

## Specific Characteristics of Pharmaceutical Marketing

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**Abstract:** In view of the growth of various types of diseases and the desire of patients as consumers to be increasingly informed, both globally and nationally, the importance of pharmaceutical marketing is increasing and should not be neglected. Its place and role are essential in increasing sales of various drugs and, in parallel, achieving sustainable development while, in particular, preserving the health of all users. In this paper, the emphasis is placed on the basic features of pharmaceutical modelling through the prism of marketing-physician-patient relationships, their interaction, the desired and achieved results as well as satisfaction.

**Key words:** pharmaceutical marketing, marketing, patient, consumer, market

**JEL:** M3, M30, M31, I10

### Introduction

Indisputably, pharmaceutical marketing carries specific characteristics, and its analysis requires a multi-layered consideration of various factors that influence not only its foundation but also its practical implementation. Since the main protagonists of all types of marketing are consumers, in pharmaceutical marketing these are the patients.

**The purpose** of this article is to present the specific features of pharmaceutical marketing in a basic framework.

### Methodology

The historical review of the issue under consideration sheds light on the place and role of physicians, traditionally treating patients largely as passive participants in a process that affects their health outcomes and recovery. In the current economic and social conditions, patients have had access to detailed information about diseases and drugs and are increasingly willing to assert their point of view, especially when chronic diseases are concerned. They are informationally prepared,

thanks to the data they have access to through various communication channels.

Since many diseases are chronic in nature, the assumption that there is a single physician or consumer who maximises the utility is largely exaggerated.

There is a body of scientific research demonstrating that the trade-offs made by physicians in ordering medical treatments to patients are not necessarily consistent with the latter's preferences (Fraenkel et al., 2004). Therefore, developing and testing models that incorporate the preferences of both physicians and patients when ordering medical treatments is an open research area.

According to Misra (2004), there are two types of physicians, i.e. those who value their patients' utility strongly and those who value it less. Moreover, he claims that there are two types of patients, i.e. new and continuing ones. Based on his research, he structures a model that maximises the utility of the interaction between a physician and a patient.

In turn, post-purchase consumer behaviour is an important determinant of product use, satisfaction and repurchase behaviour. As far as patients are concerned, non-compliance

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leads to medical complications (Loden and Schooler, 2000) and increased healthcare costs (Johnson and Bootman, 1995). As far as pharmaceutical companies are concerned, the decrease in sales caused by brand switching and negative word of mouth resulting from perceived product failure is estimated at \$15–20 billion annually (Beavers, 1999).

Poor compliance also leads to poorer customer retention, which leads to lower prescription revenues for pharmacy retailers (Huffman and Jackson, 1995; Jackson et al., 1996). Based on this, it is not surprising that the issue of compliance is of great importance (Van der Pool, 2003).

Regarding the role of marketing on compliance, Bowman et al. (2003) investigates the determinants of compliance behavior, using a unique set of patient diaries. Based on a comprehensive set of specific metrics, they identify a number of indicators consistent with the medical literature and marketing constructs. They claim that an impending visit at a physician increases compliance. From an advertising perspective, they claim that different market segments of patients have different reactions (sometimes negative ones), which they attribute to inflated expectations set by advertisements.

Wosinska (2005) includes a large panel of patients in testing whether the number of missed treatment days decreases when the level of advertising expenditure for these products decreases as well. She claims there is a positive effect of advertising on patient acceptance of a competing brand and a negative effect on adherence to the advertised brand. Although her findings are surprising, the economic significance of both effects is very small. She claims that the negative effect is due to advertising providing information not only about the benefits but also about the risks associated with a drug. However, many questions still remain pending in this area (Manchanda, P. 2005).

Another specific feature is the possibility of social networks to influence pharmaceutical marketing and spread the new products.

In the contemporary digital environment, there is a growing interest in understanding the degree of influence that consumers exert on the adoption of new products by other consumers, i.e. through viral marketing or word of mouth. Although the existence of this effect has been known for a long time, not much is known about the characteristics of the network (the degree and type of influence of close vs distant users, the effect of the influencers) on the actual behavioural outcomes (treatment time and usage levels).

The pharmaceutical industry offers a unique opportunity in terms of documenting this effect. First, the outcomes related to treatment time and use are important to industry participants. Second, it is relatively easy to isolate networks (eg, for most drugs, physician networks are in the tens of thousands). Third, the industry collects a lot of data recording post-launch events. Finally, the presence of multiple (potentially interacting) networks holds the promise of enriching our understanding of these effects.

Coleman et al. (1966) claim that a physician's decision to adapt is influenced by interactions with other physicians. Based on a combination of behavioural and survey data in four physician communities, they ascertain that physician professional interactions had a greater effect on adjustment time than social interactions.

Narayanan et al. (2005) adopt a different point of view. They examine how the role of new products marketing communication changes over time in the presence of training. Their model is defined on the basis of physicians learning about the quality of new drugs through companies' marketing communication (detailed descriptions; meetings with physicians) as well as their own use experience. They claim that detailing has a predominantly indirect (study) effect in the

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early stages of the product life cycle and a predominantly direct (persuasive) effect later. Coscelli and Shum (2004) explain the slow uptake of a new drug in an existing product category by the slow information flow (based only on patient feedback) on its quality by risk-averse physicians. Physicians' initial pessimism about a drug, as well as their aversion to risk, make them less likely to prescribe a drug when it is very new, but the more information they gather, the more likely the drug gets prescribed.

Ching (2005) examines why companies increase their efforts to advertise a drug and the demand for it increases. He explains this by noting that detailing has a direct effect on the number of well-informed physicians. Although much has been done in this area, various aspects of training have not yet been explored. For example, most training models have ignored a physician's training by other physicians (this could potentially provide a structural explanation for the contagion effect). In addition, there is an opportunity for physicians and consumers to learn together during a course of therapy. Finally, there is not much research on differences in training levels among physicians (Narayanan and Manchanda, 2004)

A specific characteristic of this industry is the complex relationship between the price set by the producer and the fair price in consumers' opinion. (Kolassa, E.M. 1997, Berndt, Ernst R. 2002). Often the reason for this disagreement lies in the presence of intermediaries like governmental or private insurers.

Regarding physicians' response to price, Misra (2004) claims that physicians were more sensitive to the cost of co-pays for new patients than current patients. Other researchers examine the role that price plays in the overall marketing mix. Thus, Wosinska (2002) claims that the effectiveness of direct-to-consumer advertising is higher if the drug is on a formulary (ie, the search cost is lower). On

the other hand, Narayanan et al. (2004) find no significant interaction between direct advertising and supply-side price. (Manchanda, P. et al. 2005)

## **Results and discussion**

Pharmaceutical companies adapt their advertising strategies to changing societal and market opportunities to remain competitive and profitable (Lyles 2002; Wilkes, Bell, and Kravitz 2000).

Over the years, pharmaceutical companies have generated dynamically changing promotional campaigns that are effective in targeting key audiences, delivering marketable messages and driving product demand.

Physician-oriented marketing (eg, providing free drug samples, office visits by sales representatives) remains the largest factor in drug advertising, constituting 85% of the dollars spent in 2000 (Frank et al. 2000; PhRMA 2004). What is changing, however, is the disproportionate growth of direct-to-consumer (DTC) advertising compared to other forms of promotion for the period (Frank et al. 2000; IMS Health 2001; Lyles 2002). Supporters claim that direct marketing provides information about common diseases, boosts patient empowerment, improves medical compliance, and reflects the informed audience social trends. (Holmer 2000; Pitts 2004).

Opponents, however, argue that it does not provide sufficient information about therapeutic alternatives, efficacy, and costs, interferes with the physician-patient relationship, and increases the cost of medical care (Kravitz et al. 2005; Robinson et al. 2004; Woloshin et al. 2001).

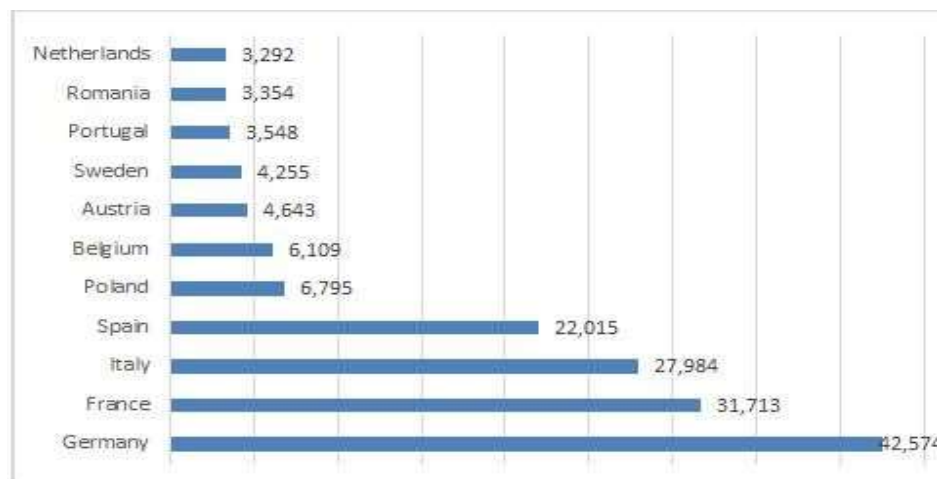
Corstjens (1991) identifies the following four main purchasers of prescription drugs:

- \* **Prescriber:** Prescribing rules vary internationally and this category may include physicians, dentists, pharmacists, nurses and others.

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- \* Influencers: hospitals, nurses, professors, agencies.
- \* Direct user: patient.
- \* Funder: part patient, part government or a third party, i.e. hospitals, healthcare organisations, etc.

Most of the budget in pharmaceutical marketing goes to physicians and others who have the authority to prescribe, who in effect are the ones who have the power to manage the entire process.



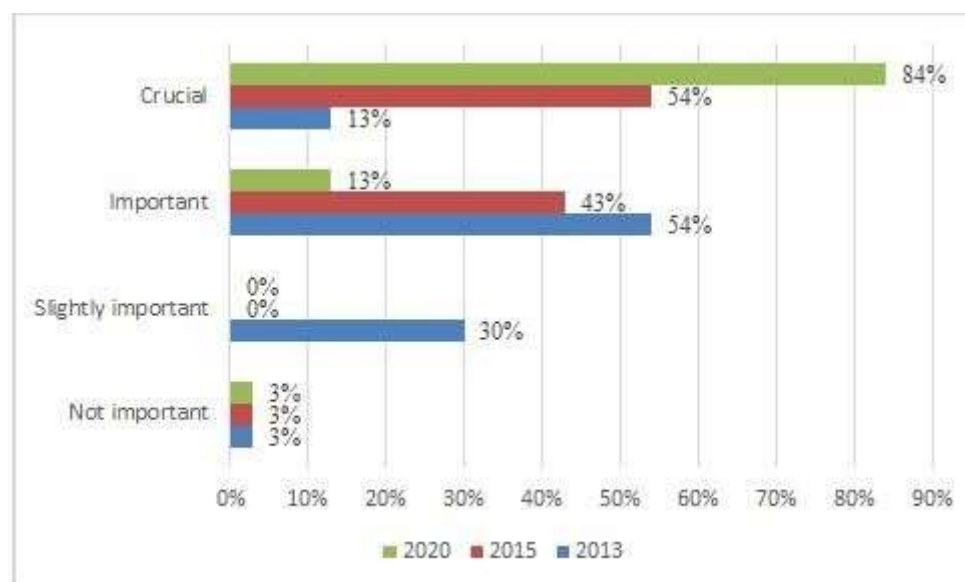
Source: (<https://www.statista.com/statistics/266321/sganda-to-sales-rate-of-top-pharmaceutical-companies> SG&A to revenue rate of top pharmaceutical companies 2021 | Statista)

**Figure 1:** Selling, general and administrative expenses compared to revenues of leading pharmaceutical companies in the world in 2021.

At over 53%, AstraZeneca has the highest cost-to-income ratios among leading pharmaceutical companies in 2021. SG&A growth should not exceed sales growth because it would reduce the company's profitability. This statistic shows the ratio of selling, general and administrative expenses to revenue of the world's leading pharmaceutical companies in 2021 (Source: <https://www.statista.com/statistics/266321/sganda-to-sales-rate-of-top-pharmaceutical-companies>)

Fig. No. 2 presents the importance of digital health strategies of pharmaceutical companies from 2013 to 2020.

The survey shows the importance of digital health strategies in 2013 and 2015 and their importance for pharmaceutical companies in the future, in 2020. About 54 percent of respondents say that digital health strategy will be critical for pharmaceutical companies in 2015 (Source: <https://www.statista.com/statistics/422332/digital-health-strategy-importance-current-and-future-for-pharmaceutical-companies>)

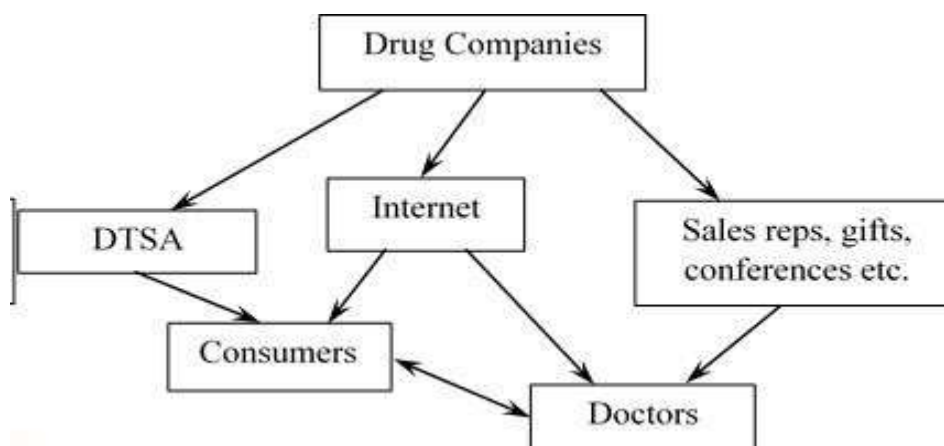


Source: <https://www.statista.com/statistics/422332/digital-health-strategy-importance-current-and-future-for-pharmaceutical-companies> Importance digital health strategy for pharmaceutical companies 2013-2020 | Statista

**Figure 2:** The importance of digital health strategies of pharmaceutical companies from 2013 to 2020.

In the USA, all drugs can be promoted to consumers, but in practice, direct-to-consumer advertising focuses on over-the-counter and prescription drugs for common ailments. There are other drugs with more limited use for less common diseases that are recommended only to healthcare professionals as well as hospital and organisational formulary committees.

The drug marketing process can be described by the model below in Figure #3, which shows the flow of information from pharmaceutical companies to both consumers and physicians. It also shows the power that internet-informed consumers have in "downloading" prescription drugs from physicians.



Source: Buckley, J. (2004) Pharmaceutical Marketing – Time for Change, EJBO Electronic Journal of Business Ethics and Organization Studies Vol. 9, No. 2

**Figure 3:** Process of pharmaceutical marketing

In the modern market conditions, more and more often the attraction of consumers and their desire to purchase medicinal products is also very closely linked to Internet promotions or recommendations from various social media and other communication channels. Consumers themselves can buy prescription and even non-prescription drugs online.

In this direction, the scientific research by Bloom (1999) proves that most pharmacies selling online provide poor quality information, fail to be protected by adequate measures to ensure that drugs are dispensed in a proper way and the price almost is always higher.

Another perspective is offered by Smith (2003) who claims that online pharmacies often lack important information about drug contraindications available on their sites. However, even leaving aside the impact of Internet pharmacies, on the grounds that additional costs may put them out of reach for the consumer, the Internet also offers pharmaceutical companies a largely unregulated way to reach the consumer directly – via websites of the companies.

On the other hand, Herxheimer (2003) points out that in the absence of adequate independent funding, patient organisations and lobby groups are likely to continue to accept funding from pharmaceutical companies despite clear ethical concerns. He gives as examples the International Alliance of Patient Organizations and the Global Mental Illness Advocacy Alliance, which are highly visible and financially connected to pharmaceutical companies.

Medawar (2002) quotes the chairman of the Danish Migraine Association as suggesting that patient organisations are becoming more sophisticated in their interactions with pharmaceutical companies and may become more adamant about this form of promotion. The researcher points out that pharmaceutical companies have been able to present their concerns to reach consumers directly as a

consumer rights issue and a potential positive contribution to national health profiles. He suggests that drug companies are gradually shifting the core of their business from the unpredictable and increasingly expensive task of creating drugs to the more robust business of marketing them. (Buckley, J. 2004)

### **Conclusion**

In conclusion, in today's digital environment, marketing managers in the pharmaceutical business face a number of challenges. In order to be able to deal with them, they should know the main specific features of marketing in this area, because it is the timely and accurate information about consumers, competitors and the market that will ensure not only their survival, but their development and increase in market share.

### **References:**

- 1) Beavers, N. (1999). "Take as directed," *Drug Topics* 143(18), 56-6
- 2) Berndt, Ernst R. (2002). "Pharmaceuticals in U.S. Health Care: Determinants of Quantity and Price," *Journal of Economic Perspectives* 16(4), 45-66.
- 3) Bloom, B.S. (1999) *Annals of Internal Medicine* Dec 7
- 4) Bowman, D., C. M. Heilman, and P. B. Seetharaman. (2004). "Determinants of Product Use Compliance Behaviour," *Journal of Marketing Research* 41 (August)
- 5) Buckley, J. (2004) *Pharmaceutical Marketing – Time for Change*,
- 6) *EJBO Electronic Journal of Business Ethics and Organization Studies* Vol. 9, No. 2
- 7) Coleman, James S., Elihu Katz, and Herbert Menzel. (1966). *Medical Innovation: A Diffusion Study*. The Bobbs-Merill Company Inc
- 8) Ching, Andrew. (2005). "The Effects of Detailing on Prescribing Decisions under Quality Uncertainty," *Working Paper*, University of Toronto
- 9) Corstjens, M. (1991). *Marketing strategy in Pharmaceutical Industry*, Chapman and Hall, Business and Economics



- 10) Coscelli, Andrea and Matthew Shum. (2004). "An Empirical Model of Learning and Patient Spillovers in New Drug Entry," *Journal of Econometrics* 122, 213-2
- 11) Fraenkel, L. S. T. Bogardus, J. Concato, and D. R. Wittink. (2004). "Treatment Options in Knee Osteoarthritis: the Patient's Perspective," *Archives of Internal Medicine* (forthcoming)
- 12) Herxheimer, A. (2003) "Relationships between the pharmaceutical industry and patient organisations" *British Medical Journal* 326: 1208-1210
- 13) Huffman, D. and R. Jackson. (1995). "The Financial Benefits of Improved Patient Compliance," *NARD Journal* 108-111
- 14) Jackson, R., D. Worthern, and C. McCampbell. (1996). "Economic Impact of Refill Management," *US Pharmacist*, 86-96.
- 15) Johnson, J. and L. Bootman. (1995). "Drug-Related Morbidity and Mortality: A Cost-of-Illness Model," *Archiivi of Internal Medicine* 155(18).
- 16) Kolassa, E. M. (1997). *Elements of Pharmaceutical Pricing*. Binghampton, NY: The Pharmaceutical Products Press.
- 17) Loden, J. and C. Schooler. (2000). "Patient Compliance," *Pharmaceutical Executive* 20(7)
- 18) Lyles, Alan (2002), "Direct Marketing of Pharmaceuticals to Consumers," *Annual Review of Public Health*, 23, 73-91.
- 19) Manchanda, P., Dick R. Wittink, Andrew Ching, Paris Cleanthous, Min Ding, Xiaojing J. Dong, Peter S. H. Leeflang, Sanjog Misra, Natalie Mizik, Sridhar Narayanan, Thomas Steenburgh, Jaap E. Wieringa, Marta Wosinska and Ying Xie. (2005). *Understanding Firm, Physician and Consumer Choice Behaviour in the Pharmaceutical Industry*, *Marketing Letters*, Dec., 2005, Vol. 16, No. 3/4, Sixth Invitational Choice Symposium (Dec., 2005), pp. 293-308
- 20) Medawar, C. (2002) "Promotion of prescription drugs: trade tactics?" *Consumer Policy Review* 12
- 21) Misra, Sanjog. (2004). "Prescription Drug Choice: Preference, Persistence and Heterogeneity," Working Paper, Rochester University
- 22) Narayanan, Sridhar, and Puneet Manchanda. (2004). "Heterogeneous Learning and the Targeting of Marketing Communication for New Products," Working Paper
- 23) Narayanan, Sridhar, Puneet Manchanda, and Pradeep K. Chintagunta. (2005). "Temporal Differences in the Role of Marketing Communication in New Products Categories," *Journal of Marketing Research* 42(August), 2
- 24) Smith, R. (2003) "Medical journals and pharmaceutical companies: uneasy bedfellows" *British Medical Journal* 326: 1202-1205
- 25) Van den Bulte, C. and G. L. Lilien. (2001). "Medical Innovation Revisited: Social Contagion versus Marketing Effort.
- 26) Wilkes, Michael S., Robert A. Bell, and Richard L. Kravitz (2000), "Direct-to-Consumer Prescription Drug Advertising: Trends, Impact and Implications," *Health Affairs*, 19 (2), 110-28.
- 27) Wosinska, M. (2005). "Direct-to-consumer advertising and drug therapy compliance," *Journal of Marketing Research* 4
- 28) Wosinska, M. (2002). "Just What the Patient Ordered: Direct-to-Consumer Advertising and Demand for Pharmaceutical Product
- 29) SG&A to revenue rate of top pharmaceutical companies 2021, Statista, Retrieved from:
- 30) <https://www.statista.com/statistics/266321/sganda-to-sales-rate-of-top-pharmaceutical-companies>
- 31) Importance digital health strategy for pharmaceutical companies 2013-2020, Statista Retrieved from: <https://www.statista.com/statistics/422332/digital-health-strategy-importance-current-and-future-for-pharmaceutical-companies>