Industry Survey in the Medical Technology Industry

Bruno Teixeira Botelho

Dissertação de Mestrado

Orientador na FEUP: Prof. João Alberto Vieira de Campos Pereira Claro

Orientador na Simon-Kucher & Partners: Dr. Frank Rautenberg

FEUP

Faculdade de Engenharia da Universidade do Porto

Mestrado Integrado em Engenharia Industrial e Gestão

2011-07-01

*Gostaria de agradecer a minha família,
que me apoio incondicionalmente durante todo o tempo
que estive fora de casa.*

*A USP-EESC, UP-FEUP e Simon-Kucher & Partners- Luxembourg
que me propiciaram essa experiência magnífica e enriquecedora.*

Inquérito à Indústria no Sector da Tecnologia Médica

Resumo

O sector da tecnologia médica enfrenta atualmente vários desafios na área do marketing e vendas, tais como as crescentes barreiras no acesso a mercados, pressão de preços contínua, consolidação de clientes e aumento da importância dos objectivos económicos nas compras. Neste contexto, começa a ganhar importância a concorrência de baixo custo, ou seja, por parte de empresas que fornecem produtos de qualidade média a níveis de preços significativamente abaixo dos níveis de preços atuais de mercado, e disponibilizando um nível de serviço limitado. No entanto, existe alguma falta de clareza sobre a magnitude do fenómeno, bem como relativamente ao impacto dos desafios atuais no marketing e vendas sobre as empresas do sector.

Para obter uma percepção detalhada sobre a amplitude desses desafios e para compreender a eficácia das estratégias seguidas pelas empresas para enfrentá-los, foi realizada, na Simon-Kucher & Partners, consultora líder na área de definição de estratégias de preços, um inquérito a empresas da indústria de tecnologia médica.

Para tal, analisaram-se as questões mais relevantes e de interesse geral da indústria, procedeu-se internamente à afinação e realização do questionário, à identificação dos destinatários relevantes para o inquérito, e à análise dos resultados através de ferramentas de folhas de cálculo, finalizando-se com a publicação dos resultados.

Os resultados principais do estudo levam a concluir que, embora o mercado tenha passado por uma recente recessão, parece encontrar-se já em recuperação, com expectativas de o ano de 2011 vir a ser de melhores resultados do que o ano de 2010. As ameaças prometem vir em grande parte dos clientes, cujo poder negocial tem vindo a aumentar, e dos concorrentes, que se envolvem crescentemente em guerras de preços. Por outro lado, a concorrência de baixo custo mostra já a sua presença, conduzindo as restantes empresas a adoptar estratégias de inovação e maior atenção aos seus clientes através de melhorias nos níveis de serviço e nas relações com os clientes, como forma de sustentar ou ganhar mercado.

Abstract

The Medical Technology ("MedTech") Industry is currently facing multiple marketing and sales challenges, such as increasing market access barriers, continued price pressure, consolidation of customers and increasing importance of economic purchasing objectives. In this context low-cost competition has started to gain in importance, i.e., from companies that provide products at average quality, at price levels that are significantly below current market price levels, and with a limited service level. However, there is some lack of clarity on the magnitude of this phenomenon and it is also questionable how current marketing and sales challenges are affecting the companies in the industry.

To get detailed insights into the magnitude of these current challenges, and to understand the effectiveness of strategies followed by companies to address them, a survey amongst companies from the Medical Technology Industry was carried out at Simon-Kucher & Partners, a leading consulting company in pricing strategy.

For that purpose, we identified the most relevant questions of interest for the industry, improved internally and launched the questionnaire, searched for the relevant targets for the survey, analized the results with spreadsheet tools, and concluded with the publication of the results.

The main results from the study lead to the conclusion that, although the market has recently been through a recession, it seems to be already recovering, with expectations that the year of 2011 will be a year of better results than 2010. The threats are most likely to arise from customers, whose bargaining power has been increasing, and from competitors, increasingly engaged in price fighting. On the other hand, low-cost competition is beginning to show a presence, leading the remaining companies to adopt strategies of innovation and higher attention to their customers, through improved service levels and relationship management, as a way to sustain or increase their market share.

Table of Contents

Abbreviations

EMEA - Europe, the Middle East and Africa

MedTech - Medical Technology

SKP - Simon-Kucher & Partners

Figures Index

Tables Index

1. Introduction

1.1 Context

Various sectors in the medical technology industry are observing the emergence of new low-price competitors – originating not only from emerging markets but also increasingly from mature economies. While "no frill" competition, i.e. offering acceptable product quality with lean service models at low prices is well known in other industries, it is a comparatively recent phenomenon in the medical technology world. In fact, some medical technology sectors face low-price competitors who are technologically at least on a par with the established players.

Entering the same game by lowering prices and significantly cutting operating and R&D expenses does not seem to be the most viable option for many established companies. Besides, this would likely fuel even faster commoditization, slow down innovation, and negatively affect the profitability of the entire sector.

1.2 Objectives

Our objective, with the work presented in this dissertation, was to provide insights and visibility to companies in the medical technology industry, on topics that are critical for their strategic decisions, concerning major perceived hurdles on regulatory, competition, customer and pricing issues, and giving a special attention to new low-cost competition.

1.3 Methodology

To gain an understanding of what is happening in the market, we conducted a survey to gather detailed information on how companies are dealing with this changing environment.

The questionnaire covered the industry outlook regarding several different areas: yearly outlook, regulatory/market access, competition, customer, pricing, internal company, and a special attention to low-cost competition. The questionnaire consisted of direct and fast-reply questions, since the targeted respondents were people in high-ranking executive positions, who usually have extremely busy agendas. The scope of the questionnaire is described in detail in Table 1.

Table 1 - Project Scope

Population	Coverage	Experimental Unit	Overall Objective of the Research	Specfic Objectives
MedTech companies	Companies around the world with focus in Europe	Company	Outlook for the year	Year outlook
				Regulatory Outlook
				Competition outlook
				Customer Outlook
				Pricing outlook
				Internal outlook
				Low-cost competition

1.4   Presentation of Simon-Kucher & Partners

Simon-Kucher & Partners (SKP) is a worldwide leader in pricing consulting, according to Business Week, helping its clients maximize profits by giving them the tools and recommendations to correctly set prices for their products. In addition to pricing, SKP works to streamline marketing and sales for clients, and assists them in developing corporate strategies (Figure 1).

Figure   1   -   Projects   from   SKP.   Source: http://www2.simon-kucher.com/images/stories/capabilities_bigtriround.gif

SKP has 23 offices (Figure 2) spread by 17 countries on three continents, employing around 500 consultants. It has carried out work in over 55 countries for clients including Barnes & Noble, BMW, Goldman Sachs, Intel, LinkedIn, Microsoft, PepsiCo, Porsche, T-Mobile and Texas Instruments.

Global presence

USA, **Boston**
Miami
New York
San Francisco

Austria, **Vienna**
Belgium, **Brussels**
Denmark, **Copenhagen**
France, **Paris**
Germany, **Bonn**
Cologne
Frankfurt
Munich

Italy, **Milan**
Luxembourg, **Luxembourg**
Poland, **Warsaw**
Spain, **Madrid**
Switzerland, **Zurich**
The Netherlands, **Amsterdam**
United Kingdom, **London**

Australia, **Sydney**
China, **Beijing**
Japan, **Tokyo**
Singapore, **Singapore**

Figure 2- Location of SKP`s offices. Source: http://www2.simon-kucher.com/images/stories/Global%20Presence_map_2011.png

The firm was started in Germany in 1985 by business administration and marketing expert Professor Hermann Simon and two of his PhD students. SKP's approach to pricing involves extensive quantitative and qualitative analysis of market factors that boils down to one key element: identifying "what the market will bear."

The international orientation is a core element for the strategy of the company. That can be realized through of the international and multilingual team of 500 employees from diverse academic and professional backgrounds. To stay on track with the rapid globalization of today's markets the company wants to continue to open offices in highly developed countries and search for the immense growth opportunities that exist in emerging markets.

Simon-Kucher & Partners supports medical equipment, device and diagnostics companies in achieving sustainable top line performance enhancements. It has worked on multinational assignments for 17 out of the top 20 medical technology companies, and works both with innovative start-up companies and leading financial investors.

1.5 Dissertation Structure

The dissertation is structured in 5 chapters, and complemented with the references and appendices.

The first chapter provides an introduction to the dissertation, describing the context and the objectives to be achieved, and briefly characterizing the company.

The second chapter reviews the state of the art on the survey's topics - medical technology industry and low-cost competition - and methods - market research, from questionnaire development to analysis, and final publication of the results.

The third chapter describes how the questionnaire was designed, how the collected data were analyzed, and how the final results were published.

The fourth chapter includes the results from the survey, covering each topic of the project, including the charts that were developed, and comments on the results.

The last chapter summarizes the key findings from this work and offers suggestions for future developments.

The appendices include the published questionnaire and the final presentation of the results.

2. State of the Art

2.1 Medical Technology Industry

2.1.1 What is medical technology?

The term medical technology encompasses a lot of healthcare products (devices, equipment, and consumables) that can be used specifically for diagnostic and/or therapeutic purposes.

A medical device has been defined by the Therapeutic Goods Administration at the Therapeutic Goods Act (1989):

"A medical device is:

    a. any instrument, apparatus, appliance, material or other article (whether used alone or in combination, and including the software necessary for its proper application) intended, by the person under whose name it is or is to be supplied, to be used for human beings for the purpose of one or more of the following:

        i.   diagnosis, prevention, monitoring, treatment or alleviation of disease;

        ii.   diagnosis, monitoring, treatment, alleviation of or compensation for an injury or handicap;

        iii.   investigation, replacement or modification of the anatomy or of a physiological process;

        iv.   control of conception;

and that does not achieve its principal intended action in or on the human body by pharmacological, immunological or metabolic means, but that may be assisted in its function by such means; or

    b. an accessory to such an instrument, apparatus, appliance, material or other article."

2.1.2 The importance

The MedTech plays an important role in the people`s life, in the way that it's try to have better clinical results, less invasive procedures and a shorter recovery time, so always trying to get a better life for the patients, delivering safe, effective, and high-quality health care. And according to EUCOMED (the European Medical Technology Industry Association) (2007): "Medical technology extends and improves life. It alleviates pain, injury and handicap. Its role in healthcare is essential. Incessant medical technology innovation enhances the quality and effectiveness of care. Billions of patients worldwide depend on medical technology at home, at the doctor's, at hospital and in nursing homes. Wheelchairs, pacemakers, orthopedic shoes, spectacles and contact lenses, insulin pens, hip prostheses, condoms, oxygen masks, dental floss, MRI scanners, pregnancy tests, surgical instruments, bandages, syringes, life-support machines: more than 500,000 products (10,000 generic groups) are available today."

2.1.3 Evolution

The MedTech industry brings constantly big innovations that change the life of many people, how is possible to see in the picture below.
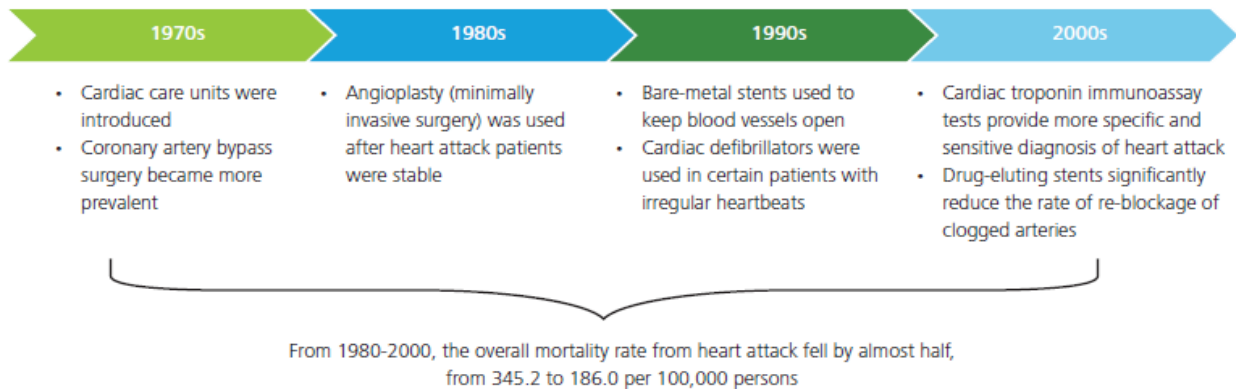

Figure 3 - Innovations in Medical Technology - Source: Deloitte (2010), pg.7

2.1.4 The MedTech today

The MedTech industry is passing by a moment of growth around the world, driven by the increasing of investments of developed and developing countries; the consequence of increases in life expectancy; and demands for a higher quality of life.

Today, the world market for medical technologies amounts to about 220 billion euros. After the USA at 90 billion euros, the European market at 65 billion euros is the second largest market in the world. Germany is the third largest market worldwide, and the largest market in Europe, after the USA and Japan, according to BvMed, the German Medical Technology Association, (2011).

2.1.5 Challenges and opportunities

In view of this growing momentum that industry is passing, there is a huge market for the industries, where they can enter and conquer consumers, although, there are some challenges that the companies need to face.

While today just 25 multinational companies account for more than 50 per cent of global medical device sales, and the major markets are in the developed economies of the northern hemisphere (North America, Europe, UK and Japan), according to AusBiotech, the Australia's biotechnology industry organization, (2011), the future seems to be different, with Asian markets growing fast.

Some challenges must be faced in according to AusBiotech (2011), for the companies to maintain itself on the market and maybe conquer a portion of this:
- To continue to develop and find skilled labor;
- To build on its high quality standards;
- To educate companies to become export ready much earlier in their development cycle; and
- To develop a collaborative approach between universities and Government research organizations and the industry.

2.2 Low-cost Competition

2.2.1 How a low-cost works

Normally a low-cost company utilizes of economies of scale to execute low prices on the market. So this company likely will win the price sensitive consumers, being that the product is relatively homogeneous. There is a good example of a low-cost that is the Wal-Mart which makes large profits by the economies of scale. It buys huge quantity of products that makes it has a big bargain power, consequently it gets to sell at lower prices than its competitors.

In other hands, there are companies that really produce by cutting costs, through using cheap labor, cheaper raw materials, standards components, etc.

2.2.2 The strategy behind of low-cost

A competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices, according to Porter (1985).

So, Michael Porter suggested four generics strategies that a company can follow, as shown in the picture below.
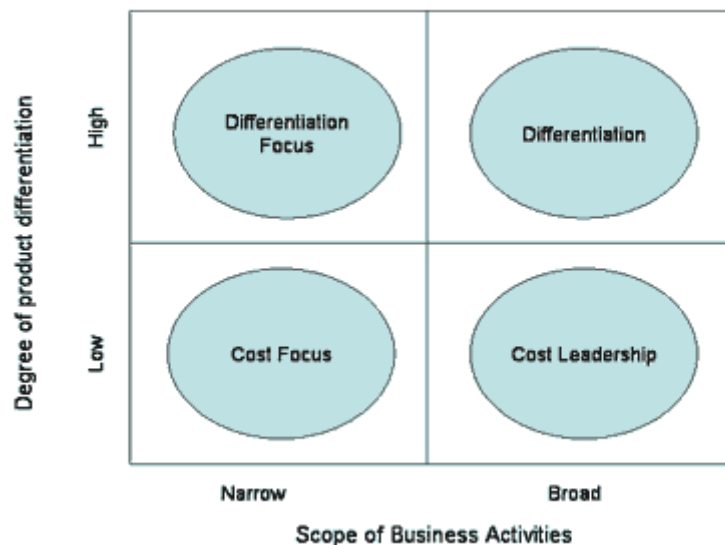
Figure 4 – The Porter's four strategies. Source: Porter (1985).

So what the low-cost companies look for to realize is to achieve a lower price than other competitors, then it's possible to summarize cost focus and cost leadership in just one strategy, cost leadership. For that, normally a low-cost company that produces service or products, tries to lean your production, through designing products to simplify the manufacturing, large market share concentrated on large customers, high-tech production equipment, always looking for the efficiency of the system.

2.2.3 Low-cost competition in the medical technology industry

The medical technology companies have been recently faced the arrival of low-cost products mainly coming of the low-cost countries, these low-cost companies are trying to conquer

market through low-prices, that is making that the companies already stabilized feel the new presence and start to take some initiatives to avoid loss of market.

2.3 Market Research

As we have stepped into a new millennium, market research is becoming more and more important for companies facing intensifying competition. This trend is firmly in place and market research is expected to experience continued growth as long as competitively driven economies of the world expand (Honomichl, 2000; Barnard, 1999).

According to Rozenfeld et al. (2006), a market research has basically four steps:
1. Acknowledgment of the Research Problem
2. Research Planning
3. Research Execution
4. Publication of the Results

So during a construction of a research, it needs to be worked inside of each of these steps, generalizing, to achieve concrete results, it is needed to identify, to collect, to analyze and to disseminate the information.

Therefore, the market research is a tool focused on obtaining accurate and relevant data to identify problems or opportunities for the company, so it can focus its strategies and makes decisions that maintain competitiveness, because it allows the company to be always aligned to the news in the market and customer's needs, according to Rozenfeld et al. (2006).

2.3.1 Acknowledgment of the Research Problem

An important point during the all process is that it occurs in an impartial way, so that we can avoid interference on the results.

So the first step is to define what we want to know or to prove, in other words, why we are doing the research, then we define how and what will be necessary to achieve the expected results.

The motivation for the research is how already was cited in the introduction that is intended to understand how the companies are facing the low-cost competition and the expectation for the 2011 year.

2.3.2 Research Planning

After to know why the research is being done, it's time to define the survey itself, and at this point that would be defined the questions and how it will be presented for the participants, from this we can think about how to analyze the results, since it already has the type of answer that will be obtained.

2.3.2.1 Questionnaire

According to Malhotra (2006) a questionnaire is a formalized set of questions for obtaining information from respondents. The overriding objective is to translate the researcher's information needs into a set of specific questions that respondents are willing and able to answer.

A questionnaire is an important way to collect primary data. With this it is possible to conduct a standard way to collect data, instead of each interviewer do in his way the research, so, to analyze the data become easier, since there is a data in the same format and with the same type of answers, permitting to conduct a comparison across different answers of different respondents.

2.3.2.2 Questionnaire Design

There isn't a scientific method to create a questionnaire, the experience plays an important role here, followed by creativity. But although there isn't a certain way to create it, it's possible to follow some guidelines that can help during the process. For that it's possible to consult the guideline proposed by Malhotra (2006).

Below it's written some steps proposed in the book:

- What information is needed?

The first step is to determine what is the information needed, and it's necessary to have in mind what is the target respondents, so the questions should be prepared taking into consideration the educational level and experience from respondents.

- How should individual questions be framed?

It's necessary to determine what is going to be included in each question, and if this question is really necessary. For this, it must be analyzed how the information will be used and if it's useful.

- Are the respondents able to answer the question?

Before to make a question it's necessary to make sure that the respondent will be able to answer the question, or maybe to aid to answer. It's possible to list some options that can help the respondent, for example, to remember some brands names.

- Are the respondents willing to answer the question?

A question mustn't require so much effort of the respondent, a big effort needed to answer a question or ask about sensitive topics can conduct to a low participation rate. The research should aid always that it's possible, giving, for example, a list to the respondent that he can checks, instead of he needs to write, or to obtain the information in the form of categories instead of directly answer, as the salary, for example.

- What should be the structure of the question?

It must be decided when it's better to use the unstructured questions, that are the open-ended questions, or structured questions, where there is the set of responses as well as their format, using multiple choices or a scale.

- What type of scales should be used?

The Likert scale is one of the most used itemized scales, where the end-points are typically low and high.

- How should the questions be worded?

The questions must be as clear as possible to avoid misleading the respondents. So, to define the issue, to use ordinary and unambiguous words, to avoid leading questions and to use positive and negative statements, are the five guidelines proposed by Malhotra (2006).

One important point here is the use of the five Ws (who, what, when, where and why), so, responding each of these W, it's possible to define more complete questions.

- What is the proper order of questions?

The open-ended questions should be used in the beginning of the questionnaire, so, it's possible to gain the cooperation of the respondent and to introduce the topic. And for example, the identification information should be asked in the end of the questionnaire, because sometimes the respondents may resist giving this kind of information.

- How should the questionnaire be pretested?

Before a questionnaire starts to be used, it's necessary to pretest it, so, possible errors and bias can be identified. For this, a similar group to pretest must be selected, and it's must be similar to the respondents.

2.3.2.3 Type of variables

It's important to understand correctly how the answers are, to define and to know what kind of variables exist for the answers, following there are four different types that can be utilized:

- Nominal: The values are the identification for the answers.
- Ordinal: The values indicate a relative position.
- Continue: It is measurement results.
- Discrete: Generally represent a count of values.

2.3.3 Research Execution

With the survey on hands, it's possible to start to collect the data, by telephone, internet, letter or personally. In the case of this project it was used internet to publish the survey on-line, and it was sent to selected people on the MedTech area.

2.3.4 Publishing the survey

There are different ways to collect the data, some of these are cited below, with a brief comment of each one, about its advantages and advantages:

- Postal
  - Low-cost to send it;
  - It can happen a delay or be subjected a unpredictable events, like a natural disasters;
  - It doesn't require an intensive work.
- Telephone
  - Questionnaires can be conducted fast;
  - Direct interaction with respondents;
  - High response rate;

- It's needed to pay attention for the sampling, because it can be social biases, once, depending of the region, it's not everybody that have access to telephone, so it is generally not suitable for sensitive topics.

- Electronic

  - Low-cost or almost no cost for the participant and surveyor. However, initially can have some cost due to the necessity to construct the design or programming the questionnaire itself;

  - It's not subjected to delays like the postal method;

  - It is not labor intensive;

  - Maybe not everybody from the sample will have access to the electronic form, so, it cannot represent the all target population;

- Personally Administered

  - It possible to detail more the questions, however, the respondents are often limited to their memory, if they don't have access to an information during that moment;

  - The tracking is in real time, so it's possible to solve doubts at the moment;

  - It can be expensive due to telephone's expenditure and can require a lot of time to train and to do the interview;

2.3.4.1 On-line Survey

Internet surveys are increasing in popularity. One reason is that the cost, in most cases is less than phone, mail surveys or personal interviews three of the most common types of surveys. Also, the internet survey is not as inconvenient as the phone call in the middle of dinner. The online survey can be completed in one's own time and place. Quick response time and the ability to target specific populations are also advantages worth noting. As Internet usage becomes more widespread, the disadvantages of this method in terms of sampling limitations and representativeness will be substantially reduced, according to Shukers (1996).

2.3.5 Approach to analyze the questions

Once we have specified the objectives for the research, and thought about the questions that will be on the survey, we need to think how to analyze these questions and its answers. For that we can have some different ways to work with that.

Normally on the beginning of the analyze we start describing the variables, to try to understand how it is, and with what it is working, for that it is possible to use per example tables, chart or measures as average or dispersion. Once you have it, it is possible to know a little bit more what kind of information will be analyzed.

Another approach that can be used is to associate categories or answers, that is, maybe you can divide your sample in different categories, could be A, B, C, and for each category you can join its answer from another question, and try to see if there is a tendency to a specific kind of answer, being that would be better to create another categories for the answers, thereby we can understand how a certain group is behaving.

It's also possible to create a relation between some variables that would be something like an equation obtained from a regression, so it would be possible to forecast possible results for different inputs.

Comparison is another alternative to study the behavior of the group, what is possible to do, is to take a determined value from a category and compare with specific value, trying to understand why the difference from a specific value that can be supposed to be a standard.

2.3.5.1 Preparation and data analysis

Since there is the data, the answers, it's necessary to edit it, so that it's possible to work and to analyze easily, using any software, per example Excel.

According to proposed by Rozenfeld, Echeveste and Tahara at "Sistema de Apoio a Aplicação de Técnicas Estatísticas" (2011), the process of preparation and data analysis consists of the questionnaire checking, the editing, the coding, the transcription, the data depuration, the statistical adjustment of data and the selection of a data analysis' strategy.

For each of these activities will be briefly explained below, according to proposed at "Sistema de Apoio à Aplicação de Tecnicas Estatísticas".

- Questionnaire checking

The questionnaire can be analyzed by your completeness and interview quality. This verification can happen before to really launch the survey, launching an internal version per example or even trying to analyze during the progress. Seeing if the questions are being well understood or if there are missing values.

- Editing

At this part is revised the answer to analyze if it's exact and precise. It's realized a kind of cleaning data, to use really what is satisfactory for the results.

- Coding

This part consists in give codes for the answers. When the questions are already structured, it's easy because the options are already defined, and it can be done before of the launch. But when there are questions where the answers are open, it's necessary to join similar answers in categories, and to give codes for each of these.

- Transcription

It's basically to transfer the data to a computer. It can be done by different ways, when the questionnaire was obtained on hand, it is necessary to transfer it by scanning or typing, but if the questionnaire was done on-line, it's just to recovery the data through the software, and transfer the data to any software, like Excel.

- Data depuration

It's realized a verification of consistency and a processing of the missed answers. It can be realized through software like Excel, where can be found answers not possible or absence. Then it must be analyzed to define what to do, maybe an inconsistent or missing answer can be changed by a neutral value, substitute by another answer that is consistent or eliminate a part of the questionnaire.

- Statistical adjustment of data

It's realized for the purpose of improving data analysis quality. There are three kinds of statistical analyze: weighting, specify again the variables and scale transforming.

- Selection of a data analysis' strategy

The choice of a strategy to analyze the data must be based on known data's characteristics, statistical techniques and researcher's formation. So, the choice must be aligned with the objectives of the research.

2.3.6 Publication of the Results

With the data worked, it is necessary to transmit the information and results, in a way that the people can understand and take useful insights, to make decisions and to orientate the company in a certain direction. In order to it can use charts, tables and figures.

3. Survey Design

3.1 The survey for MedTech Industry

To understand what the market is living on the time being, the survey was launched at April 11th, 2011 and finished at May 9th, 2011.

For that it was questioned different points, how the year, regulatory, market and competition outlook and how the companies are seeing the low-cost competition.

The survey was divided among three principal areas of question: part 1, where it was asked general information, to know who is answering the questions, part 2, where it could be analyzed the outlook in different aspects and part 3, which was centralized in questions to understand the presence of the low-cost competitors.

3.2 The design of the survey

In order to achieve the objectives mentioned was elaborated a questionnaire with 25 questions to be answered by different people from different positions and companies around the world, being the target mainly the people in the management position that are routinely involved in taking decisions.

The questionnaire basically consists of 5 parts:

1. Introduction

At this part was explained the survey's intention and a briefly explanation.

2. General information

Here it was asked the basic information to know the participant and his related area. For this basic questions were elaborated, so it's possible to see what is the geographical, the level and sector of responsibility of the respondent.

Questions:

- Company
- Position
- Region responsibility
- Sector responsibility

3. 2011 MedTech barometer

One of the basics objectives of the research is to obtain outlook in different perspectives, at this part can be known it, being it divided in different perspectives:

- Yearly outlook

At this section is asked about the expectations for the year in different aspects.

Questions:

- Overall, how would you rate your business expectations for 2011?
- What are your major top-line expectations for 2011?

- Where do you see the biggest challenges for your company in achieving these goals?

  - Regulatory/Market access outlook

The regulatory issues are one of the biggest challenges for the MedTech industry, since to enter in a new country it's necessary to pass by different regulatory authorities and to get different certifications and authorizations, being a fundamental point to increase per example the company's revenue.

Questions:

- Compared to last year, do you expect your industry's reimbursement and regulatory landscape in 2011 to be…?

- What are the major regulatory threats your industry will be facing?

  - Competition outlook

More and more the companies are facing the competition in the MedTech market, so different points are possible to enhance to get a larger market share.

Questions:

- What are the most important changes you expect in your industry's competition environment?

  - Customer outlook

Being the customers the buyers of the products, as hospitals, they can really influence how the company is working, and they are increasing them power, per example, through the GPO (Group Purchasing Organization), where the hospitals make a group to buy together the products, thus increasing the bargaining power.

Questions:

- How do you expect customers to behave in the next year?

  - Pricing outlook

At this point it is questioned about different topics that affect the prices, such as customers and competition.

Questions:

- How do you expect prices in your industry to develop compared to last year?

- What factors will drive these price changes, in your opinion?

  - Internal company outlook

This topic is developed to understand the internal behavior of the company, concerning actions undertaken to increase profitability, and the internal challenges, per example, reducing of costs and sales force competency.

Questions:

- Where do you see your biggest internal challenges in 2011?

- How do you plan to increase your topline profitability in the next year?

  4. Topic of the year: Low-Cost Competition

How the intention of this survey is to be realized every year, for this year was chosen one specific topic that is being lived by the companies from the sector which is the low-cost competition. Through the questions is tried to understand what the companies think about the topic and how they are reacting.

Questions:

- What degree of pressure does your industry currently feel from low cost competition?

- How do you see the pressure of low-cost competitors in your market in three years' time?

- What is the relative threat from each of these three forms of low-cost competition?

- What measures will your company be able to take against low-cost competition in the next three years?

  5. Conclusion

In the end, the participant is thanked and it is solicited his e-mail and showed the contact information.

The survey can be seen at the appendix A.

3.3 Trial

In order to improve the quality of the questionnaire, it was launched internally initially, and sent for experienced professionals from SKP. It was extremely helpful because it allowed perceiving errors, as missed options of answers and languages errors, to clarify questions, to show the questions in a better way and suggestions in general for improving.

Furthermore, the trial was already launched on the definitive platform that is web-based with the use of SSI software, as explained later.

3.4 Publishing the survey

Due to the necessity of fast response and a short period for research it was chosen a web-platform for publishing the survey.

It was designed in software and after was published in the internet using a SKP domain that was sent by e-mail. Even if the participant decides to stop the survey on the progress, the answers already done stay saved on the server. And the data recovery can be done by a tool that sends the data to Excel, where it can be analyzed.

3.5 SSI Software

SSI Web is an easy-to-use platform that can be used for general and conjoint analysis survey programming. The surveys created via SSI Web can be made available on the internet or they can be conducted by an interviewer on a local computer. Some modules are available, but the project was used only the General Survey Software (CiW) module.

The CiW is the core interviewing component, a general-purpose survey research tool suited for a variety of simple to complex projects. It's a system for general web-based or CAPI interviewing (computers not connected to the Web). With this module is possible to create different question types: select, numeric, open-end, grid, ranking, rating, constant sum. It is a point-and-click that no requires specialized programming skills. And also it's possible to

improve the questionnaire using knowledge in HTML, like to apply some different formats, or through the use of JavaScript to implement, per example some verification of individual answers.

The system works so that the web server simply collects the respondents' data and from your computer you can program and manage the survey
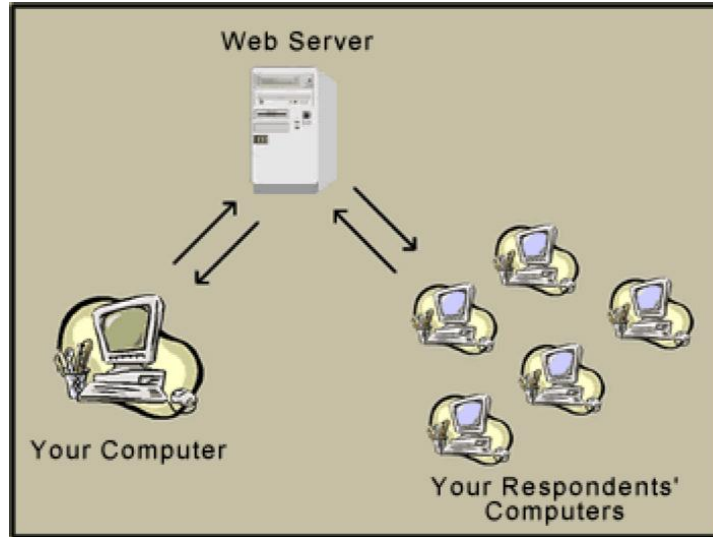

Figure 5 - The basic operation

To create a questionnaire is relative easy, it's just to choose the question type and it's automatically inserted, and you can see a preview of your question. The basic screen can be seen below.
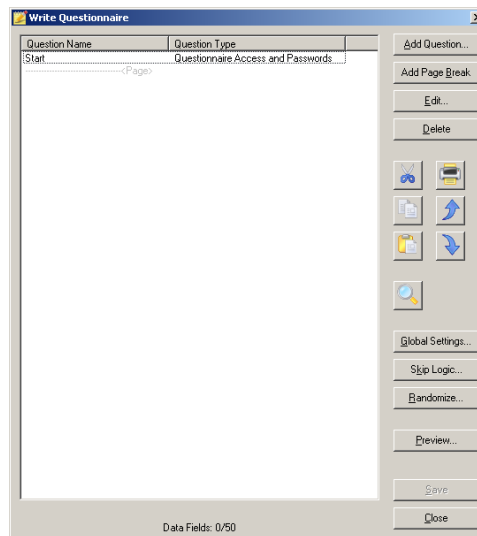
Figure 6   - The questions included
on the questionnaire

And for each question added is possible to inserted some options, how headers, footers and the options for the question.

Once the questionnaire is ready, it's must be sent to the participants, it can be done by sending the survey's link via email or linked on the company's homepage. It makes convenient for the interviewee since he is flexible regarding time and place, and it's easy to reach a high quantity of respondents.

There is also an administrative module, where is possible to manage the survey, per example:

- Track completes and incompletes answers;

- View individual records;

- Download data at any point during fielding;

- View real-time tabulations of the data;

- Close the survey.

An example of the administrative module's screen can be seen below.
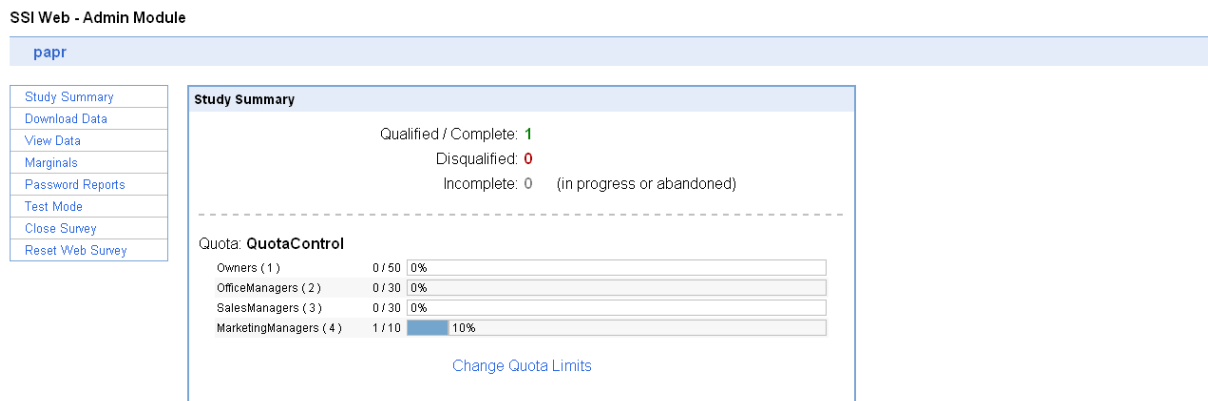
Figure 7 - The Administrative Module

And it's the module that is used to download the data, all answers, when the questionnaire is ended, and from this is possible to transfer the data to some software, like Excel, where it can be manipulated.

3.6 The launch

The survey was officially launched on April 11th, 2006. The invitation to participate was sent to a list of important contacts that was compiled, analyzed and verified them information.

It was given almost one month to fill in the survey. And during all the progress the answers were monitored to verify possible opportunities to improve the questionnaire and failures.

4. Results and Analysis

4.1 The data preparation

Once the survey was ended, all the answers were transferred to an Excel file, where it could be easily analyzed and manipulated.

To start the analysis is necessary to clean up the data, it was the first step adopted, and some initiatives were undertaken:

- All the questions were divided into different Excel tabs, so, it makes easy the work;

- Take out the respondents that had answered only general question, since the general question isn't so useful, because there aren't the answers needed where the research is based;

- Analyze the answers, and see if it makes sense with the supposed answer;

- Use the correct unit for the numbers, as where should be percentage, to make sure that all answers is based on the same unit;

Basically it was the way to prepare the data for deeper analysis, guaranteeing that it is good and consistent, and there isn't any outlier that can compromise the results.

4.2 The initial analysis

After to have a clean data, it was created the first real analysis, where it was applied the descriptive statistics and basic comparisons between questions.

Below are some points that were approached:

- Create the first statistical analysis, such as mean, standard deviation, minimum and maximum value, median and first and third quartile;

- Make comparisons between questions to make sure that the answers are consistent, for example, the participant answer in one question that hope a really better year, but when he is asked about some numbers, he shows some conflicts, as saying that don't hope a selling growth;

- Coding the questions, mainly the ones that are open-ended. It was tried to join answers with the same meaning, a clear example is the position in the company of the respondent, all the answers were distributed along some defined positions, or, at answers that are expected to have positive and negative answers, it was created these two categories;

- Highlight meaningful open-ended questions, where can be extracted good information;

- Create the basics charts to have the first ideas about the answers that can be used like an orientation for subsequent analysis.

4.3 A depth analysis

After realize an initial analysis to clean the data and to familiarize with the answers, it was developed a deeper analysis to really extract information and results that are not so clear.

For that was created some categories for specific questions where it would be possible, for example, questions that were possible to have five fixed different answers, regards to a level of pressure, it was summarized in three different categories, of high, medium and low pressure.

It was worked with different samples, mainly considering regions that can influence in the results, having different trend for each region, maybe because of the actual economic situation or cultural characteristics, or even, considering different sectors of business, being that each one of this can be living a different moment. Due this, some questions were analyzed for different regions and sectors.

Questions which the answers was given for different moments, as for questions about the Low-Cost competition that was analyzed the actual situation and in 3 years later, attention was given to try to figure out why and where big differences were attributed. And for example, for respondents that answered to be facing threats of low-cost competition it was tried to analyze what are these threats and what they are doing to fight against it.

The answers were correlated whenever was possible to respondents' characteristics to try to explicit relation between a certain group to a type of answer.

4.4   General Information

In total the survey had 62 respondents, from different companies, diverse MedTech sectors and with different regional responsibilities.

4.5   Participants

The majority of respondents have a management position (61%) as shown in figure 8, but it's also considerable the number of respondents in a high position in them companies. It shows that the answers were given by decision-makers.
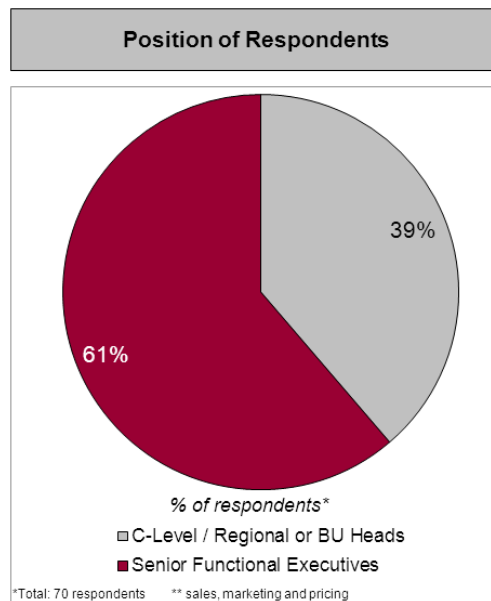

Figure 8 - Position in the Company

The majority of corporate participants have their region of responsibility at Europe (55%), while a global responsibility follows with 23%, as shown in figure 9. It implicates in a bigger focus on Europe and a small significance for the other parts of the world, that can be living a different moment, as BRICs economies.
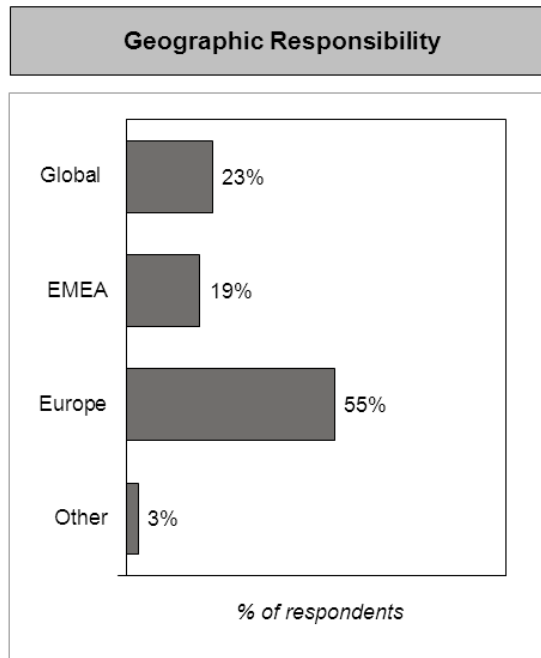

Figure 9 - Regional Responsibility

Looking at the business sub-sectors, the most represented in our sample is "Equipment" with 38%, followed by "Supplies", 26% and "Devices" with 21%, as shown in figure 10. The diagnostics and dental sectors' results can be compromised because of the small number of respondents, but it can be considered being that the answers of these sectors were consistent.
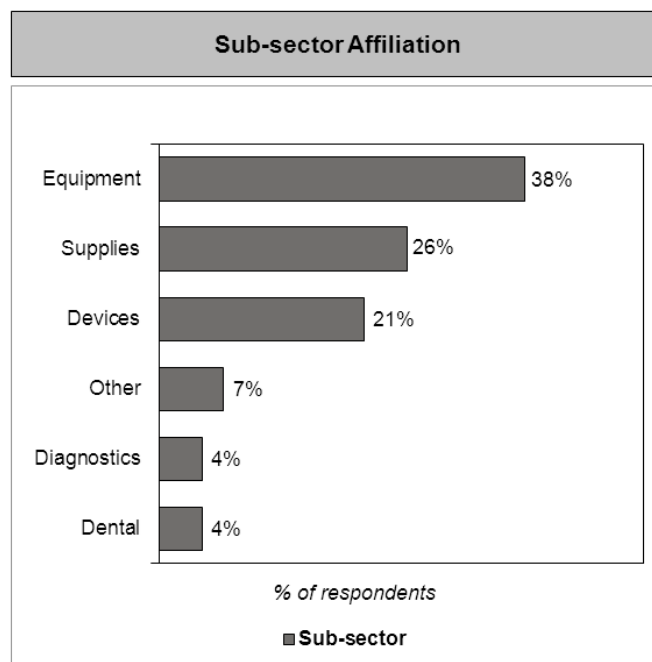
Figure 10 – Sub-Sector of Responsibility

The sub-sectors were defined joining some business sectors - as defined by the Global Medical Device Nomenclature (GMDN), according to the table below.

Table 2 – Sub-Sectors used in the Survey

Equipment
- Anesthetic and respiratory technology
- Electromechanical medical technology
- Hospital hardware
- Reusable instruments
- Diagnostic and therapeutic radiation technology

Consumables
- Single use technology

Devices
- Active implantable technology
- Non-active implantable technology
- Ophthalmic and optical technology

Others
- Technical aids for disabled
- Others

Dental
- Dental technology

Diagnostics
- In vitro diagnostic technology

4.6   Expectations, changes, challenges and threats for 2011

At this part was analyzed the expectations for the 2011 year, the challenges that are going to be during the year, the changes expected and threat that can complicate to conduct the business.

Looking to the answers, however, the last years the economies around the world have passed by a bad moment, it seems to be recovering, as it is possible to see the good expectation for the year (42%), as shown in figure 11, although, there is still a certain degree of fear that shows that the economy doesn't recovery yet its best growth.
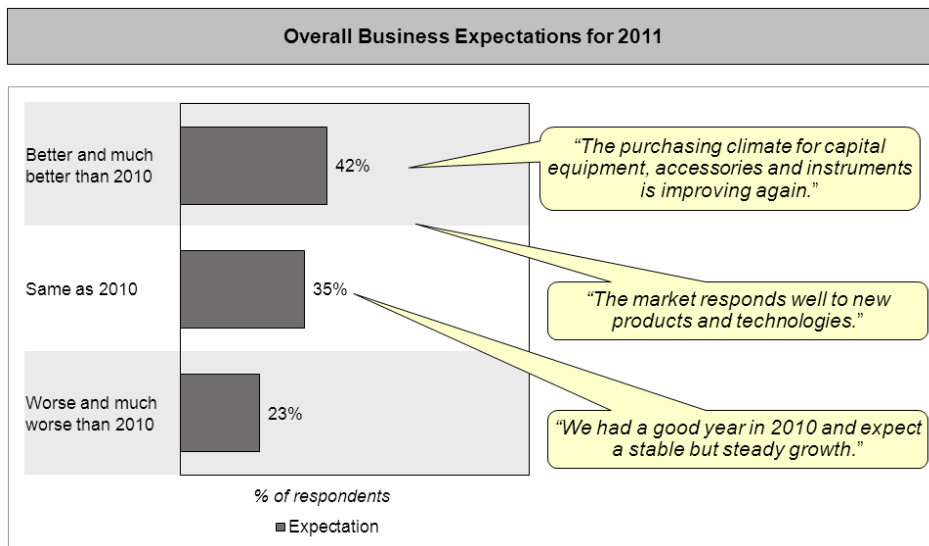

Figure 11 - Overall Bussiness Expectations

As published by Zacks Equity Research (2011), "Last year was challenging for medical device companies given the exigent economic conditions and an uncertain healthcare environment. The MedTech industry was hit by several macro headwinds in 2010 including price/volume and utilization pressure and a more restrictive regulatory environment. Although a number of these issues remain, the industry is expected to fare better this year due to several tailwinds and growth opportunities."

Looking at different perspectives, it maintains the overall positive expectation for the year, even if it goes inside to the different sub-sectors, as shown in figure 12. So, all industry sectors expects an increase in revenue and profit, in that this increase is mainly based on winning market shares since prices are expected to be rather stable.
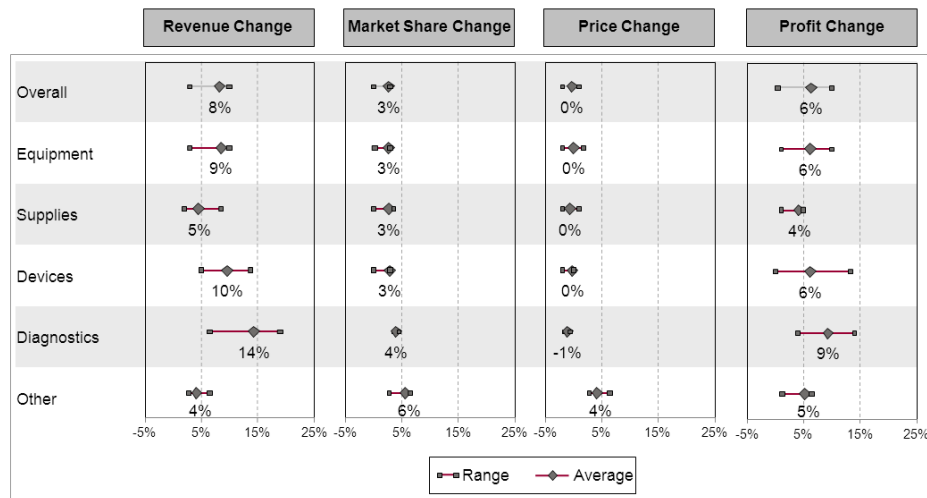
Figure 12 – Sub-Sectors and Expectations

The general negative price expectations and the expected price changes for 2011 show that there is a high price pressure in the market, and that the fierce competition will be presented at MedTech Industry. Independently of the sector, it's hoped not to have an increase on the prices.
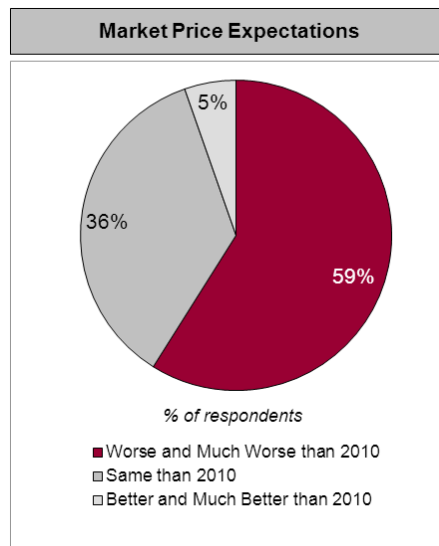

Figure 13 - Price Expectation

The respondents seems to be in harmony concerning to them challenges, as seen in the prices expectations, it is expected that the competitors going to be the biggest challenge for the year, followed closely by the customer that mainly because of its reduced budgets due to cut costs or any other reason that can avoid to increase prices.

It's not forgotten that internal problems need to be solved, and that regulatory issues are needed to be faced, mainly in questions of registration and approval of products, that can suffer a big delay due to the bureaucracy or inefficiency of the system.

Overall Commercial Challenges

Competitors	62% — *"More competition and more pressure on price."*
Customers	55% — *"Reduced budgets."*
Internal	26% — *"Lack of qualified resources."*
Regulatory	19%
Other	18%

% of respondents indicating a high to very high degree of challenge
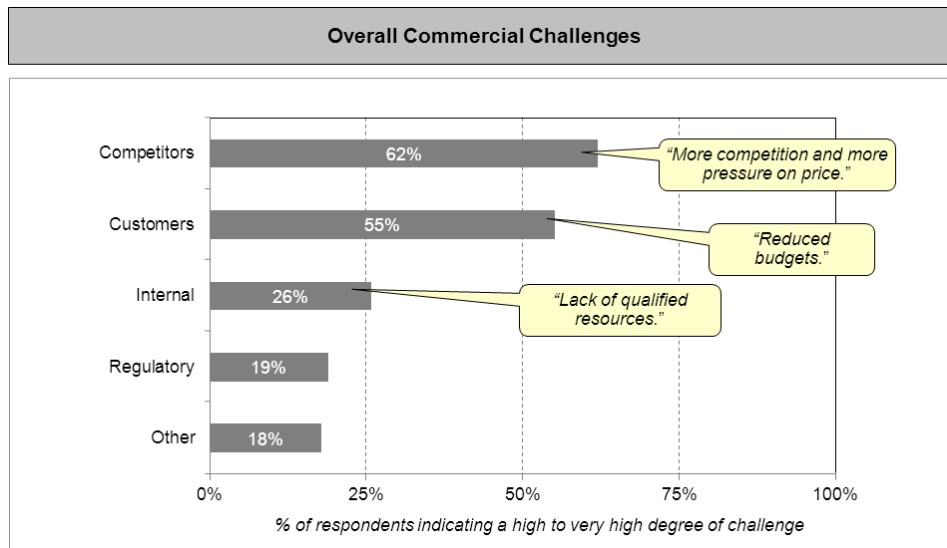
Figure 14 – Biggest Commercial Challenges in 2011

Reimbursement is one of the most important points for the MedTech Industry and it is expected to be tighter than 2010, as shown in figure 15, that can affect the profitability and the revenue of the companies, and this climate of uncertainty is probably one factor more to prevent change on the prices and special attention to gain any market possible. As well the regulatory landscape is expected to be tighter, mainly because of increasing difficulty and time for approval. But in the general comments is given special attention for the reimbursement scenery by the respondents.

Expected Change of the Reimbursement Environment in 2011

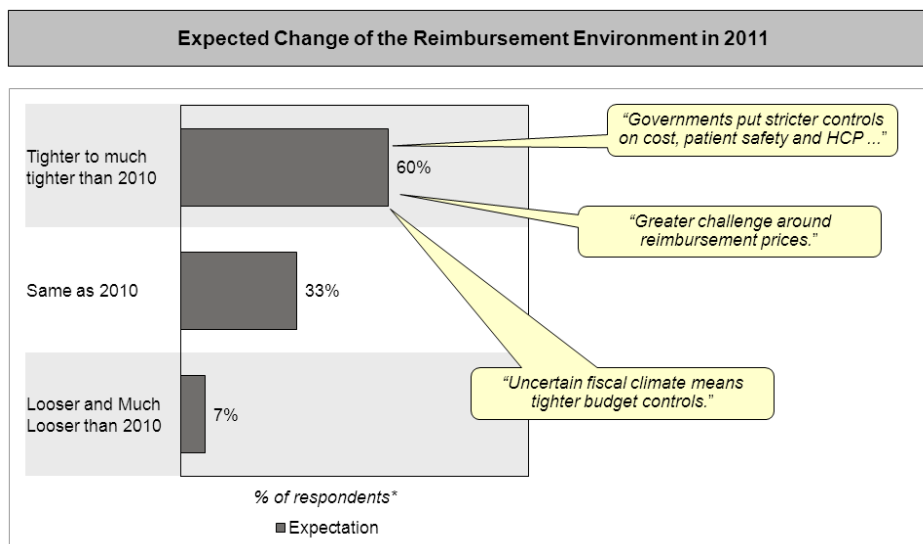|	
Tighter to much tighter than 2010	60% — *"Governments put stricter controls on cost, patient safety and HCP..."* / *"Greater challenge around reimbursement prices."*
Same as 2010	33%
Looser and Much Looser than 2010	7% — *"Uncertain fiscal climate means tighter budget controls."*

% of respondents*
■ Expectation

Figure 15 - Change in Reimbursement Landscape

In line with the bad expectation about the changes in reimbursement and regulatory landscape, it is seen as a very high degree of threat many points that concerns these both issues. Firstly, the increasing payer purchasing influence, with 60% of respondents saying that expected a high or very high degree of threat, mainly because of the tenders or the junctions of customers that create a power of bargain, followed by the reimbursement cuts with 54%, as shown in figure 16.
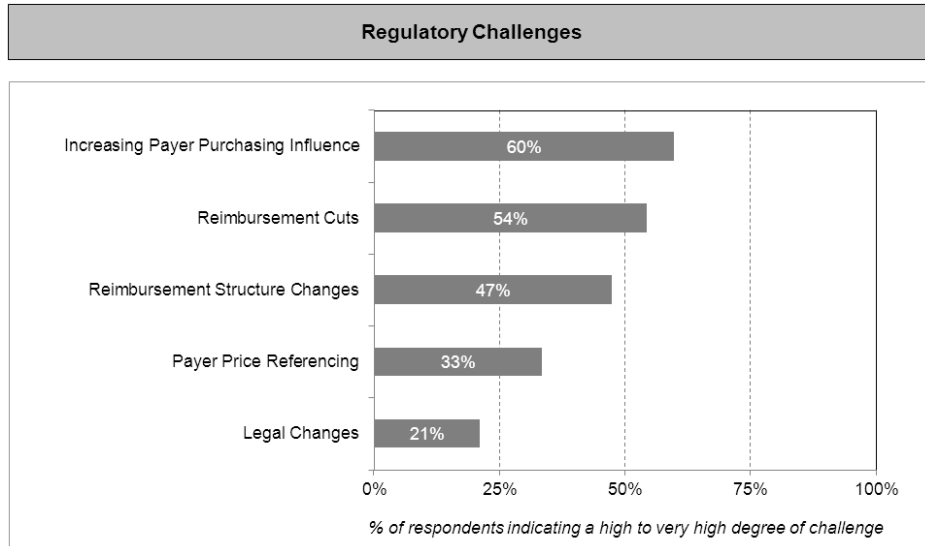

Figure 16 - Regulatory Threats

An increased price and commercial aggressiveness are perceived to be the main competitive changes, however, new competitors entering the market and new product launches are also expected. The first four points was graded with a considerable degree, more than half, showing that there is concern about the competitors, as shown in figure 17.
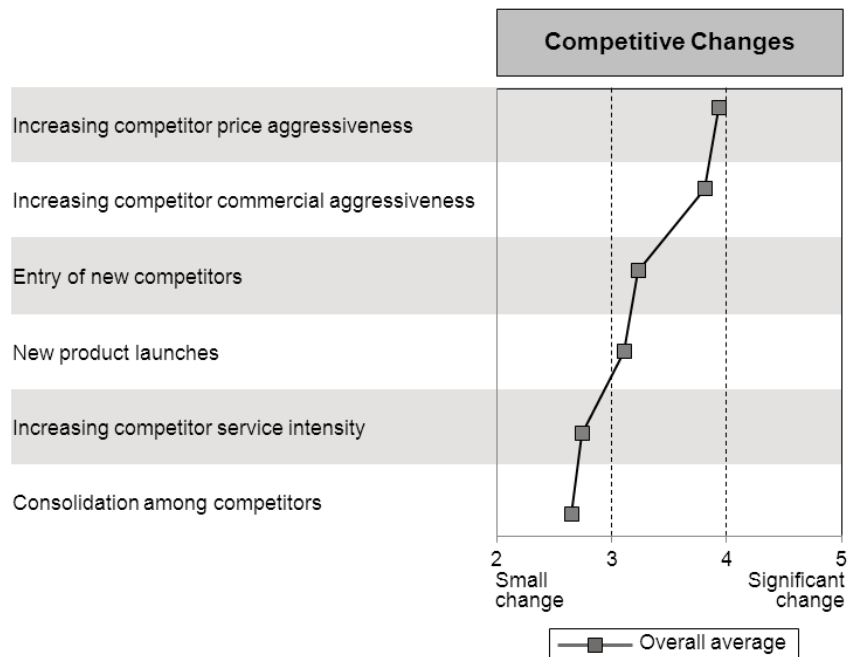
Figure 17 - Competitive Changes

In relation to the customers there is a certain degree of apprehension, with special attention to some points, such as the expectation of an increasing power of the purchasing department and an increase in the centralization of the purchasing, factors that can contribute to a decrease in the prices.
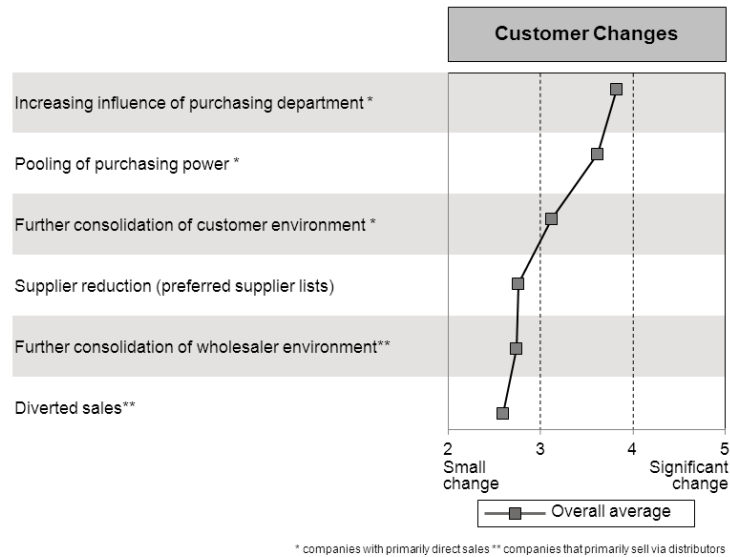
Figure 18 - Customer Behavior

As seen in the last two charts, it's possible to see that the companies are giving a certain degree of attention to competitors and customers, it can be confirmed with the expected influences of the competition and customers on prices that had the same grade, as shown in figure 19.
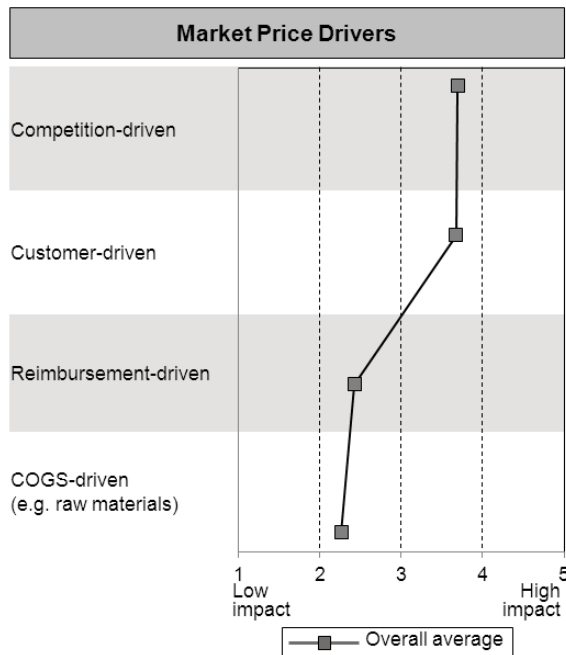
Figure 19 - Price Change Factors

To reduce cost is far to be considered a big challenge for the companies, but sales force competence and efficiency are seen as the major internal challenge faced today, as shown in figure 20.
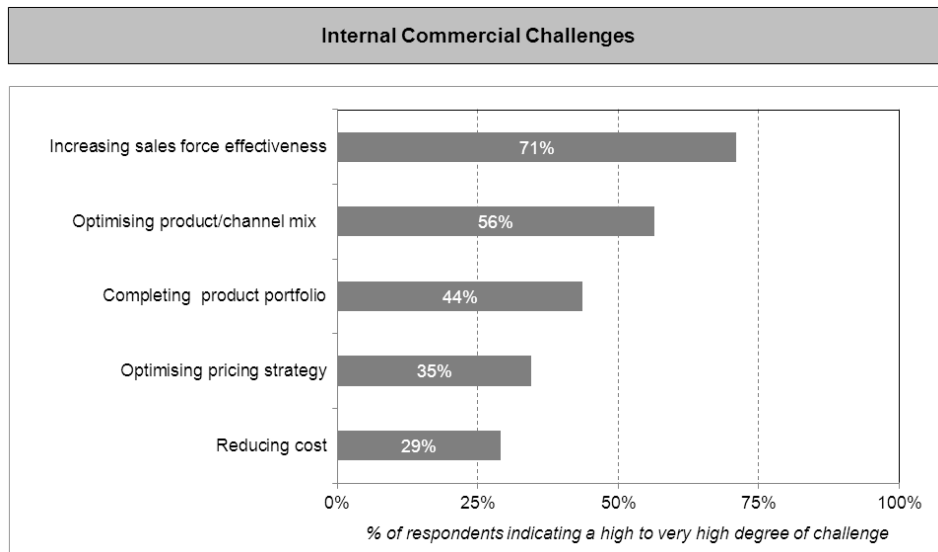
Internal Commercial Challenges

Challenge	%
Increasing sales force effectiveness	71%
Optimising product/channel mix	56%
Completing product portfolio	44%
Optimising pricing strategy	35%
Reducing cost	29%

% of respondents indicating a high to very high degree of challenge

Figure 20 – Company Internal Challenges

As seen below, in figure 21, it's not expected that the companies change them prices, then what is expected is that to gain market share and to develop internally to conquer it, and along all sectors there are the same plans.

	Overall	Equipment	Devices	Supplies	Diagnostics	Dental
Increase sales force effectiveness	Strong	Strong	Strong	Strong	Some	Strong
Launch/enhance products and services	Strong	Strong	Strong	Strong	Strong	Strong
Win competitor accounts	Strong	Strong	Strong	Strong	Strong	Strong
Expand into new market segments	Strong	Strong	Strong	Strong	Strong	Some
Raise prices	Some	Some	Some	Some	Some	Some
Lower prices	No	No	No	No	No	Some

Strong focus ⊕   Some focus ⊕   No focus ⊖

Figure 21 - Profitability Measures

4.7 Topic of the year: Low-Cost Competition

All sectors already shows to be suffering a pressure from the low-cost competition, as shown in figure 22, so the concerns disclosed above in great part should be related to the low-cost competitors. And today these companies already present a significant market share, being expected a one quarter of market share in overall. For the diagnostic sector wasn't gotten any answer for the pressure in three years.
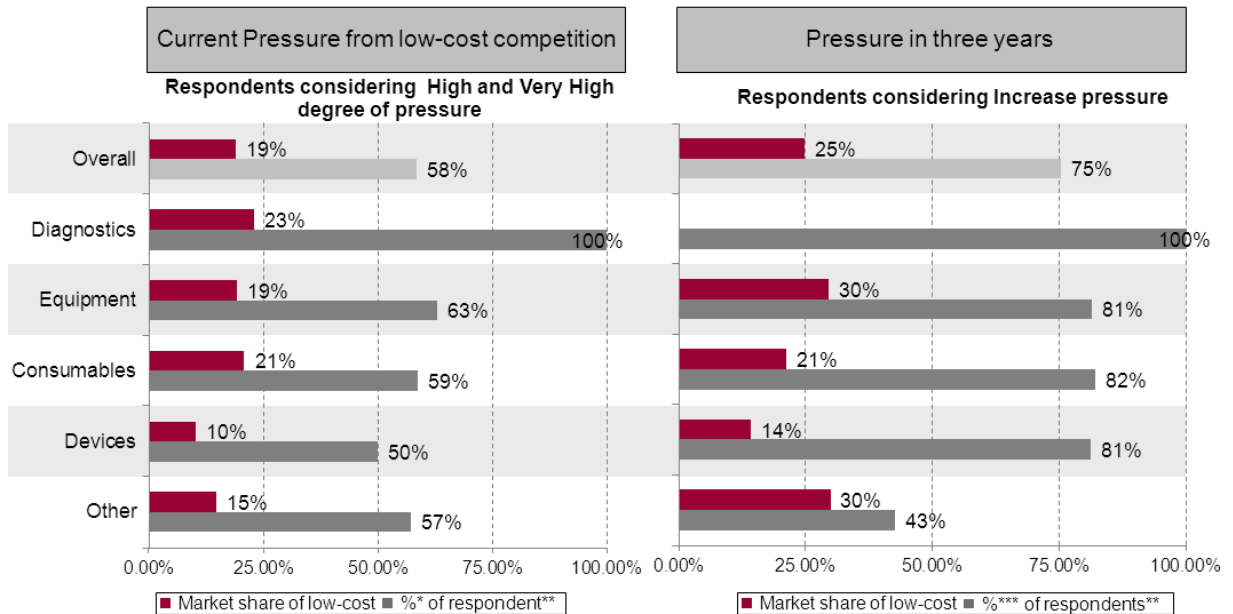
Figure 22 - Pressure and Market Share from Low-Cost Competition

From different ways are expected a threat from low-cost competition, with a slight lead to a new competitor with a low-cost based business model.
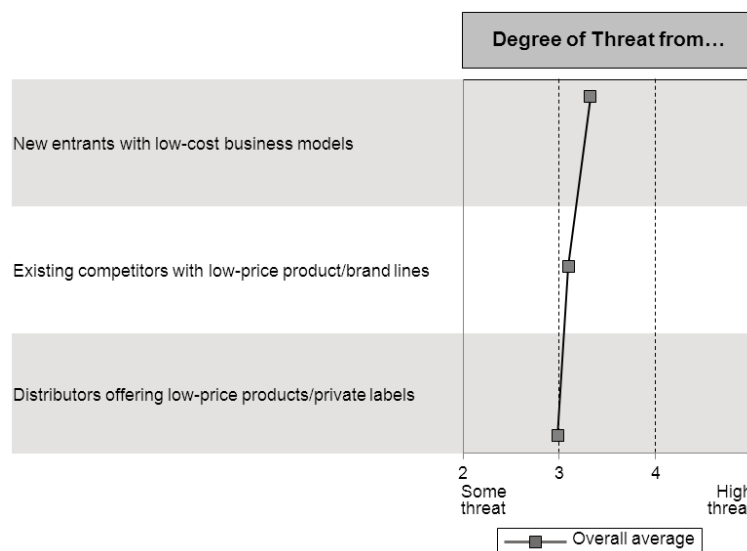
Figure 23 - Degree of threat from forms of low-cost competition

One time more the interest of the companies isn't to change the prices, but enhance internally and pay attention on customers, so the predominant measures to counter low-cost competition are product innovation, service enhancements and focus on relevant customers.
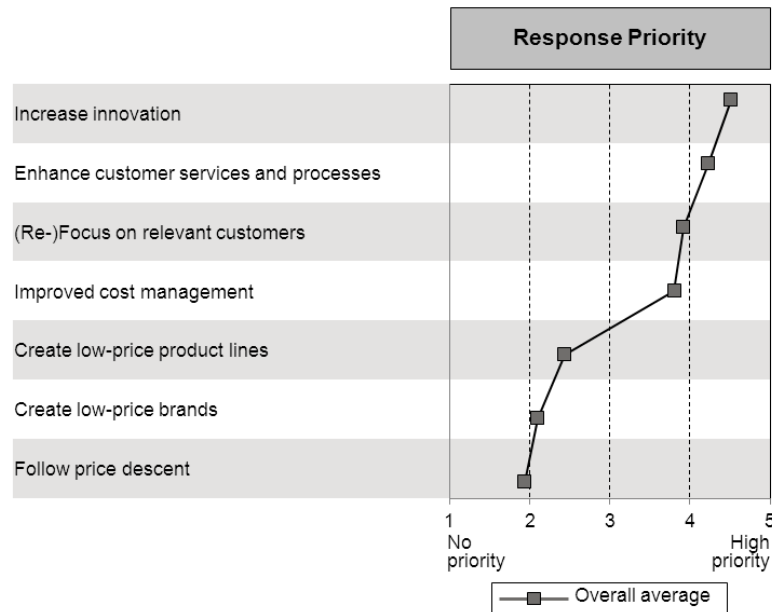
Figure 24 – Response Priority against Low-Cost Competition

4.8   Presentation

For to communicate the results to the public, was prepared a presentation in PowerPoint, based on the charts and discussion above, that was developed basically in two steps:

- General results: At this part was created a great number of slides, that was put charts for all the questions and some relations between them, trying to give an overall vision of the results, to be able to get more hidden information;

- Worked information: After to have an idea of what information the research produced, the slides were enhanced, joining slides with complementary information, deleting those that don`t present enough information and mainly improving the way to show the results, like choosing the correct charts and graphs and the correct correlation between answers, paying attention to show the message in a fast look to the slide.

5. Conclusion and Future Work

The survey described in this dissertation was designed to characterize key strategic aspects in the MedTech Industry, uncovering what the current expectation of the companies in that industry are.

The results show that the industry is expecting a better year in 2011, but still has some concerns, mainly related to reimbursement, which is expected to suffer reductions, and to competition, with a much more competitive environment being anticipated. At this time, the emergence of low-cost companies seems to be the next hurdle to be faced.

To face low-cost competition, the companies are not expecting to pursue price reduction strategies, but will alternatively seek improvements in customer relationships and innovation. Changes in business focus, such as the creation of low-cost brands or products, are not envisaged at the time. The attention will continue to be on the current business, focusing on its improvement.

In general, although the MedTech Industry is suffering several pressures, it seems to be recovering from the recent crisis, and be getting ready to overcome the obstacles that its regulatory and competition environment can present. The overall environment seems to be favorable, and a small growth in results is expected.

There is an intention to maintain the survey in the future, with different focus topics of relevance for each year. Improvements may center on enhancing the sample in terms of regions and sectors in the industry, reducing ambiguity in some questions, and refining the separation of concerns in individual questions. An important point to consider is size of the questionnaire, which may sometimes cause some respondents to quit before completely filling it out. Finally, an inquiry about topics to be covered in the following survey could be included.

The results were presented and well received by the industry, and are expected to provide a relevant reference for strategic decision-making related to some of the key challenges that the industry is facing.

References

AusMedtech - Australian Medical Technology. Retrieved June 20, 2011 from http://www.ausbiotech.org/content.asp?pageid=109.

Australian Government. "What is a medical device?" Retrieved June 20, 2011 from http://www.tga.gov.au/industry/devices-basics-whatis.htm.

Barnard, P. (1999), CEO Kantar Group, address to the Master of Science in Marketing Research Program at the University of Texas at Arlington, Arlington, TX, USA, March.

Delloite. "Medical technology industry in India - Riding the growth curve", July, 2010. Retrieved June 10, 2011 from http://www.deloitte.com/assets/Dcom-India/Local%20Assets/Documents/Medical_technology_Industry_in_India.pdf.

EUCOMED – Medical Technology (2007). "Medical Technology Brief - Key facts and Figures on the European Medical Technology Industry", Brussels, Belgium.

Honomichl, J. (2000), "Research revenues on the rise in '99", *Marketing News*, 5 June.

Malhotra, K. (2006), "The Handbook of Marketing Research", Sage, Thousando Oaks, CA, USA.

Núcleo de Manufatura Avançada. "Sistema de Apoio a Aplicação de Técnicas Estatísticas". Retrieved June 10, 2011 from http://numa.sc.usp.br/saate/index.php/saate.

Rozenfeld, H.; Forcellini, F. A.; Amaral, D. C.; Toledo, J. C.; Silva, S. L.; Alliprandini, D. H.; Scalice, R. (2006), "Gestão de desenvolvimento de produto: Uma referência para a melhoria do processo", Saraiva, São Paulo, Brazil.

Shukers, T. (1996), "Integrated interviewing", *Marketing Research: A Magazine of Management & Applications*, Vol. 8 No. 1, Spring, pp. 20-1.

Zacks Equity Research (2011). "Medical Devices Industry Outlook – April 2011". Retrieved June 20, 2011 from http://www.zacks.com/stock/news/50398/Medical+Devices+Industry+Outlook+%96+April+2011.

APPENDIX A: The Survey

Simon-Kucher & Partners is a world-leading consulting company on marketing and pricing for the healthcare industry. The Medical Device Competency Center of Simon-Kucher & Partners is conducting its 1st annual barometer survey on the industries' outlook for 2011 and beyond.

This annual snapshot aims at giving visibility to decision makers on topline year goals and major perceived hurdles on regulatory, competition, customer and pricing issues.

Completing this online survey will take you less than 15 minutes. All your answers will be kept strictly confidential.

To thank you for your participation we will send you the survey results by email and you will also receive a personal invitation to our next Strategy Forum to be held in Brussels next June.

General Information

What is the name of your company?

[   ]

What is your position in the company?

[   ]

Region of Responsability:

☐ Western Europe
☐ Eastern Europe
☐ Central Europe
☐ Southern Europe
☐ North America
☐ South America
☐ Middle East
☐ China
☐ Southeast Asia
☐ Pacific
☐ Northern Africa
☐ Other: [   ]

Note: For all questions below, please respond in relation to the region of responsibility you just stated.

Sector of Responsibility*:

☐ Active implantable technology
  (Cardiac pacemakers, neurostimulators)
☐ Anaesthetic and respiratory technology
  (Oxygen mask, gas delivery unit, anaesthesia breathing circuit)
☐ Dental technology
  (Dentistry tools, alloys, resins, floss, brushes)
☐ Electromechanical medical technology
  (X-ray machine, laser, scanner)
☐ Hospital hardware
  (Hospital bed)
☐ In vitro diagnostic technology
  (Pregnancy test, genetic test, glucose strip)
☐ Non-active implantable technology
  (Hip or knee joint replacement, cardiac stent)
☐ Ophthalmic and optical technology
  (Spectacles, contact lenses, intraocular lenses, ophthalmoscope)
☐ Reusable instruments
  (Surgical instruments, rigid endoscopes, blood pressure cuffs, stethoscopes, skin electrodes)

☐ Single use technology
  (Syringes, needles, latex gloves, balloon catheters)
☐ Technical aids for disabled
  (Wheelchairs, walking frames, hearing aids)
☐ Diagnostic and therapeutic radiation technology
  (Radiotherapy units)
☐ Other: [_____]

Note: For all questions below, please respond in relation to the sector of responsibility you just stated.
Global Medical Devices Nomenclature (www.eucomed.org).

Next ➡

SIMON · KUCHER & PARTNERS

Yearly Outlook

In this section we would like to have your opinion on your overall view for 2011.

1. Overall, how would you rate your business expectations for 2011?

	Much worse than 2010 <---> Same as 2010 <---> Much better than 2010				
	1	2	3	4	5
Expectation:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning much worse and 5 meaning much better.

Why?

2. What are your major topline expectations for 2011?

Expectations	Percentage change (%)
Revenue increase	
Price change	
Market share increase	
Profit increase	

3. Where do you see the biggest challenges for your company in achieving these goals?

	Degree of challenge Low <---> High				
Challenges	1	2	3	4	5
From regulatory:	○	○	○	○	○
From competitors:	○	○	○	○	○
From customers:	○	○	○	○	○
From internal:	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning low and 5 meaning high.

Can you specify some of the challenges above?

Challenges	Which?
From regulatory:	
From competitors:	
From customers:	
From internal:	
Other:	

Next ➡

SIMON · KUCHER & PARTNERS

Regulatory / Market AccessOutlook

4. Compared to last year, do you expect your industry's reimbursement and regulatory landscape in 2011 to be?

	Much tighter than 2010 <--> Same as 2010 <--> Much looser than 2010				
	1	2	3	4	5
Expectation:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning much tighter and 5 meaning much looser.

Why?

5. What are the major regulatory threats your industry will be facing?

	Degree of threat Low <------> High				
Regulatory threats	1	2	3	4	5
Funding changes *(e.g. DRG cuts, changes in reimbursement levels, patient copayment)*	○	○	○	○	○
Purchasing changes *(e.g. tenders, insurance companies)*	○	○	○	○	○
Legal/ regulatory changes *(safety regulations, etc.)*	○	○	○	○	○
Structural changes in health system *(Medicare, krankenkasse etc.)*	○	○	○	○	○
International price referencing	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning low and 5 meaning high.

Next ➡

SIMON · KUCHER & PARTNERS

Competition Outlook

6. What are the most important changes you expect in your industry's competition environment?

Competition changes	Degree of change Low <-------> High				
	1	2	3	4	5
Increased price aggressiveness	○	○	○	○	○
Increased competitor commercial aggressiveness	○	○	○	○	○
Entry of new competitors	○	○	○	○	○
Consolidation of competitors	○	○	○	○	○
Service expansion	○	○	○	○	○
New product launches	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning low and 5 meaning high.

Next ➡

SIMON · KUCHER & PARTNERS

Customer Outlook

7. How do you expect customers to behave in the next year?

Customer Behavior	Behavior change None<->Important				
	1	2	3	4	5
Further consolidation of customers *(acquisition)*	○	○	○	○	○
Pooling of purchases *(GPO)*	○	○	○	○	○
Increasing power of purchasing department	○	○	○	○	○
Parallel trading/grey trading	○	○	○	○	○
Further consolidation of wholesalers	○	○	○	○	○
Reducing the number of Medtech suppliers *(preferred supplier lists etc.)*	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning no change and 5 meaning a important change.

Next ➡

SIMON · KUCHER & PARTNERS

Pricing Outlook

8. How do you expect prices in your industry to develop compared to last year?

	Much worse than 2010 <----> Same as 2010 <----> Much better than 2010				
	1	2	3	4	5
Price Expectation	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning much worse and 5 meaning much better.

What percentage change do you expect for the market prices? (%) [   ]

9. What factors will drive these price changes, in your opinion?

	Influence None <---> Strong				
Factor for price change	1	2	3	4	5
Competition-driven	○	○	○	○	○
Customer-driven	○	○	○	○	○
Regulatory-driven	○	○	○	○	○
Supplier-driven *(e.g. raw materials)*	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning no influence and 5 meaning a strong influence.

Next ➡

SIMON · KUCHER & PARTNERS

Internal Company Outlook

10. Where do you see your biggest internal challenges in 2011?

Internal Challenges	Degree of Challenge Low <-------> High				
	1	2	3	4	5
Reducing capacity cost/cost of goods	○	○	○	○	○
Defining your pricing strategy	○	○	○	○	○
Completing your product portfolio	○	○	○	○	○
Optimising product/channel positioning	○	○	○	○	○
Increasing sales force competency	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning low and 5 meaning high.

11. How do you plan to increase your topline profitability in the next year?

Profitability measures	Focus None <---> Strong				
	1	2	3	4	5
Raise prices	○	○	○	○	○
Lower prices	○	○	○	○	○
Attack new/not developed market segments	○	○	○	○	○
Increase market share in existing markets *(competitive accounts)*	○	○	○	○	○
Launch/expand products/services	○	○	○	○	○
Increase sales force effectiveness	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning no focus and 5 meaning a strong focus.

Next ➡

SIMON · KUCHER & PARTNERS

Topic of the year: Low-Cost Competition

For the purpose of this study we define low-cost competition as a combination of three criteria:

- **Pricing:** Prices that are significantly below average market level.
- **Quality:** Product quality is at acceptable level with limited innovation.
- **Service:** Reduced service provision.

1. What degree of pressure does your industry currently feel from low-cost competition?

	No pressure <--> Strong pressure				
	1	2	3	4	5
Current Situation	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning no pressure and 5 meaning a strong pressure.

What is the current estimated market share of low cost in your market? (%)

2. How do you see the pressure of low-cost competitors in your market in three years' time?

	Significant decrease <------------> Same <-------------> Significant increase				
	1	2	3	4	5
In three years	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning significant decrease and 5 meaning significant increase.

3. What is the relative threat from each of these three forms of low-cost competition?

Low-cost competitor	Degree of threat Low <-------> High				
	1	2	3	4	5
New competitor with low-cost based business model	○	○	○	○	○
Existing competitor with a new low-cost brand or product line	○	○	○	○	○
Distributors importing low-cost products	○	○	○	○	○
Other:	○	○	○	○	○

Rank on a scale of 1 to 5, 1 meaning low and 5 meaning high

What do you expect to be the market share of low-cost players in three years' time? (%)

4. What measures will your company be able to take against low-cost competition in the next three years?

Low-cost measures	Certainly will not follow	Might follow	Probably will follow	Certainly will follow	Currently following

Follow price descent	○	○	○	○	○
Increased innovation	○	○	○	○	○
Create low-cost brands	○	○	○	○	○
Create low-cost product lines	○	○	○	○	○
Refocus on relevant customers	○	○	○	○	○
Services and customer process enhancement	○	○	○	○	○
Improved cost management *(e.g. production or sales costs)*	○	○	○	○	○
Other:	○	○	○	○	○

Next ➡

SIMON · KUCHER & PARTNERS

Conclusion

Thanks you for participating in our 1st MedTech yearly barometer.

We would like to share the results of the survey with you. Therefore we kindly ask you to enter your e-mail address below as this survey is anonymous:

Next ➡

SIMON · KUCHER & PARTNERS

SIMON · KUCHER & PARTNERS
Strategy & Marketing Consultants
Amsterdam · Beijing · Bonn · Boston · Brussels · Cologne · Copenhagen
Frankfurt · London · Luxembourg · Madrid · Miami · Milan · Munich · New York
Paris · San Francisco · Singapore · Sydney · Tokyo · Vienna · Warsaw · Zurich

Thank you very much for your participation!

If you have any questions or comments, please do not hesitate to contact us.

You can contact Carlos Meca, Senior Consultant, Luxembourg office at +352 24 83 91 25 or by e-mail at Carlos.Meca@simon-kucher.com
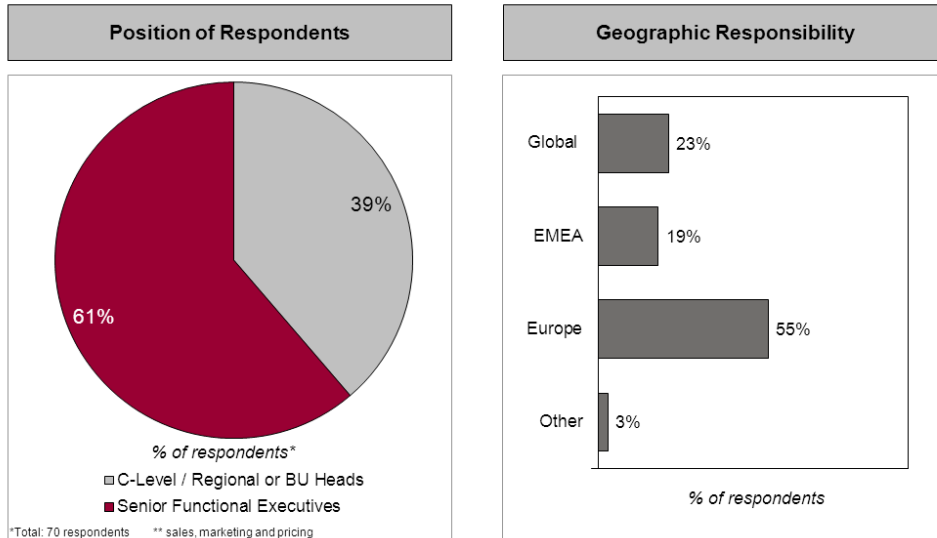
or Omar Ahmad, Director, Copenhagen office at +45 3337 7220 or by e-mail at Omar.Ahmad@simon-kucher.com

SIMON · KUCHER & PARTNERS

APPENDIX B: The Presentation

Early 2011, we conducted a survey among industry decision-makers …

… to get a current snapshot of the industry status and mood in Europe.

Position of Respondents	Geographic Responsibility

Position of Respondents

39%

61%

% of respondents*
- □ C-Level / Regional or BU Heads
- ■ Senior Functional Executives

*Total: 70 respondents   ** sales, marketing and pricing

Geographic Responsibility

- Global — 23%
- EMEA — 19%
- Europe — 55%
- Other — 3%

% of respondents

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011   3

SIMON · KUCHER & PARTNERS

Major players across key sub-sectors were represented in the survey

Sub-sector Affiliation	Sub-sector Definition

Sub-sector Affiliation

- Equipment — 38%
- Supplies — 26%
- Devices — 21%
- Other — 7%
- Diagnostics — 4%
- Dental — 4%

% of respondents

■ **Sub-sector**

Sub-sector Definition

Equipment
- Anesthesia and respiratory devices
- Electromechanical medical devices
- Hospital hardware
- Reusable instruments
- Diagnostic / therapeutic radiation equipment

Supplies
- Single use consumables

Devices
- (Non-) Active implants
- Single-use instruments
- Ophthalmic and optical devices

Dental
- Dental materials and devices
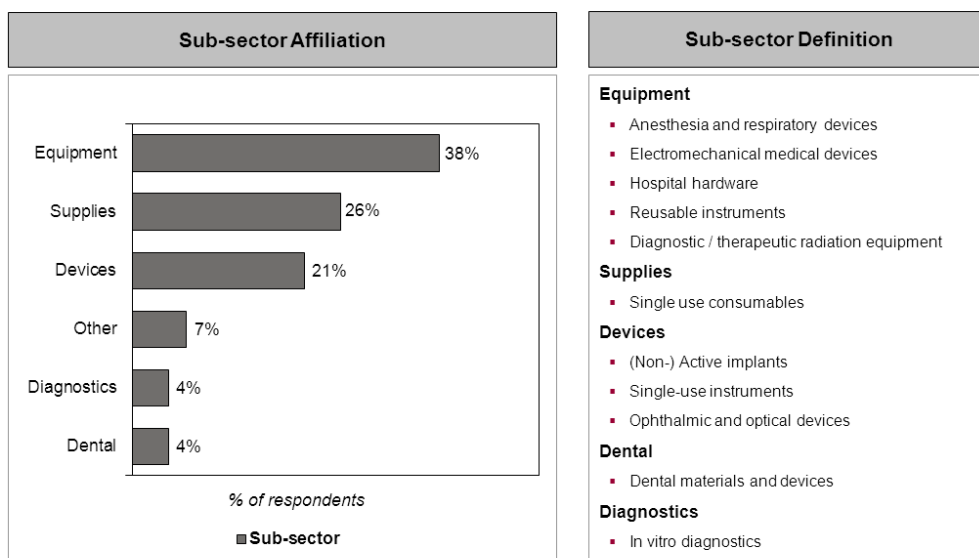
Diagnostics
- In vitro diagnostics

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011   4

SIMON · KUCHER & PARTNERS

The outlook for 2011 is overall positive

Overall Business Expectations for 2011

Better and much better than 2010	42%
Same as 2010	35%
Worse and much worse than 2010	23%

% of respondents
■ Expectation

"The purchasing climate for capital equipment, accessories and instruments is improving again."

"The market responds well to new products and technologies."

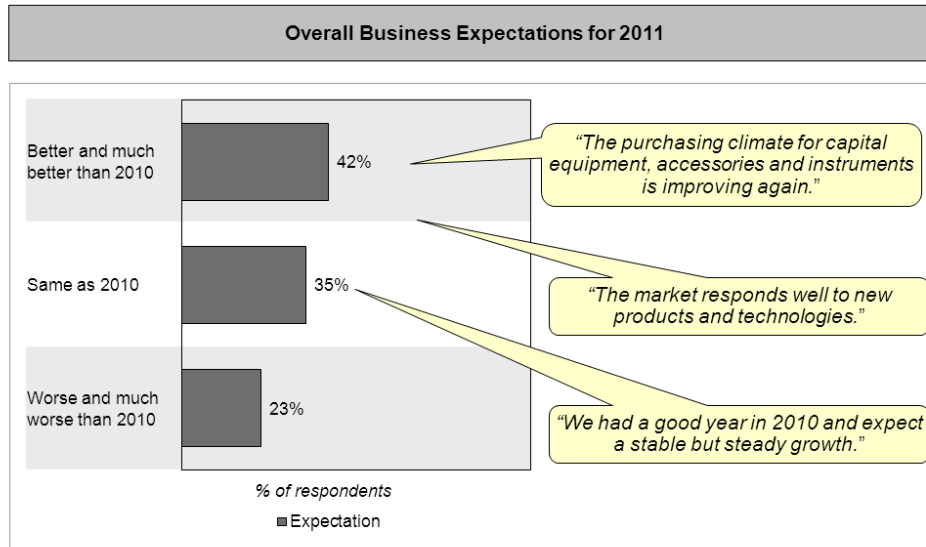*"We had a good year in 2010 and expect a stable but steady growth."*

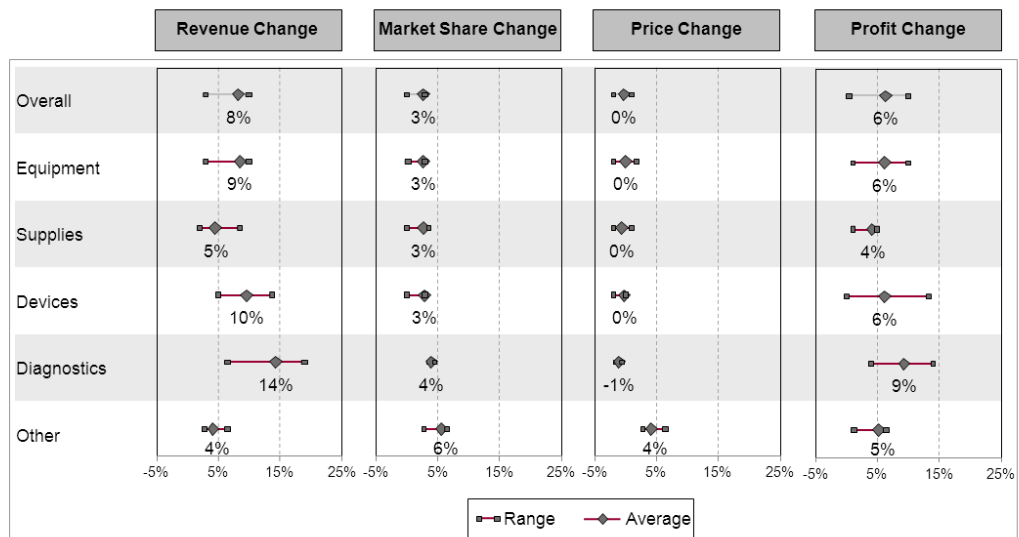Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

5

SIMON • KUCHER & PARTNERS

Short-term revenues and profits are expected to increase …

… at stable to slightly decreasing prices*.

	Revenue Change	Market Share Change	Price Change	Profit Change
Overall	8%	3%	0%	6%
Equipment	9%	3%	0%	6%
Supplies	5%	3%	0%	4%
Devices	10%	3%	0%	6%
Diagnostics	14%	4%	-1%	9%
Other	4%	6%		5%

■■ Range   ◆ Average

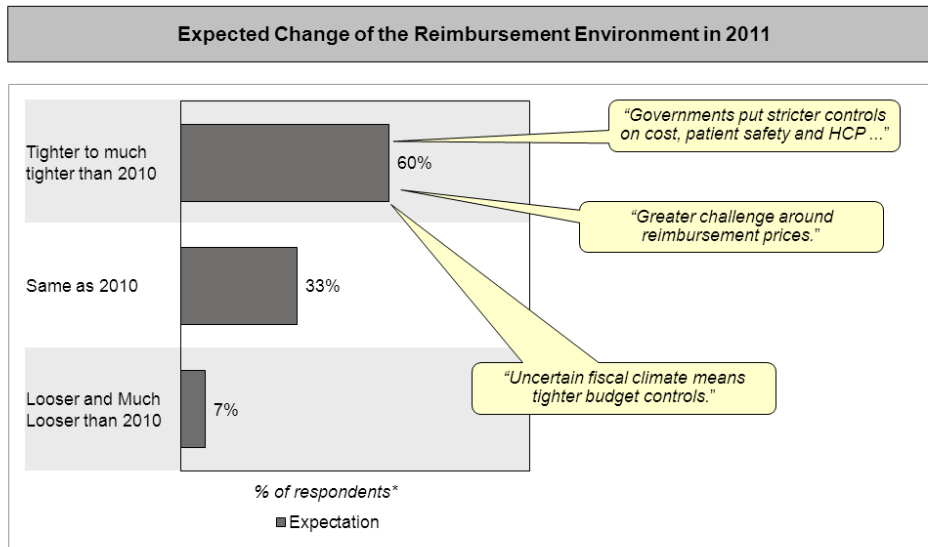Source: Simon-Kucher MedTech Industry Barometer survey 2011   * expected price development includes the launch of new products
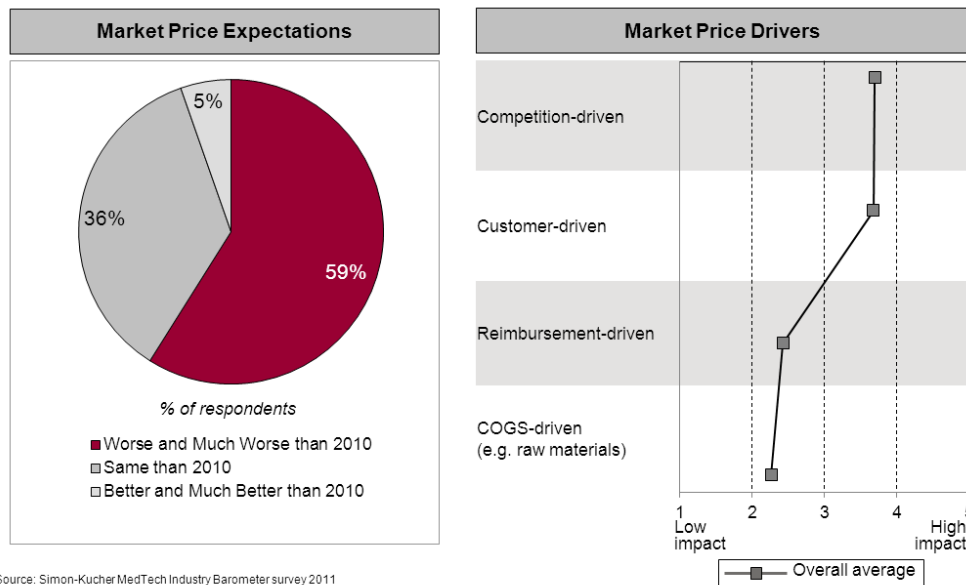
Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

6

SIMON • KUCHER & PARTNERS

The reimbursement and regulatory environment should further tighten

Expected Change of the Reimbursement Environment in 2011

Tighter to much tighter than 2010: 60%

"Governments put stricter controls on cost, patient safety and HCP ..."

"Greater challenge around reimbursement prices."

Same as 2010: 33%

Looser and Much Looser than 2010: 7%

"Uncertain fiscal climate means tighter budget controls."

% of respondents*
■ Expectation

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Overall market price expectations indicate a negative trend …

… and are primarily and equally driven by competition and customers.

Market Price Expectations

5%
36%
59%

% of respondents

■ Worse and Much Worse than 2010
☐ Same than 2010
☐ Better and Much Better than 2010

Market Price Drivers

Competition-driven

Customer-driven

Reimbursement-driven

COGS-driven
(e.g. raw materials)

1 Low impact   2   3   4   5 High impact

■— Overall average

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Increasing competition and decreasing customer budgets …

… are overall considered as the biggest commercial challenges.

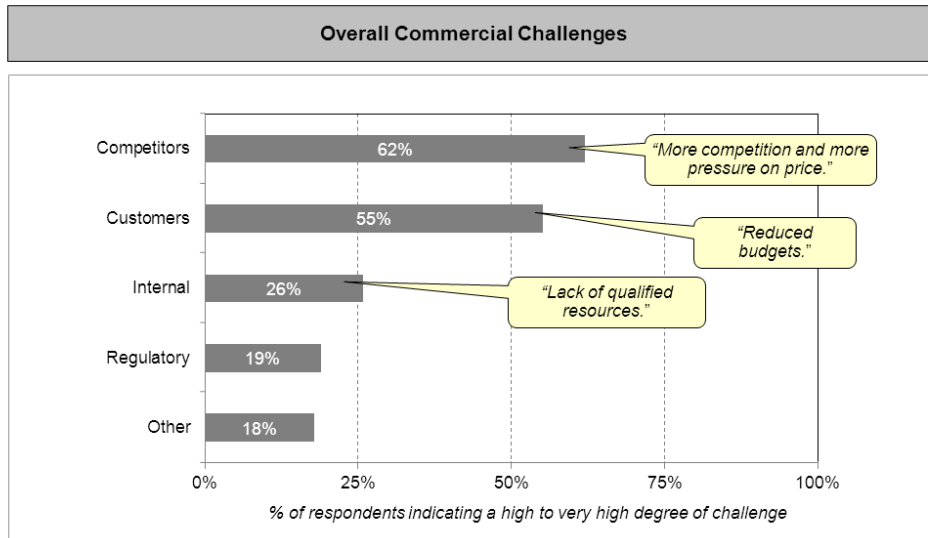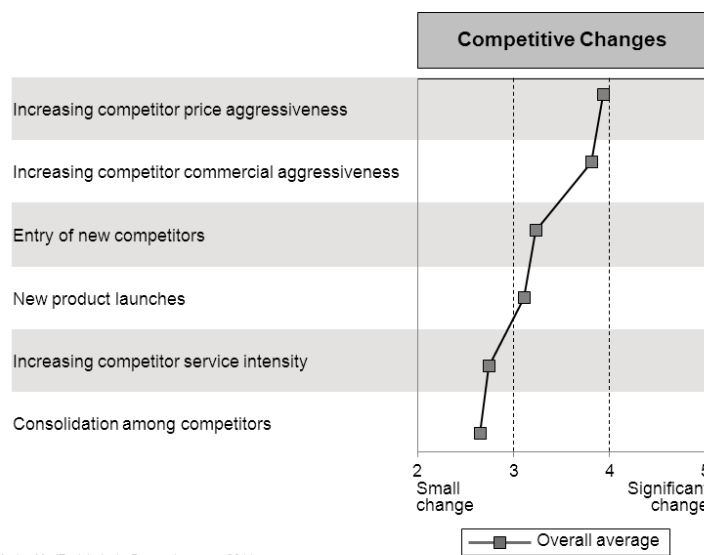Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

9

SIMON · KUCHER & PARTNERS

Expected competitive challenges are primarily founded in …

… an overall increasing price and commercial aggressiveness of established competitors.

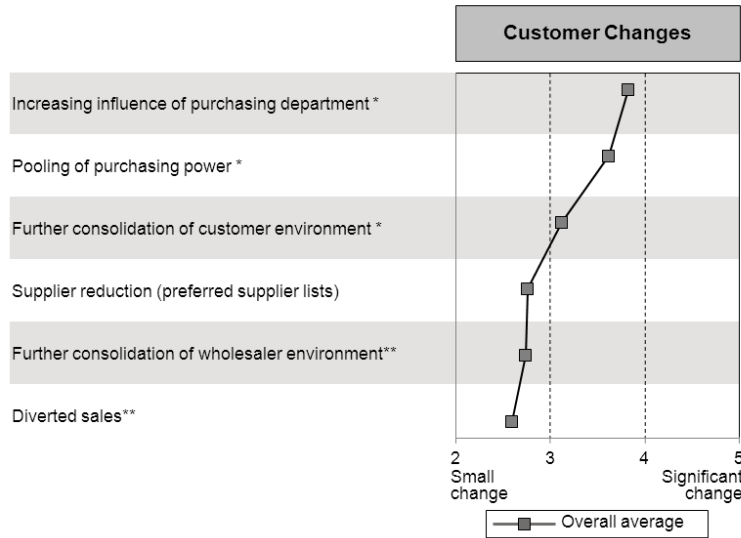Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

10

SIMON · KUCHER & PARTNERS

Increasing influence of purchasers and centralized purchasing …

… are considered as the biggest commercial challenges on the customer side.

Increasing sales force effectiveness in light of an increasingly …

… commercially driven customer environment is the biggest internal concern.

Increasing payer influence on the purchasing side …

… and reimbursement changes are the biggest challenges on the regulatory side.

Regulatory Challenges

Increasing Payer Purchasing Influence	60%
Reimbursement Cuts	54%
Reimbursement Structure Changes	47%
Payer Price Referencing	33%
Legal Changes	21%

0% 25% 50% 75% 100%

% of respondents indicating a high to very high degree of challenge

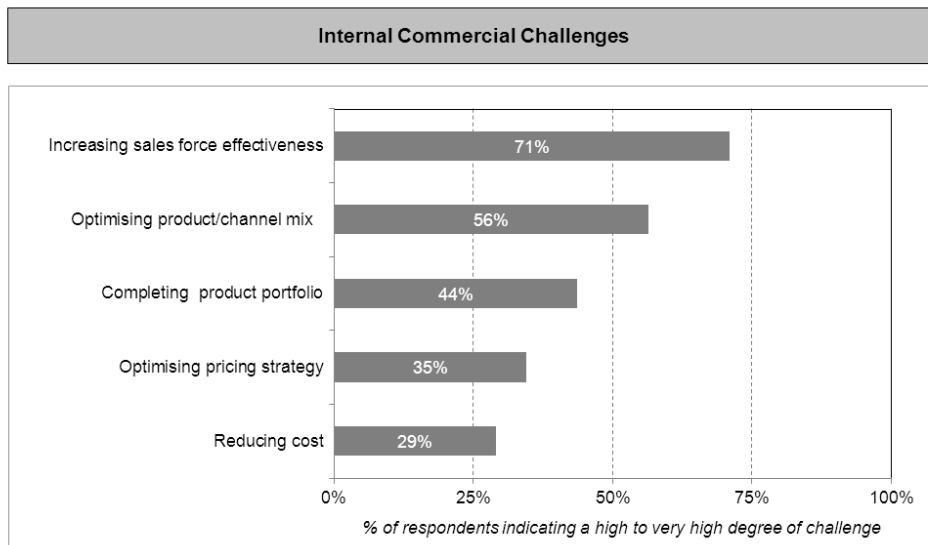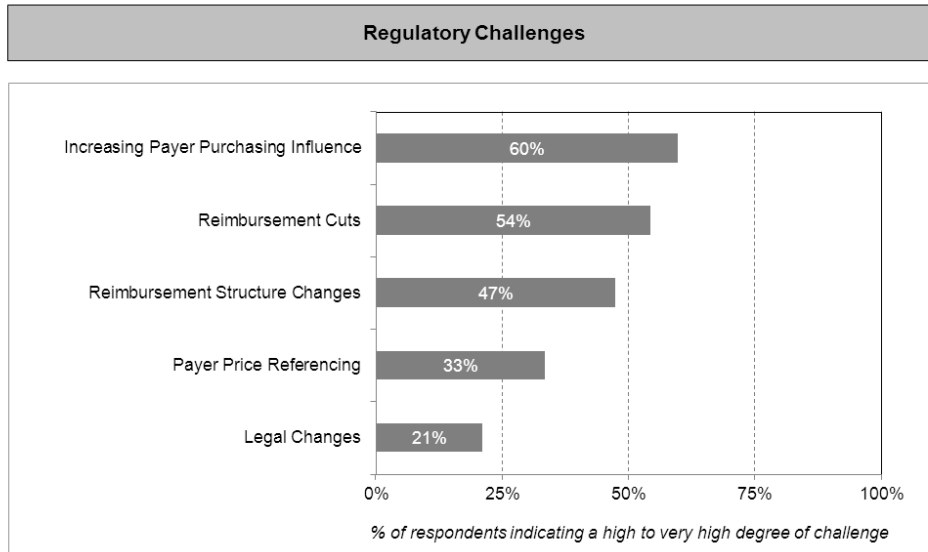Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

13

SIMON · KUCHER & PARTNERS

In response to the existing commercial challenges …

… companies across different sub-sectors seem to set very similar priorities.

	Overall	Equipment	Devices	Supplies	Diagnostics	Dental
Increase sales force effectiveness	Strong focus	Strong focus	Strong focus	Strong focus	Some focus	Strong focus
Launch/enhance products and services	Strong focus	Strong focus	Strong focus	Strong focus	Strong focus	Strong focus
Win competitor accounts	Strong focus	Strong focus	Strong focus	Strong focus	Strong focus	Strong focus
Expand into new market segments	Strong focus	Strong focus	Strong focus	Strong focus	Strong focus	Some focus
Raise prices	Some focus	Some focus	Some focus	Some focus	Some focus	Some focus
Lower prices	No focus	No focus	No focus	No focus	No focus	Some focus

Legend: ⊕ Strong focus   ⊕ Some focus   ⊖ No focus

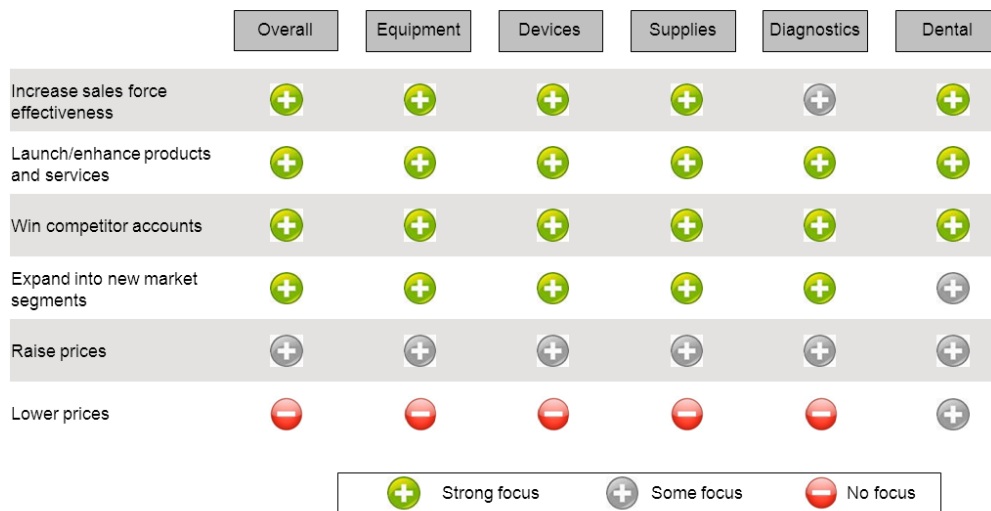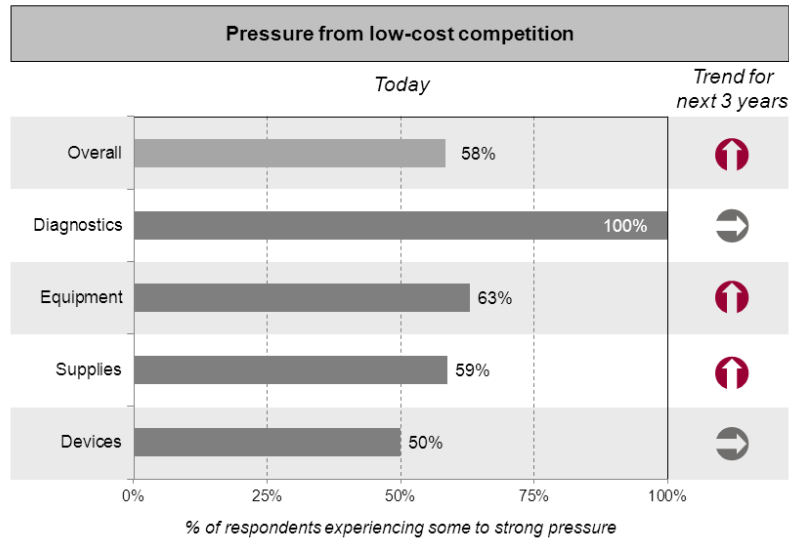Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

14

SIMON · KUCHER & PARTNERS

Companies across all sub-sectors already face pressure …

… from low cost competition today. This pressure is expected increase in the future.

Pressure from low-cost competition

Today / *Trend for next 3 years*

		Trend
Overall	58%	⬆
Diagnostics	100%	➡
Equipment	63%	⬆
Supplies	59%	⬆
Devices	50%	➡

0% 25% 50% 75% 100%

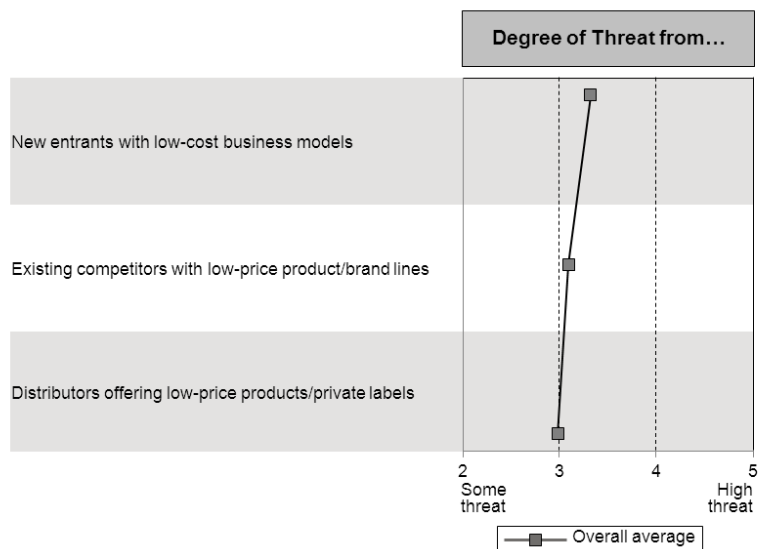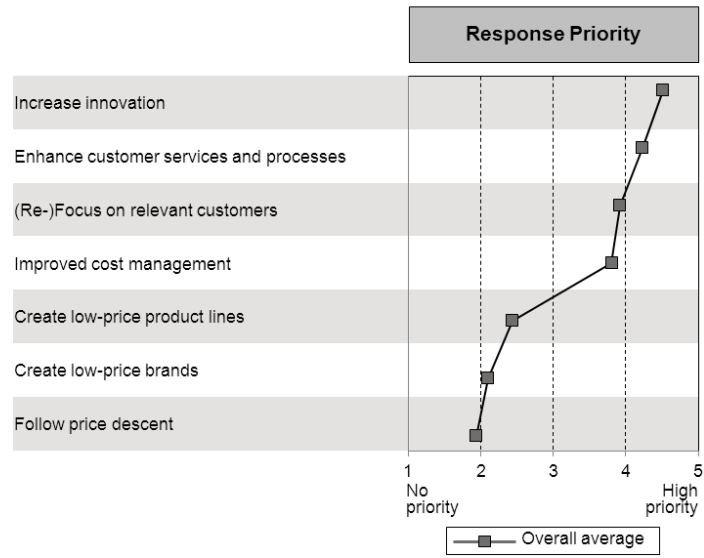*% of respondents experiencing some to strong pressure*

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

15

SIMON · KUCHER & PARTNERS

The threat by low cost competition equally originates …

… from new entrants, existing competitors and distributors.

Degree of Threat from…

New entrants with low-cost business models

Existing competitors with low-price product/brand lines

Distributors offering low-price products/private labels

2 — Some threat / 3 / 4 / 5 — High threat

■ Overall average

Source: Simon-Kucher MedTech Industry Barometer survey 2011

Current Commercial Trends and Challenges
Third Simon-Kucher European MedTech Strategy Forum – Brussels, June 21, 2011

16

SIMON · KUCHER & PARTNERS

52