



# The relevance of marketing activities in the Swiss prescription drugs market

## Two empirical qualitative studies

Swiss  
prescription  
drugs market

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### Abstract

**Purpose** – The purpose of this paper is to identify the most relevant marketing factors and examine existing theories and to provide guidance for planning future studies. Since drug markets are very complex, this paper will focus on a particular market/country to reduce some of this complexity.

**Design/methodology/approach** – A serial research study is undertaken to examine the essential marketing success factors by means of two qualitative studies applying Focus group and Delphi survey techniques. Swiss healthcare professionals in middle and senior management positions (Focus group  $n = 5$ , Delphi group  $n = 11$ ) are asked to voice their personal opinion regarding the importance of various factors that might influence the turnover of prescription drugs. The fundamental findings derived from the Focus group interview are used for the Delphi group survey set-up. To reach a consensus within the Delphi group, a three-step interactive procedure is applied. For the evaluation of the Focus group results, a content analysis is performed. The results of the Delphi study are investigated, using descriptive statistics.

**Findings** – The paper ultimately yields a ranking of 29 instruments perceived to be important in the marketing of pharmaceuticals in Switzerland. With this paper, the proposed model and its propositions could be supported.

**Research limitations/implications** – This paper investigates their relevance based upon practical experience of Swiss health care professionals and is therefore somewhat limited to the Swiss market.

**Practical implications** – In the Swiss market, successful marketing has to consider appropriate product properties including issues such as efficacy and safety plus a promotion policy that emphasizes relationship with opinion leaders and personal selling. Additionally, it is vital that the product is also distributed via sales channels such as hospitals and physicians and that the product will be reimbursed by health insurance.

**Originality/value** – These findings will enable pharmaceutical companies to improve their sales success. The proposed model can be extended to other markets and countries.

**Keywords** Pharmaceuticals industry, Marketing, Medical prescriptions, Focus groups, Delphi method, Product design, Switzerland

**Paper type** Research paper



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### Introduction – the PDE5-inhibitors story

Product innovation and marketing are two key success factors in the pharmaceutical industry as will be shown in this paper. Several aspects are important in this regard:

the advantage (or risks and rewards) of being a pioneer in a new product group, the significance of comparable or superior product performance, the importance of market communication and finally personal selling via sales representatives.

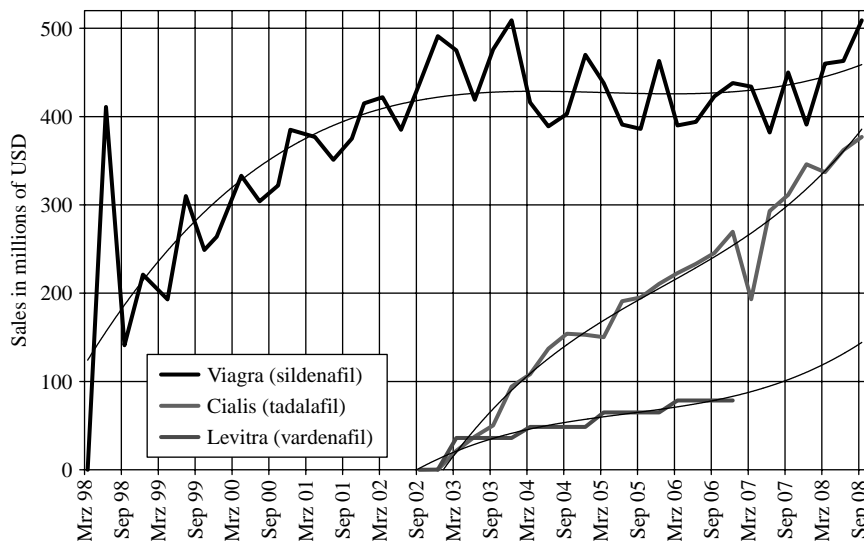
This paper aims to explore these and other aspects more in depth using data from two qualitative studies supplemented with a review of the current literature. Products that treat erectile dysfunction – the PDE5-inhibitors – will serve as an illustration for some of the key questions.

The Pfizer company invested over USD 500 million in the development of its blockbuster product Viagra (sildenafil), which was launched in March 1998 and since then has generated total sales of over USD 8 billion (Figure 1). Pfizer is currently the clear leader in the PDE5-inhibitors market. Nevertheless, the competition is also very active. The Bayer/Glaxo SmithKline companies jointly developed and launched the product Levitra (vardenafil). Since its market entry in late 2002 the sales of this agent have been disappointing (Figure 1). In February 2003, the Icos Company and its sales partner Eli Lilly launched Cialis (tadalafil). It should be noted that the efficacy and side effect profile of all three substances is very similar (Gresser and Gleiter, 2002; Moore *et al.*, 2005), though Cialis does have some minor advantages in terms of less interactions with food. Furthermore, Viagra and Levitra have very similar lengths of action but Cialis' is significantly longer (Porst *et al.*, 2003). Viagra still has higher sales volumes than the later entrants Cialis and Levitra. However, Cialis is gradually catching up in terms of market share (Stros *et al.*, 2008).

The data indicate that sales are influenced by several marketing factors. This leads to the following research questions:

RQ1. Do specific marketing instruments and processes enhance sales results?

RQ2. Are some marketing instruments and processes more relevant than others?



**Figure 1.**  
PDE5-inhibitors  
international sales  
developments

Source: www.sec.gov, taken from applicable business reports

### Literature review and problem statement

In general, marketing strategies are based on McCarthy and Perreault's (1960) widely accepted fundamental conceptional marketing approach of four marketing decision variables: product (includes product design, package, brand, service), place (distribution channels), promotion (personal selling, advertising, sales promotion, publicity), and price (4P's; Frey, 1956). These variables can be used to influence the customer's perceived utility (Balachandran and Gensch, 1974). The "marketing mix" is defined as the interrelationship among the marketing decision variables (Borden, 1965). Similar in comparison to other industries, in pharmaceutical marketing, it can be assumed, that not all of the decision variables have the same relevance. One of the most challenging questions is how to determine the optimum marketing mix (Balachandran and Gensch, 1974).

In the product design area of pharmaceutical products, product innovation, efficacy, branding, and qualities such as safety and tolerability appear to be the key success factors (Smith, 1983; Flechter, 1989; Dogramatis, 2002). For Cooper and Kleinschmidt (1993), criteria such as product innovativeness and entry order have a modest impact on success. However, according to Hollon (1999), the winners in the prescription drug market are not going to be those with the best patent protection for their products but those that are the best marketers. Furthermore, Gonul *et al.* (2001) finds that the effectiveness of direct promotional efforts to physicians can be enhanced by more specific segmentation, targeting, and positioning contingent on the intrinsic brand preferences demonstrated by certain health care professionals. It is assumed that advertising is more effective when combined with a superior bundle of product-quality attributes (Berndt *et al.*, 1997). For personal selling one can refer to Gonul *et al.*'s (2001) study which showed that the scope of detailing should be carefully scheduled in terms of frequency, length of visits, and number of free samples given away to optimise the company's effectiveness of direct promotion efforts and expenses. Place (distribution) as another marketing instrument does not appear to play such an essential important role in marketing success according to some researchers (Cooper and Kleinschmidt, 1993; Ghosh *et al.*, 1983; Smith, 1983).

It has to be emphasized, that three parties are involved within the purchasing process of prescription drugs:

- (1) prescriber and usually decision maker (doctor);
- (2) consumer (patient); and
- (3) payer (insurance) (Jaakola and Renko, 2007).

Consequently, "the ones, who make the decisions are not identical with those, who receive the service and/or pay for it (Harms *et al.*, 2002)." Therefore, the "price" policy – like "place" – might also play a less important role within the area of the prescription drug market, it is even likely, that consumers pay higher prices as a result of higher advertising that occurs in the industry (Rizzo, 1999) or/and of a more innovative product (Dao, 1984). On the other hand, a later market entry results in a lower price (Ghosh *et al.*, 1983). Bowman and Gatignon (1996) have shown that in addition to the marketing mix variable, the order-of-entry parameter acts a moderator of the effect on market share. However, the Bowman study did not include the pharmaceutical market.

Since the sales of the leading therapeutic categories of the total pharmaceutical market sales predominate, most pharmaceutical companies conduct research in closely

related therapeutic areas (Scrip, 2001). These companies often employ similar technological approaches, which inevitably leads to strong competition in those market segments resulting in a race to be first in the market. Several researchers (Berndt *et al.*, 1997, 2002, 2003; Bowman and Gatignon, 1996; Bond and Lean, 1977; Golder and Tellis, 1993; Lieberman and Montgomery, 1988; Lilien and Eunsang, 1990; Moore *et al.*, 1991; Robinson and Fornell, 1985; Tellis and Golder, 1996; Urban *et al.*, 1986; Vernon, 1971) have shown the relevance of an early market entry within the pharmaceutical business. In a landmark study, Bond and Lean (1977) analysed the therapeutic group of diuretics (which promote diuresis) and angina pectoris (chest pain owing to low cardiac perfusion). They found that later entrants with higher expenditure in marketing and lower priced drugs were not able to defeat the market leader. They, however, concluded that promotion (advertising) is essential for the sales success. Product quality and price have been added later by Berndt *et al.* (1997). These researchers also showed that later entrants with a much more innovative product (preparation with better therapeutic properties) were able to defeat the market pioneer. It can be concluded, that order-of-entry is relevant for market success but not the only strategy for becoming a market leader. Similarly Tellis and Golder (1996) concluded that "market pioneering is neither necessary nor sufficient for long-term success and leadership." The pharmaceutical industry offers numerous opportunities for academic research, but is also very complex (Manchanda *et al.*, 2005). Therefore, this paper will focus on a particular market/country to reduce some of this complexity.

A number of different health systems have emerged world wide (Reinhardt *et al.*, 2002). Moreover, modes of marketing vary across the different health systems. That means that for each market appropriate new marketing strategies must be developed (Cooper and Kleinschmidt, 1993; Liberman and Rotarius, 2001). The Swiss medication market is very highly regulated (Kocher and Oggier, 2007). Special rules are established by the health insurance law, for compensating the provider of services (the rules include the costs that will be assumed by the health fund). The list of approved medications created for this purpose determines the composition of a medication and its price. For the purposes of basic insurance, compensation is paid only for those medications found on the approved list. These medications can be obtained by the insured directly from the pharmacists or from many physicians' practices (again a complicated regulation). The pharmacists are remunerated for their services with a fixed-fee compensation (this applies only for prescription drugs) (Schweizerischer, 2003). This fee is independent of the sales price (no margins). There is a lack of incentives for efficiency on the part of patients, and providers. The more doctors prescribe and examine, the more they earn. Then there is also little incentive for insurance companies to develop much vaunted innovative, lower-cost insurance policies. In addition, there is strict prohibition of parallel imports of drugs, resulting in punitively high drug prices compared to those in the EU. This has resulted in a mantra in Swiss healthcare politics, that healthcare in Switzerland is of excellent quality, but quite expensive. Indeed, according to Organisation for Economic Cooperation and Development statistics, Switzerland operates the third most expensive system in the world – behind only the USA and Germany (Civitas, 2002). This creates an attractive pharmaceutical market environment. According to Business Monitor Report (2009), the overall size of the Swiss market and high per capita spend on drugs continues to be one of the key attractions.

In conclusion, it can be stated, that marketing of medications in Switzerland is strongly regulated. Most of the available studies have investigated the variation of marketing mix variables in the less regulated US market (Berndt *et al.*, 1997, 2002, 2003; Bowman and Gatignon, 1996; Bond and Lean, 1977; Golder and Tellis, 1993; Lieberman and Montgomery, 1988; Lilien and Eunsang, 1990; Moore *et al.*, 1991; Robinson and Fornell, 1985; Tellis and Golder, 1996; Urban *et al.*, 1986; Vernon, 1971).

Therefore, the Swiss prescription drugs market is, because of its high regulation and attractive profit potential, a very interesting market to study the effects on marketing decision variables. Gaining an overall picture of existing evidence-based strategies and pharmaceutical marketing concepts would be useful. This would enable pharmaceutical companies to adapt their current marketing-mix proportion. Another additional aim would be the identification of the most relevant marketing factors and examination of existing theories and to provide guidance for planning future studies. The present empirical study will investigate their relevance based upon practical experience of Swiss health care professionals and will therefore be limited to the Swiss market.

### Conceptual model

Based on the previously described situation the following conceptual model shown in Figure 2 was derived (Bowman and Gatignon, 1996; Borden, 1965; Berndt *et al.*, 1997; Rizzo, 1999; Ghosh *et al.*, 1983; Balachandran and Gensch, 1974).

### Propositions to be investigated

Based on the previously described conceptual model, the following research propositions were derived:

- P1. A positive perception of product properties has a positive effect on sales (Berndt *et al.*, 1997).
- P2. Suitable distributional policies have a positive effect on sales (Bowman and Gatignon, 1996).
- P3. Suitable promotional policies have a positive effect on sales (Berndt *et al.*, 1997).
- P4. Suitable pricing policies have a positive effect on sales (McCarthy and Perreault, 1960).
- P5. The market environment acts as a moderator of the effect of the marketing decision variables on marketing mix (Cooper and Kleinschmidt, 1993).
- P6. An optimal marketing mix has a positive effect on sales (Balachandran and Gensch, 1974).

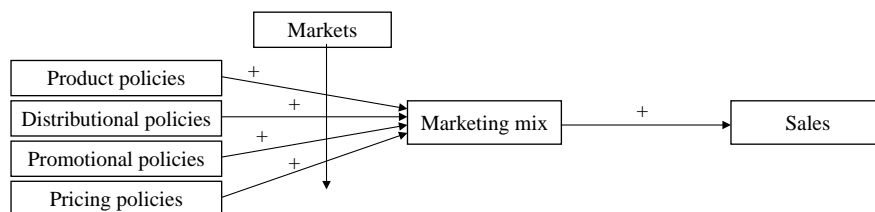


Figure 2.  
Conceptual model

### Research method

Building on the input from professionals in the field of pharmaceutical marketing the present study offers some insights concerning the importance and impact of marketing instruments. Thus, the opinion of healthcare marketing professionals was gathered. The aim of this research study was to validate the conceptual model. A Focus group interview (for methodology Krueger, 1994; Merton *et al.*, 1956; Smith, 1998; Wilkinson, 1998) in a first step and an adapted three-step Delphi group study (Haeder and Haeder, 2000; Linstone and Turoff, 1975) in a second step were the qualitative methods used for this research project. The findings from the Focus group interview were included in the Delphi study set-up.

In social and behavioural sciences, qualitative research methods are concerned with understanding things rather than quantitatively measuring them (Gordon and Langmaid, 1988) and usually involve some type of interview with people (Bortz and Doering, 2006). They can offer additional clues about beliefs and attitudes (Glitz, 1997). Quantitative study methods are normally based on retrospective data material (e.g. collected market data) and structured questionnaires. Quantitative methods are therefore less likely to yield any new findings or different views. On the other hand, these research methods have larger sample size and are therefore statistically more robust. In addition, study participants are normally not ready to invest more 10-30 minutes of their time for study participation. As a result, the informational content will be limited. In contrast, qualitative methods have in general longer interview times and gather therefore more in-depth information. In our study, the participants (experts) of the Focus group were interviewed for two hours and each participants of the Delphi group study answered three questionnaires. We could support the findings of the first survey (Focus group) with the afterwards performed Delphi group survey employing a different group of participants (experts).

In health services research, qualitative research methods, especially Focus groups are becoming increasingly prominent and their value has been more widely acknowledged. There has been increasing interest in the application of Focus groups in pharmacy practice and health services research (Smith, 1998). Even when the reliability and validity of the data cannot be measured in the same way as for quantitative findings, qualitative data are credible, if careful procedures are applied (Glitz, 1997).

It is the nature of qualitative research methods, that small sample size of participants (experts) is employed. There is a natural upper size limit when doing a group interview (Focus) or when a consensus within a participant group (Delphi group) is needed. Therefore, the Focus group size was limited to five participants and eleven for the Delphi survey.

### Focus group survey sample

Focus groups typically include up to ten experts (in our case five) who have some knowledge of or experience with the topic under discussion (Glitz, 1997). The group of relevant experts from the healthcare market came together for two hours in a meeting room (in our case a meeting room in Zurich) and were asked a series of six prepared questions. These questions were based on the previously presented propositions. The moderator lead the group through a discussion of these questions, making sure everyone responded, probed for detail when necessary, and encouraged group



interaction, while keeping discussions focused on the topic. These questions were open in format in order to give the participants as much freedom as possible when answering. The discussion was tape recorded and in addition, main statements were noted by a study assistant. After the Focus group session, notes were compiled and tapes were transcribed. All the information collected was then analysed for frequency by the moderator and the person who took notes (Glitz, 1997).

Different interest groups are involved in the Swiss prescription drug market (Kocher, 2007). In order to gather an overall view, it was the intention to cover the major interest groups according to Kuehn and Patric's (2003) market system model (company, prescriber (doctor and opinion leader), seller (pharmacists) and consultant). The selection of the participants was based on these criteria. In this case, the appointed individuals were:

- Mr A (former head of marketing and sales of a leading Swiss global pharmaceutical company, today owner and chief executive officer of an over the counter (OTC)-company).
- Dr B (general medical practitioner).
- Ms. C (supply chain management and commercial service consultant of a leading American global pharmaceutical company).
- PD Dr D (Psychiatrist and lecturer at Zurich University).
- Dr E (Pharmacist and pharmacy proprietor).

### Focus group survey questions

Based on the previously described propositions, the following questions were formulated:

- Q1.1 (covers P1-P4). What are the most efficient sales methods for prescription drugs?
- Q1.2 (covers P1-P4). What criteria are applied when purchasing prescription drugs?
- Q1.3 (covers P2). What is the sales persons' influence on the physicians' decision?
- Q1.4 (covers P1-P4). What are the criteria when appointments are granted to the sales representatives?
- Q1.5 (covers P4). What is the influence of price on the purchase decision?
- Q1.6 (covers P1-P4). You have a choice between two similar products. One is from a well-known producer, the other one from an unknown. What product would you choose?

### Delphi group survey sample

The aim of the Delphi group survey was to investigate the above presented propositions. This study was conducted after the Focus group survey and confirmed the previous findings. The concept of the Delphi group procedure was developed by the RAND Corporation during the 1950s as a forecasting methodology (Helmer, 1967). The aim of this technique is to obtain the reliable consensus of opinions of experts by a series of questionnaires interspersed with controlled opinion feedback (Dalkey and Helmer, 1963). The Delphi technique is intended for use in judgment and forecasting

situations in which pure model-based statistical methods are not practical because of the lack of appropriate data (Rowe and Wright, 1999; Wright *et al.*, 1996). However, its relevance is finally defined by the members involved. So far, the Delphi technique has been described and reviewed by several researchers (Haeder and Haeder, 2000; Hill and Fowles, 1975; Linstone and Turoff, 1975; Lock, 1987; Pareté and Anderson-Pareté, 1987; Stewart, 1987; Rowe *et al.*, 1991). For our study, an adapted three-step Delphi group study involving senior healthcare marketing professionals involved in order to gather their opinions and professional insights.

A group of 11 healthcare professionals from different pharmaceutical companies based in Switzerland and academic institutions participated this qualitative survey (Table I). All were involved in the buying or selling aspects of pharmaceutical marketing at a relevant management position. They were selected according to the following criteria (non-probability sampling was applied – we contacted potential candidates matching these criteria for participation):

- level of involvement in pharmaceutical marketing processes;
- position of responsibility;
- number of years of experience; and
- educational background.

### **Delphi group survey measure**

To reach a consensus within the group, a three-step iterative questioning procedure was applied.

#### *Step 1. General questions to identify issues and solicit ideas (Round 1 study)*

The aim of the Delphi first round study was to determine the most relevant marketing instruments. A questionnaire was created, which asked each participant to engage in individual brainstorming, so as to generate as many ideas as possible for dealing with the issue. This questionnaire was piloted on internal staff at the University of Applied Sciences, Winterthur. As the intention was to receive an unbiased set of answers, the following three general open-ended questions were asked:

Q2.1 (covers P1-P6). What are the most important key factors leading to high product turnover?

Q2.2 (covers P1). What are the greatest challenges for you in the “product” area?

Q2.3 (covers P1-P6). Why do many products struggle to reach their financial expectations?

The reply postal questionnaires were sent out to the experts concerned and their responses collected and collated.

#### *Step 2. Modified questionnaire (Round 2 study)*

The coordinator distributed a second postal questionnaire to participants that contained all of the ideas obtained in response to the first questionnaire. The Round 2 answers were measured using a Likert *et al.* (1993) type scale. The second round of questions investigated the relevance of marketing instruments. The answers were then elaborated by the monitor team on those issues they saw as important. However,



Criteria	Round 1 study 11 participants		Round 2 study 10 participant			Round 3 study 9 participants		
	r.i.	r.r. (%)	r.i.	r.r. (%)	SD	r.i.	r.r. (%)	SD
Branding <sup>a</sup>	0.40	36	0.67	90	2.06	0.67	100	2.06
Ease of use <sup>a</sup>	0.10	9	0.74	90	1.73	0.72	100	1.79
Efficacy	0.90	82	0.93	90	0.88			
Packaging <sup>a</sup>	0.40	36	0.50	90	2.05	0.49	100	2.15
Safety and side effects	0.50	45	0.90	90	0.83			
Shelf-life <sup>b</sup>			0.44	90	1.59			
Tolerability	0.10	9	0.79	90	1.00			
<i>Product</i>						0.71		1.47
Hospitals <sup>b</sup>			0.97	90	0.44			
Internet <sup>b</sup>			0.24	90	0.64			
Pharmacy <sup>a,b</sup>			0.71	70	2.00	0.73	78	1.95
Physician's	0.10	9	0.92	90	1.12			
Wholesalers <sup>a,b</sup>			0.56	70	1.88	0.56	67	2.17
<i>Place (distribution)</i>						0.68		1.26
Advertising <sup>a,b</sup>			0.56	44	1.73	0.56	44	1.73
Direct to prescriber <sup>b</sup>			0.79	90	1.41			
Gifts <sup>a,b</sup>			0.40	100	1.87	0.33	67	1.37
Incentives <sup>a,b</sup>			0.44	100	2.62	0.53	44	2.50
Opinion leaders	0.20	18	0.84	100	1.42			
Personal selling <sup>a,b</sup>			0.66	44	1.26	0.66	44	1.26
Personality of salesperson <sup>a</sup>	1.00	91	0.79	70	1.94	0.80	78	1.90
Labelling <sup>a</sup>	0.10	9	0.75	80	2.05	0.66	100	2.15
Publications in journals <sup>a,b</sup>			0.73	70	1.62	0.74	89	1.69
Clinical study results IV	0.10	9	0.75	70	1.48			
Clinical study results III	0.10	9	0.72	100	1.24			
Samples <sup>b</sup>			0.71	40	1.50			
<i>Promotion</i>						0.67		1.65
Allowances <sup>b</sup>			0.48	90	0.90			
Discounts <sup>b</sup>			0.39	90	1.25			
Reimbursement	0.10	9	0.93	70	0.73			
Price level <sup>a</sup>	0.20	18	0.60	80	2.10	0.61	78	2.19
Terms of payment <sup>b</sup>			0.30	70	1.51			
Volume rebates <sup>a,b</sup>			0.39	90	2.23	0.41	78	2.36
Price						0.52		1.49

**Notes:** r.i., row shows relative importance; r.r., row shows response rate; SD, row shows standard deviation; <sup>a</sup>criteria to be in Round 3 further investigated (cut-off: 65th percentile); <sup>b</sup>in Round 2 introduced, new criteria

**Table I.**  
Profile of the  
participating Delphi  
group experts

previous literature research and the Focus groups survey had revealed additional new criteria that had not been derived from the Delphi group. Criteria such as product shelf-life-time, distribution (hospitals, internet, pharmacy, and wholesalers), price allowances, discounts, terms of payment, volume rebates, general advertising, physicians directed advertisements, gifts, incentives, personnel selling, publications in journals, and sampling were also added for interpretation. These factors were added to the structured round two questionnaire (Appendix 1). Consequently, we slightly altered the Delphi technique procedure considered ideal according to the literature. The results of the first questionnaire were presented to the Delphi group members and they

were asked to rank the proposed marketing factors taken from the Round 1 study with regard to their relevance to the sales process. We used an eight point Likert-type scale with extremes from “strongly disagree” to “strongly agree.”

Participants anonymously recorded their responses and returned them to the coordinator. Ten out of 11 experts replied (91 percent).

### *Step 3. Final questionnaire modification (Round 3 study)*

A third round considered the results from the second round. The high standard deviation associated with certain answers from Round 2 indicated a high level of disagreement within the group. For the data selection a cut-off sampling method was applied (Royall, 1970; Bailar *et al.*, 1983). The selection criterion was set at the upper third part of the standard deviations' normal distribution (65th percentile). The aim of the third round was therefore to reach a consensus within the group. For this purpose, the results of the third distribution were summarised and evaluated. The report was sent to the group members for comment and to additionally clarify any points, which had been unsatisfactorily answered in the previous round.

In order to ensure reliability and validity, similar questions that were answered in a contradictory manner, were considered invalid and discarded (Burton, 2000). Such opposing test-statements were therefore scattered throughout the questionnaire. A random selection procedure was applied. The Delphi group members were asked to indicate their agreement or disagreement of the statements given by using the provided boxes (Appendix 2).

The participants of this survey were given a fortnight to respond to this third questionnaire. Nine out of the ten remaining participants replied (90 percent).

### **Focus group results**

In total, the following six questions were asked to the Focus group members during the two-hour session.

#### *Question 1. What are the most efficient sales methods for prescription drugs?*

The following were reported by the participants as being important. The sales representative must know the market situation, to employ appropriate sales strategies and do more sales visits. It should be noted that there is generally an upper limit on the total number of possible sales visits: usually not more than one per year and firm. Therefore, personal acquaintance with a physician is a major criterion for access. However, many physicians do not accept any sales visits, especially from small firms. For these company-representative-physician dyads a relevant option is therefore to meet the physicians, primarily at an independent congress. Generally, comprehensive product information should be provided primarily to the doctor. Life style drugs, however, are better advertised via patients who ask the doctor for the preparation (information “pushing”). Furthermore, the multiplication effect is another good sales approach, and, because of this, opinion leaders, who are usually senior medical practitioner in a regional hospital providing regular seminars or a specialist with an exceptional vocational competence, are a target group too. Their opinion is generally accepted within their speciality. It is therefore important that the company is able to convince the relevant opinion leaders one or two years before a new product will be launched. It is useful to have opinion leaders recommending the product at appropriate

opportunities. Additionally, a regional relation network that endorses the medication and is able to justify its usage (for example in conversations during breaks) is likely to have a positive effect. As a result, a company has to approach personnel in a hospital first, because general practitioners usually have little reason to change the patients' hospital prescription and new prescription habits may emerge.

Patients are increasingly gathering relevant information and asking doctors or staff in the pharmacy for a specific medication they have already heard about. Promotion to the consumer is therefore an important issue but is probably normally unconsciously recognised.

Nevertheless, there can also be too much emphasis on promotion. As a result, it is important to promote a product adequately.

In conclusion, the following recommendations can be made:

- The sales person's personality is relevant, since they are the most important contacts with the doctor.
- Do present relevant information at a scientific congress prior to the market introduction.
- Have good scientific medical documentation and involve the press for product exposure to the general public and have a good slogan mentioning the key therapeutic problem.
- Do keep the patients in mind and include the pharmacists.

#### *Question 2. What criteria are applied when purchasing prescription drugs?*

The participants indicated that there has to be differentiation between scientifically and economically orientated physicians. The scientifically oriented physicians make their decision on the basis of:

- The medical scientific documentation and independent clinical study results.
- *Compliance.* Lower frequency administration is better than for example once or twice daily, adequate type of drug delivery and possible side effects; large companies have an advantage over small companies because the consumers believe that their medication will have fewer side effects.
- *Drug image.* It is a disadvantage when a drug is seldom prescribed. Rare side effects will remain unknown.
- The physicians' personal experience, preference and historical drug data (there is quite often no reason to prescribe a new medication when an existing medication has a good record).

On the other hand, the economically orientated doctors decide on the basis of a price to performance ratio, customer service and margins.

#### *Question 3. What is the sales persons' influence on the physicians' decision?*

The following were reported by the participants as being important. The sales persons' influence depends on the physicians' frankness. In some situations, there will be quite a big influence, in other situations there will not be any. It also depends on the therapeutic substances and their level of innovation. As more products for a certain treatment are launched on the market, sympathy for and or antipathy of, a sales representative become

even more important. In the case of a good product, the sales person has an influence on the doctor in terms of fulfilling their mission as an information supplier. If the sales person knows something about the product but is inconfident and inaccurate then the physician will be influenced negatively. A sales visit is only useful for a physician, when some helpful information is given. He does not look at the accompanying documents. Almost every piece of information provided by sales representatives is biased. Representatives only give some inspiring information to the physician. Often, the physician does read clinical studies, attend seminars, and exchange information with colleagues. The physician does also consider the opinion leader's point of view.

*Question 4. What are the criteria when appointments are given to the sales representatives?*

The participants indicated that physicians do not have any restrictions. Usually, he or she does want to learn about the activities of the pharmaceutical firms. There are physicians in the field of psychiatry who do not welcome any sales representatives, what is considered as strange. It is an opportunity to receive information from sales representatives. The sales person is in general quite well informed, but is a little bit biased. If you listen to them on a regular basis, it is an easy way to gain further education. Information from the relevant specialist literature is usually too critical and deters from trying new medical approaches. For this reason, it is useful to hear the producers' view. In general, it can be said, that appointments are normally given by the doctor's assistant according to an instruction that serves as a filter. Entry can be facilitated by referring to a doctors' conversation at a congress. However, some doctor's advise their medical practice assistant only to welcome representatives from certain companies or areas of interest. Furthermore, the doctors' specialisation is of relevance. Certain groups of specialised doctors are more likely to welcome sales representatives than others (e.g. dermatologists often give appointments at short notice). Quite often, appointments have to be booked months in advance. Some doctors even arrange the appointments for the whole year during October of the preceding year.

In summary, there are key criteria for giving an appointment. For general practitioners the following apply:

- Will the physician like the main matter of the sales visit?
- Will the physician benefit from the sales visit?
- How will the physician interact with the sales person?

*Question 5. What is the influence of price on the purchase decision?*

The following were reported by the participants as being important. Until recently, in Switzerland the price did not have any relevance. However, since the Swiss government has implemented a new regulation, that twenty percent of the price has to be paid directly by the patient, the price is more relevant. The new regulation has raised the patients' price sensitivity. Patients know that generics do exist and are increasingly asking for them when purchasing medication. The price can be considered as the main issues at the moment. Consequently, physicians are also confronted more frequently with this issue. However, many drugs usually have similar prices. Nevertheless, there are differences between OTC and prescription drugs. Drug prices have been reduced in Switzerland twice in the past year. This has fuelled the price discussion.

*Question 6. You have a choice between two similar products. One is from a well-known producer, the other one from an unknown. What product would you choose?*

The participants indicated that in a case involving two similar products, the branded product or/and the personal relation to the sales person will be chosen. However, if these producers are known, the larger one will be chosen. In case of problems, the larger company will be more likely able to pay (in case of a possible lawsuit). However, the sum of the experience you have with a firm also gives a certain impression. This is very important when you have to choose between two similar substances.

Evaluation of statements. All the information gathered was then analysed for frequency, summarised, categorised (according to McCarthy and Perreault's (1960) 4P's concept) and listed by the monitor team (Glitz, 1997):

- *Product.* Branding; product properties (safety, risks (few prescriptions as a signal of increased risk), side effects, efficacy, indication); drug delivery; sales figures as a quality indicator; packaging.
- *Place.* Distribution channels such as hospital, pharmacy, physician and internet.
- *Promotion.* Sales representatives in general and in particular number of visits, doorkeeper, experience, acts as an information provider, communication of unique selling proposition's, competence, contacts at congresses, continuity of sales relation, physicians' contact anxiety, personality of sales person, style of selling; informational content of documentation (objectivity, scientific, style of brochures), physician and oriented advertisement); experience exchange with colleagues; speciality literature; health television programs; further education; providing of information (via databases, internet, journals); involvement of layman press, opinion leaders, head doctors, specialists and professors (according to their local or regional relevance); public relations, companies' reputation, size; product image; clinical studies.
- *Price.* Conditions.

These findings are also supported by our illustrative example of the PDE5-inhibitors market. Referring to Bond and Lean (1977), market share is mainly influenced by the product and promotion policy. Furthermore, all brands have a similar pricing. This leads to the conclusion, that no competition via the price policy takes place.

### **Delphi group results**

The participants' comments and views were summarised, categorised in groups of product design, place (distribution), price, promotion (McCarthy and Perreault, 1960) and statistically evaluated as shown in Table II. The criteria were listed and for each study their relative importance and standard deviation calculated.

#### *Step 1. Results Round 1 study*

The most relevant experts' responses to first questionnaire (Round 1 study) are shown as follows.

*The role of product design.* To ensure the product's success, the drug relevance is an essential criterion. If the medicine reduces or treats the condition faster or more comfortably than a comparable one then preference is likely to be given to it. The drug has therefore to solve a specific medical problem. A highly innovative and differentiated product has to be developed (product and a corresponding "disease management" solution are the key).

**Table II.**  
Relative importance, response rate, standard deviation of pharmaceutical marketing instruments over all rounds

(1) Level of involvement in pharmaceutical marketing processes	High (directly involved) (8)	Low (not directly involved) (3)	<i>Conclusion.</i> Input from daily managerial practice can be expected
(2) Position of responsibility	Marketing director (5)	CEO (4) Professor (2)	<i>Conclusion.</i> Because of the high level management positions, a broad professional insight will be provided
(3) Number of years of experience	< 20 years (5)	> 20 years (6)	<i>Conclusion.</i> The given statements will be based on long term marketing experience
(4) Educational background	Graduate (university) (5)	Academic (PhD) (6)	<i>Conclusion.</i> Due to the high educational profile, profound statements will be given

A good drug has to ensure superiority over competitive drugs with high efficacy (well studied and documented) and show fewer side effects (low or tolerable). Many drugs struggle, because they are less effective than the competitor's drugs, do not have any advantages over well-known, well-established drugs or show a broad range of undesired side effects, which lead to image problems and their possible withdrawal from the market. It is therefore essential that research assures the efficacy and novelty of such a drug. A high efficacy image of the product is therefore crucial and actual or possible side effects have to be taken into account. To avoid drug recalls, good packaging and labelling is important. Not every product is worth launching, especially "me-too" preparations. Hence, a differing and more emotional branding should be considered.

*The role of distribution (place).* Product accessibility in a respective territory is an important factor. A biotech company might therefore depend on optimal partnering with a larger company.

*The role of promotion.* For success, a professional, enthusiastic, passionate, and highly motivated sales force with profound product knowledge is essential. A dedicated, stable, marketing, sales, medical, and regulatory team with reasonable sales attitudes is equally crucial to success. Incentives can stimulate their performance. The customer must always be considered: how present is the drug in the customers' mind (prescriber or patient)? How difficult is it to gain access to prescribers, e.g. for the sales representatives, not to speak of getting enough numbers of sales visits. The frequency and number of sales force contacts and activities such as mailings, journal ads, and conferences are relevant. There might also be a conservative attitude to sales and marketing methods or a young, inexperienced team not dedicated to sales or/and management owing to a high turnover of national and international business teams both of which do not allow for strategic consistency. As the pharmaceutical industry is a people business, the human resources' turnover (every one-and-a-half to two years) can have an impact on customer interface and knowledge transfer (fluctuation leads to knowledge drain). The allocation of needed resources has to be ensured and over- or under-spending avoided. Promotion and sales have also to be totally in compliance with strict national, international and internal guidelines. Creativity in promotion is also important. New and innovative ways are constantly emerging. If less investment



is put into promotion, this results in less noise on the market and therefore fewer prescriptions owing to a lack of information given to the consumer side. It should be borne in mind that success in marketing has a short life-span.

*The role of price policies.* Customers' buying power has to be taken into account as the customer might have to pay for the drug (either through health care insurance or "up-front"). A justifiable and affordable price has to be offered.

### *Step 2. Results of Round 2 study*

In Round 2 the experts considered newly introduced, not previously mentioned factors as being important, too. Criteria such as promotion and distribution were considered highly important. The reason for this change in group-opinion may be attributed to the design of the Round 2 study as the ranking was based on the criteria given by the questionnaire (Appendix 1).

### *Step 3. Results of Round 3 study*

The comparison of the importance of marketing instruments in the pharmaceutical industry is illustrated by means of standardization (the given points per parameter show their importance; the maximum equals one). Answers sets showing contradictory opinions were discarded (34 out of 334).

Based on the high levels of agreement in the statements given by the Delphi group, the marketing instruments were ranked according to their relative importance (Table II, Rounds 2 and 3 column) ranked and their standard deviation shown (Table III).

The standard deviation corresponds as an indicator to the level of disagreement within the group. In general, it can be said, that there was a high level of agreement about the importance of product properties and some disagreement about the relevance of product and price.

## **Discussion and implications for theory and practice**

The Focus group element of the present study attempts to assess the marketing tools in Switzerland, highlighted by a group of participants working in the field of pharmaceuticals. The results of our second study element, the Delphi group, also led to the same conclusions as the Focus group study, since the participating specialists highlighted similar marketing instruments as being essential. The present study ultimately yielded a ranking of 29 instruments perceived to be most important in the marketing of pharmaceuticals in Switzerland.

The survey showed that the marketing element "product policy" plays an essential role (relative importance 0.71). Marketing variables such as:

- efficacy;
- safety and side effects;
- tolerability;
- ease of use; and
- branding were also viewed as relevant.

On the other hand, packaging was not seen to be important. Our findings are supported by several researchers (Smith, 1983; Flechter, 1989; Dogramatis, 2002) who concluded

Rank	Criteria	r.i.	SD
1	Hospitals (distribution) (FG)	0.97	0.44
2	Efficacy (DF)	0.93	0.88
3	Reimbursement (DF)	0.93	0.73
4	Physician's (distribution) (DF)	0.92	1.12
5	Safety and side effects (DF)	0.90	0.83
6	Opinion leaders (DF)	0.84	1.42
7	Personality of salesperson (DF)	0.80	1.90
8	Tolerability (DF)	0.79	1.00
9	Direct to prescribers (FG)	0.79	1.41
10	Clinical study results IV (DF)	0.75	1.48
11	Publications in journals (FG)	0.74	1.69
12	Pharmacy (distribution) (FG)	0.73	1.95
14	Ease of use (DF)	0.72	1.79
15	Clinical study results III (DF)	0.72	1.24
16	Samples (FG)	0.71	1.50
17	Branding (DF)	0.67	2.06
18	Labelling (DF)	0.66	2.15
19	Price Level (DF)	0.61	2.19
20	Wholesalers (distribution) (FG)	0.56	2.17
21	Incentives (FG)	0.53	2.50
22	Packaging (DF)	0.49	2.15
23	Allowances (FG)	0.48	0.90
24	Shelf-life (FG)	0.44	1.59
25	Volume rebates (FG)	0.41	2.36
26	Discounts (FG)	0.39	1.25
27	Gifts (FG)	0.33	1.37
28	Terms of payment (FG)	0.30	1.51
29	Internet (distribution) (FG)	0.24	0.64

**Table III.**  
Relative importance and standard deviation of the most important instruments in pharmaceutical marketing

**Notes:** r.i., row shows relative importance; SD, row shows standard deviation; DF, criteria from Delphi Round 1 derived; FG, criteria from focus group derived

that in the area of product design the key success factors appear to be product innovation, efficacy, branding and qualities such as safety and tolerability. Consequently, we were able to support the suggested the *P1*. A positive perception of product properties has a positive effect on sales. This conclusion can also be confirmed by our illustrative example of PDE5-inhibitors. The data show that product policy is a relevant factor for market share (Stros *et al.*, 2008).

As our study stated, product accessibility with in a particular territory is an important factor. Product distribution via sales channels such as:

- hospitals;
- physicians; and
- pharmacy was an important factor.

Internet, as an additional sales channel of prescription drugs (legal barriers exist here, such as the need for prescriptions) was of no relevance. The marketing element "place" was also judged as being essential (relative importance 0.68). These findings support the *P2*.

For “promotion,” personal selling (especially the personality of the sales person), was identified as the most influential factor. It should be understood that the sales person has an influence on the doctor in terms of fulfilling their mission as an information supplier. Although the sales person is viewed as being quite well informed, nevertheless they are perceived as a little bit biased. The relevance of personal selling is also supported by Black (2005) who states that in order to influence prescription choice by multi-faceted education-based strategies, personal communication is the most effective means of providing this education with interpersonal communication methods and Pahud de Mortanges *et al.* (1997) who also concludes that personal selling is the most important aspect in the promotion of pharmaceutical products.

Our study has indicated additional promotional marketing factors:

- direct to prescriber advertisements;
- communication of phase IV/III clinical study results; and
- journal publications.

We have also revealed that promotional gifts for the prescriber do not play a substantial role. The marketing element promotion was rated as being quite relevant (relative importance 0.67). We also confirmed the *P3* and were able to support Hollon’s (1999) statement that the winners in the prescription drug market are not going to be the ones with the best patents of products but those that are the best marketers. We can also support Azoulay’s (2002) findings who concludes that product-market competition in the pharmaceutical industry is shaped by both advertising rivalries and scientific rivalries. We can also confirm this conclusion with our illustrative example of PDE5-inhibitors. The data show that promotion policy is a relevant factor for market share (Stros *et al.*, 2008).

Since the Swiss Government implemented a new regulation in 2006, which means that 20 percent of the price has to be paid directly by the patient, pricing has become more influential. This new regulation has raised the patients’ price sensitivity. Therefore, a justifiable and affordable price has to be offered. In addition, economically orientated doctors are likely to decide on the basis of a price. Nevertheless, “price” does not play such an important role (relative importance 0.52). Pricing is, even when considering the continuously rising healthcare costs (Henry, 2004; Kaech, 2004), viewed as less important. This phenomenon can also be explained by the fact that “the ones, who make the decisions, are not identical with those, who receive the service and/or pay for it (Harms *et al.*, 2002).” We have indicated reimbursement as an important factor. On the other hand, price level or terms of payment were not considered to be essential. However, we still found support for *P4*. This finding can also be supported with our illustrative example of PDE5-inhibitors. All brands have a similar pricing. Consequently, in terms of pricing, no competition takes place (Stros *et al.*, 2008).

Furthermore, as stated, promotion and sales, have to be totally in compliance with strict national, international and internal guidelines. Consequently, the market environment acts as a moderator of the effect of the marketing decision variables on marketing mix *P6*.

As described, all 4Ps are essential in general marketing. However, according to our study in pharmaceutical marketing, product, place, and promotion as marketing instruments are more relevant than price. These results indicate that a successful marketing strategy for pharmaceuticals has to consider an appropriate product design including issues such as efficacy, safety and side effects, it is vital that the product is

also distributed via sales channels such as hospitals and self-dispensing physicians. The promotion policy has to emphasize the relationship with opinion leaders and personal selling efforts. It is also essential that the drug will be reimbursed by the health insurance. We have derived a weighted list of elements of the marketing mix (Borden, 1965) according to their sales relevance (in reference to P6).

The study from Pitt and Nel (1988) has also produced similar results to our study. They studied the factors influencing the prescription behaviour of 210 general practitioners in Australia. They concluded that the most significant influence on the medical practitioners' prescribing decisions is their previous product experience. They suggested that of the marketing tools available to the pharmaceutical firm, personal selling is most powerful. It can therefore be generalised as emphasized in other studies (Sapienza, 1993), that competitive advantage in the global pharmaceutical industry is driven by firms' abilities to translate R&D resources into novel and patentable drugs. In the new product development literature, marketing related variables (e.g. selling) as well as non-product differential advantages (e.g. brand name) are found to be important drivers of new product success (Cooper and Kleinschmidt, 1993).

The present study has produced some interesting insights into Swiss pharmaceutical marketing from healthcare professionals involved in high level marketing and management positions. Hence, as an important further step, the impact of the sales person in relation to product and brand should be investigated which supports the suggestions of Gonul *et al.* (2001) who concluded that the effectiveness of direct promotional efforts to physicians should be enhanced and that the amount and scheduling of detailing could be optimised in order to maximize the return on this type of promotion.

### Limitations and future research directions

The main limitation of the present study lies in the fact that the methods used can never guarantee a distortion-free picture. Although the methods used strive to produce consensus among experts, even an expert judgement may not always be objective. However, because of their broad professional and academic experience, valid and reliable responses can be assumed from the participants. Furthermore, it is the nature of the Delphi group and Focus group techniques that the sample size is relatively small and therefore not broadly representative (Focus group,  $n = 5$ ; Delphi group,  $n = 11$ ). Therefore, the results cannot be interpreted as definitive or as representative of the industry due to the limitations of size of the panel of acknowledged Swiss experts providing prescriptive advice. However, the results provide a good basis for discussion of the issue and could warrant further research.

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**Appendix 1**

Marketing decision variables	Criteria	Unimportant-very important
Product	Branding	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Efficacy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Safety/side effects	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Tolerability	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Ease of use	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Shelf-life	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Packaging	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Regulations/patents	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	R&D process/time of approval	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Time to market	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Others? (please specify)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Place (distribution)	Pharmacy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Internet	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Wholesalers	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Hospitals	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Physician's	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Others? (please specify)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Price	Price level	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Discounts	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Allowances	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Terms of payment	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Volume rebates	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Paid by insurance/reimbursement	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Others? (please specify)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Promotion	Results Phase III study	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Results IV study	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Publications in journals	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Product information (label)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Opinion leaders	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Advertisement	Direct to prescribers	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Direct to consumer (DTC)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Personal selling	Personality of sales/marketing person	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Gifts	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Samples	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Incentives	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Others? (please specify)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

**Table A1.**  
Delphi Round 2  
questionnaire

## Appendix 2

Statement	Agree	Disagree
One of the major decision criteria regarding prescription drugs is their price level	<input type="checkbox"/>	<input type="checkbox"/>
The product distribution in the pharmacy does not have a major impact on the companies' sales figures	<input type="checkbox"/>	<input type="checkbox"/>
Product detailing is a consumer need	<input type="checkbox"/>	<input type="checkbox"/>
Gifts do not influence the sales process at all	<input type="checkbox"/>	<input type="checkbox"/>
The brand is an important issue when choosing a pharmaceutical product	<input type="checkbox"/>	<input type="checkbox"/>
An actively performed product promotion by the wholesaler is not relevant for the product success	<input type="checkbox"/>	<input type="checkbox"/>
The design of the packaging and its ease of use is important when buying the product	<input type="checkbox"/>	<input type="checkbox"/>
The volume-rebate conditions are not considered when choosing the product	<input type="checkbox"/>	<input type="checkbox"/>
The turnover will only be marginally influenced by the sales person's personality	<input type="checkbox"/>	<input type="checkbox"/>
The sales person will sell better when incentives are given	<input type="checkbox"/>	<input type="checkbox"/>
Drugs are chosen because they are easily applicable both for the physician and the patient	<input type="checkbox"/>	<input type="checkbox"/>
Good volume rebate-conditions raise sales	<input type="checkbox"/>	<input type="checkbox"/>
The personal interaction between the sales person and the customer has an important effect on the sales success	<input type="checkbox"/>	<input type="checkbox"/>
The ease of use is unimportant to the consumer	<input type="checkbox"/>	<input type="checkbox"/>
It is not essential whether or not the pharmaceutical product is included in the wholesaler's product range	<input type="checkbox"/>	<input type="checkbox"/>
Publications in well-respected journals are essential for the consumers' confidence and therefore for the sales process	<input type="checkbox"/>	<input type="checkbox"/>
The brand does not affect the sales process	<input type="checkbox"/>	<input type="checkbox"/>
The price level is an unimportant decision factor when choosing a prescription drug	<input type="checkbox"/>	<input type="checkbox"/>
Physicians are preferably buying drugs with a long shelf-life-time	<input type="checkbox"/>	<input type="checkbox"/>
The terms of payment are regarded as minor criteria when choosing the product	<input type="checkbox"/>	<input type="checkbox"/>
The functionality is the only requirement made to packaging	<input type="checkbox"/>	<input type="checkbox"/>
A direct consumer marketing campaign (if not legally banned) increases the turnover	<input type="checkbox"/>	<input type="checkbox"/>
The prescription rate will increase when gifts are given to the physician	<input type="checkbox"/>	<input type="checkbox"/>
Sales personnel incentives do not affect the sales process	<input type="checkbox"/>	<input type="checkbox"/>
It is not in the interest of the physician to have a long shelf-life-time	<input type="checkbox"/>	<input type="checkbox"/>
Favorable publications in well-respected journals are generally not noticed by the consumer	<input type="checkbox"/>	<input type="checkbox"/>
The consumer (end-user) will only marginally be influenced by a marketing campaign	<input type="checkbox"/>	<input type="checkbox"/>
It is essential to ensure a broad product distribution in pharmacies, well-displayed locations within the pharmacy and advice given by pharmacist	<input type="checkbox"/>	<input type="checkbox"/>
More might be sold if favorable terms of payment were given	<input type="checkbox"/>	<input type="checkbox"/>

**Table AII.**  
Delphi Round 3  
questionnaire

### About the authors

Michael Stros (Chemical Engineer, BSc, MSc in Biotechnology, Executive MBA) is a PhD candidate at Aston University, Birmingham, UK, Lecturer and Subject Convenor in Marketing at the University of Applied Sciences, Brig, Switzerland. His main research interests focus on Pharmaceutical Marketing, especially on Order of Market Entry and Personal Selling. Besides his academic activities, he works as a Marketing Consultant and Sales Trainer. In his previous professional activities, he was engaged as a Product and Sales Manager for International Biotech

Companies and was a member of the Scientific Advisory Board of a Biotech Equity Investment Fund. Furthermore, he has published several articles and is author of a text book. Michael Stros is the corresponding author and can be contacted at: [strosm@aston.ac.uk](mailto:strosm@aston.ac.uk)

Juerg Hari earned a Masters and PhD degree at the Federal Institute of Technology in Zurich, Switzerland (ETH). He also holds an MBA degree in Marketing from Cornell University, Ithaca, USA. He worked in various sales and marketing positions for several major pharmaceutical companies (Merck, Roche, Pharmacia) and as an international strategy and marketing consultant. He is now a fulltime Professor at the Zurich University of Applied Sciences. His research focuses on personal selling, market research methodology, and relationship management.

John Marriott is a Pharmacist, registered in the UK for the last 29 years. He has practiced in both community (both multiples and independents) and hospital sectors holding a variety of clinical and organisational positions, including two posts at Birmingham Children's Hospital and latterly in a management role as the Chief Pharmacist at Wolverhampton. His early research career included a PhD in vascular pharmacology from Aston and a two-year period as a BHF Research Fellow in Cardiovascular Physiology at Birmingham Medical School. He joined the Pharmacy Practice Group at Aston in 1998 and is currently the Professor of Clinical Pharmacy, having previously been the Head of the Pharmacy School and Director of PG taught programmes in Life & Health Sciences. He has been part of the West Midlands Medicines for Children Formulation Work stream since it was set up in 2006. He has a proactive role in teaching in Pharmacy and is working on the development of electronic methodologies to support Pharmacy learning and teaching. Also, he has wider, active research interests, principally in the areas of clinical pharmacy/pharmacology and medicines use and management. His current project themes revolve around the PK/PD of paediatric drug use and formulation, control of antibiotic prescribing and medicines wastage and medicines use patterns.

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