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**Working Paper**

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# WORKING PAPER

## **The Interplay of Personal Selling and Direct Marketing – An Exploratory Study in the Pharmaceutical Industry**

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## **Abstract**

Beyond dispute, personal selling represents the dominant and most effective promotional element in industrial settings, but its costs are quite substantial. Against this background, sales managers are forced to reexamine alternative approaches for servicing and informing customers in order to justify the productivity of their industrial selling mix. In this context, the complementary use of direct marketing to field selling becomes a primary concern as it allows for confidentiality and personalization of the message in contrast to mass communication while it provides information at a lower cost than does personal selling. However, no study has empirically investigated the interplay of personal selling and various direct marketing instruments with regard to several contextual factors determining the preferred use of direct marketing over personal selling so far. Thus, focusing on business-to-business transactions, this study's objective is to deepen the understanding of the direct marketing and personal selling interplay. Due to limited empirical insights to this area, an exploratory research design is adapted. Results indicate that the advantageousness of direct marketing in comparison to personal selling is determined by customer-related, internal and external contextual conditions. Further, a well-designed interplay helps to improve selling productivity, brand awareness and customer satisfaction – and thus business unit performance.

## 1 Introduction

Faced with the fragmented, global, dynamic and competitive environment that characterizes today's marketplace, CEOs' desires for lower selling costs and customers' increased service demands, sales managers must more than ever be able to justify their industrial selling mix's productivity. The selling mix does not only include the traditional field sales force, but all instruments industrial marketers use to communicate with customers and promote their products or services to them. Beyond dispute, personal selling represents the dominant and most effective element of the industrial communication mix *in terms of generated sales per customer contact* (Parasuraman 1981; Román and Martin 2008; Smith, Gopalakrishna, and Smith 2004). E.g., conducting a meta-analysis, Albers, Mantrala, and Sridhar (2008) find the weighted mean personal selling elasticity to be about .352, a number significantly larger than the mean estimates of advertising elasticity, which fall in the range of .1 to .2 (Albers, Mantrala, and Sridhar 2008). Considering, however, the expense associated with personal selling, sales managers are forced to consider a wide range of supplements to or even substitutes for face-to-face selling (Albers, Mantrala, and Sridhar 2008; Darmon 2005; Dwyer and Tanner 2006; Johnston and Marshall 2009; Moncrief et al. 1989) in order to improve *the ratio of generated sales per contact to expense per customer contact* (hereafter *selling productivity*). E.g., the U.S. economy spends at least \$800 billion on sales forces each year – nearly three times the \$285 billion that were estimated to be spent on advertising in 2006 (Johnson 2006; Zoltners, Sinha, and Lorimer 2008). Industry estimates indicate that sales costs increased fifteen fold from \$20 to about \$300 per call since the 1950's (Johnston and Marshall 2009; Sheth and Sharma 2008). On average, three calls are required to close a sale for existing accounts, while the effort level increases to approximately seven calls for new customers (Churchill et al. 2000). Evidently, there is a strong imperative to control for inefficiencies in personal selling (Anderson 1996). Therefore, sales managers reexamine alternative approaches for servicing and informing customers and aim at developing an economic promotion mix which will assist and complement personal selling in achieving selling objectives and

thus, enhance selling productivity (Bunn 1993; Bunn and Clopton 1993; Cardozo, Shipp, and Roering 1987). In this context, the complementary use of direct marketing to field selling becomes a primary concern (Frenzen, Krafft, and Peters 2007). Direct marketing covers those “*activities by which the seller, in effecting the exchange of goods and services with the buyer, directs efforts to a target audience using one or more media [...] for the purpose of soliciting a response by phone, mail, or personal visit from a prospect or customer*” (American Marketing Association 2009). Compared to mass communication, direct marketing allows for confidentiality and personalization of the message while it provides information at a lower cost in comparison to personal selling (Belizzi and Lehrer 1983). E.g., a field visit costs approximately five times more than a telemarketing initiative and about 100 times more than a direct mail piece (Del Franco 2004; Zoltners, Sinha, and Zoltners 2001). Direct marketing instruments such as direct mail, e-mail, trade shows, telemarketing or fax might supplement personal selling efforts by generating inquiries, qualifying leads, familiarizing customers with product features, or improving customer service in the post-purchase-phase (Coe 2004). A survey by Cardozo, Shipp, and Roering (1987) revealed that a company’s cost saving initiative to replace every fourth of its salespersons with telemarketing representatives even resulted in increased customer satisfaction as the complementary telephone service provided more frequent contacts and increased flexibility in engaging services.

With regard to selling productivity, several studies explore the mix of communication expenditures across elements of the selling mix. However, most studies are devoted to the interplay of personal selling and mass communication (e.g., Morrill 1970), the interplay of mass communication and direct marketing (e.g. Naik and Raman 2003) or are limited to the interplay of just one direct marketing instrument and personal selling (e.g., Smith, Gopalakrishna, and Smith 2004). A few publications have modeled the joint effect of personal selling and several marketing variables on sales performance (e.g., Gatignon and Hanssens 1987; Gopalakrishna and Chatterjee 1992; Parsons and Vanden Abeele 1981; Smith, Goplakrishna, and Chatterjee 2006). However, the empirical verifications of these models each are constrained to one company’s sales data.

About forty years ago, Morrill (1970, p. 169) already reported that “*the greatest value of a well-planned advertising program is that it can reduce the overall costs of selling by multiplying the effectiveness of the individual salesman far more than it increases direct selling costs*”. However, no study has empirically investigated the interplay of personal selling and various direct marketing instruments with regard to several contextual factors determining the preferred use of direct marketing over personal selling so far. Specifically, there is little help for marketing and sales managers in planning direct marketing strategies and personal selling activities and understanding their combined impact on selling productivity (Smith, Gopalakrishna, and Chatterjee 2006). Thus, focusing on business-to-business transactions, the purpose of this study is three-fold: (1) to examine practices currently used in designing an adjusted direct marketing and personal selling program in light of what is known about advertising response and costs in this field, (2) to identify factors determining the advantageousness of direct marketing instruments in comparison to personal selling with regard to selling productivity and hence, to business unit performance, and (3) to compare suppliers’ assessment of designing optimal selling mixes with the importance given by their customers to different promotional instruments. Due to the limited empirical insights regarding the interplay of personal selling and direct marketing, an exploratory research design is adapted.

The rest of the paper is organized as follows: In the next section, I review the relevant literature. The subsequent section presents the method and the initial sample I used for the exploratory study, before I document and discuss the results of the in-depth interviews. Afterwards, these findings are compared with customers’ preferences regarding promotional instruments. The penultimate section summarizes the managerial implications of my analysis, and the final section concludes with limitations and avenues for further research.

## 2 Literature Review

Although in many markets a company's sales are a function of both advertising and personal selling efforts (e.g., direct mail or journal advertising and detailing in the pharmaceutical market), most studies on the interplay of different communication instruments neglect the personal selling perspective (Murthy and Mantrala 2005). Only a few researchers have also examined synergy – that is, one source may enhance the effectiveness of another – across several promotion tools and personal selling (Smith, Gopalakrishna, and Chatterjee 2006). Especially considering the marketing-sales interface, a clear understanding of cross-media synergy is important, as it might affect budget allocations between both subunits (Naik and Raman 2003). Already decades ago, the business press and academic literature have shown that product advertising can improve sales force effectiveness in terms of generated sales per call (Levitt 1967; Morrill 1970). Swinyard and Ray (1977) investigate whether the sequence of sales calls and direct mail initiatives affects sales. They find that selling productivity is higher when a sales call is following the mailing rather than preceding it. This finding is slightly counterintuitive and its generalization is questionable as the authors use intention measures in a very specific context (respondents' volunteering intention) as a proxy for sales. With regard to testing synergy, Parsons and Vanden Abeele (1981) find a positive effect of handouts and samples on sales call elasticity when used separately in the context of prescriptive drugs. However, when samples and handouts are used together, their combined effect is less than the sum of their separate effects. Thus, the authors find some redundancy – rather than synergy – between samples and handouts. Based on two case studies, Cardozo, Shipp, and Roering (1987) focus on the development of an integrated selling mix; basically consisting of personal selling and telemarketing. They conclude that sales costs can be reduced by substituting personal selling by a lower cost per contact method in situations where high levels of services are inopportune (e.g. in the post-sales phase or for serving less profitable customers). Gatignon and Hanssens (1987) determine the optimal ratio of personal selling and mass communication expenditures under consideration of synergies for a single pe-

riod. They demonstrate that the optimal ratio varies with the overall volume of the communication budget and the hostility of the sales environment.

Gopalakrishna and Chatterjee (1992) propose an approach to assess the joint impact of advertising and sales calls for mature product categories through a dynamic sales response model. Based on their results, the authors derive important normative implications regarding the split of the communications budget between advertising and personal selling. However, due to the chosen product category, the authors neglect prospects in their analyses. Narayanan, Desiraju, and Chintagunta (2004) empirically investigate the interaction of direct-to-consumer advertising and personal selling in two distinct prescription drug categories. The authors prove synergy between the two instruments; however the ROI for personal selling is higher than for direct-to-consumer advertising, even over a longer horizon. However, as discussed earlier, its prohibitively high costs restrict personal selling's use to those circumstances where it adds value beyond its promotional counterparts (McCarthy and Perreault 1993). Smith, Gopalakrishna, and Smith (2004) explore the complementary effect of trade shows on personal selling. Based on a field study, they demonstrate that sales force effectiveness increases if customers have been exposed to a firm's product at a trade show prior to the sales call. More recently, Smith, Gopalakrishna, and Chatterjee (2006) developed a three-stage model of integrated marketing communications that considers the interplay of direct mail, radio and newspaper advertising, exhibitions and personal selling in different phases of the selling process. Results underscore the importance of media timing and imply that improved coordination between marketing and sales are crucial to improve selling productivity. Complementary to these empirical studies, several theoretical papers advocate the supplement of personal selling by other (direct) marketing instruments such as telemarketing (e.g., Yeck 1977) or direct mail (e.g., Coe 2004).

When allocating promotional budgets among personal selling and alternative promotional tools, industrial marketers need to know which instruments are preferred by current and prospective customers (Jackson, Keith, and Burdick 1987). Against this back-



ground, Rodriguez Cano, Boles, and Bean (2005) examined buyers' as well as sellers' communication preferences for different media types during different stages of the purchase process. Results indicate that both parties' communication choices vary throughout the purchase process. Buyers seek for high levels of personal communication when searching for a supplier whereas they pass on personal contacts in the phase of analyzing proposals. In order to enhance selling productivity, sellers have to understand buyers' preferences and to adjust their communication plan accordingly (Rodriguez Cano, Boles, and Bean 2005). Further, Jackson, Keith, and Burdick (1987) demonstrate that perceptions of industrial buyers regarding the relative importance of promotional elements vary by product type. E.g., trade shows are considered more important for major capital than for materials or component supplies. However, results also indicate that salespeople were considered the most important promotional element across all product types.

Table 1 summarizes the findings of the presented empirical studies on the interplay of personal selling and other elements of the communication mix. The literature review confirms that personal selling and other (direct) marketing instruments capture complementary, substituting and synergistic roles and thus, their combination can enhance selling productivity. However, the implementation of alternatives to personal selling is complicated, since marketing instruments are not wholly interchangeable, i.e. they do not all satisfy precisely the same communication objectives (Shimp 2000; Wells, Burnett, and Moriarty 2000). Since direct marketing also allows for personalization of the message while providing information at a lower cost than do salespeople, the supplement or even substitution of personal selling by direct marketing instruments is intuitively preferable over a complementary use of mass communication media. However, empirical research on the supportive role of direct marketing to personal selling is scarce. Previous articles mainly focused on the interplay of mass communication and personal selling, were limited to one direct marketing instrument's impact on sales force effectiveness or constrained model testing to the data of one company which narrows the generalizability of these research findings. Further, the research outlined above suggests that the relative importance of communication tools varies across dif-

ferent situations. Thus, the same mix may not be as effective in different situations (Jackson, Keith, and Burdick 1987). Therefore, the context in which personal selling can be substituted or supplemented by direct marketing has to be identified carefully. So far, to the best of my knowledge, no study has developed an integrative set of factors determining the preferred use of alternative instruments over personal selling. The few studies considering the influence of different situations at all, are limited to the investigation of one or two factors such as phase in the purchase process (e.g. Rodriguez Cano, Boles, and Bean 2005; Smith, Gopalakrishna, and Chatterjee 2006) or buy class and product type (e.g. Jackson, Keith, and Burdick 1987). Therefore, I intend to develop a comprehensive framework which can assist managers to decide when to favor direct marketing instruments over personal selling. Due to the exploratory nature of the study, my investigation is not limited to any contextual factors or distinct direct marketing instruments. Results of the exploratory study of suppliers are compared with survey data of buyers' preferences regarding the selling mix.

Author(s)	Interplay Examined	Empirical Approach	Empirical Basis	Context Examined	Key Insights
Levitt (1967)	company reputation / sales-person effort / message quality	simulation	113 purchasing agents / 130 chemists / 131 students	-	company reputation, industrial advertising and good sales presentations enhance sales force effectiveness
Morrill (1970)	personal selling / business paper advertising	qualitative (interviews)	100,000 interviews with industrial buyers / 1000 advertising schedules / 26 product lines	-	print advertising significantly reduces selling costs
Swinyard and Ray (1977)	personal selling / direct mail	field experiment	303 housewives contacted by a Red Cross volunteer and 0-4 mailings	sequence of contacts	a single personal call equals the effectiveness of four direct mailings; selling-before-advertising is more effective than advertising-before-selling
Parsons and Vanden Abeele (1981)	personal selling / handouts / samples / mailings	field experiment	monthly sales data of an ethical drug's supplier over a period of 2 years	-	samples and handouts improve sales force productivity when used separately; when used together their effect is less than the sum of their effects
Cardozo, Shipp, and Roering (1987)	personal selling / telemarketing / account management	qualitative (interviews)	interviews in 40 firms across several industries / 2 in-depth case studies	customer value / purchase process	contacting customers in the post-purchase phase or less profitable customers with telemarketing techniques instead of face-to-face contacts reduces selling costs
Gatignon and Hanssens (1987)	personal selling / advertising	field experiment	monthly hires of 43 recruiting districts of the U.S. Navy over 3 years	-	resource allocation recommendation of models with interactions can be significantly different from constant elasticity models; optimal ratio of personal selling to advertising expenditures varies with the overall volume of the budget and the hostility of the sales environment
Jackson, Keith, and Burdick (1987)	personal selling / trade shows / sales promotions / direct mail / technical literature / trade advertising	survey research	254 purchasing agents of 25 large industrial manufacturing firms	buyclass / product type	relative importance of promotional elements does not vary by buyclass, but by product type; for all product types, personal selling was considered the most important promotional element, direct mail the least important; trade shows are important information sources for major capital purchases
Gopalakrishna and Chatterjee (1992)	personal selling / advertising	field experiment	quarterly sales data of a mature industrial product of an electrical cable supplier over a period of 1.5 years	buying potential per account / competition	to improve personal selling effectiveness, personal selling effort should concentrate on large and medium potential accounts; advertising becomes more cost-efficient if number of accounts increases; as competitive activity increases, communication expenditures should be increased, however not beyond a certain level
Narayanan, Desiraju, and Chintagunta (2004)	personal selling / direct-to-consumer advertising	field experiment	monthly prescription data of 2 different drug categories over 9 years for the entire U.S. market	-	positive interaction between personal selling and direct-to-consumer advertising; ROI for detailing is higher than for direct-to-consumer advertising, even over a longer horizon
Smith, Gopalakrishna, and Smith (2004)	personal selling / trade show	field experiment	new product sales of a major manufacturer of stationary woodworking machinery in the U.S. / survey among 203 of the manufacturer's customers	-	sales force effectiveness is higher when a customer is already exposed to the new product at a trade show
Rodriguez Cano, Boles, and Bean (2005)	personal selling / telemarketing / fax / email / extranet / written communication	survey research	131 buyers and 141 salespeople engaged in B2B exchanges	purchase process	phase of the purchase process influences buyers' and sellers' communication preferences
Smith, Gopalakrishna, and Chatterjee (2006)	personal selling / radio advertising / direct mail / newspaper / exhibitions	field experiment	sales data of a large window manufacturer in the U.S.	purchase process	sales force effectiveness can be improved through the consideration of two interrelated mechanisms: interactive effects among lead-generating media and complementary effects between these media; timing influences effectiveness of a medium and its interactions with other media

Table 1: Empirical Studies on the Personal Selling and Direct Marketing Interplay

### **3 Methodology**

#### **3.1 Research Method**

The goal of the qualitative study is to understand both the factors determining the use and mix of personal selling vs. direct marketing and the outcomes of this decision. Due to the limited generalizable empirical insights in this area, I adopted a grounded theory approach (Corbin and Strauss 2008; Glaser 1992; Glaser and Strauss 1967; Strauss and Corbin 1998). The methodology of grounded theory aims at generating depth of understanding when little is known about a phenomenon as is the case in this study (Fendt and Sachs 2008). Although originally developed for sociology, a growing body of research has started to apply grounded theory to other research fields such as anthropology or organizational studies (Glaser 1978; Goulding 2002; Goulding 2005). Since grounded theory is especially suited to situations that have a symbolic and / or an interactional element to them, it also has potential for the exploration of marketing phenomena such as relationship marketing or the sales situation (e.g., Flint, Woodruff, and Fisher Gardial 2002; Goulding 2005; Ulaga and Eggert 2006). Given the insufficient exploration of the present topic, and the objective to analyze the use of personal communication instruments which determine the degree of interaction between a buyer and a seller, the grounded theory approach seems to be appropriate for my purposes.

In general, the method of grounded theory can be described as a process in which researchers build their theoretical framework directly from the data (Lee 2002). The theory evolves during the research process itself, based on a continuous interplay between data collection and data analysis (Glaser and Strauss 1967). In contrast to other qualitative approaches, analysis is not awaited until all data is collected, but the search for meaning through the examination of data begins in the early phases of data collection (Goulding 2000).

According to the basic principles of grounded theory, the researcher is encouraged to enter the research field in a very early stage and collect data after an area of research

interest has been identified (Goulding 2002). Furthermore, grounded theory differs in regard to sampling from other qualitative approaches (Strauss and Corbin 1998). While most sampling is defined before the start of data collection, the sample is not predetermined in the context of grounded theory, but is directed by the emerging theory (Glaser and Strauss 1967). More specifically, grounded theory sampling, better known as *theoretical sampling*, is the process of data collection, whereby the researcher simultaneously collects, codes and analyzes the data in order to determine what data to gather next in order to develop the theory as it emerges (Glaser 1978). Theoretical sampling is guided by three types of coding procedures which support the researcher in data analysis and hence in the decision where to sample next: open coding, axial coding and selective coding (Strauss and Corbin 1998). The coding procedures represent analytic tools or techniques through which data are fractured, conceptualized and integrated to form the theory (Corbin and Strauss 2008). These coding procedures characterize the process of theory development which usually starts with *open coding* (Goulding 2000). Open coding is the process of breaking down the data into distinct units of meaning or “codes” (Goulding 2002). For this purpose, a data source (in case of interviews the transcribed interview) is analyzed line by line with the objective of identifying key words or phrases which connect the elaborations or information to the research question (Goulding 2000). The next step of data analysis refers to conceptualizing which is the process of grouping similar codes across different data sources according to some defined properties (Strauss and Corbin 1998). This operation requires a different, more sophisticated coding technique which is commonly known as *axial coding* and involves the process of abstraction onto a theoretical level (Corbin and Strauss 2008; Glaser and Strauss 1967). The identification of concepts is usually based on the application of the *constant comparative method* which involves comparison of codes across data sources (Goulding 2002). Based on these comparisons, the researcher is able to recognize recurring patterns and linkages between codes and thus to identify underlying concepts (Goulding 2000). The identified concepts and their characteristics are explored in greater depth, before they are subsumed into a core category which builds a basis for the emergent theory (Goulding

2000). In the last step of the process, the major categories are finally integrated to form a larger theoretical scheme (Strauss and Corbin 1998). This last step of integrating categories is called *selective coding* (Strauss and Corbin 1998). The developed theory is considered valid if the researcher has reached the point of saturation (Corbin and Strauss 2008). *Theoretical saturation* is achieved when no new insights emerge from subsequent data (Goulding 2002).

The analytical process is supported by the writing of *memos* which are notes written immediately after data collection as a means of documenting the impressions of the researcher, summarizing the main findings of an interview and help to reorient the researcher at a later date (Corbin and Strauss 2008).

To summarize, grounded theory can be understood as an integrated concept capturing the whole research process starting from problem identification to report generation, whereas theoretical sampling, the comparative analysis, the coding procedures and the composition of memos are interconnected with each other and jointly drive the theory development.

### **3.2 Data Collection and Analysis**

While grounded theory allows the collection and use of data in whatever form available, the interview is one of the most important tools (Bloch 1996). I collected data using semi-structured in-depth interviews which became more structured in the last three interviews, the verification phase of the research process. The advantage associated with semi-structured interviews is that they are flexible enough to allow the discussion to lead into areas which may not have been considered prior to the interview, while not wandering too far from the initial research subject as is the risk connected with unstructured interviews (Goulding 2002). An interview guide that broadly outlined the topics of interest was used. To ensure correct understanding of the term direct marketing, it was explained to respondents prior to the interview. It was not intended to limit the scope to specific direct marketing instruments, but respondents were asked to elaborate on all direct marketing instruments employed in their company. All inter-

views in the early and interim phases were conducted with a team of two interviewers (PhD students) in order to ensure that all important aspects of the experience of the interviewee were picked up correctly and understood in-depth. Most of the interviews were conducted face-to-face and took place in participants' offices or an interviewer's office. Two participants were located in southern Germany and these interviews therefore were carried out via telephone. Interviews lasted between 45 and 90 minutes and were audio-recorded. Each interview tape was transcribed verbatim. Analyses of the interview transcripts followed traditional grounded theory guidelines. I started these analyses early, after the first few interviews, allowing insights and interpretations to direct sampling and subsequent interviews (Flint, Woodruff, and Fisher Gardial 2002). Analyses were applied back and forth between these interpretations and grounded theory coding procedures (Flint, Woodruff, and Fisher Gardial 2002). Open coding was followed until a recurring pattern was noted across the interviews (Goulding 2002). Based on their explanatory relationship to each other, codes were clustered in the course of axial coding (Glaser and Strauss 1967). Afterwards, clusters were named to generate concepts before concepts were grouped into descriptive categories. Subsequently, categories were subsumed into higher order categories according to their interrelationships which indicated an emerging theory (Goulding 2002). In the last three interviews, categories were checked, refined and prioritized. In the last step of selective coding, I focused on moving the identified core categories on a level of theoretical interpretation by proposing a causal framework (Strauss and Corbin 1998).

### **3.3 Sample**

The contextual drivers of the favorable use of direct marketing over personal selling and their interplay's outcomes were studied in the context of business-to-business relationships between manufacturers or service providers and their customers. According to grounded theory, I relied on theoretical sampling. As a starting point, I selected influential marketing or sales managers from various industries as interviewees. In the course of the initial interviews, it turned out that the advantageousness of supporting or even substituting personal selling by direct marketing instruments requires a distinct

market structure. More precisely, it emerged that the topic is only relevant in markets with a *fragmented customer base*. Two rationales lie behind this finding. On the one hand, in industries that face a highly concentrated buyer structure, a reduction of personal activities is too risky as it might result in customer dissatisfaction and, ultimately customer defection. Similarly, when sales are centrally negotiated with buyers' headquarters (e.g. in the consumer goods industry), the supplement or substitution of personal selling by direct marketing is inconceivable as the dependence on central purchase managers is too strong to risk dissatisfaction by reducing face-to-face contacts. On the other hand, the more customers a seller has to serve the stronger the imperative to use alternative communication channels as the number of sales force employees and hence sales costs would escalate otherwise. Further, the early interviews indicated that the supplement or substitution of personal selling by alternative instruments is most expedient in industries, in which *customers benefit from the flexibility and economy of time* resulting from the combined use of personal selling and direct marketing. The *general use of direct marketing instruments* and a *high professionalism in designing adjusted promotion mixes* were also identified as industry characteristics essential to my research purposes. Therefore, I focused on participants of the pharmaceutical industry, as it met all criteria identified in the analysis of the initial cross-sectional interviews.<sup>1</sup> Sampling was completed when theoretical saturation was reached, indicated by information redundancy. The final sample consisted of 15 participants from 13 companies and 5 industries whose characteristics can be extracted from table 2.

In the next paragraph, specific characteristics of the pharmaceutical industry and pharmaceutical promotional activities are briefly introduced.

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<sup>1</sup> Given the intention to investigate the area of interest in-depth in one industry, I decided to focus on the pharmaceutical industry as it assured to be highly relevant to the research topic. However, it should be noted, that a few other industries also feature the required market characteristics (cf. the limitations and further research section).



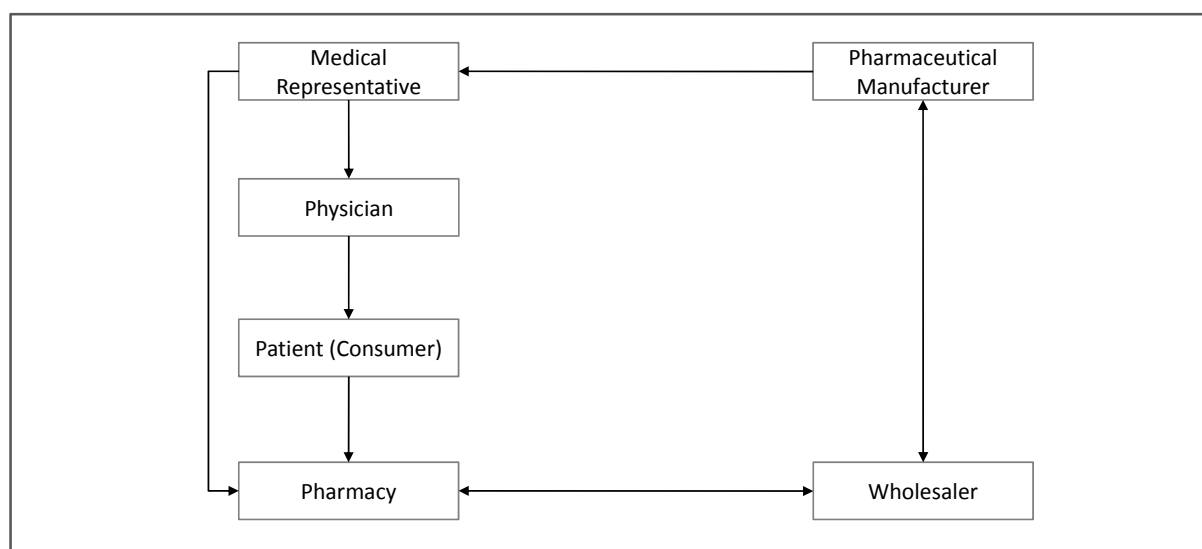
Interviewee No.	Position	Industry	Years in Current Position	Total Years in Industry	Age	Sex
1	Sales and Marketing Director	Telecommunication / IT	5	5	37	male
2	Sales Manager	Engineering	2	2	42	male
3	Junior Brand Manager	Consumer Goods	0.5	2	28	male
4	Category Manager	Consumer Goods	0.5	1	30	male
5	Marketing Manager	Pharma / Healthcare	4	16	48	male
6	Area Manager Trade	Media	1	1	41	male
7	Marketing Operations Manager	Pharma / Healthcare	1	6	40	male
8	Business Unit Manager	Pharma / Healthcare	3	13	39	female
9	Division Manager	Pharma / Healthcare	4	30	55	male
10	Sales Manager	Pharma / Healthcare	3	33	58	male
11	Senior Project Manager	Pharma / Healthcare	1	8	39	male
12	Direct Marketing Manager	Pharma / Healthcare	0.5	3	39	male
13	Sales Manager	Pharma / Healthcare	10	20	48	male
14	Sales Support Manager	Pharma / Healthcare	10	20	49	female
15	Sales Manager	Pharma / Healthcare	1	18	48	male
Ø			3	12	43	87 % male 13 % female

**Table 2:** Characteristics of Respondents

### 3.4 Pharmaceutical Promotion Activities

The pharmaceutical industry differs from other industries in at least three important aspects (Kremer et al. 2008). First, pharmaceutical manufacturers are faced with a “3P”-triangle-market structure – patient, provider (pharmacy) and prescribing physician (cf. figure 1), where the physician has a unique gate-keeping function (Stremersch 2008). Second, pharmaceutical marketing requires specialized knowledge because the marketers are confronted with unique challenges in facets such as new product development, immense R&D costs, life cycle management (especially run outs of patents and substitution by generics), political regulations and a changing role of pricing across the product’s life cycle (Grewal et al. 2008; Krafft 2001; Kremer et al. 2008).

E.g., as long as a product is patent-registered, a drug's price plays an inferior role, however when generics enter the market and thus, patients and pharmacists have more autonomy in choosing a distinct drug, price becomes crucial. Third, the pharmaceutical industry encompasses a wide spectrum of businesses, ranging from ethical products to over-the-counter (OTC) products which can be bought in pharmacies without consultation of a physician (Liu, Wang, and Chan 2004). Therefore, marketing OTC goods is more similar to that of the business model for fast moving consumer goods (Liu, Wang, and Chan 2004). Marketing ethical drugs involves informing medical professionals and pharmacists about a drug's composition, therapeutic value, side effects and their use (Parsons and Vanden Abeele 1981).



**Figure 1:** Communication Channels in the Pharmaceutical Industry (adapted from Krafft 2001)

Pharmaceutical promotion activities are widely debated (Kremer et al. 2008). Opponents declare pharmaceutical marketing as multipliers of the overuse, misuse and misprescription of drugs (e.g. Chetley 1995). Further, pharmaceutical marketing is accused of reducing price sensitivity of demand for ethical drugs, resulting in negative welfare effects: physicians are encouraged to prescribe prohibitively expensive medicaments, even when a cheaper generic would be appropriate (Rizzo 1999; Scherer 1993). However, supporters of pharmaceutical promotional instruments debilitate these charges by claiming that they may serve as an information channel to educate physicians and expose patients to information that may improve their health outcomes

and medical options (Rubin 2003). Despite these conflicting views concerning the usefulness of pharmaceutical marketing, pharmaceutical manufacturers invest heavily in promotional instruments (Narayanan, Desiraju, and Chintagunta 2004). Against this background, several researchers investigate the effectiveness of pharmaceutical promotion tools (Kremer et al. 2008). Conducting a meta-analysis, Kremer et al. (2008) find that the general effect of pharmaceutical promotion on sales is modest in size and highly heterogeneous across studies. They explain this heterogeneity by the studies' designs, the drug category, the promotional instruments examined and corrections for endogeneity. Results confirm that as in other industries, personal selling – or detailing as it is called in the pharmaceutical context – is the most effective form of promoting pharmaceuticals, followed by direct-to-physician advertising (e.g. print advertising) and other direct-to-physician instruments (e.g. samples, direct mail). The effect of direct-to-consumer advertising remains relatively small. However, the analysis is devoted to the exploration of the effectiveness of distinct pharmaceutical promotional instruments with regard to several moderating effects rather than to the interplay among different instruments. In particular, the authors point out that most existing research pertains to detailing and direct-to-physician or direct-to-consumer advertising so that they have to combine other direct-to-physician instruments such as direct mail or fax into one category. Hence, the interplay between direct-to-physician /-pharmacist advertising and detailing is nearly unexplored in the pharmaceutical context, once again justifying my research purposes on the one hand and the exploratory research approach on the other hand.

Since physicians work under severe time constraints, they can only be visited by medical representatives for a very brief period of time (Liu, Wang, and Chan 2004). Faced with escalating sales force costs and physicians limited time frame they sacrifice to sales calls, there is a strong imperative to identify alternative communication channels. For the same reasons as outlined above, direct marketing instruments appear to be a good supplement to or even substitute for personal selling in the pharmaceutical marketing context. The eligibility of direct marketing instruments as complements or alternatives to personal selling and the identification of critical success factors will be

explored in the results section.

### 3.5 Reliability and Validity

Since theoretical sampling is aimed at theory development rather than representativeness of an initial population, the application of reliability or validity statistics is not appropriate (Fendt and Sachs 2008; Glaser and Strauss 1967). Several researchers

Trustworthiness Criteria	Method of Addressing
<b>Understanding</b> Extent to which findings represent reality and are understandable to people working in the substantive research area.	In the last analysis phase, preliminary concepts were presented to and discussed with three additional interviewees. These verification interviews confirmed my interpretations and built a base for the definition and description of the emerging categories.  <b>Result:</b> Findings are understood and accepted by sales and marketing managers.  <b>→ Understanding criterion achieved</b>
<b>Generality</b> Extent to which findings discover multiple aspects of the phenomenon under investigation.	Interviews were of sufficient length and openness to bring all possible facets and related concepts of the direct marketing and personal selling interplay to light.  <b>Result:</b> Interview analyses captured multiple aspects of the phenomenon.  <b>→ Generality criterion achieved</b>
<b>Fit</b> Extent to which findings fit the substantive research area under investigation.	Two research team members gave input during data collection and interpretation to avoid individual misinterpretations. Further, more than 100 pages of transcripts were independently analyzed by a co-researcher. Additionally, the verification interviews confirmed that concepts correspond to form variety of the direct marketing and personal selling interplay. Finally, an ex-post survey among pharmacists and physicians confirmed the findings.  <b>Result:</b> Categories represent valid determinants and outcomes of the direct marketing and personal selling interplay.  <b>→ Fit criterion achieved</b>
<b>Control</b> Extent to which organizations can influence aspects of the theoretical framework.	Sales managers can adjust the direct marketing and personal selling intensities based on an analysis of the factors determining the preferred use of direct marketing over personal selling (and vice versa). Thus, they can control and influence the interplay's outcomes.  <b>Result:</b> Suppliers can control the direct marketing and personal selling interplay.  <b>→ Control criterion achieved</b>

**Table 3:** Grounded Theory Trustworthiness Criteria

make the mistake to assign the canons of quantitative methods to interview or textual data (Baker, Wuest, and Stern 1992). Grounded theorists aim at developing innovative theoretical interpretations of the data rather than explicitly claiming any final or complete interpretation of it (Charmaz 1983). However, Glaser and Strauss (1967) suggest a set of criteria that might be applied in grounded theory research to assess trustworthiness and correct interpretation of the findings: The criteria of understanding, generality, fit and control. Table 3 indicates that my data and the corresponding analyses met these requirements.

## 4 Results

In this section, results from grounded theory regarding an effective and efficient composition of personal selling and direct marketing instruments are reported. Preliminary, table 4 provides an overview of the direct marketing instruments applied by companies.

Company	Interviewee No.	Direct Marketing Instruments Employed
1	1	Direct mail / telemarketing / trade shows
2	2	Direct mail / e-mail / fax / internet
3	3 and 4	Trade shows
4	5	Direct mail / telemarketing / internet / print advertising (containing response elements) / events
5	6	E-mail / fax
6	7	Direct mail / telemarketing / events
7	8	Direct mail / telemarketing / fax / internet
8	9	Direct mail / telemarketing / events
9	10	Direct mail / fax / internet
10	11	- (consulting firm → company does not employ any direct marketing instruments)
11	12	Direct mail / e-mail / telemarketing / fax / internet / print advertising (containing response elements) / events
12	13 and 14	Direct mail / print advertising (containing response elements) / events
13	15	Direct mail / telemarketing / internet

**Table 4:** Direct Marketing Instruments Employed by Companies

The analysis was guided by exploring the direct marketing and personal selling interplay's (DPI) form, or more accurately form variety, *which describes the intensity in which direct marketing supplements or substitutes personal selling*. In brief, six critical factors determine the design of DPI – namely the *customer lifetime value*, the *customer life cycle*, *customers' media preferences*, the *product category*, the *product life cycle* and *competitive intensity*. These factors can be further subsumed under three major categories – customer-related determinants, internal-to-the-organization and external-to-the-organization contextual conditions. Hereafter, the term “customer” refers to physicians and pharmacists while the end-user is referred to as consumer. Further, three main categories could be identified regarding the outcomes of DPI. All participants agreed that the combined use of direct marketing and personal selling enhances *selling productivity*. Additionally, several interviewees mentioned improved *aware-*

*ness* and *customer satisfaction* as beneficial outcomes. An overview of the categories that emerged from the coding procedure is presented in table 5.

#### 4.1 Customer-Related Determinants

Consistent with grounded theory, I looked for factors related to variation in DPI. In the course of the coding procedures, I discovered three categories related to customers' characteristics and preferences which are associated with varying forms of DPI: The *customer lifetime value*, the stage in the *customer life cycle*, and the *customer's media preferences*.

The first customer-related category determining DPI's form variety refers to the *customer lifetime value*. Across all respondents, concepts such as customer potential, customer size, customer revenue or customer profitability could be identified as determinants of DPI. Upon further analyses, these concepts were subsumed under the category customer lifetime value. Customer lifetime value can be defined as (Jain and Singh 2002, p. 37) "[...] *net profit or loss to the firm from a customer over the entire life of transactions of that customer with the firm. Hence the lifetime value of a customer for a firm is the net of the revenues obtained from that customer over the lifetime of transactions with that customer minus the cost of attracting, selling, and serving that customer, taking into account the time value of money.*" While this definition can be directly transferred to a pharmacist's lifetime value, the physician's lifetime value refers to his prescriptive behavior in relation to the cost of attracting and serving her or him. Several researchers provide empirical evidence for the existence of a relationship between marketing activities and the customer lifetime value and thus recommend the customer lifetime value as a metric for designing the selling mix (Krafft 2007; Reinartz and Kumar 2003; Rust, Zeithaml, and Lemon 2004). I made similar discoveries in my interview analyses. Interviewees agreed that by strategically concentrating personal selling activities on a distinct percent level of the highest value physicians and pharmacists, selling productivity can be improved. Two interviewees expressed this issue as follows:

Category	Underlying Concepts	Sample Quotes	Category's Properties and Dimensional Ranges	Implications for DPI	Frequency of Emergence <sup>#</sup>
customer lifetime value	<ul style="list-style-type: none"> <li>customer potential</li> <li>customer size</li> <li>customer revenue</li> <li>customer profitability</li> </ul>	<p>"... every sales force management system needs elements assuring that customers are serviced according to their potential."</p> <p>"Sales call frequency is definitely based on profitability."</p>	<p>The customer lifetime value refers to the pharmacist's or physicians current and future profit to the firm minus the cost of servicing that customer.</p> <p>Classification of customers according to the customer lifetime value ranges from <b>zero to high levels</b>.</p>	<ul style="list-style-type: none"> <li>service customers with the highest lifetime values via personal selling and direct marketing</li> <li>service customers with moderate to high lifetime values via personal selling</li> <li>service customers with low lifetime values by direct marketing</li> </ul>	44
customer life cycle	<ul style="list-style-type: none"> <li>prospecting</li> <li>phase in the relationship</li> <li>customer retention</li> </ul>	<p>"We experienced that face-to-face sales calls are essential to prospecting."</p> <p>"In the customer retention stage, personal selling is supplemented by telemarketing."</p>	<p>Customers move through different stages during their relationship with a seller. Interviewees distinguished especially the <b>acquisition</b> and the <b>loyalty stage</b>.</p>	<ul style="list-style-type: none"> <li>prospecting requires personal selling</li> <li>reduce sales calls in the loyalty stage and substitute them with direct marketing; the degree of substitution depends on the customer lifetime value</li> </ul>	10
customer's media preferences	<ul style="list-style-type: none"> <li>customer's media preferences</li> </ul>	<p>"Customers fancy four sales calls a year."</p>	<p>Customers have preferences regarding information resources. They dislike too many sales calls.</p>	<ul style="list-style-type: none"> <li>adjust DPI with regard to customers' desires, e.g. do not bomb them with information</li> </ul>	17
product category	<ul style="list-style-type: none"> <li>product category</li> </ul>	<p>"...in the generic segment, the sales force is a species a little threatened with extinction..."</p> <p>"OTC is characterized by completely different rules of the game."</p>	<p>In the pharmaceutical industry, two major product categories can be distinguished:</p> <p><b>OTC goods</b> → <b>ethical drugs</b> → <b>patent-registered drug</b></p> <p>others (e.g. creams) generics</p>	<ul style="list-style-type: none"> <li>concentrate on sales calls on physicians to promote patent-registered ethical drugs</li> <li>promote OTC goods to end consumer via mass communication and to pharmacists via personal selling</li> <li>promote generics to physicians via direct marketing</li> <li>inform pharmacists about ethical drugs via direct marketing</li> </ul>	7
product life cycle	<ul style="list-style-type: none"> <li>new product</li> <li>mature product</li> <li>product life cycle</li> </ul>	<p>"... direct marketing makes sense for [...] mature products in order to keep them in the customer's head..."</p> <p>"These are decisions, made along a product's life cycle."</p>	<p>A product's sales vary across different stages of its life cycle. In the pharmaceutical industry, the most relevant distinction is made between the <b>innovation</b> and the <b>maturity stage</b>.</p>	<ul style="list-style-type: none"> <li>during the sales call, present products in the early stages of the life cycle</li> <li>send mail after sales call if new product is launched</li> <li>promote mature products via direct marketing</li> </ul>	21
competitive intensity	<ul style="list-style-type: none"> <li>competitive intensity</li> </ul>	<p>"This always depends on the degree of competitive intensity."</p>	<p>Competitive intensity refers to the degree of alternative options available to customers. It ranges from <b>low to high intensity</b> and is especially high in the generic segment.</p>	<ul style="list-style-type: none"> <li>call on pharmacies and use direct marketing instruments as complement to promote generics to pharmacists</li> <li>inform physicians about generics via direct marketing</li> </ul>	3
selling productivity	<ul style="list-style-type: none"> <li>cost reduction</li> <li>revenue increase</li> <li>selling productivity</li> </ul>	<p>"The costs of mailings [...] are far lower."</p> <p>"I believe, the combination has the potential to result in cost reduction as well as revenue increases."</p>	<p>selling productivity = generated sales per contact to expense per customer contact</p>	<ul style="list-style-type: none"> <li>well designed DPI enhances selling productivity</li> </ul>	18
brand awareness	<ul style="list-style-type: none"> <li>brand awareness</li> </ul>	<p>"Since we stop investing in human resources at a distinct level, a mailing is a cost-efficient instrument to increase awareness."</p>	<p>Brand awareness relates to the strength of a brand's presence in the customer's mind. It ranges from <b>low</b> to <b>high</b> levels.</p>	<ul style="list-style-type: none"> <li>since personal selling's coverage is limited, the complementary use of direct marketing increases awareness relatively cost-efficient</li> </ul>	7
customer satisfaction	<ul style="list-style-type: none"> <li>customer satisfaction</li> </ul>	<p>"...the combined service increases customer satisfaction, if I [...] am able to create additional value to the customer..."</p>	<p>In my research context, customer satisfaction refers to the contentment of customers with the manufacturer's selling mix and ranges from <b>dissatisfied</b> to <b>very satisfied</b>.</p>	<ul style="list-style-type: none"> <li>DPI offers the opportunity to serve customers with a relatively low customer lifetime value</li> <li>DPI offers more flexibility to customers</li> </ul>	5

**Table 5:** Underlying Concepts, Dimensional Ranges, and Implications of Categories

\* Frequency of emergence refers to the occurrence of a category's underlying concepts mentioned by the respondents across all interviews



*“The use of personal selling and direct marketing depends on the current and the future potential of the customer.”*

*“Anyway, there is a trend to evaluate how to generate as much revenue as possible as well as servicing as many customers as possible with the lowest personal input as possible. [...] In our company, a big issue is the customer’s profitability. If we conclude that a customer generating a distinct amount of revenue is unprofitable when a distinct number of sales calls is devoted to him, substituting the sales call with mailings could improve his profitability extremely.”*

Customers generating small amounts of revenues are served by the less expensive direct marketing instruments in order to keep a distinct ratio of generated revenue to marketing costs:

*“I refer to the less profitable segment when thinking about the substitution of personal selling.”*

*“We have so-called mailing customers. These are customers not visited but who get mailings three to four times a year.”*

Since the customer lifetime value considers contribution margins of current as well as future customers, this category is strongly related to the next category identified as a determinant of DPI, namely the *customer life cycle*. The customer life cycle concept refers to customers’ different relationship stages with a seller as they move from beginning to termination (Reinartz, Krafft, and Hoyer 2004). As the customer’s experience with a particular offering grows over time, attitude towards brands and relationships with the manufacturer become stronger, more resistant to change and get likely to guide future purchase intentions and subsequent behavior (Fazio, Powell, and Williams 1989; Priester et al. 2004). All but one respondent agreed that DPI forms should be varied across different stages of the customer life cycle. Usually, four stages are distinguished – acquisition, growth, loyalty and reactivation (Coe 2004). However, interviewees only emphasized the differentiation of prospects and existing customers and thus, the differentiation of DPI across the acquisition and the loyalty stage. One of the companies calls on its new customers at least six times a year – which is a lot considering the large number of pharmacies and physicians in Germany – independent of their customer lifetime value. In the second year, selling activities are adjusted to the

customer's life time value, e.g., for less profitable customers sales calls are reduced and substituted by mailings and faxes. Interviewee 12 compared the phases of a customer relationship with a personal friendship. In general, becoming acquainted with someone happens in person. To keep up the friendship, other media such as e-mail or telephone are complements to or even substitutes for personal encounters:

*"It is like with your friends to whom you have a personal relationship. And you do not have to keep the friendship up by contacting your friend always in person, do you? If you have internalized this, you can transfer this to business relationships. This knowledge increases responsibility and efficiency in implementing customer relationship management."*

Hence, prospecting requires personal sales calls in order to establish a relationship and – even more important – trust with the physician or pharmacist. One of the interviewees summarized it as follows:

*"The sales force has to be correctly and efficiently deployed, and then it is a real weapon. In Germany, this has to do a lot with trust. At the beginning, you have to build a base. Many pharmaceutical companies tried to launch new products via direct marketing promotions, which has never been successful. The primary mistake was always the lack of a social network. [...] And therefore, I believe, without an established relationship, you'll have a lot of difficulties."*

While some of the interviewees considered direct marketing a useful supplement to personal selling in prospecting, the tenor was that direct marketing is obstructive in acquiring new customers as customers might be irritated about where the manufacturer got their number (in case of fax or telemarketing) or their address (in case of direct mail or e-mail).

Once a customer enters the loyalty stage of the life cycle, most surveyed companies reduce personal selling activities for two reasons. First, as outlined above, especially physicians are too busy to talk frequently to medical representatives. Thus, pharmaceutical companies fear to annoy their customers by calling too often on them. Second, sales force resources are limited and cost intensive and therefore cannot be deployed

regularly to every customer in each stage of the life cycle. Since the focus is on new and profitable customers, there is a large role for direct marketing in the customer loyalty phase; highly targeted and relevant communications can keep up the contact. Thus, direct marketing activities gain in importance to enhance customer retention in the loyalty stage.

The last customer-related category refers to the *customer's media preferences*. When allocating budgets among alternative promotional tools, industrial marketers need to be informed about current and prospective customers' desires (Jackson, Keith, and Burdick 1987). Direct marketing instruments commonly used for making persuasive communications in the investigated firms include mailings, fax, telemarketing, e-mail, events, print advertisements (containing response elements) and internet portals. Overall, respondents agreed that bothering customers too often with sales calls is counter productive. Or, as interviewees 11 and 12 pointed out:

*"It is not the case that the massive deployment of sales reps results in Hurrah-yells."*

*"Certainly, nobody decided to become a doctor in order to entertain medical reps all day."*

Hence, alternative direct marketing instruments are used to keep the customer informed. However, it emerged that especially electronic media such as e-mails or internet portals were assessed as being information sources that are not really well-accepted among customers, which is illustrated in the statement of interviewee 9:

*"Consider that a dermatologist has on average two or three examination rooms – in how many of them is internet access? In no one! For us, this implies that internet marketing is little promising [...] Internet access is limited to the check in area, but the physician himself is never sitting there [...] Thus, it is difficult to integrate new media or internet in daily routine due to the idiotic question of internet access. [...] Also, in the pharmacy context, the question arises whether all employees have internet access at home. No way! Does the pharmacist allow his girls to surf in the internet in the break room? No way! And then we shall develop online training programs, say "great" and applaud ourselves?"*

Only for younger physicians and pharmacists, respondents anticipated a substantial degree of effectiveness of electronic media. Further, several of the firms had experienced negative outcomes of telemarketing initiatives. Interviewee 13 even reported about “*very angry complaints*”. These experiences are contradictory to several conceptual papers that advocate the substitution of personal selling with telemarketing (e.g., Lichtenthal, Sikri, and Folk 1989) and explain why the tenor was to favor cold calls by sales people over less expensive telemarketing strategies in the acquisition phase as outlined above. While the organization of special events for physicians or pharmacists was considered very popular with customers, events are very expensive communication instruments and therefore seldom used. Overall, fax, mailings and print advertising with response elements were classified as the most preferred direct marketing instruments. Though the interviewees’ assessment of customers’ media preferences was very helpful to my analysis, directly querying physicians and pharmacists about their media preferences promised to deepen understanding of their desires (see section 4.5).

## 4.2 Internal Contextual Conditions

The next categories determining DPI’s form variety concern the seller’s product assortment. Overall, respondents stated that the expedient use of direct marketing at the expense of personal selling depends on the *product category* offered and the *product’s stage in its life cycle*.

In the context of the pharmaceutical industry, manufacturers’ product types can broadly be categorized into two groups: OTC products and ethical drugs. OTC goods cover all non-prescription products such as sun creams as well as non-prescription generics such as painkillers sold in a pharmacy (Hofmann and Schöffski 2008). Since OTC products are predominantly chosen by end-users themselves, the interview analysis revealed that marketing effort should mostly be directed to end consumers. Due to the high number of end-users, mass communication seems to be most appropriate in the OTC context. Hence, OTC marketing strategies are quite similar to the consumer goods industry, which was also expressed by interviewee 11:

*“[...] here we really can advertise direct to the consumer. This is comparable with the consumer goods industry.”*

Further, respondents emphasized the importance of sales calls on pharmacies to promote OTC goods because several interviewees had experienced positive effects of face-to-face contacts on recommendation probability. Pharmacists' recommendations are very important to OTC sales as end-users' purchases are often affected by pharmacists' opinions. Interviewee 9 came to the point as follows:

*“[...] face-to-face contact with pharmacists is crucial to recommendation frequency and, thus, revenue.”*

In other words, mass communication to end users and sales calls on pharmacies are considered most effective in the OTC context, while direct marketing plays a minor role.

In contrast to OTC products, the physician has a gate-keeping function in the area of ethical drugs (Stremersch 2008). Not the patient her- / himself selects the medicament he or she will consume, but rather the physician chooses the drug therapy (Gonzales et al. 2008). Hence, the pharmaceutical manufacturer has to differentiate DPI form across product categories. One respondent pointed out:

*“OTC is characterized by completely different rules of the game. [...] I suggest to strictly separate OTC promotions and ethical product promotions.”*

Since patent-registered drugs are the most profitable products for pharmaceutical manufacturers, respondents agreed that sales calls on physicians are the dominant element of the selling mix to push prescriptions. Further, the composition, advantages and use of innovative products often require personal explanation. To market prescriptive generics, which are usually characterized by lower profits per unit, direct marketing instruments were regarded as the more appropriate instrument to promote them to physicians.

Closely related to the category “product category”, the coding procedure yielded the

*product life cycle* as a determinant of DPI form variety. The product life cycle concept represents a product's sales and growth over time and distinguishes four sequential stages (introduction, growth, maturity, saturation / decline), each characterized by different sales expectations (Levitt 1965). Most interviewees reported a systematic variation in DPI form across different stages of the product life cycle, but the distinction of stages in the interviews was restricted to the innovation and maturity stage. In the pharmaceutical industry, especially patent expiration – which induces the drug's maturity stage – represents a turning point in a medicament's life cycle (Gonzalez et al. 2008) which explains the interviewees' distinction of only two phases.

According to my respondents, no more than three different products can be presented in a single call. Hence, sales managers have difficulties in getting their medical representatives detail mature and innovative products in one call. Further, respondents had experienced that physicians are more willing to listen to sales presentations of innovative products. Therefore, interviewees agreed to present products in the early stages of the product's life cycle in the limited time window that physicians offer to sales calls. Mature products should be promoted via direct marketing instruments in order to keep physicians and pharmacists aware of their existence. Further, product launches should be promoted by both, personal selling and direct marketing. Especially mailings were regarded as an expedient reminder after a new product was presented in a sales call:

*“E.g., one could send a reminding mailing, 14 days or three weeks after the sales call. We did this for product launches. Product launches imperatively require reminders.”*

### **4.3 External Contextual Conditions**

The final category determining DPI's form variety refers to the company's environment, more precisely the *intensity of competition*. Under conditions of high competition, customers have many alternative options to satisfy their needs (Jaworski and Kohli 1993). Compared to other industries, the pharmaceutical industry is characterized as a highly competitive market; apart from the patent-registered products. Respondents agreed that the need to contact customers personally increases as the extent

of competitive intensity in a distinct product segment increases. Especially, generic drug competition is steadily increasing. However, as outlined above, it is difficult to present generics to physicians in a sales call as the physician prefers to talk about innovative products in the limited time he offers to sales calls. Therefore, the interview analyses revealed that promoting generics to pharmacies via face-to-face contacts becomes increasingly important under conditions of high competitive intensity in the distinct generic category. Direct marketing may serve as a complement to the personal selling effort devoted to the promotion of generics to pharmacists. Further, direct marketing can be used to inform physicians about generics as they are not willing to talk about them during a sales call.

#### 4.4 Outcomes of DPI

The objective of this study was to identify factors determining the preferred use of direct marketing over personal selling with regard to improving selling productivity. All respondents confirmed that a well-designed DPI positively affects *selling productivity* in terms of cost reduction and increased contact frequency. On the one hand, direct marketing activities can substitute personal selling in those contexts, where personal selling is inadequate (e.g., for customers with a low customer lifetime value). On the other hand, direct marketing can function as supplement to personal selling if products cannot be presented in sales calls due to time constraints (e.g., for mature products). The following statements of interviewees 7, 9, 12 and 15 underscore these findings:

*“I evaluate the combined use very efficient. By adjusting these activities [...] the probability of success and thus, productivity can be increased significantly.”*

*“And I believe a well designed interplay of direct marketing and personal selling results in success as you have a direct contact on the one hand, which is optimized by the supplement use of direct marketing on the other hand.”*

*“By supporting the sales force with direct marketing activities, the sales rep has the chance to make five instead of seven calls per day. Hence, he can devote more time to each of these five customer calls,*

*i.e. he can improve the quality of these calls. The omitted calls are substituted by direct marketing activities.”*

*“In any case, I believe in a cost reduction potential. The contact via a call center is extensively cheaper than a sales call.”*

Despite DPI's positive effect on selling productivity, respondents confirmed personal selling as the most effective promotion tool or, as interviewee 15 pointed out “*a look in someone's eyes is not substitutable*”. This consensus underscores again the importance to carefully identify the conditions in which direct marketing can substitute personal selling.

Apart from *selling productivity*, two additional major categories could be discovered as outcomes of DPI: *brand awareness* and *customer satisfaction*.

*Brand awareness* relates to strength of a brand's presence in the customer's mind (Aaker 1996). Supplementing personal selling with direct marketing offers the opportunity to increase brand awareness in a cost-efficient way. Personal selling alone cannot guarantee a distinct awareness level – or as interviewee 5 expressed it “*keep the fire burning*” – as its coverage is limited.

In the pharmaceutical context, awareness is insofar important as a physician cannot prescribe a product he or she is not aware of (Williams and Hensel 1991). Similarly, the pharmacist cannot recommend a product unknown to him. Therefore, the positive impact of DPI on awareness is of crucial importance.

The last category identified as a DPI outcome refers to *customer satisfaction*. It turned out in the interview analysis that DPI has the potential to enhance customer satisfaction in two ways. First, by using direct marketing, a distinct level of attention can be devoted to less profitable customers, which results in increased satisfaction of these customers reflected in increased revenue. Second, direct marketing instruments in form of a letter or fax offer customers more flexibility in getting informed. Most interviewees agreed that beyond a certain level of sales calls, customers are annoyed rather than delighted about face-to-face contacts. Beyond this level, alternative instruments



have to be used to communicate with customers in order to avoid dissatisfaction. E.g., interviewee 12 reported that his company identified a distinct region where customers have a strong preference for telemarketing. Hence, the company is able to simultaneously improve two outcomes of DPI: On the one hand, selling productivity is enhanced because telemarketing is less expensive than personal selling, and, on the other hand, customer satisfaction is increased as customers are serviced by their preferred medium.

The positive impact of DPI on the three outcome categories highlights the importance of choosing the correct DPI form in dependence of the determinants and contextual categories outlined above. In the next section, results of the survey among physicians and pharmacists are presented before a theoretical framework illustrating the potential causal relationships between the categories is developed.

#### **4.5 Survey on Customers' Media Preferences**

After I had identified the customer's media preferences as category in the course of the coding procedures, I conducted an ex post survey among 96 physicians and pharmacists on their attitudes towards sales calls and direct marketing activities (cf. the Appendix for an overview of the measurement items used). Since pharmaceutical sellers must understand buyers' communication preferences and align DPI form accordingly in order to maximize selling productivity, results of this survey deepen the understanding of the category and have important sales management implications.

At the beginning, respondents were asked to evaluate the importance of 16 different information sources with regard to their influence on prescribing or recommendation behavior on a 7-point-rating-scale anchored from "not important at all" (1) to "very important" (7). Of all 16 information sources examined, the top three most important were reference books, opinion leaders and exchange of experience with colleagues, with no significant differences between pharmacists and physicians. Hence, the most influencing information sources are non-commercial media. The highest ranked marketer-controlled sources are medical sales representatives for physicians and inbound

telemarketing for pharmacists. Internet was ranked as a moderately influential information source. Surprisingly, pharmacists even ranked it higher than medical representatives. Further, as expected by the interviewees, a negative correlation between the importance of the internet as information source and respondents' age could be confirmed ( $r = -.21$ ;  $p < .05$ ), indicating an increasing importance of the internet in the future (assumed that the younger customers retain their online-affinity when they grow older). Events sponsored by pharmaceutical manufacturers as well as print advertising in objective medical journals also represent moderately considered information sources. Appallingly, all respondents ranked the remaining direct marketing instruments e-mail, fax, outbound telemarketing and direct mail lowest with regard to their importance in prescribing or recommendation behavior. These results were also reflected in a relative ranking of information sources. Participants were asked to allocate a fixed total of 100 points among five superior information source categories, namely consultation with colleagues, medical representatives, non-commercial media, personal commercial media (direct marketing) and others. Non-commercial media were rated as the most important sources (35%), followed by exchange with colleagues (26%) and medical representatives (16%). The relative importance of direct marketing was ranked fourth (13%), while the category others was ranked lowest (10%).<sup>2</sup>

Although customers prefer medical representatives over most direct marketing instruments, manufacturers need to know in which circumstances customers would accept alternatives to personal selling, because – as outlined above – personal selling activities are too cost-intensive to be applied in each context. Therefore, respondents were asked to evaluate different situations in which they would approve direct marketing activities. The evaluation did not distinguish distinct direct marketing instruments, but referred to the general acceptance of direct marketing in different contexts compared to personal selling. Results support the findings of the interview analyses as respon-

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<sup>2</sup> It should be noted that these results may be biased due to reasons of social desirability. Pharmacists and physicians are expected to maintain a strong values system that incorporates autonomy, altruism, and authority which in turn is the basis on which society trusts them to act unaffected by pharmaceutical marketing activities (Freidson 1988).

dents prefer direct marketing activities over personal selling for mature products and familiar manufacturers. With regard to the product category (OTC good vs. ethical drug), pharmacists dislike to be informed about OTC goods via direct marketing while physicians evaluate direct marketing as an alternative to personal selling for OTC products highest. Physicians clearly prefer personal selling over direct marketing as information source regarding prescriptive drugs, while pharmacists favor direct marketing as information source for ethical drugs.

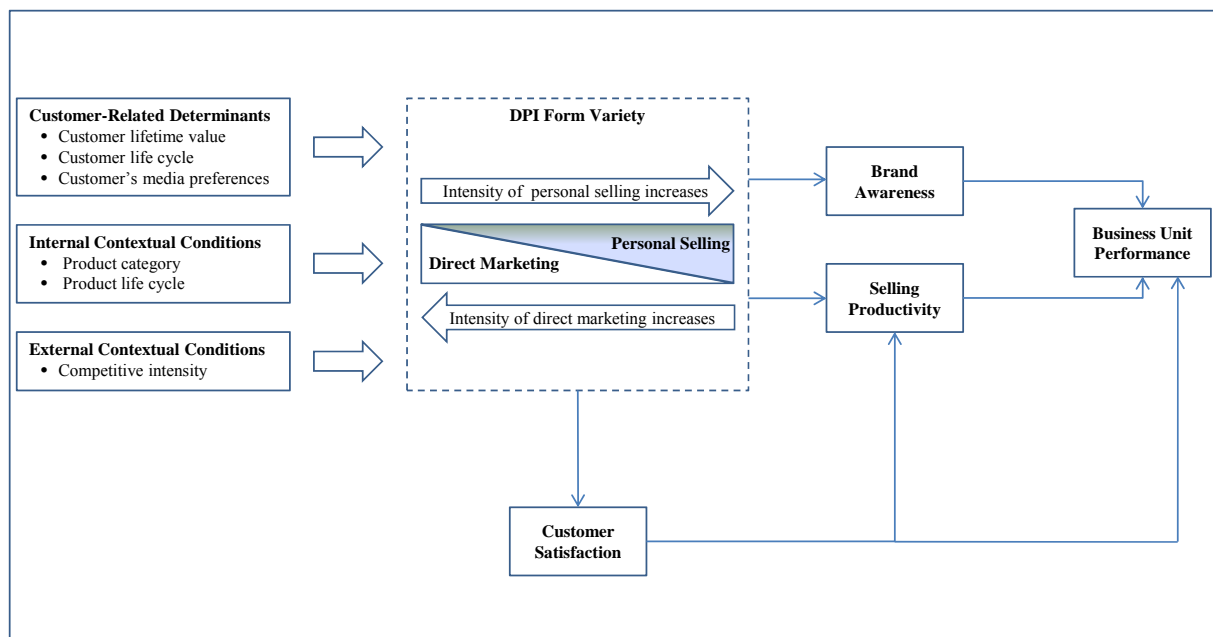
Finally, respondents were asked about their attitude towards different direct marketing instruments using the scale of Donthu and Gilliland (1996) and about their attitude towards personal selling using the scale of Brown (1995). Unsurprisingly, the attitude towards personal selling is clearly more positive than towards direct marketing. In general, pharmacists desire two OTC sales calls per week, while physicians desire two ethical drug sales calls per week. Among the direct marketing instruments, the most positive attitude was found for inbound telemarketing, followed by direct mails. Faxes and e-mails were evaluated worst.

The survey among physicians and pharmacists displays only few deviations from sellers' assessment of their customers' media preferences and confirms several of the findings from the interview analyses. Based on the survey's and the interviews' evaluation, a preliminary causal framework regarding the determinants and outcomes of DPI form variety as well as several implications can be derived and will be discussed in the next section.

## 5 Discussion

### 5.1 Summary of Findings

The interpretations outlined above yielded several determinants and outcomes associated with DPI form variety. While it is impossible to develop a cause-effect structural model based solely on non-longitudinal in-depth interviews (Flint, Woodruff, and Fisher Gardial 2002), I take a step beyond the direct interpretation of the interview data and propose a theoretical framework regarding the determinants and outcomes of DPI (cf. figure 2). This framework demands further validation through large samples and longitudinal studies in future research.



**Figure 2:** A Proposed Causal Model of DPI

DPI form variety reflects the many ways direct marketing instruments can supplement or substitute personal selling. For each direct marketing instrument, it ranges on a continuum anchored from “no supplement to personal selling at all” to “full substitution of personal selling”. The interviews indicate that the specification of DPI is driven by customer-related determinants, internal and external contextual conditions. First, the intensity of direct marketing and personal selling activities depends on the customer life time value which is speculated to be positively correlated with personal selling

intensity until a – pertaining to the customer's acceptance – maximum of sales call frequency is reached. For direct marketing intensity, a negative correlation with the customer lifetime value is expected. Second, the stage in the customer life cycle, ranging from entirely new customer to loyal customer, was identified in the interview analyses. Stage-related marketing activities might be classified as prospecting, early relationship management and retention management. For personal selling intensity, I propose the highest correlation with prospecting and the lowest correlation with retention management whereas I expect effects in the opposite direction for direct marketing intensity. Regarding the different direct marketing instruments, I suggest the correlation to be highest for telemarketing intensity and prospecting as it is most comparable to personal selling. Third, the customer's media preferences determine DPI form variety. However, a general direction regarding DPI cannot be made as it depends on the targeted customer group. The proposed model further posits that internal contextual conditions contribute to DPI form variety. With regard to product category, I expect a positive correlation between patent-registered drugs and physician sales calls. For OTC goods I propose a positive correlation with pharmacist sales calls. The second internal contextual condition affecting DPI form variety refers to the product life cycle. The interview interpretations allow for the assumption of a negative correlation between personal selling and the sequential phases of the product life cycle because personal selling intensity is expected to decrease the more the product moves to the maturity stage of its life cycle. For direct marketing intensity, effects in the opposite direction are expected. Further, DPI form variety is driven by the degree of competitive intensity as the only external contextual condition. The extent of competitive intensity is especially high in the generic segment. According to the interview transcripts, an increasing intensity of personal selling is expected to be related with an increasing degree of competitive intensity as it is the most effective element to outlive competitors.

Regarding the outcomes of a well-designed DPI, a strong positive effect on selling productivity is expected as all interviewees agreed upon this effect. Since several interviewees reported a positive impact of DPI on customer satisfaction, I also assume

this effect. However, referring to recent findings of Luo and Homburg (2007) who found a positive influence of customer satisfaction on marketing productivity, I specify customer satisfaction both as a direct outcome of DPI and as positive mediator of the effect of DPI on selling productivity. This assumption can be explained by the possibility that customer satisfaction may result in free word-of-mouth advertising and thus subsequent promotion cost savings (e.g., Brown et al. 2005; Luo and Homburg 2007; Ranaweera and Prabhu 2003). As the survey among physicians and pharmacists educated the exchange of experiences with colleagues as one of their preferred information sources, word-of-mouth advertising is identified as being of crucial importance in the pharmaceutical context, underscoring my expectation of a mediating effect of customer satisfaction on selling productivity. Additionally, I propose a positive correlation between DPI and brand awareness for the reasons outlined in the results section.

Finally, I expect positive effects of selling productivity, brand awareness and customer satisfaction on business unit performance. Due to its definition, it is intuitively plausible that increasing selling productivity – which is either increased by lowering selling costs or the increased ability to translate selling communications costs into sales – results in higher business unit performance. Regarding customer satisfaction several researchers have found support for a positive effect on firm economic performance, such as return on assets and return on equity (Anderson, Fornell, and Mazvancheryl 2004; Fornell, Morgenson, and Krishan 2006) which corroborates the assumption of a positive effect on business unit performance. Concluding, previous studies have reported positive effects of brand awareness on firm performance supporting the expected positive correlation (Keller and Lehmann 2003, 2006).

The proposed model includes components similar to some offered by extant literature such as customers' media preferences (e.g., Jackson, Keith, and Burdick 1987; Rodriguez Cano, Boles, and Bean 2005), competition (Gopalakrishna and Chatterjee 1992) or customer value (Cardozo, Shipp, and Roering 1987; Gopalakrishna and Chatterjee 1992). However, the present study was the first to propose an integrated proposed causal model, building a framework assisting managers in designing the selling mix on

the one hand, and building a base for future research on the other hand. Managerial implications are discussed in detail in the next section.

## **5.2 Managerial Implications**

Overall, results indicate that managers may realize increased selling productivity, increased brand awareness and enhanced customer satisfaction – and thus business unit performance – when direct marketing activities and personal selling intensity are adjusted to the identified determinants. Addressing the complexity of media planning, the proposed theoretical framework assists managers in choosing improved media design and budget allocation plans. Especially, the speculated causal effects have important implications for managers.

My framework suggests that improved productivity is achievable through reallocation of the communication budget based on the feature characteristics of three major categories; namely customer-related determinants, internal and external contextual conditions. First, managers should consider allocating a substantial portion of the communication budget to personal selling in the early stages of the customer's life cycle while personal selling expenditures can be reduced in the loyalty stage in favor of the less expensive direct marketing instruments. Further, serving less profitable customers and promoting mature products via direct marketing activities are ways to reduce selling costs on the one hand and to concentrate the allocation of limited sales force resources to those situations where they are indispensable on the other hand. However, managers must take into account that some minimum level of personal selling effort may be necessary even for small customers (Gopalakrishna and Chatterjee 1992). Personal selling seems to be essential to prospecting, serving highly profitable customers and promoting innovative products. Moreover, companies operating in highly competitive environments should keep personal selling activities at a distinct level as it is the most effective element in outrivaling competitors. In the pharmaceutical context, this is especially the case for generic suppliers because the generic segment is considered highly competitive (Gonzalez et al. 2008). Further, managers must consider custom-

ers' media preferences when designing the selling mix. The survey among physicians and pharmacists reveals that medical representatives are physicians' most preferred marketer-controlled information source while pharmacists evaluate inbound telemarketing activities highest. The internet is an information source gaining in importance in the future. Thus, sales managers must allocate a distinct proportion of the firm's media budget on the development of internet portals and the establishment or advancement of inbound call centers. In contrast, outbound telemarketing activities should be reduced to a minimum as customers seem to feel offended by them.

To summarize, the study's findings support managers in defending media plans by illustrating the contribution of a specific selling instrument in a distinct situation.

### **5.3 Limitations and Further Research**

This article's contribution is not only to identify the determinants of DPI form variety, but also to highlight the importance of DPI design with regard to improved selling productivity, customer satisfaction as well as brand awareness; and thus business unit performance. However, two limitations of this study should be noted. First, as is common for grounded theory studies, I relied on in-depth interviews from relatively few respondents (i.e., 15) who represented relatively few organizations (i.e., 13). This limits the generalizability of my interpretations. Second, the intention of the study was to identify one industry highly relevant to the research topic and thus to develop specialized knowledge in a particular field. More specifically, the goal was to develop a theory and reveal findings with an explicit reference to a context defined by an application in one industry, rather than deriving theories that can be generalized perfectly to all situations (Stremersch 2008). Against this background, early interview analyses guided me to focus on the pharmaceutical industry. Therefore, the study carries the inherent limitation that its findings are specific to pharmaceutical businesses.

These limitations provide several directions for future investigation; foremost is the need for large-scale empirical validation of the proposed causal theoretical framework. The use of quantitative research methods offers the opportunity to verify and extend



the findings in this research. In this context, valid scales are needed for DPI and the other categories related to DPI form variety. The complexity of initial quantitative studies might be reduced by focusing on the determinants' impact on the interplay of personal selling and one single direct marketing instrument. The simultaneous examination of several direct marketing instruments' interplay with personal selling requires the calculation of all cross-media synergies as suggested by the integrated marketing communication literature. Future research should also involve longitudinal observations of different DPI forms and their effect on selling productivity. Finally, validation studies must expand the generalizability of the proposed antecedents of DPI by including different industries. Especially, customers' media preferences might differ across different industries and, thus, need deeper exploration. Future research could also identify customer configurations with regard to their response to direct marketing and personal selling activities.

The intention of this study was to develop a well-grounded understanding of the determinants and outcomes of DPI form variety. Since the outcomes of DPI are very important to business practice as they instantaneously affect a firm's bottom line, much more detailed and validated comprehension of DPI is needed. The findings from this study offer an initial step in this direction.

## Appendix

### Measurement Items Survey

Construct • Measure	Mean
<b>Importance of information sources with regard to prescribing or recommendation behavior</b> (7 = highly important, 1 = not important at all) <ul style="list-style-type: none"> <li>• exchange of experience</li> <li>• opinion leaders</li> <li>• medical representatives</li> <li>• event sponsored by pharmaceutical manufacturers</li> <li>• reference books</li> <li>• print advertising in objective journals</li> <li>• objective journals</li> <li>• samples</li> <li>• e-mails</li> <li>• internet</li> <li>• conventions</li> <li>• telemarketing (Outbound)</li> <li>• telemarketing (Inbound)</li> <li>• direct mailing</li> <li>• fax</li> <li>• others</li> </ul>	4,8 4,9 3,9 3,8 5,1 2,9 4,6 3,2 2,6 3,7 3,9 1,9 4,3 2,5 2,4 2,8
<b>Please allocate 100 points among the following information sources according to your consideration in prescribing / recommendation behavior:</b> <ul style="list-style-type: none"> <li>• consultation with colleagues _____</li> <li>• medical representatives _____</li> <li>• non-commercial media (e.g. objective medical journals) _____</li> <li>• personal commercial media (e.g. personal mailings) _____</li> <li>• others _____</li> </ul>	26 16 35 13 10
<b>Direct marketing covers all marketing activities personally directed to customers, which allow for an interaction between a buyer and a seller (e.g. telemarketing, personal mailings, faxes or e-mails, announcements containing response elements). Please evaluate in which contexts you would prefer direct marketing instruments over personal selling.</b> (7 = completely agree, 1 = disagree) <ul style="list-style-type: none"> <li>• for ethical products</li> <li>• for OTC goods</li> <li>• for new products</li> <li>• for mature products</li> <li>• for new manufacturers</li> <li>• for familiar manufacturers</li> <li>• I always prefer sales calls over personal selling.</li> </ul>	3,2 3,1 3,2 3,6 3,3 3,6 4,6
<b>Please evaluate your attitude towards sales calls in general</b> ( <i>adapted from Brown 1995</i> ) (semantic differential; measured on a 7-point-likert scale) <ul style="list-style-type: none"> <li>• bad – good</li> <li>• ineffective – effective</li> <li>• not useful – useful</li> <li>• unpleasant – pleasant</li> <li>• unhelpful – helpful</li> </ul>	4,2 4,4 4,2 4,4 4,1 4,3

Construct • Measure	Mean	
<b>To which extent do you agree to the following statements?</b> ( <i>adapted from Donthu and Gilliland 1996</i> ) (7 = completely agree, 1 = disagree) <ul style="list-style-type: none"> <li>• Phone solicitations of pharmaceutical sellers are an invasion of my privacy. (rc)</li> <li>• I enjoy receiving personal mailings from pharmaceutical sellers.</li> <li>• I enjoy receiving personal faxes from pharmaceutical sellers.</li> <li>• I enjoy receiving personal e-mails from pharmaceutical sellers.</li> </ul>	3,2  2,8 (5,2) 2,7 2,5 2,5	
<b>How often do you prefer being visited from medical representatives?</b> <ul style="list-style-type: none"> <li>• Ethical drugs: _____ times a week</li> <li>• OTC goods: _____ times a week</li> </ul>	Physicians 1,8  0,74	Pharmacists 1  1,8

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