socio)-Economic, Socio-cultural, Technological, Environmental and Legal forces and this analysis is used to map certain characteristics before a company decides to go abroad. In the latest version of Ball et al., labor forces have been added to the former six forces. In this analysis I will describe the following forces: political, (socio) economic, socio-cultural, technological, environment and legal. Things that will cross this analysis are e.g.: how about the legal aspect in a target country? Are there any legal restrictions or certificates needed for entering that market? How many people live in the target country, what is the number of elderly people in the society and how this does this affect the business? All questions for which I will give answers in chapter 4.

The main source used to find this information is the web, so the validity of this information must be questioned. However a lot of information comes from well-known authorities like the IMF and CIA. There is very detailed market data available, this is not public but stored at authorized organizations. These reports often cost thousands of dollars.

In the second part of chapter 4 I will analyze the second sub question about the needs of potential customers



in Germany and the USA. What DM wants to know is what they can offer to new customers. So, it is useful to know what the differences are between them and their competitors. I investigated websites of potential customers in order to make a simple figure in which the different needs of those customers are presented. So, this chapter focuses on the 'OT', the opportunities and threats.

2.3 Improvements resulting from SWOT

Sub question: What are the strategic options for Dharma Medipro? Ch. 5

After chapters 3 and 4, which together are a large SWOT analysis, points for improvement remain. In order to reach objectives stated in the beginning of this report and to improve the situation at DM, I will analyze the most important points for improvement. I chose certain points by looking at the corporate objectives and information about DM itself (strengths and weaknesses) and the market (opportunities and threats).

For these points for improvement a customized solution is presented in chapter 6. The next research question will deal with this.

2.4 Theories for Implementation

Sub question: Which improvements are needed to reach the desired situation and how can these be achieved? Ch. 6

This is the most important sub question because this will give the solution with which DM can hopefully improve their business. For 3 points which remained after the conclusions from the SWOT analysis, theory is provided and this is applied on the problems that are present.

First of all, theory is provided for the problem of customer loyalty. I suggested a CRM (Customer Relationship Management) system. I used a theory from Kellen (2002) in order to provide a possible solution. In chapter 6 this theory is better explained and applied on the problem of customer loyalty.

Secondly, the idea of market segmentation is explained. I concluded a better segmentation is needed and theory of Root (1994) confirmed this. Also this concept is explained better in chapter 6.

Thirdly, for the problems DM has with price, Root (1994) also gives different price strategies. These are explained in chapter 6 and eventually I chose one of these price strategies as an end solution, in combination with ideas of market segmentation strategy. In chapter 6 I will explain why. Important for a proper implementation can be a PDCA cycle. I analyzed this in the last section (6.5) of chapter 6

In this chapter I presented the theoretical framework which is the basis of my research. All the important literature I used is stated so you have an idea in which direction this research went. The upcoming chapters will provide a lot of information about DM and the market. After this I come back at the most important points for improvement in order to reach certain objectives. I must say there are a lot of other problems at DM, but my focus will be at the acquisition of new customers. In figure 2.1 below the structure is given schematically.

Chapter 3 – Internal analysis

In this chapter I will give an analysis of the current situation at DM and the factors which influence the marketing process in particular. Actually, I will analyze the strengths and weaknesses, the 'SW' of the SWOT analysis (Kotler, 2003). In the next chapter I will address the 'OT' or opportunities and threats. The SWOT analysis is used to evaluate the characteristics of the company and its environment. After the next two chapters I will explain the most important factors for which a solution is provided.

DM, with 220 employees and yearly revenue of approximately 3 million USD, is only a minor player in the big medical industry of blood pressure equipment. Because they are small and face severe competition, it is very important to get better insight in the current processes in order to identify points for improvement for which, at the end of this research, suggestions are presented. I describe different steps; from the current customer build-up to the purchasing process of raw materials. Also I will explain about quality issues, because they influence marketing activities and caused the loss of customers in the past. That is why it is useful to illustrate the loss of one big American customer separately (case Prestige, section 2.5).

After this chapter, chapter 3 will describe and analyze the market and the potential customers in Germany and the USA. After this market analysis there is a good overview of the current marketing processes and background information about the market.

3.1 Current customer portfolio

I will give an outline of the current customers and also provide figures about the total sales to each customer. In this way, it becomes clear to which parts of the world DM is already exporting. Note: exporting at the moment especially contains parts and not complete sets. Besides, if complete sets are exported, DM's name is not on it, but the name of the buyer. The customer build-up presented here is given according to the sales of January-May 2007.

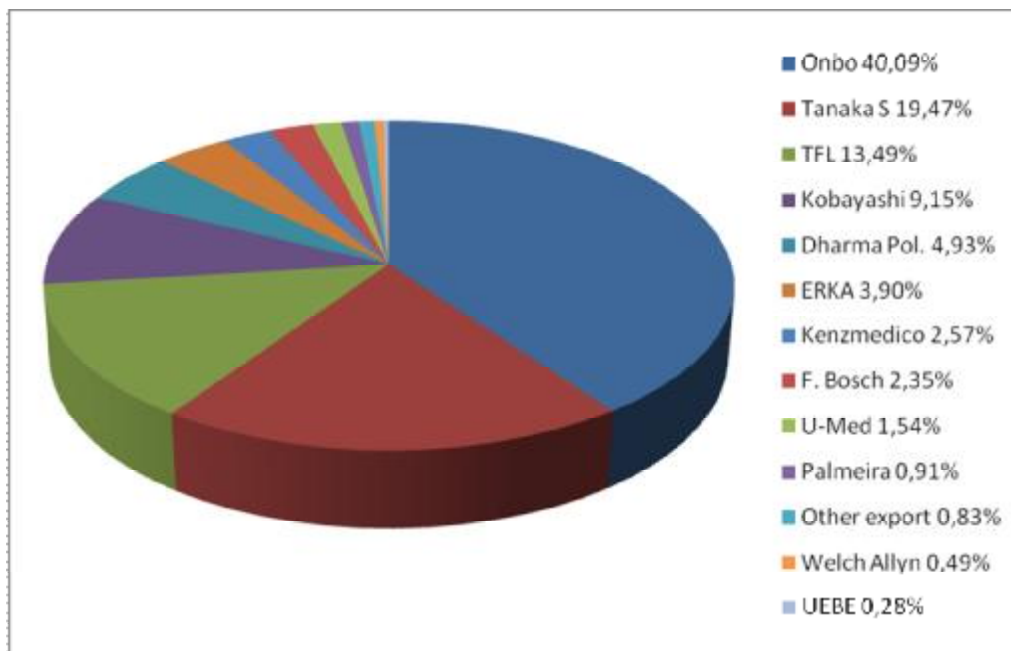


Figure 3.1: Buyer composition of sales Jan-May 2007 (source DM)

In the figure you can see Onbo (from Taiwan) is the biggest client at the moment. Their sales of the first 5 months contain 40.09% of total sales. Onbo itself sells the products to a very big manufacturer in the USA, Microlife. Besides Onbo, there are a few clients with a purchase of around 10% or more. Kobayashi from Japan



(9.15%), Tanaka S from China (19.47%) and TFL from Indonesia (13.49%, home market). Further, important to mention is that DM at the moment has 4 German buyers, ERKA (3.90%), F. Bosch (2.35%), Welch Allyn (0.49%) and UEBE (0.28%) which are all OEM (Original Equipment Manufacturer) or brand owners. The rest of the buyers are from the UAE, Australia and Cuba. All the given percentages are of total sales in USD. This customer portfolio shows that DM actually is highly dependant on a few customers. This is a huge weakness.

3.2 Customer acquisition

When this company started in 1993 DM (at the time called Inter Medi) had to start from nothing. At the time, the Japanese founder Yoshiyuki Kanomata which I mentioned before had a very good network and because of him they were able to establish export sales. At the moment, the acquisition of new customers appears to be very difficult. However, they are working on it every year. The goal is to visit 2 exhibitions each year in order to promote the company and to meet potential customers. There are some big exhibitions in the world; Medica in Düsseldorf, Arab health in Dubai and Medtrade in the USA (different place each year). Last year they visited Düsseldorf only. This year, because one of the main targets is penetrating the US market, they will probably visit the exhibition in the USA and the head of export will probably visit some customers there.

During an exhibition they try to talk about their products to as many companies as possible. After coming back in Indonesia, a reminder is sent to the people who they met at the exhibition and showed their interest in DM. DM tries to turn the potential customer into a current customer. Of course, this is not so easy, but through personal contact at exhibitions and by customizing products to the needs of potential buyers, DM is undertaking steps to acquire new customers.

Besides the exhibitions, they are scanning the market environment, investigating the products of the big companies and after that, send samples to customers. However, to every customer the same sample is sent; this means there is no differentiation in this process. Every customer has its own characteristics so it might be better to adjust the sample to the specific customer.

3.3 Order acceptance to delivery

When the Marketing department receives an order form a customer they communicate a fixed delivery date of 30 days after the order has been accepted. This acceptance of orders is done independent of order characteristics, like order size or product complexity. A more accurate delivery date is not calculated by the production planning department after the order has been planned. After a period of 30 days the customer order should be ready and shipped to the customer. However, this is not always the case. This can be the result of delays in delivery of raw materials. The purchasing department makes sure of the purchasing of raw materials. After the marketing department receives an order, they make a sheet for the purchasing department of how much materials are needed to make the specific order. Next, purchasing is going to sort out at which supplier they buy for the quickest delivery or for example the best price. At the moment, DM makes use of 4 different suppliers and according to the production manager DM is still searching for the best supplier. It is very difficult to determine the best one, because of the variable quality of latex. Besides, the marketing manager informed me he is not very pleased with the purchasing department. In his opinion they should use their powerful position more (because of the choice out of 4 suppliers). When supplier A cannot deliver what you demand, you have the power to tell him you will go to supplier B-D.

After the raw materials arrived at the factory, the production process can start. During this process delays are not rare. All in all, there are many steps in the process from order acceptance to the actual delivery at the customer. The production problems mentioned here are beyond the scope of my research, so I will not provide a solution for this, but do mention them there they are so important. Delivery of products to their customers itself is definitely of importance here and needs attention. In figure 3.2 you see an illustration of the primary ordering process.

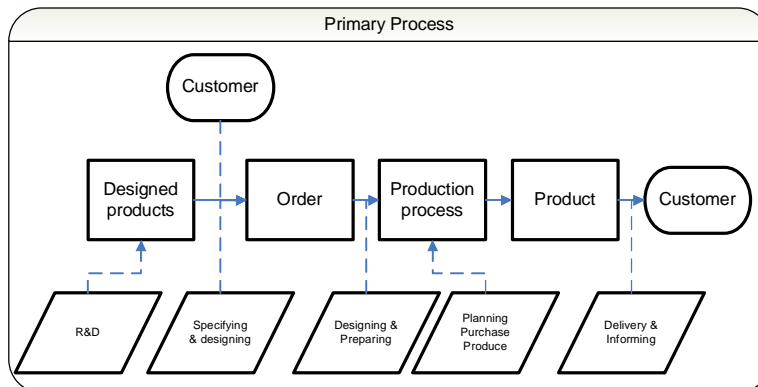


Figure 3.2: Primary ordering process (Source: Gatsma & Haspels, bachelor thesis)

3.4 Delivery

Here I will be more specific about the actual delivery to a customer. Like stated above, after a customer places its order a 30 days delivery date is agreed. During these 30 days the production department informs the marketing department about the progress of the orders. It is often the case that after 10 days, there are production problems. This means the 30 days agreement will face a delay. This is not always communicated to the customer. Sometimes, only 1 or 2 days before the actual delivery date, the marketing manager informs the customer his order is delayed. Customers most of the time are not very pleased with this procedure. In this way, they also face production delays. The eventual shipment is done by an external company which is chosen by the customer itself. This means that from the port in Jakarta the delivery is not DM's responsibility anymore. Another remarkable fact is that inventory control does not register incoming raw materials or what they have in stock. From research of two other students in 2006, it became clear that the administration was very bad or lacking. I experienced that one of the recommendations 'to start register incoming goods and stock level' was not taken up. In the figure below you can see the delivery results of January-June 2007, according to inventory control. The people from inventory control told me their target is to only have 1.0 % of delay in delivery. As you can see, they failed in January, March and April, because these numbers show an average time of 1.0 % or lower than the REF! Quantity.

However, these numbers presented in this figure are too optimistic. In reality, inventory control adjust their planning every week, which results in a totally different planning than the one made at the beginning of the month. Actually, you should evaluate your delivery achievements according to the planning in the beginning of the month and not after you have revised it. With this information, I can conclude that the delay in delivery is much worse than presented in this figure.

At last, I will tell something about the quantity of shipment. In most cases, marketing cannot deliver the quantity they made an agreement about. This is a result of failures in production. For example, when the agreement was 30,000 pieces, they only can ship 28,000. It means they try to ship the shortage of 2,000 with the next shipment, but the delay already occurred and the customer in this way is not very satisfied.

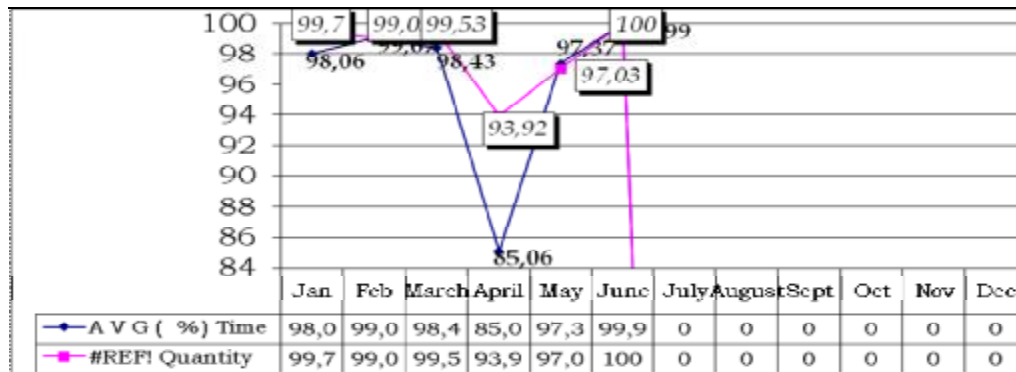


Figure 3.3: Delivery results Jan-Jun 2007

3.5 Quality

Quality is not a very strong point of DM. Besides customers are sometimes not satisfied with the delivery, there is also a high reject percentage in production. For example; for the production of bladder in 2006 the reject percentage was 30%. That is very high, especially when you know this is the 'largest' latex product with an average weight of 100 gram. This loss of production obviously leads to a loss of money, money DM needs very hard for innovations and other things or for example, for buying quality certificates in the future. One of the main targets at the production side for 2007 is to reduce the reject percentage from 30% to 15%. In 2006 the total production of bladder was 1,500,000 pieces and the reject was about 450,000 pieces. A major reason for this loss is the variable properties of natural latex. This is mainly due to the way of harvesting the rubber from rubber trees. Rubber cultivators usually harvest the rubber too quickly and not in the proper way, which results in bad quality of the raw material. Note: I am only speaking of bladder production here. The total reject per year during production failure expressed in money was approx. 330,000 USD in 2006.

I just spoke about the target to decrease the reject percentage. This is not quite working out this year, because after 6 months they almost reached the total reject amount of last year. This means the reject in 2007 will end up somewhere around 500,000 USD or higher. This is definitely not a good development.

After shipment of goods there are regularly many complaints of customers. It means, even after the quality check at DM there seems to be failures in quality. For example, the biggest customer at the moment, Onbo, has complaints after almost every order. They select the reject products and send it back to DM. DM then replaces the reject products, actually without making a problem. That is seen as positive, but this obviously cost a lot of money. Besides the money, it is not quite good for your reputation, because you do not show progress in product improvement to your customers.

The cost of product replacements is not included in the 330,000 USD I just mentioned. In 2007 the complaints of customer raised because of the worsening production results. I will give some examples of complaints from the biggest customer, Onbo. In the first half of 2007 DM shipped 61 orders to Onbo. From that number of 61 orders, Onbo complained every time about the quality. This means every time a replacement was needed, which in total was approx. 22,500 USD.

Another consequence of the bad quality is illustrated by the following. Prestige is a very large blood pressure manufacturer from the USA. For a very long time, they ordered complete blood pressure sets at DM. This means the complete end product was manufactured at DM and only the name of the product was the one from the buyer, Prestige. In order to export your own end product to the USA you need a 510(k)-certificate from the FDA (Food and Drug Administration), I will describe this later. In October 2005 Prestige stopped buying these complete sets from DM and this meant a major set back for the company. Until now DM is trying to get Prestige back as a customer, but to no avail. The reason for stopping their orders was due to 'a lack of quality'.

So, looking at all the points mentioned, quality can not be considered as a strength. Rather, it must be seen as a

weakness and quality levels have to improve in order to establish e.g. lower rejection rates, better products and eventually acquire new customers.

3.6 Reputation

The reputation of a company in many industries determines if you make it or not. It is very important how you deal with your stakeholders, because they have a certain view of your company. This view can be good or bad, but in the case of DM there are some things which definitely will improve their reputation. First of all, they are discussing about applying for the ISO 13485:2003 certificate. This certificate I will explain later, but it has to do with a certain standard of operation in the company. In this way, you will be more attractive to customers. At the moment, they lack CE-certification. More and more customers are asking for this. For many 'Western' companies this is a must when selling to them.

Also important for your reputation is brand awareness. This is something which DM is also lacking right now. This is not so much an issue right now, but it will become one because DM has the desire to export their end product in the future.

3.7 Price

Just like the overall quality, the price is not a very strong point either. However, compared with their most important competitors, it is not so bad. Their most important competitor from Indonesia, ABN, delivers a better quality than DM, but for a higher price.

The competitors from China deliver the products with less quality and a lower price. It means DM still has a very little competitive advantage, because they are right in the middle of this market and they have not just the same characteristics of its competitors. At DM some people from production are working on a detailed product comparison. Sometimes they order products at their competitors in order to do this. The figure below only is a simple illustration of the price/quality relation. I can make a comparison in price between DM and one of the 2 biggest Chinese competitors. I will not mention the exact prices, because this is sensitive information. I will show the differences in percentages.

From 7 different products, I summed up the total selling prices of DM and Bokang (the Chinese manufacturer). The difference is; the average price from DM is 21,8 % higher than Bokangs price. That is quite a big difference. The other little comparison is between the price of a complete end product of DM and Tenso (another Chinese competitor). A basic complete set (aneroid device) from DM is around 20 % more expensive then the one from Tenso. When we look at a so called 'palm aneroid' device (a more luxurious device), the one from DM is 300 % more expensive then the device from Tenso. This last difference is dramatically high. Unfortunately I do not have price information of ABN. This would have completed the picture better.

Price \ Quality	Low	Medium	High
Low	Chinese manufacturers		
Medium		DM	
High			ABN

Figure 3.4: Price/quality comparison competitors

Another thing about price is 'how to determine it'? First, the production department calculates the production costs of the product and after that the marketing department sets the definitive price. Normally, the gross profit margin on an order is around 23%. In negotiating about the price there is not very much room. One reason for this is the relatively high production costs and that is because of the high reject rate. When the production process would be better, marketing would have a better position during negotiations. Besides, 5

current customers of DM are complaining about the price.

Other important information is that a big American company (Graham Field) let DM know they want to order at them when the price for a complete set would be 25% less. This is quite a lot, but not impossible when production can produce the product more efficiently. Note: Graham Field once was a customer of DM, this stopped in 1999.

So, the price is not the lowest possible in the market. Current customers of DM are complaining about the price, but DM has to offer better quality than the Chinese competitors. Although there are complaints, the price is not very bad in comparison with some competitors, but it is different when DM wants to attract new customers. Companies in this industry do look at the price of products and when DM would be able to deliver a quality product, price would not matter that much as it does now. To conclude, price is a slight weakness right now.

3.8 Distribution channels

The distribution channel is a very important part of a companies' activities when entering a foreign market. DM at the moment is only exporting components to OEM/brand owners and other blood pressure manufacturers in foreign countries, which are not directly sold to consumers. This means, there is no agent or distributor between the component of DM and its customer. With the goal to export the end product under own label in the future, a good distributor network is very important. At the moment, they do not have one for the export market, so I cannot tell much about it. I will provide a short outline of the position in the product chain of DM at the moment (figure 7). Because the focus of this research is the export and not the domestic market, I will not describe the latter one. As a manufacturer DM is at the bottom of the product chain and provides OEM's and 'blood pressure manufacturers' in components. When we take the future objective in mind, the goal is to become the manufacturer of blood pressure equipment itself. This means 1 step higher in the chain. As a 'blood pressure manufacturer (BP manufacturer)', it means you mainly sell your complete product to for example Braun or Philips. The OEM which is presented at the same level in the figure also can be a customer of DM, but for components. To illustrate: DM is selling 'cuff' to the OEM ERKA, an established German company and DM is selling 'bladder' to Onbo, a Chinese manufacturer of blood pressure equipment which sell their end product to the OEM Microlife in the USA.

I am trying to say that you can be a manufacturer of components and a manufacturer of complete sets at the same time, so cover 2 parts of the product chain. To complete the product chain, after the OEM the end product will be distributed by a distributor to a retailer, for example a drug store. The end station is eventually the consumer/end user who buys the blood pressure meter.

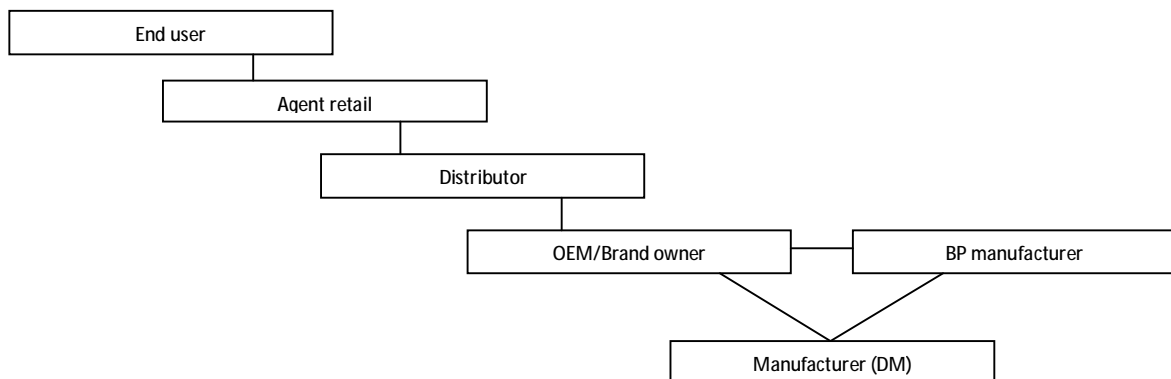


Figure 3.5: Product chain 'blood pressure equipment' market



3.9 Communication

Communication is a very important part of the selling process. I tried to observe this process as good as possible. I say this, because it is very hard to observe about daily activities, due to the language barrier I faced during my internship. The things I could observe I will describe here.

First of all, the English language is used with foreign customers when talking on the phone. I experienced it as sometimes difficult for the 2 people talking to foreign customers in English. In the Asian region this is not a very big issue, because their customers speak a similar level of English. It becomes a problem when they communicate with an American customer. In my period 'samples of products' were sent to some US-customers and they were phoned after this. In my opinion, not controlling the language at a certain level will not help very much when talking to a large potential American customer. Germany is another story, but also English is the language here. To control the German language would be very great, but this is not realistic. The main communication channel they use here is the telephone and fax. Personal contact is difficult because of the distance to their customers.

Furthermore, once in a certain period DM is asking their customers to fill in a survey and one question is 'what characteristic has to improve quickly'? From the 7 customers who filled this in, 4 said quality has to improve quickly and 3 said delivery has to improve quickly. This final point illustrates once more there are some problems here.

3.10 Make-to-order environment

DM only produce products when an invoice has been made. This means the set up of the organization has to be very flexible in order to adjust its processes to many different specifications of products. (MTO) environment). MTO (Hendry, Kingsman, 1989) means a customer places an order and after that the processes to accomplish an order starts. This means, purchasing of raw materials is done after the order is received and that there is almost no available stock, because every order is different. All the characteristics of this MTO-environment make it very easy for a customer to switch suppliers. The employees at DM are very dedicated to make this MTO-environment work.

3.11 Conclusions Internal analysis

After the internal analysis of DM, the following problems can be identified:

- DM is very dependant on a few big customers and this is risk full in their position as a manufacturer with not very much power.
- To acquire new customers appears to be very difficult. Instead of the acquisition of new ones they lost 2 big American customers in the past.
- The communication about the delivery date of an order is not good. Sometimes, only 1 or 2 days before shipment the customer is informed.
- Delivery of raw materials is often delayed, which results in delay in production.
- The quality of products is a problem, because on the one hand it keeps the price of the product high and on the other hand it is not good for the overall reputation when a customer is complaining about the
- By sending the same samples to all customers, there is no possibility to differentiate.
- The price is not competitive and customers are complaining about it. The price is influenced by a lot of things at DM (e.g. quality, reject)
- DM's business structure is flexible and with dedicated employees and a good location, they have certain strengths.

From this chapter I conclude there are certain characteristics which need improvement in order to reach the objectives stated in chapter 1. At the moment, a lot of problems the marketing department has to deal with are a result of failures somewhere else in the company, especially the production process and inventory control. It also appeared to be very difficult to acquire new customers in especially the USA. To be successful in



the export market, DM has to develop competitive advantages. Whether this will be in price, delivery, communication or other points, I can tell after the analysis of the USA and German market in the next chapter. One thing is very clear at this moment. There has to improve a lot before DM can be very successful in highly developed markets like the USA and Germany.

In the next chapter I will describe the markets in which DM wants to be a bigger player in than it is right now. In other words, I will describe the USA and German market for which there is a desire to grow and which requirements the two markets demand. After this, I compare the situation at DM with the requirements needed for USA and Germany. This will result in differences between DM and the two markets and in shortcomings which DM has at the moment in order to be very successful. Chapter 6 eventually will deal with this and here I will provide answers on what a suitable marketing strategy might be in order to become more successful in Germany and the USA.

So, when answering the first sub question '*What are the strengths and weaknesses at DM?*' I conclude there are a lot of things with which DM is busy in the export market, but in my opinion DM lacks a structured approach for the acquisition of new customers. At the end of this report, such a structured approach is presented for the German and USA market together, because there was not enough time to be very specific.



Chapter 4 – Market analysis

In this chapter I will make an analysis of the USA and German market in order to give a better illustration of the markets DM wants to enter. I will describe forces which DM has to take into account when entering these markets and I also will pay attention to the competitors of DM. In other words, I will address the 'OT' part of the SWOT analysis, the identification of opportunities and threats.

For the analysis of the markets I will describe the different forces presented in Ball et al. (2006), also known as the PESTEL-analysis. I will analyze each factor for the German and American market. Besides the different forces from the PESTEL-analysis, I will also give an outline of the most important potential customers in the German and USA market.

PESTEL stands for: Political, (Socio)-Economical, Socio-cultural, Technological, Environmental and Legal forces and this analysis is used to map certain characteristics before a company decides to go abroad. In the latest version of Ball et al., labor forces have been added to the former six forces. In this analysis I will describe the following forces: political, (socio) economical, socio-cultural, technological, environment and legal.

Germany for many years is the largest economy in Europe and is the third country worldwide in the medical industry. The reason why DM targeted this market is because there is a great market potential according to data from CBI. In this outline of the German medical market and especially the blood pressure equipment market I will use a lot of information of CBI. CBI is an institution that contributes to the economic development of developing countries by strengthening the competitiveness of companies from those countries on the European (EU & EFTA) markets¹. Another good source to find data about healthcare is the World Health Organization (WHO).

The USA is the biggest economy in the world and is the number one producer of medical equipment in the world. The reason why DM targeted this market is also because of the good market potential here.

4.1 Political forces

Germany is a highly developed country and the state of the healthcare system in general is very high. However, the German healthcare system costs a lot of money and is under pressure because of changes. Due to cost reduction policies of the German government, the legal German health insurance companies (Gesetzliche Krankenkassen, GKV) are confronted with a worsening financial position. This is mainly caused by an increased number of unemployed people (for which social expenditures are needed), the demographic trend, the increase of chronically sick people and the medical development². Although there will be some changes in the healthcare system, Germany still remains one of the biggest medical sectors in the world with a yearly expenditure of 240 USD billion (11,1 % of GDP) on healthcare in 2004³. Next to the public health insurance companies there are also lots of private insurance companies. The state of the healthcare system in Germany can be classified as excellent.

The USA, like Germany, also is a highly developed country and the state of healthcare in general is also very high here. The American healthcare system is under pressure. The cost of healthcare goes up every year at a rate exceeding the inflation. During the next years, there will probably be some changes in the healthcare policy (cost reductions), just like in Germany. In the USA you also have public and private health insurance companies and the state of the healthcare system is excellent to. The USA is the biggest medical sector in the world with a yearly expenditure of 1803 USD billion (15,4% of GDP) on healthcare in 2004⁴.

With the above mentioned 11,1 % expenditures in Germany and the 15,4 % expenditures in the USA here, it

¹ www.cbi.nl consulted at 2-7-2007

² www.evd.nl consulted at 2-7-2007

³ www.imf.org, consulted at 2-7-2007

⁴ www.imf.org, consulted at 3-7-2007

means these countries spend far more on healthcare than other countries. Germany spends a full three percentage points more than Japan and the EU as a whole. Only the US spends proportionally more on health⁵.

Furthermore, Germany as well as the USA is member of the G8, representing the most powerful economies in the world. They both are stable democratic economies.

4.2 Economic forces

Economic forces are among the most significant uncontrollable forces for managers. To keep abreast of the latest developments and also to plan for the future, firms for many years have been assessing and forecasting economic conditions at the national and international levels⁶. That is why I present the facts of the development of GDP/capita in Germany and the USA over the last years. This gives a good indication of the purchasing power of people and will give an indication of the future macro economic trend which is useful for DM.

The German economy is steadily growing over the last years. As you can see in the table the GDP/capita grew very fast from 2002-2004 with a peak of 17,2 % from 2002-2003. After 2004 it stabilized a little bit more. In 2005 the inflation rate was 0,1 % higher than the GDP/capita. This normally is not a very good sign in an economy.

Germany	2002	2003	2004	2005	2006	2007	2008
GDP/capita	24,523	29,616	33,262	33,864	35,203	37,476	38,774
PPP/capita	26,773	27,278	28,413	29,549	31,095	32,178	33,345
Inflation %	1,4	1,0	1,8	1,9	1,8	2,0	1,6

Estimates

Figure 4.1 : GDP/PPP per capita in USD, source: International Monetary Fund (IMF)

The USA economy is growing between 3,5-5,5 % over the last years. It shows a more steady growth than Germany with always a higher growth % than inflation rate.

USA	2002	2003	2004	2005	2006	2007	2008
GDP/capita	36,311	37,640	39,841	41,959	44,190	45,490	47,159
PPP/capita	35,650	36,956	39,116	41,196	43,444	45,175	47,049
Inflation %	1,6	2,3	2,7	3,4	3,2	1,9	2,5

Estimates

Figure 4.2: GDP/PPP per capita in USD, source: International Monetary Fund (IMF)

All in all, these facts show that the German economy in general is growing and this means people are able to purchase more products. This can only be good for the medical industry and for DM as well. The same goes for the USA economy.

Next, the yearly expenditures of people on healthcare. In 2003 German and American people, respectively, spend 3,204 USD and 5,711 USD on healthcare.

When we look at the total expenditures for social securities in Germany and the USA, there is an interesting difference. The German government, in 2003, spend 87,4 % of the total health expenditures on social securities, whereas the American government only spend 18,5 % of the total health expenditures on social

⁵ Martin, Medical technology in Germany: Leading Europe, 2005, p. 11

⁶ Ball et al., 2006, p. 250



securities.

Another remarkable fact is that Germans on average spend 8,6% of the total healthcare expenditure on medical devices (275 USD). No other EU-state comes close to that level. The next is France with 6,5 %. American consumers on average spend 5,1 % of the total healthcare expenditure on medical devices (291 USD).

Here you can see an important difference in the German and American system. In Germany people rely more on the government and the social security system, in the USA people are more dependant on themselves. This has great influence on how you should approach the German and American market.

When DM wants to become a brand owner on the American market, it has to focus more on the consumer itself. When it wants to become a brand owner in Germany, it has to focus more on the health insurance companies, because in many cases, the insurance company will pay for the blood pressure device of consumers. All the data is collected from the IMF⁷.

After the analysis of the macro economical trend for the next years, in the next part of this section I will try to give a good indication of the development of the blood pressure equipment market.

First of all, I have to mention that it is very hard to find good specified market data, because for many market research reports you have to pay thousands of dollars. For example, an established market research report from *Frost and Sullivan* about the 'medical diagnostic market' will cost you 4,500 USD.

To clarify, blood pressure equipment is a sub category of the medical diagnostic equipment. Mainly, data is not specified for the blood pressure equipment market, but for diagnostic equipment in general. However, in my opinion this will still give a good indication of the trends in this industry.

German market

Germany is the largest EU consumer with 22 % of the total expenditures in 2004. Total consumption of medical devices and disposables was 7,3 USD billion. From this amount 25 % is diagnostic equipment, like blood pressure equipment. So the value of this consumption is 1,8 USD billion.

The total EU production of medical devices and medical disposables in 2004 amounted to € 29 billion with a volume of more than 19 million tonnes and has rarely changed (1 %) in the last 2 years (in value)

According to production data Germany also is the largest producer of medical devices and disposables in the EU (41 % of total). From this total 26 % is production of diagnostic equipment. The value of this production is 3,1 USD billion. The figure below presents numbers I calculated from data of Eurostat (2006). However, this data can never be exact. That is because not every company is willing to give exact facts and figures about this. So, you should always be aware of a certain deviation in market data.

	Value	% of EU total	% of German total
Consumption	1,8 USD bill.	22	25
Production	3,1 USD bill.	41	26

Figure 4.3: Consumption/production diagnostic equipment market Germany in 2004

USA market

The USA is the biggest producer of medical devices in the world. According to data of AdvaMed, an American healthcare organization, the value of the medical device market would be 86 USD billion by the end of 2006 (29 USD billion for the EU in 2004). Besides, they expected an annual growth rate of 10 % for that year.

Furthermore, I could not find information about the USA market concerning this factor.

⁷ www.imf.org, consulted at 3-7-2007

4.3 Socio-economic forces

The demographic development gives a good indication of the target market in a country. For Germany there is a slight decrease in population number, 82,5 million people in 2002 against 82,3 million people in 2006. In the USA the population number is steadily growing over the last years with an average annual growth of around 3 million people, 288,3 million people in 2002 against 299,7 million people in 2006. In 2025, the USA will approximately have 362,1 million citizens. Calculation is based on an annual growth of 1,0 %.

However, a more important trend is the ageing of people in Germany as well as in the USA. The percentage of elderly people (over 65) will only grow in the future, which can be described as a big opportunity for the medical industry in general. This will probably also result in a growing need for blood pressure devices. Elderly people use blood pressure devices more than younger people. Information from the US Census Bureau indicates the following development for Germany and USA concerning elderly percentages for 2000-2025. Also included in the table are the life expectancies in Germany and the USA at this moment, which are around the same level⁸.

	Germany	USA
2000	16,5 %	12,6 %
2025	25,7 %	18,5 %
Life expect.	82-men, 76-women	81-men, 75-women

Figure 4.4: Percentages of elderly (over 65) in population + Current life expectancy

Another good indicator of the German demographic trend I found on the German ministry of health. This confirms the decreasing population in Germany, but also shows the increasing percentage of elderly people in the society. The most recent official population estimates reckon that the remaining life expectancy of a 60 year-old man is 20.1 years and that of a woman of the same age is as high as 24.1 years. This is expected to increase by 4.5 years by the year 2050. In line with the rise in life expectancy, the number of older persons increases in absolute terms and, combined with a decrease in birth rates, so does the proportion of the total population they represent. By the year 2040, the number of persons over 60 years of age will increase by 7.8 million, from 19.9 million in 2001 to 27.7 million in 2050; this group will therefore represent 35.2% of the total population as compared with today's 24.1%⁹.

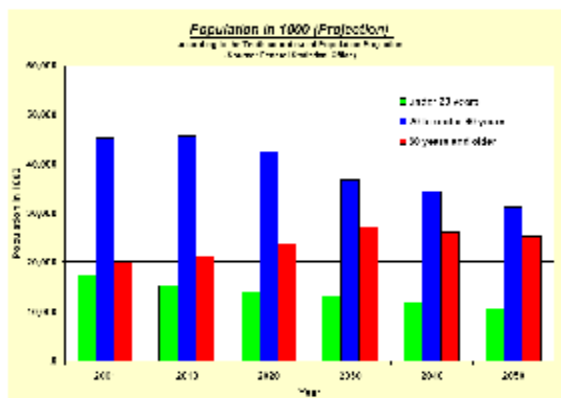


Figure 4.5: Demographic trend Germany

(Source: Bundesministerium für Gesundheit)

⁸ www.cia.gov, consulted at 4-7-2007

⁹ www.bmg.bund.de, consulted at 13-7-2007



The demographic trends I described are quite favorable for DM.

4.4 Socio-cultural forces

Knowing your customer is just as important anywhere in the world as it is at home, whether one is aiming to sell cars in the Netherlands or blood pressure equipment in Germany. Each culture has its logic, and within that logic are real, sensible reasons for the way foreigners do things. If the salesperson can figure out the basic pattern of the culture, he or she will be more effective interacting with foreign clients and colleagues. In the scope of this research it is more useful to not look at the general characteristics of German and American people in general, but to specify it for the business environment.

Germany

In many respects Germans can be considered the masters of planning. The Germans prize forward thinking and they always know what they will be doing at a specific time on a specific day. Furthermore, a German can be characterized as extremely strict and bureaucratic. I will sum up certain points which you have to bear in mind when negotiating with a German.

- They will be interested in your academic credentials and the amount of time your company has been in business.
- German communication is formal.
- When the relation is formal you should use 'Sie', when the relation is more informal you can use 'du' as a translation for 'you'.
- Germans are suspicious of hyperbole, promises that sound too good to be true, or displays of emotion. It means, just tell the exact truth when dealing with them and nothing else.
- Germans will be to the point when talking about things.
- Expect a great deal of written communication, both to back up decisions and to maintain a record of decisions and discussions.
- Once the proper way to perform a task is discovered, there is no need to think of doing it any other way.
- Punctuality is taken extremely seriously. If you expect to be delayed, telephone immediately and offer an explanation. It is extremely rude to cancel a meeting at the last minute and it could jeopardize your business relationship.
- You must be patient and not appear ruffled by the strict adherence to protocol. Germans are detail-oriented and want to understand everything before coming to an agreement.
- When you, for example, agreed a certain delivery date with a German, he will appreciate it very much you will deliver on time.
- German people, just like European people in general, do value their free time and holiday very much. Be aware of the summer holidays in July and August.

When you have successfully acquired a German customer, there is a big chance for a long and sustainable relationship. Because of the strict and detailed procedures a German will follow before doing business with you, you can be quite certain he or she really wants to do business with you after confirming this the first time. The information about the German business culture I collected from the following website¹⁰.

USA

American culture portrays a strong sense of regional and ethnic identity, which is represented by a number of subcultures and influenced by the country's vast geographical and regional differences. To succeed in the USA, you also have to bear in mind certain characteristics as well.

- Americans will, just like the Germans, be interested in your academic credentials and the amount of time your company has been in business.
- American communication holds the middle between formal and informal. It is a more casual way of doing

¹⁰ www.kwintessential.co.uk, consulted at 5-7-2007



business there.

- However, the first time you meet somebody always address him or her respectively with 'Mr.' or 'Mrs.'
- American people are very straightforward and enhance an open conversation culture in which everybody can tell his opinion about things. For Indonesian people, this might be interpreted as rude and uncomfortable. However, you should not take it personally.
- In the USA, the concept of equality is important. People believe in equal rights and opportunities and in companies everybody in principle is treated in the same way. That is why it is hard to distinguish the top management from the 'normal' employee in a company.
- In the USA, punctuality is an essential part of business etiquette and as such, scheduled appointments or meetings must be attended on time. Americans perceive lateness as a sign of disrespect. Therefore, in situations where you know you will be late, a call should be made to inform your American colleagues of your delay.
- Deadlines are strictly adhered to in American business culture. Americans place great emphasis on getting the best results in the quickest time. Your American counterparts may appear to be hasty in their decision-making. This, however, is due to the fact that the concept "time is money" is taken extremely seriously in the US.
- The majority of Americans work long hours and overtime is common practice. It is also customary to take as few as ten days holiday per year. Rather earn more money than leisure time to reach 'the American dream'.

To summarize, the American market can be characterized as a very competitive and fast-moving market. Business relations have no or little personal aspects, because time is money in the USA and there is no time for chit-chat. To deliver the best results (price, quality) in the shortest time as possible, is more like the culture is in the USA. The information about the American business culture I collected from the following website¹¹.

Germany and the USA are both Western well-developed economies where a lot of habits in business culture are the same. In the above mentioned points I tried to make clear certain differences between the two countries. The most important difference between Germany and the USA is that German people put great value on a bureaucratic way of doing business with the emphasis on detailed agreements and to build sustainable relationships. For Germans, a good relation and good products is more desirable than quick results and good prices.

Americans on the other hand, also want to build up a sustainable relationship, but in a different way. For them, the concept 'time is money' has more value, which means they place price higher than quality. I do not say quality is not important, but the approach is different. This in my opinion illustrates very well how Germans and Americans differ from each other in doing business.

Finally, there obviously are more points which are also important for doing business in a foreign country. I did not explain these factors as detailed as the above mentioned ones, otherwise this section would be a chapter on its own. To enumerate these points: religion, dining etiquette, gifts, language, national holidays, birthdays, history of the country etc.

4.5 Technological forces

Some experts within DM, supported by the technology of mother company Dharma Polimetal, developed a totally new digital device for measuring blood pressure. On the device you can read your blood pressure from a digital needle, so it has great similarities with the analogue one concerning appearance, but it is digital. As far as DM knows, there is no device like that on the market, so hopefully this opportunity will have success. An important reason for developing this device is to show customers the capabilities of DM. Till now DM is actually only a company which produces products on demand of their customers.

Besides this new development DM is trying very hard to produce a qualitative proper neoprene product. Neoprene is the future of the blood pressure equipment, however latex products will not disappear because

¹¹ www.communicaid.com, consulted at 5-7-2007



they will remain significantly cheaper. So, DM tries to serve the market by innovating. The two things mentioned in this section might be an opportunity in the future.

4.6 Environmental forces

It is important for DM to look after environmental regulations and trends, because they are using materials like PVC or mercury.

First of all I found a regulation from the EU about legislation of mercury. Having in mind the global impacts of mercury and in order to protect human health and the environment from the release of mercury, the EU has proposed measures to restrict the use of mercury in measuring devices. It is very likely that mercury will be banned in the future. This means, it will not be possible any longer for 'new products' to enter the EU market. DM at the moment does not export their mercury product and this might not be able to do in the future.

Another issue is the use of PVC in products, not only in medical equipment, but in all kinds of equipment. A major campaign of Greenpeace already resulted in a ban of plasticized PVC toys by many warehouses and toy-stores in the EU and the USA. For the production of PVC, chlorine is needed. This is a toxic liquid which can cause environmental disasters when there is, for example, an accident during transportation. Also, during the production process, toxic substances can be released into the air. It is not very unlikely, that Greenpeace for example, starts a lobby again and PVC will be banned in the medical sector at all. In the USA, there are issues about PVC, but a lot of companies in the blood pressure industry use this material, because it is cheap. These developments give an indication of the future trend and it shows governments and non-governmental organizations (NGO) like Greenpeace are working on a better environment.

4.7 Legal forces

In order to be able to sell your products into foreign markets, legal forces play a major role. In the scope of this research I will explain about the requirements (CE-marking, FDA-marking) which are necessary to enter the German and USA market and about the worldwide accepted norms of ISO. At the moment DM, for the export market, is a manufacturer of components. To sell these components in Germany and the USA, DM do not need CE or FDA-marking right now.

However, expectations of companies are getting higher and quality of products rises every year. It became seriously important to look at these requirements and try to acquire them. This will give you a huge competitive advantage and you will probably gain big market share in favor of your competitor, as long as they do not have the same quality standards as you have. First of all I will explain about CE-marking for Germany, after that the FDA-marking for the USA and finally about ISO norms.

CE-marking

CE stands for 'Conformité Européene', in English 'European Conformity' and is provided by the TÜV Rheinland Group. If your product carries CE-marking, you have free access to the markets of the EEA (European Economic Area) and it means your product meets certain requirements according to environmental, health and safety standards. To clarify, there is no specific marking for Germany, where this country is part of the EU (European Union). It means everything described here also counts for the rest of the EU. The CE-marking is a direct result of a set of directives of the EU. The main purpose of these European directives is to provide free movement of products within the EU, whilst setting common requirements for product safety, thus creating a single market in the EU and EEA. EU member states adopt the European directives into their national laws. The other EEA-members are committed to allow CE marked products on their territory without further restrictions to trade. The manufacturer or exporter is obliged to comply with these laws and thus with the directives of the EU.

The Directive 93/42/EEC applies to all medical devices, defined as any instrument, apparatus, appliance, material or other article intended to be used in a medical context. The aim of the Directive is to guarantee consumer safety and to achieve harmonized requirements for the products covered throughout the EEA. The requirements laid down in the MDD (MeDical Devices) apply to all products put on the EEA market, irrespective of the production location. This means that exporters to the EEA will have to meet the requirements of CE-marking as laid down in the Directive.



In other words, when DM wants to export their own end product to Europe in the future, they need to apply for CE-marking. However, also at this moment it would probably be very helpful for DM to have CE-marking. Companies are demanding more and more from their suppliers. To illustrate this; some time ago DM had contact with a Turkish company. One of the first things they asked was if DM had CE-marking. Information is from CBI¹².

To apply for CE-marking, you have to pass several procedures. This is too complicated to describe here, but one of the most important things I want to explain in short, the 'Technical File'. This Technical File should cover the design, manufacture and operation of the product. It is obligatory to keep a technical file inside the EU. Because of the sensitivity of this file, the best option is to keep it at an 'authorized representative' in the EU. Of course, you have to pay this person to do that.

FDA-marking

FDA stands for the Food and Drug Administration of the USA. This is the organization which provides quality certificates for companies who want to enter the USA market. FDA says the following about 'market something the USA': When you want to market something in the USA, a Class I, II, and III device intended for human use, for which a Premarket Approval (PMA) is not required, must submit a 510(k) to FDA unless the device is exempt from 510(k) requirements of the Federal Food, Drug, and Cosmetic Act. Before marketing a device, each submitter must receive an order, in the form of a letter, from FDA which finds the device to be substantially equivalent (SE) and states that the device can be marketed in the USA. This order clears the device for commercial distribution.

A 510(k) is a premarket submission made by FDA to demonstrate that the device to be marketed is at least as safe and effective, that is, substantially equivalent, to a legally marketed device that is not subject to PMA. Before submitting you must compare your device to one or more similar legally marketed devices and make and support their substantial equivalency claims. Because DM's product is marketed after May 28th 1976, this 510(k) is necessary to enter the USA market. 510(k) is not for free unfortunately. A yearly cost of a so called 'authorized representative' is 1,000 USD. He or she is your 'spokesperson' in the USA when there is an issue and something to explain.

Actually, the basic idea of the 510(k) is the same as that from CE, to protect its own market from competitors. These especially are manufacturers from developing countries which can offer very low prices, but also regularly do not meet certain quality levels.

As long as there is no worldwide standard for the quality, safety and management processes in the medical industry, countries/continents maintain their own standards.

After the analysis of these two markings, I want to emphasize that these two certificates are very important for market-entry. What I mean is they are just necessary to be able to sell your own end product with your company name.

Other forces described up till now in this chapter do have their importance, but these certificates are things which are simply necessary. To clarify, they are only 'officially' necessary for selling the own branded end product. At this moment, as mentioned earlier, DM is a manufacturer of components for the end product. However, when you look at one of the main objectives of this research, '*Exporting end product to foreign countries*', the legal aspect cannot be forgotten.

ISO norms

ISO (International Organization for Standardization) is a global network that identifies what International Standards are required by business, government and society, develops them in partnership with the sectors that will put them to use, adopts them by transparent procedures based on national input and delivers them to be implemented worldwide. ISO standards distil an international consensus from the broadest possible base of

¹² www.cbi.nl, consulted at 5-7-2007



stakeholder groups. Expert input comes from those closest to the needs for the standards and also to the results of implementing them. In this way, although voluntary, ISO standards are widely respected and accepted by public and private sectors internationally. ISO, a non-governmental organization, is a federation of the national standards bodies of 157 countries, one per country, from all regions of the world, including developed, developing and transitional economies¹³.

There are actually two important standards for companies in the medical industry. The first one DM already acquired in 1999. The ISO 9001:2000 is a generic standard which counts for manufacturers and service oriented companies. This standard has been created with the following purpose: to set certain international requirements for quality management. It is a process standard, not a product standard like CE or FDA-certification.

Nowadays, many companies already have the ISO 13485:2003 certification. The ISO 13485:2003 is based on the ISO 9001:2000 quality management standard and is specifically designed for the medical industry. Both standards are organized in the same way and use basically the same numbering system. There are some differences though. When ISO 9001:2000 wants you to document a procedure, it also wants you to implement and maintain it. ISO 13485:2003 expands on this idea by including requirements, activities, and special arrangements. More precisely: when ISO 13485:2003 wants you to document a procedure, requirement, activity or arrangement, the standard also wants you to implement and maintain it. This ISO 13485:2003 norm is more prescriptive than the ISO 9001:2000. The latter one leaves it up to the company to decide how work should be controlled, whereas ISO 13485:2003 seems to have removed some flexibility by insisting on the use of formal procedures¹⁴. The Dharma Group at the moment is discussing to apply for the ISO 13485:2003 certification.

After the analysis of the ISO norms which are of importance in this industry, I can say it is important to have quality standards, because more potential customer will take a look at your company. These standards are not obligatory, but give a presumption of conformity. It is a very good development that DM, in a few years maybe, will have the ISO 13485:2003 certification. This will surely give them a stronger position at the global market and a stronger position in negotiation with a customer.

In this section I explained about the necessity and desirability of certain certificates. To acquire the mentioned certificates is not as easy as you may think. Normally these procedures will take a very long time and besides that, you have to be quite confident your company can meet the required standards.

4.8 Conclusions Market analysis

It became clear both Germany and the USA are highly developed countries with a good healthcare system. National healthcare policies are very good and almost everybody has health insurance in these countries. One development DM has to follow real carefully in both countries is the change in government expenditures in the next years. However, also when the policies for healthcare change, the markets will remain huge and a big opportunity for DM.

The second force I analyzed was the economical situation. This is one of the most important forces. From the data I can conclude the German and USA economy is growing in general, which is always a good sign. I also found information about the total size of the medical markets in Germany and USA, but no specific information of the blood pressure equipment market itself. This is information which is very hard to find. What I did find was the total expenditure on healthcare in both countries and the expenditure on healthcare per capita plus the expenditure on medical devices per year. This still gives a good indication of the current situation and the potential of those markets. Last point I want to mention is, when DM in the future wants to be brand owner on the two markets, it has to be aware of the differences in Germany and the USA. The most important difference is that people in Germany rely more on the government because of the social security system there, in the USA

¹³ www.iso.org, consulted at 5-7-2007

¹⁴ www.iso.org, consulted at 8-7-2007



people rely more on themselves. This asks for a different market approach. Overall, the current and expected economic situation can be seen as a big opportunity.

The third force I analyzed, the socio-economic one, dealt with the ageing of people. This is the most important factor for the growth of the medical market in the near future. The percentage of elderly people will grow dramatically and because of that, more blood pressure devices are needed. Elderly people use these more than young people. Another factor is people are getting older and older. To summarize, the percentage elderly people and the period they are 'old' both is growing fast.

The fourth force analyzed some environmental issues, about mercury and PVC. Mercury is not a big export product of DM so the future restrictions in Germany and probably also in the USA will not influence DM very bad. PVC is a trend to watch for DM.

Next, I talked about socio-cultural forces. It seems obvious, the things I described for people who do business in foreign countries. Sure, common sense is also needed in business relations, but every country has its own habits. Talking to and negotiating with a German customer takes another approach than with an American customer.

Last but certainly not least I explained about the necessity and desirability of 3 certificates. In the next 10 years to have these certificates can become one of your competitive advantages. Especially when your competitor does not have the same certificates as you have. A good point here, DM is already discussing about the desirable ISO 13485:2003 certificate. This can be a big step to convince customers more about their product.

In general, I can conclude there are good opportunities for DM in Germany and the USA. The economies are stable, the people are getting older and older and the medical markets will grow in the future. When you bear these things in mind DM should also take advantage of this positive development in the medical market.

The information presented in the PESTEL-analysis is helpful for the understanding of the current situation and possible developments in the two markets. It is just important to bear a lot of these things in mind and be really aware of it. The PESTEL framework is a tool which DM can also use when they want to investigate opportunities in other countries. This section gave answer on the sub question '*What are the characteristics of the market environment?*'

4.9 Potential customers

In this section I want to analyze the most important companies in the blood pressure equipment market in Germany and the USA in order to present potential new customers of DM. There are some big companies in Germany, DM is already supplying products to, but these are relatively small quantities. Below I give an outline of the largest German and American manufacturers of blood pressure equipment. Besides blood pressure equipment, the most of them are also manufacturers of other kinds of (medical) equipment. For example, you know Braun because of their household equipment.

USA	Germany
A&D (past customer)	Braun
ADC	Envitec
Graham Field (past customer)	ERKA (customer)
Lumiscop	F. Bosch (customer)
Mabis	Riester
Medline	UEBE (customer)
Omron	Welch Allyn Germany (customer)
Prestige (past customer)	
Suntech	
Welch Allyn	



The market shares in this business remained unknown for me unfortunately. It is obvious though (e.g. looking at yearly revenues), that these are very large companies with great potential for DM. A lot of these companies at the moment use other suppliers, mainly from South-East Asia. The challenge for the future is to re-convince American customers they should buy at DM again and to get more out of the German market. As mentioned earlier in this report, DM already supplied to Prestige in the past and also to A&D, but lost these customers due to a lack of quality or because the price was not competitive enough. Actually, DM is able to supply a lot of different components to these companies, because of the make-to-order business. They can adapt their system to make different sizes of different kinds of products, for cuff, bulb, zipper case, bladder etc. To illustrate more what DM can supply to potential German and USA customers I mapped the biggest companies in figure 3.1 and presented their core product characteristics. For example, does a company make latex products and/or latex-free also? It is important to identify the needs of the customers so DM can adapt their strategy per customer.

Needs American customers			
	Aneroid meters	Digital meters	Others
A&D	Latex bladder & bulb Nylon cuff	PVC bladder & bulb Nylon cuff	DM supplied latex bulb
ADC	Latex bladder & bulb Nylon cuff	PVC bladder & bulb Nylon cuff	
CASMED	<i>Only produce nylon cuff and latex-free bladder, no BP device</i>		
Graham Field	Latex/Latex-free bladder & bulb Nylon cuff	Latex-free bladder & bulb Nylon cuff	
Lumiscopes	Latex/Latex-free bladder & bulb Nylon & cotton cuff	Latex/Latex-free bladder & bulb Nylon & cotton cuff	
Mabis	Latex/PVC-Neoprene bladder & bulb Nylon & cotton cuff	Latex/PVC-Neoprene bladder & bulb Nylon & cotton cuff	
Medline	Latex/PVC-Neoprene bladder & bulb Nylon cuff	Latex/PVC-Neoprene bladder & bulb Nylon cuff	
Microlife	Latex/Latex-free bladder & bulb Nylon cuff	Latex/Latex-free bladder & bulb Nylon cuff	
Omron	Latex/Latex-free bladder & bulb Nylon & cotton cuff	Latex-free bladder & bulb Nylon & cotton cuff	
Prestige	Latex/Latex-free bladder & bulb Nylon & cotton cuff	Latex-free bladder & bulb Nylon & cotton cuff	DM supplied aneroid set
Welch Allyn	PVC-Neoprene bladder & bulb Nylon & cotton cuff	<i>none</i> <i>none</i>	

Needs German customers			
	Aneroid meters	Digital meters	Others
Braun	<i>none</i> <i>none</i>	Latex-free bladder & bulb Nylon cuff	
Envitec	<i>none</i> <i>none</i>	<i>Cuff and bladder for ambulatory device</i>	
ERKA	Latex/Latex-free bladder & bulb Nylon & cotton cuff	<i>none</i> <i>none</i>	Coiled tube, latex bladder nylon cuff, zipper case
F. Bosch	Latex/Latex-free bladder & bulb Nylon & cotton cuff	Latex-free bladder & bulb Nylon & cotton cuff	Latex bladder, nylon cuff
Hartmann	<i>none</i> <i>none</i>	Latex-free bladder & bulb Nylon cuff	
Medlab	<i>Latex-free 'One piece' cuff</i>		
Riester	Latex/Latex-free bladder & bulb Nylon cuff	<i>none</i> <i>none</i>	
UEBE	Latex-free bladder & bulb Nylon cuff	Latex-free bladder & bulb Nylon cuff	Zipper case
Welch Allyn	PVC-Neoprene bladder & bulb Nylon & cotton cuff	<i>none</i> <i>none</i>	Zipper case, N-valve

Figure 4.6: Needs American and German customers (Note: the products mentioned in the column 'others' are sold by DM to these companies)



In figure 4.6 you can see the details of products German and American companies are producing. In other words, what their needs are. In this way DM has a good overview of components they might supply to these companies. The most important facts about this customer product analysis I will mention here. For the explanation of components (bladder, bulb etc.) see section 1.4.

First of all, there is a difference between aneroid and digital devices. In general, the aneroid BP devices are equipped more often with latex material, digital BP device more often with latex-free materials (neoprene or PVC).

Second, BP devices with latex materials almost always have nylon cuff, because latex bladder&bulb and nylon cuff are the cheapest alternatives in this market. A lot of consumers care about the price, so they choose this combination. On the other hand, the most expensive combination is neoprene bladder&bulb with cotton cuff, from Welch Allyn for example.

Third, USA manufacturers are producing far more kinds of digital devices than German companies. Welch Allyn is the only company from the USA which does not produce digital BP devices. Welch Allyn pretends to be the market leader in the aneroid market and specializes only in this. German companies are more specialized in aneroid BP device than in digital and the quality standards in Germany are generally higher than in the USA. The devices from Germany have a more 'premium' look in my opinion.

Fourth, in the third column I gave additional information. In the USA this is about products DM once supplied to them, in Germany it is about products they supply to them at the moment. Not mentioned in the figure, because this is quite universal for all companies, is that a BP device is usually stored in a zipper case. As you can see, DM is already supplying zipper cases to several companies in Germany and this is also a possibility for new customers.

What does this information mean for DM? It gives current information about product characteristics of the large manufacturers. With this information DM can better decide about what they can possibly offer to a certain customer in one of the two countries and hitch in better to desires of customers.

This very important section gave answer on the sub question: *'What are the characteristics of the potential customers?'*



Chapter 5 – Conclusions SWOT analysis

In this chapter I will briefly mention the most important factors that crossed the SWOT analysis. After this I will explain why I chose a couple of these points for improvement. At the end of this chapter a figure is presented with the remaining issues for which solutions are provided in chapter 6.

5.1 Internal analysis

Strengths

- Flexibility

DM can be characterized as a make to order (MTO) company; many products are custom made for different customers. This means the lay-out of the production process is flexible so they are able to respond quickly to requests of their customers.

- Location

The latex from which most of the products are made is made in countries around the equator, so the location of DM is geographically favorable

- Dedicated employees

People at DM are willing to work hard, even in overtime. Since their existence they adopted a so called '5S system'. The 5 S's stands for Seiri (tidiness), Seiton (orderliness), Seiso (systemized), Seiketsu (standards) and Shitsuke (sustaining discipline) and is derived from the Japanese concept of 5S; a philosophy and a way of organizing and managing the workspace. Meaning of it can be found in what people do to improve the work environment in order to improve the culture within the company. DM also has some 'employees of the month', which are chosen on the basis of good effort, arriving on time and their submission of useful suggestions. Besides, DM pays their employees more than the minimum Indonesian income.

Weaknesses

- Price

The price of the products is not competitive, because the competition from China can deliver the same goods for a lower price. At this moment 4/5 companies DM supplies to are complaining about the price. Note: the quality from DM still is better than their Chinese competitors.

- Quality

For a company, quality is very important, because when customers do not accept a certain level of quality, replacements are needed which cost you money or in the worst case, the customer will cancel its orders. That is what happened in October 2005 when a large company from the USA 'Prestige', cancelled their orders from DM, because of a lack of quality. This was a major issue, because Prestige was a big buyer.

- Delivery

The delivery of goods is often not very good, mainly because of production failures. Customers do not appreciate it too much when there is a delay in delivery. There are also delays in the delivery of raw materials.

- Reputation

After a conversation with the marketing manager it became clear to me that in the future DM wants to export its complete end product under its own name. Before doing this, brand awareness is necessary. At the moment they are lacking this, so before reaching the mentioned future target, they must be sure their name is aware in people's minds. This all has to do with reputation.

- Dependency on a few customers

For buying raw materials DM can choose out of 4 suppliers. Unfortunately, it happens too often that raw materials do not arrive on time at the factory, which results in delay in production and delay in delivery. I noticed that the purchasing department do not use their powerful position (because of the choice of 4 suppliers) to get the desired raw materials on time.

Another dependency is the one concerning buyers. At the moment DM actually has 3 big buyers who are responsible for a large amount (approx. 70%) of the total production. When one stops their orders, like Prestige in 2005, this means a major setback in production. This is definitely something DM cannot use at the moment. To summarize, because of the position in the product chain as a manufacturer, DM will always be dependant on others or in order to prevent this they should move upwards in the product chain, to OEM.



- Customer acquisition

This appeared to be very difficult in the past. DM only lost some large customers.

- Lack of some certificates

One of the main objectives is entering the export market with the end product. Before doing this certain certificates are needed. For the USA market you need the '5 10 k' certificate from FDA and for the German market you need a CE-certificate from TÜV. Also, for a better position and acceptance in the market, the ISO 13485:2003 could be very helpful. DM does have the ISO 9001:2000 already. These certificates represent quality and development standards. Actually, at the moment the lack of these certificates is not a real weakness, because entering the market with their own end product is a future perspective.

5.2 External analysis

Opportunities

- Neoprene, technological factor

Neoprene is a so called non-latex material. It is used by blood pressure manufacturers, because some people are allergic of products which contain latex. It is an opportunity for Dharma to specialize more in neoprene, but only 5% of the world population is allergic of latex, so the market is not inexhaustible. The only disadvantage of the material is its price. It is approximately five times more expensive than normal latex. As long as customers want to pay for this, it is no problem. Besides, the market demand in latex will not disappear in the next years so a better development in latex is also an option.

- Market growth in Germany and USA

The ageing of people will result in a higher need for blood pressure equipment in the next couple of years. People get older these days and this results in more chronic diseases. These markets have good potential for the next years. It is not only the ageing of people, but much more as I analyzed in chapter 4.

- Overall good future perspective in Germany and US

From the PESTEL analysis a lot of opportunities came forward.

- New digital device, technological factor

Some experts within DM, supported by the technology of mother company Dharma Polimetal, developed a totally new digital device for measuring blood pressure. On the device you can read your blood pressure from a digital needle, so it has great similarities with the analogue one concerning appearance, but it is digital. As far as I know, there is no device like that on the market, so hopefully this opportunity will have success. An important reason for developing this device is to show customers the capabilities of DM. Till now DM is actually only a company which produces products on demand of their customers.

- Acquiring the ISO 13485:2003 certification

This certificate will improve DM's credibility and can become a competitive advantage, because competitors do not have this certificate yet. DM might take advantage of this first mover advantage.

Threats

- Competition

Especially Chinese companies are a threat, because they can offer even cheaper prices than DM against a comparable level of quality.

- Digital blood pressure equipment

This market is slowly winning market share in favor of aneroid and mercurial blood pressure equipment. Especially the home market is demanding digital equipment. DM has to watch this trend, because they can produce 'preformed tubes' for the inside of such equipment. Experts do say, however, that aneroid and mercurial equipment will not disappear. Professionals do still prefer this, because it is more accurate than digital equipment. Digital equipment is especially for home use.

- Payment of customers

Because DM is very dependant on some big customers, it is important that they will pay DM on time. At the end of the month, DM has to pay a lot of things (e.g. salary) and it is not desirable at that time they do not have enough money on their bank account to make sure of this.

- Legal

There are a few negligible legal factors like the FDA regulation or CE-marking. These certifications do not play a



big role at the moment. However, also when you do not export your complete end product, there are companies who require CE-marking or certain ISO certifications in order to make sure of a certain quality standard.

Strengths	Weaknesses
Location Dedicated employees Flexibility	Price Quality Delivery Reputation Lack of certificates Customer acquisition
Opportunities	Threats
Neoprene and new digital device as Technological factors Market growth in Germany and USA (see PESTEL) Financial stable economies of Germany and USA Acquiring the ISO 13485:2003 certification	Competition Digital Blood Pressure Equipment Payment of customers Legal

Figure 5.1: SWOT analysis

5.3 Conclusions

Before addressing the most important issues, once again the definition of the SWOT analysis. In this analysis strengths and weaknesses are internal factors that create or destroy value. They can include assets, skills or resources that a company has at its disposal, compared to its competitors. On the other hand, opportunities and threats are external factors that create or destroy value¹⁵. A company cannot control them. Before continuing, it is important to notice that, at DM, there are especially a lot of weaknesses that destroy value and a few or none that create value. Because this is the case it is important first to improve these weaknesses before being capable of improving other things.

In the analysis of DM one of the main conclusions was that the company is very dependant on a few large customers and customers is on their biggest assets. They are in a very dangerous position right now. In June 2007, their largest customer stopped ordering, responsible for almost 40% of total sales in the first six months of 2007. The high dependency is a result of the Make-to-Order (MTO) environment (Hendry, Kingsman, 1989). MTO means a customer places an order and after that the processes to accomplish an order starts. This means, purchasing of raw materials is done after the order is received and that there is almost no available stock, because every order is different. All the characteristics of this MTO-environment make it very easy for a customer to switch suppliers and this is something I did find here unfortunately. For DM the customer is extremely important and they only have a few big ones and not, for example, 100 small ones. In the latter case it would only be a minor problem when a customer would switch supplier.

It means customer retention is very important and one way to deal with this is to implement a Customer Relationship Management (CRM) system, not only in order to retain customers, but for a lot of other things. In the next chapter I will analyze this option.

Another very important and basic feature a product should have to enter the German or American market in a successful way is quality. I experienced a lot of problems with quality and unfortunately marketing is heavily

¹⁵ http://www.12manage.com/methods_swot_analysis.html, consulted at 19-5-2008



influenced by this, because this was the reason several customers stopped their relation with DM. At the moment, DM already is having a hard time and to be 'really' successful in the German and American market, dramatic quality improvements are needed. Especially for the German market, where quality is higher valued than in the USA. Another big disadvantage of a high reject rate and a poor quality is that it influences the price. In the business DM is in, price is selling proposition number one. Although quality is definitely important, for many customers this is nothing more than a must. DM is facing severe price competition from especially China. The quality standards of the Chinese products are lower, but many customers still prefer these products because of the price. Like I mentioned before, an American customer already said that when the price would be lower, they want to buy at DM. Because of the high reject rate and the quality problems, the price is not at the level marketing wants it to be. A lower price would increase their competitive advantage and their selling position. In chapter 6 I will explain more about price strategies.

I also conclude that DM is trying to be active in many different kinds of products types, from latex to the modern neoprene. DM has to make a choice and focus on certain products where they are good at. In figure 4.6 you see the different product characteristics of the largest potential customers in Germany and the USA. It might be much clearer when DM starts to focus on a certain product type and specializes in this in order to reach a competitive advantage. I will elaborate on this in chapter 6.

The last important value is delivery. It is important to serve a customer on time, otherwise he is facing delays in production. At DM delivery problems are actually always the result of production problems, because of the MTO-environment. This makes it very difficult to give a good solution for these problems, because they are highly correlated with production problems. The delivery results would automatically increase when production could establish a more efficient and reject-free production process. That is why I do not provide a solution for this.

After chapter 3 and 4 I conclude DM has to focus on low costs and quality improvement in order to establish a stronger position on the market. On the one side, there are a lot of weaknesses at DM which causes stagnation and in 2006, a negative balance at the end of the year:

On the other side there are a lot of opportunities in the market. For example the growing market because of the ageing of people and the growing economies of Germany and the USA. Also neoprene, despite the current difficulties, still is a serious option for the future even as DM's latest innovation 'the digital aneroid blood pressure meter'. However, in order to acquire a new customer things have to change. In the next chapter I will present my options accompanied with literature which was already mentioned in the theoretical framework.



Chapter 6 – Improvements and implementation

In this chapter I will explain the concepts customer relation management, market segmentation and price strategy and apply them on the situation at DM. After the analysis I will present one end solution which combines several concepts. After the chapters about the internal and external environment I sketched an overview of the market position of DM. It became clear to you as a reader that lots of shortcomings have to be conquered in order to become successful at the global market. In order to reach such a situation there are a lot of different strategies of which I will explain three below. This has to do with customer loyalty, market segmentation and price and in order to be clear once again. The end solution has to do with acquiring new customers.

The strategic choices made in this chapter are a direct result of the SWOT analysis. The analysis revealed points for which improvement is needed in order to reach the corporate objectives.

6.1 Customer Relationship Management (CRM)

According to Kellen (2002) there are 3 kinds of CRM systems: technology centric, customer lifecycle centric and strategy centric. In the scope of this research I look at the customer lifecycle centric approach, where the main goal is 'to acquire new customers'.

Customer lifecycle definitions evolve out of the need for CRM practitioners to describe a new business capability, or a new arrangement of capabilities, that focuses on the customer lifecycle, not the product lifecycle. The customer lifecycle, often described somewhat differently, has four phases: attracting, transacting, servicing and supporting and enhancing.

In the attraction phase, a customer becomes aware of the product or company, develops interest and tries to understand the product or company. In the transacting phase, the customer has moved to the next level of commitment and decided to procure a product or service. In the service and support phase, the customer requires the company's assistance installing, using or servicing what was procured. In the enhancement phase, the customer may be thinking about purchasing additional products or services. For the majority of companies, especially larger ones, the parts of the companies that interact with the customer throughout this lifecycle are separated from each other and not optimally coordinated or integrated. The customer lifecycle definition of CRM often describes CRM as the ability to seamlessly interact with or market to the customer across this lifecycle. Actually the first part of this approach deals with the acquisition of new customers and the last part with the retention of customers. Because, when a company cannot deliver, the last part will be very difficult.

DM must understand how important it is to deal with the retention of customers, for example the acquisition of a new customer can cost five times more than the costs involved in satisfying and retaining one. At the moment, it is very difficult for DM to guarantee their customers a certain level of quality. You now may think, 'why implement a CRM when quality is not very good'? When quality is better in the future, you only can expand your CRM system. At this moment a CRM is especially of use to show the customer you are working on him and that he is everything your company cares about. To pro-actively approach the customer seems important to me at the moment, especially because DM is highly dependant on a few customers. At the moment DM's mother company, Dharma Polimetal (DP), has set up a CRM with Honda Motorcycles. DP produces rims and other parts for Honda Indonesia. In this way they can learn from the experiences with a CRM at DP.

A CRM has a few disadvantages though: costs, needed equipment and accuracy. I do not know the exact costs of a CRM system, but they are high and for a company like DM this will mean a huge investment. Then the needed equipment; to implement such a system you need a very good computer network, because every part of the company has to be linked to the system. The computer network required for this is not present at DM. Finally, even when you have a CRM it is very difficult to find the good data with which you can analyze your customer to the optimum. Before implementing a CRM the accuracy has to be questioned. It is questionable if CRM is a realistic option to gain more customers. However, the costs might be not that high because of the



already existing knowledge at DP.

6.2 Market segmentation strategy

Second, I will explain about the concept of market segmentation, which derives from the proposition that consumers/customers in a country market have different needs and preferences (Root, 1994). The different needs we saw in figure 3.1 and in the conclusions made above. According to Root, the main advantage of a market segmentation strategy is greater marketing effectiveness. Managers are able to design a marketing program that is responsive to the needs and preferences of a certain group of customers.

The advice based on this would be the following. For the future DM can focus more on the digital market in the USA and more on the aneroid market in Germany. I am not saying other product types in the two countries should be forgotten, but the main focus has to be clear. Besides this general focus DM has to keep busy with developing a good Neoprene and PVC product, because there is a trend towards this and German and American companies already use this in a lot of products, as you can see in figure 3.1.

For now, DM has to offer products to the export market from which they are sure the quality is good (enough). In this report we have seen there are a lot of problems with for example latex bladder and neoprene products. The reason why the large American customer 'Prestige' stopped ordering was because of quality problems. When you can convince Prestige again starting to sell the products you know they are good and only focusing on these products might help in the acquisition of Prestige as a customer again.

When you look in figure 3.1 you see DM is exporting a lot of zipper cases to Germany. This is a good decision, because the quality of these products is relatively better than latex bladder for example. When offering certain products to new or current customers and in the meanwhile keep working on improvements of other products, it is possible to expand your product offering to a customer in the long run and build a more sustainable relationship with him. A final point about market segmentation: identification and measurement of market segments must be a continuing activity, because segments, like other market phenomena, are almost certain to change over time.

6.3 Price strategy

As I have stated in section 3.7 price is selling proposition number one in this market, so this needs attention. One of the most difficult issues for managers is price setting, especially when entering a new market. Root (1994) says: managers must decide on a pricing policy that will enable their company to attain its several goals in the target market (such as market share, sales volume and growth) over the strategy planning period and to do so at an acceptable level of profits or return on investment. Sometimes it is necessary to make pricing decisions with some uncertainty about their own costs or about demand and competition in the target market. As I have described in chapter 3, the price at DM is set as follows: after the total costs of the product or order are calculated, marketing normally adds a margin. It means they at the moment apply 'full-cost' pricing. This is an attractive approach to set the price, because it is easy to understand and not difficult to calculate. It only has strong weaknesses. It ignores demand and competition in the target market, assuming price has no influence on sales volume where price definitely has influence on the volume. At DM they offer the customer some discount when the quantity is higher, because this also influences the purchase of raw materials which results in lower costs of these raw materials. However, this influence is not so big and unfortunately the price is influenced a lot by production.

Actually, the goal of marketing is to be a 'price fighter', but at the moment this is impossible, especially because of the fierce competition from China. When DM would have the opportunity they would offer the lowest market price, but this is only possible when the production costs can be lowered.

So, how can price influence or help the acquisition of new customers? This acquisition remains the main goal of this research. To really attract new customers DM can approach new customers with a so-called 'development-price' strategy. This strategy uses a low entry price to build up a dominant market position which can be defended against competitors. With this strategy, a company is willing to accept losses in the early stages because it views them as an investment in market development. As a long-run strategy, development pricing is more attractive when market potential is large, development costs are reasonable, substantial economies of



scale are experienced in production and the company has the production and marketing capacity to support volume sales.

First, something about market potential. As you have seen in chapter 3, the market potentials for both Germany and the USA are very high and this only seems to get higher in the future.

Second, the question if the development costs are reasonable. I did not experienced development costs to be very high; this cannot be the restriction for this kind of pricing strategy. At the moment, DM is working on 2 important developments, a 'digital aneroid blood pressure meter' and 'anti-bacterial latex'. This can only bring in money.

Then the third point, substantial economies of scale in production. Here we cross again the production side of this thesis. Production is working hard to reach economies of scale and I believe there is enough potential to accomplish this within a short time span. It is obvious that a very low price is difficult when the production costs remain high.

The last point is about if production and marketing have the capacities to support volume sales. First, DM is able to manufacture large quantities. Second, marketing can handle a few more customers.

This strategy will not pay off so much or not at all in the short run, but it will do in the long run. However, this will only do when you can improve the production process dramatically.

First, I analyzed the option to implement a CRM system. It is a good option, but unfortunately an unrealistic one. That is because the needed computer network is not present and the financial resources are not big enough. Besides, you always have to question the accuracy of information which you collect with a CRM system. A CRM system can still be an option, but for the future when DM has established a more sustainable business and financial resources give more space for such a system.

What DM can learn from a CRM approach at the moment is that the customer is the most important asset in the company. The customer is especially important because there are only a few big ones who are responsible for the largest part of total sales. To lose a customer again is almost not affordable.

The strategy I suggest for the current situation and keeping the objectives in mind is a combination of continuous market segmentation and a development pricing strategy. In the next section I will analyze this option thoroughly.

6.4 Final solution

First of all, a careful segmentation of the target market is necessary and in this case, carefully looking at the needs American and German customers have like I presented in figure 4.6.

This simple task should be a continuous activity of the marketing people and I suggest making a small system or sheet to constantly having a clear view of the target customers. This is not a very costly and time-consuming activity when you maintain this on a regular basis.

After this segmentation you can decide which products to supply to which customer and here attention is needed. When you look at former causes why customers stopped ordering, quality was an issue many times. Offer your new customers the products from which the quality is good and meet their standards. For example, cuff and zipper cases are products with less quality problems than latex bladder. When you can build up a new relation with good products and in the meanwhile working on the quality of other products, you can introduce these products in a later stage to the new customer. So, convince them in the first place and expand it in a later stage. Also make sure the quality checks standards are the same as the one your customer maintains in order to prevent sending 'bad quality products' to your customer.

The second part of my solution is about the price. Because this is the most important selling proposition, it cannot be left out. The market segmentation strategy cannot be successful without a good pricing strategy. New customers, especially American ones will look at the price very carefully before deciding to buy at DM. In order to attract them, DM should apply a development pricing strategy like I analyzed in section 3.7. This approach is not free of risk, but taking some risk is needed looking at the current situation. Also very important is that marketing has to keep trying to establish volume sales, because this can reduce the costs and the eventual price.



At the moment, it is about attracting the customer and management once explained me that they are willing to take some losses in the first stages of a new relation. Development pricing is the solution. After the attraction of a customer with this strategy you can start building up a good relation by offering him products in a smart way like I said before.

Note: to accomplish this strategy, quality will definitively play a big role. Quality is a necessity for everything I analyzed and everything DM will do in the future, not only product quality, but also the quality of the purchasing process where it all starts with. The pricing strategy is even more realistic when manufacturing can improve their production standards. The mentioned risk accompanied with this strategy would then be much lower and this would give Dharma Medipro a better competitive advantage.

A final point; When you are a marketing manager in a successful company where quality is at its optimum, where production processes are running smooth and where you are also able to offer your products for a good price, it is easier to develop a marketing strategy, because you are confident about your product and you can promise the customer certain things. The reason why I mention this is, I believe a solid production process is the basis for your companies' results. You can have such a good marketing team, but when there is not much 'to market', marketing cannot carry out their job for 100 percent. At the moment, the marketing people here promise a customer certain things which later appears to be not realizable. I am convinced that when you want to succeed in countries like Germany or the USA, it is important to be able to offer certain standards and meet your agreements. To remain in business it is important to keep manufacturing costs low and product quality high.

In this chapter, I discussed several theoretical concepts which are applicable on DM. After analyzing the literature one end solution remained; a combination between a market segmentation strategy and a pricing strategy. However, quality also plays a key role here and cannot be ignored. That is why quality plays a key role in the next section where a PDCA cycle is presented.

6.5 Implementation

In order to let solutions be successful the implementation phase is crucial. A useful in order to determine if a change has been successful is the so-called PDCA-cycle, the Plan Do Check Act-cycle. It is a checklist of the four stages which you must go through to get from 'problem-faced' to 'problem solved', Deming (2005). The PDCA Cycle is used in order to coordinate continuous improvement efforts. It both emphasizes and demonstrates that improvement programs must start with careful planning, must result in effective action, and must move on again to careful planning in a continuous cycle.

Plan is to improve your operations first by finding out what things are going wrong (that is identify the problems faced), and come up with ideas for solving these problems.

Do are changes designed to solve the problems on a small or experimental scale first. This minimizes disruption to routine activity while testing whether the changes will work or not.

Check whether the small scale or experimental changes are achieving the desired result or not. Also, continuously Check nominated key activities (regardless of any experimentation going on) to ensure that you know what the quality of the output is at all times to identify any new problems when they crop up.

Act to implement changes on a larger scale if the experiment is successful. This means making the changes a routine part of your activity. Also Act to involve other persons (other departments, suppliers, or customers) affected by the changes and whose cooperation you need to implement them on a larger scale, or those who may simply benefit from what you have learned (you may, of course, already have involved these people in the Do or trial stage)¹⁶.

¹⁶ <http://www.hci.com.au/hcisite2/toolkit/pdcacycl.htm>, consulted at 18-5-2008

First of all, I give a short outline of the PDCA cycle applied on quality issues at DM. As is mentioned more than once before, quality is a very important focus point for DM. That is why, in the next chapter, I recommend ideas of TQM and a future investigation in the production process problems.

Plan

I noticed there are huge quality issues and I know where things go wrong. In former sections you can read where these problems lie. From this information I conclude dramatic improvements have to be made. How these are going to be made was not my research subject so I cannot provide a detailed answer for this. I only can do some suggestions, e.g. purchasing modern equipment, standardizing more business processes and improving of education. Thing is that overall quality level has to improve.

Do

DM has to do something, otherwise its existence will be endangered very much. This can be a new production line and/or better quality of raw materials. Maybe they find a solution for their neoprene product, this can radically change their market position. So, doing something and improving somewhere is vital.

Check

After implementing quality improvements you have to check whether these improvements really made a difference in comparison with the old situation and whether the investments paid off. If it paid off, you should see changes in other parts of the organization.

Act

If a quality change is successful, also if it is a minor improvement, you should celebrate it like a victory. One minor improvement is the impulse for the next change and after that, another one. According to me, DM has to improve incrementally in order to survive. Radical change is difficult because of the lack of resources.

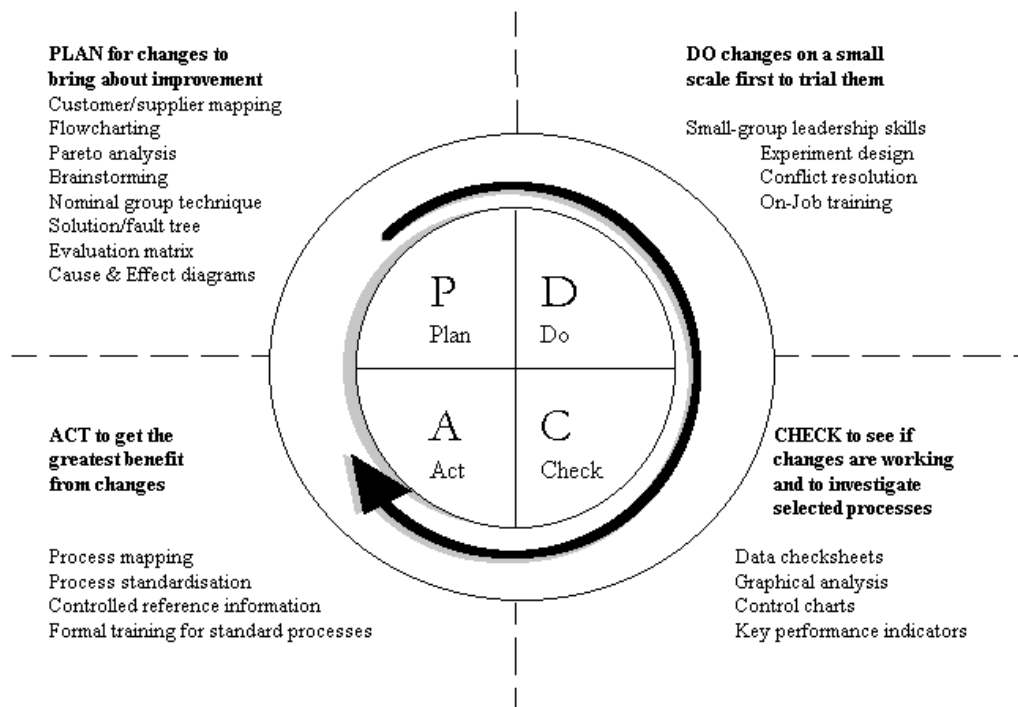


Figure 6.1: PDCA cycle



When I apply this PDCA cycle to my final solution, the combination of a market segmentation strategy and a price strategy this would be the result and gives some handles to the people at DM:

Plan

After the different analyses in this report it became clear there are quite a few weaknesses DM has to conquer in order to become successful in targeted markets. My plan is the strategy as stated in section 6.4. It is a risk full plan so prudence is called for.

Do

DM has to apply this new strategy and use a development price strategy when it is contacting new customers or customers who resisted to buy in the past because of the price setting. Only when you do this, you might discover changes. This is a difficult task for the marketing people, but a very challenging one. During contact with the customer they have to explain what this new strategy is and what the approach will be for the next years. Emphasizing that DM is very busy with quality issues and be open about processes will give customers trust.

Check

Did this approach really work? After a few months it is time to evaluate whether this new approach was useful or totally not. Did you acquire new customers? Is the quantity they are buying larger because of the price? And most important, could you already establish a minor reduction in complaints about quality?

Act

When it turns out to be difficult to accomplish certain goals the strategy stated in the 'Plan' part might be (partly) unrealistic. On the other hand, when you can identify a positive change it is useful to continue the plan and/or increase future targets. Setting deadlines for the different phases serve as a clear guideline in order to let a change flow smoothly.

This PDCA cycle is a very useful tool in order to map changes in the organization. It is also a good graphical tool which can be displayed throughout the organization and can be used as a sort of Balance Scorecard to show people improvements all the time.

In this chapter I managed to find solutions for the most important remaining problems. The problem of customer loyalty found a solution in a CRM system. I did not recommend this, but during the final presentation at DM they were quite positive about this. Maybe they already tried it out with one customer. But, my final solution was the combination of market segmentation with price strategy.

This is a realistic but risky option with which DM can improve and grow.

In this chapter I introduced several solutions for the problems at DM. I analyzed them and eventually choose a combinational strategy of market segmentation and price strategy. Also, in the last section I tried to give DM some insights in how to execute a change like I described by introducing the 'Deming wheel'. In the next and final chapter I will present my final conclusions and recommendations.



Chapter 7 – Conclusions and Recommendations

In this final chapter I will present my final conclusions, recommendations and I will reflect on my period in Indonesia. I started this research as a marketing thesis, but soon a lot of other departments became involved which gave this thesis a broader perspective.

7.1 Conclusions

First of all I introduced the subject and most important, explained about the research questions and objectives. Also you could see the analysis of the companies' products which gave background information for the rest of the report. In chapter 2 I stated the theoretical framework and the research approach. In chapter 3 I analyzed the internal situation at DM and indicated the strengths and weaknesses. The main problems influencing marketing are with price, quality, delivery and the dependency on a few large customers. Also I noticed it has been very difficult for DM in recent years to acquire new customers. All the production problems and difficulties make it very hard for the marketing people to 'sell' their product and to deal with unsatisfied customers is also not very satisfying for them.

In chapter 4 I tried to map the German and USA market as good as possible. I experienced many difficulties finding detailed information about the market of blood pressure equipment in specific, but that is unfortunately one of the main disadvantages of 'desk research'. That is why the market analysis is quite general of content, but still gives an indication of the future trend. This chapter further explained about the political situation, the growing target market, the growing economies, some environmental aspects and about requirements necessary and/or desirable for entering these markets. Information for which it is difficult to make detailed conclusions because of the generality. The last part of chapter 4 dealt with the needs of German and American customers. I analyzed this to give a clear view to DM at what product they might focus more in the future. Next, in chapter 5 the conclusions of the SWOT analysis were presented and in chapter 6 theory was applied on the remaining issues which resulted in an end solution.

Actually, there are 3 important things mentioned in the final solution in section 6.4: market segmentation, price and quality. DM has to improve or apply the following points concerning:

Market segmentation:

- Constantly monitoring the market environment
- Implement a simple program or just an excel-sheet for this
- Carefully set market offers (segmentation)

Price:

- Lower the price to get new customers (price strategy)
- Try to find accurate information about all competitor prices and consider buying a market research report from an established organization

Quality:

- Improve overall product quality level
- Improve quality purchasing process
- Synchronize quality check standards with customers' standards

So by having mentioned these points and by reading the final solution again an answer on the main research question: *'What strategy is needed in order to acquire new customers in the American and German market?'* is established.



7.2 Recommendations

Besides the results in this report I have some recommendations which can be helpful for DM in the future. I also have suggestions for future research at DM. I will explain about this.

First of all, to collect more detailed information about the blood pressure equipment market in Germany and the USA or in whatever country they may be interested in, market research reports can provide a detailed analyze of this. During my research on the web I experienced it as very difficult to find useful and detailed information. To segment the markets better a good market research report can be very helpful, because on the web you cannot find everything. There are several of these reports of all the big economies and industries in the world. Before purchasing such a report, it is good to ask the research bureau about the precise content of the report, otherwise it might turn out to be a big disappointment.

In the last part of this section I want to give suggestions for future research.

Supply chain integration:

With this I mean the cooperation with one of your main customers in order to can use his knowledge. You can try to be a main supplier for one big company (e.g. Prestige, ERKA or Welch Allyn). In such a relation, the big customer must invest in good machines and procedures in order to improve the quality. In this way, you also can use the financial resources of the big company. This might strengthen your business and quality of processes.

Cooperation with other 'small' manufacturers:

In order to improve the system and quality levels it might be an idea to cooperate intensively with one of the competitors in Indonesia. In this way you can help each other and improve the companies' overall performance level.

Total Quality Management (TQM):

TQM is an organization wide approach to continuously improving the quality of all organization's processes, products and services. Because quality is an issue at DM, it is wise to investigate this option. Just like CRM, TQM is also an expensive system to implement.

Designing an attractive website

Although DM is not a B2C company, a website might help to improve the overall view customers have of DM. At the moment, the website does not give many details about products and the navigation is not very smooth either. I am not sure whether a better website will improve sales, but that it will contribute in general seems plausible.

In the section 'conclusions' I pointed out what DM should do exactly in order to make it easier to acquire new customers. In the last section I suggested points for further research. This is necessary, especially at the production sight of the company.

7.3 Reflection

First of all, I am very thankful that I have experienced an internship in Indonesia and that I got the opportunity to do that. It has been a great experience to work and live near one of the biggest cities in the world, Jakarta. I amazed myself every single day about all kinds of things, whether it was some crazy taxi driver or the way processes were carried out at Dharma Medipro. It is very useful for somebody like me who comes from a Western country to see a country like Indonesia and knowing that we in the Netherlands have such a rich society. You know things are different in other parts of the world, but to face it is the best experience.

I appreciated the way people over there took care of me, especially Paul and my landlady. Because of them I felt safe and secure. Besides this social aspect which is one of the biggest experiences during a period like this I also hope that I have contributed something to DM and gave them some insights with which they can improve their processes. I sincerely hope that DM will stay in business for a long time and will be able to reach its future targets. It seems wonderful to me to come back once at the factory and see a flourishing business.



Furthermore, I must say it was not always easy there (e.g. the language barrier). I managed to learn a little bit of the language, but in office it remained difficult to fully get into things because you could not understand the daily talk and it was hard to ask for every small word you could not understand in a manual, because people were quite busy. Nevertheless, I feel that everybody helped me as much as they could and I am very thankful for that. To summarize, socially it has been a fantastic learning experience for me and study wise I am quite confident either. With these last words I end my thesis. I hope you enjoyed reading it.



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