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## Impact of Pharmaceutical Marketing Communication Strategies on Prescription Practices of Physicians

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### ABSTRACT

Pharmaceutical houses adopt numerous marketing strategies to influence physician by providing them with incentives. Present study was undertaken to evaluate the impact of these marketing promotional strategies on prescribing of drugs by physicians. 34 post graduate and 21 graduate physicians were presented a questionnaire highlighting 17 different promotional methods, adopted by pharmaceutical houses. The responses were recorded and weightage was given. The choice of physician regarding generic named or branded product was also recorded. Responses of postgraduate and graduate physicians were compared. Results revealed that Cost of product, Seminars, Publications, Brochures and Booklets and Reputation of company were the most important factors considered by the physicians while prescribing of drugs. While mailing information about products, gifts and Print and Broadcast ads were least important factors. Similar responses of post graduate and graduate doctors were observed on most of parameters. Top 9 influencing factors were found to be similar but with little variation in sequence. The study of results revealed that graduate doctors preferred generic product over branded product (57.1%) while post graduates the branded (60%). Study has provided a clear insight into the impact of pharmaceutical marketing promotional factors on physician prescribing practices. Pharmaceutical companies should mould and adapt their marketing communication strategy as per physician's response.

**Keywords:** Physician Prescribing Pattern; Impact; Pharmaceutical; Generic; Branded; Marketing Communication Factors.

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## INTRODUCTION

The pharmaceutical industry is the world's largest industry with the worldwide revenues of approximately US\$2.8 trillion [1]. Recent times have seen many changes with new emerging products, customer needs and prescription practices of physicians.

India is one of the biggest and fastest growing pharmaceutical market in the world. Indian Pharmaceutical Industry has witnessed a robust growth over the past few years moving on from a turnover of approx. US \$ 1 billion in 1990 to over US \$ 20 billion in 2010. The industry ranks 3rd in terms of volume and is 14th in terms of value globally. Globally, it ranks 4th in terms of generics production. Large domestic pharmaceutical companies have continued to grow, assuming leadership position in many therapies and segments in the Indian market as well as creating a strong international exports back-bone [2].

For any pharmaceutical company to grow further, it has to understand the prescription practices of physicians, so that it can plan its marketing strategy accordingly, as they are crucial link between the seller and the end-user. Generally, marketing strategies of the companies are targeted at the end-users. But pharmaceutical is a unique industry where end users are not targeted directly but physicians who prescribe drug are targeted.

In India, large number of pharmaceutical companies market same drug molecule with their different brand names. This scenario invites competition amongst pharmaceutical houses and they influence the prescribing physician by adopting different marketing strategies. The central objective of these strategies is to provide incentive to doctors like gifts, Print and Broadcast ads, sampling etc. There are few studies examining the influence of these promotional strategies on physician perception and most of them originate from west [3, 4]. In Indian setup there is paucity of the research work in this regard [5,6], therefore the present study was undertaken with aim to elucidate the detailed impact of these different marketing promotional strategies on physician drug prescription.

## MATERIALS AND METHODS

The current study was undertaken in and around Jammu during April-May 2013. Data source was primary, as detailed questionnaire was prepared and presented to both graduate and post graduate physician. Questionnaire, consisting of set of questions designed according to objective, was used as research instrument. Closed ended questions were used, where the respondent had to select the options available. To make our study wider, a question about the preference of physician regarding the prescription of generic named or branded product was also included. Physicians, both graduates and post graduate doctors, were surveyed. Data was collected through a self-administered questionnaire which covered the different aspects of marketing communication mix. The effectiveness of the promotional strategies on prescription behaviour was marked in a five point Likert scale (7) ranging from "Not At All Important effective" (score =1) to "Very Important" (score =5).

The responses were recorded and complied. Ranking of various marketing communication element in terms of importance from the physician prescription point of view has been done. Beside this, responses of physician for generic named or branded product were recorded.

To understand impact of marketing strategies on the prescribing physicians and their preference about various elements of marketing communications mix, eight major modes were studied. Important factors applicable were selected after pilot discussions with the physicians. Some of the factors selected were Print and Broadcast ads, Packaging inserts, Directories having medicine details, Audio-visual material, Exhibits in conferences, Product Launch parties and Peer group/senior doctor reference. In total 17 factors were chosen, which were relevant and included the major marketing communication elements. Beside this, physician preference for generic named or branded products was also recorded.

Moreover, we also compared the response of graduate and post graduate physicians to examine variability of various marketing communication factors between them. In case of pharmaceutical sector, customer for company is physician, as major selling occurs through him. The marketing communications mix consists of eight major modes of communication — advertising, sales promotion, public relations and publicity, events and experiences, direct marketing, interactive marketing, word-of-mouth marketing, and the sales force, used for promoting the product. These factors are explained below:

1. Advertising: any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor via print media (newspapers and magazines), broadcast media (radio and television), network media (telephone, cable, satellite, wireless), electronic media (audiotape, videotape, videodisk, CD-ROM, Web page), and display media (billboards, signs, posters).
2. Sales Promotion: A variety of short-term incentives to encourage trial or purchase of a product or service including consumer promotions (such as samples, coupons, and premiums), trade promotions (such as advertising and display allowances), and business and sales force promotions (contests for sales reps).
3. Events and experiences: Company-sponsored activities and programs designed to create daily or special brand-related interactions with consumers, including sports, arts, entertainment, and cause events as well as less formal activities.
4. Public relations and publicity: A variety of programs directed internally to employees of the company or externally to consumers, other firms, the government, and media to promote or protect a company's image or its individual product communications.
5. Direct marketing: Use of mail, telephone, fax, e-mail, or Internet to communicate directly with or solicit response or dialogue from specific customers and prospects.
6. Interactive marketing: Online activities and programs designed to engage customers or prospects and directly or indirectly raise awareness, improve image, or elicit sales of products and services.

7. Word-of-mouth marketing: People-to-people oral, written, or electronic communications that relate to the merits or experiences of purchasing or using products or services.
8. Personal selling: Face-to-face interaction with one or more prospective purchasers for the purpose of making presentations, answering questions, and procuring orders [7].

**Statistical analysis:**

Responses of graduates and post graduates were compared by using chi-square statistical analysis method. P-value less than 0.05 was considered as significant.

**RESULTS**

55 physicians responded to the questionnaire that comprised of 21 graduate and 34 post graduate doctors. As their responses were recorded using five point Likert scale ranging from “Not At All Important effective” (score =1) to “Very Important” (score =5), final mean score was calculated using excel.

Results obtained from the responses of physicians revealed that Cost of product, Seminars conducted by company, Publications featuring products, Brochures and Booklets and Reputation of company were the most important factors considered by the physicians while prescription drugs of a particular company. While mailing information about products, Gifts and Print and Broadcast ads were least important factors (TABLE 1).

**Table 1: Impact of Marketing Promotional Strategies on Physician.**

S.No.	Item	Marketing Communications Category	Mean Score
1	Cost of product	General	4.75
2	Seminars	Public relations & Events	4.708333333
3	Publications	Public relations & Events	4.666666667
4	Brochures and Booklets	Advertisement	4.625
5	Reputation of company	General	4.625
6	Directories having medicine details (along with manufacturer name)	Advertisement	4.5
7	Packaging inserts	Advertisement	4.375
8	Sampling	Personal Selling	4.083333333
9	Exhibits in conferences	Sales promotion	4.083333333
10	Catalog	Direct and Interactive Marketing	3.916666667
11	Audio-visuals material	Advertisement	3.666666667
12	Sponsoring medical fraternity events	Public relations & Events	3.625
13	Peer group/senior doctor reference	Word-of-Mouth Marketing	3.625
14	Product Launch parties	Public relations & Events	3.458333333
15	Mailing	Direct and Interactive Marketing	3.25
16	Gifts	Sales promotion	3
17	Print and Broadcast ads (TV/newspaper)	Advertisement	2.791666667

Further, breakup of results revealed that post graduate doctors were most influenced by cost of factors followed by brochures and booklets , seminars , directories , publications , reputation of companies and packing inserts , While least influenced by prints and broadcast advertisements , gifts, mailing , first product launch parties or audiovisual aids ( TABLE 2).

**Table 2: Post Graduate Physician Response to Marketing Promotional Strategies.**

S.No.	Item	Marketing Communications Category	Mean Score
1	Cost of product	General	4.764705882
2	Brochures and Booklets	Advertisement	4.647058824
3	Seminars	Public relations & Events	4.647058824
4	Directories having medicine details (along with manufacturer name)	Advertisement	4.588235294
5	Publications	Public relations & Events	4.588235294
6	Reputation of company	General	4.588235294
7	Packaging inserts	Advertisement	4.352941176
8	Exhibits in conferences	Sales promotion	4
9	Sampling	Personal Selling	3.941176471
10	Catalog	Direct and Interactive Marketing	3.941176471
11	Sponsoring medical fraternity events	Public relations & Events	3.647058824
12	Peer group/senior doctor reference	Word-of-Mouth Marketing	3.647058824
13	Audiovisual material	Advertisement	3.529411765
14	Product Launch parties	Public relations & Events	3.470588235
15	Mailing	Direct and Interactive Marketing	3.352941176
16	Gifts	Sales promotion	2.764705882
17	Print and Broadcast ads (TV/newspaper)	Advertisement	2.705882353

Graduate doctors were most influenced by cost of factors followed by seminars , publications , reputation of companies , cost of products , brochures and booklets and packing inserts , While least influenced by mailing ,prints and broadcast advertisements , first product launch parties or senior doctor reference , sponsoring events or gifts (TABLE 3).

On comparing responses of post graduate and graduate doctors no statistical difference ( $p > 0.05$ ) was observed in all parameters and top 9 influencing factors were similar but with little variation in sequence in their appearance. These nine factors were Cost of product, Seminars conducted by company, Publications featuring products, Brochures and Booklets, Reputation of company, Packaging inserts, Directories having medicine details, Exhibits in conferences and sampling. Post graduate considered cost, brochures and booklets and seminars as top three preferences while graduate considers seminars, publications and reputation of company as top three.

**Table 3: Graduate Physician Response to Marketing Promotional Strategies.**

S.No.	Item	Marketing communications Category	Mean score
1	Seminars	Public relations & Events	4.857142857
2	Publications	Public relations & Events	4.857142857
3	Reputation of company	General	4.714285714
4	Cost of product	General	4.714285714
5	Brochures and Booklets	Advertisement	4.571428571
6	Packaging inserts	Advertisement	4.428571429
7	Sampling	Personal Selling	4.428571429
8	Directories having medicine details (along with manufacturer name)	Advertisement	4.285714286
9	Exhibits in conferences	Sales promotion	4.285714286
10	Audiovisual material	Advertisement	4
11	Catalog	Direct and Interactive Marketing	3.857142857
12	Gifts	Sales promotion	3.571428571
13	Sponsoring medical fraternity events	Public relations & Events	3.571428571
14	Peer group/senior doctor reference	Word-of-Mouth Marketing	3.571428571
15	Product Launch parties	Public relations & Events	3.428571429
16	Print and Broadcast ads (TV/newspaper)	Advertisement	3
17	Mailing	Direct and Interactive Marketing	3

Regarding the preference of generic named or branded product, if all other features/factors are same for both, results obtained show that overall physicians prefer branded product over generic named medicines, as 60 % of them would opt for branded product. However, detailed study of results reveals that graduate doctors prefer generic product over branded product (57.1%) (TABLE 4).

**Table 4: Physician Response to Generic, Branded Products Preference**

Physician	Generic named	Branded product
Graduate	12 (57.14 %)	9 (42.85%)
Post Graduate	10 (29.41 %)	24 (70.58 %)
Total	22 (40%)	33 (60%)

### DISCUSSION

As the pharmaceutical companies compete with each other for their branded products of same drug, they adopt different marketing promotional elements. In the current study, impact of these factors was studied on prescribing practices of physicians. Cost of product, Seminars, Publications featuring products, Brochures and Booklets and Reputation of company were the most important factors considered by the physicians. We have found that graduate and post graduate doctors show preference for almost similar factors. Rapid increase in prescription drug cost limit patient care and physicians mostly consider drug cost and this has a

major influence in their decisions while prescribing [8,9] .Our study also indicated similar results.

Therefore, companies should launch products that are affordable and less costly as compared to its competitions. Regular seminars informing physicians about products and encouraging discussions on important medical related topics should be encouraged to build positive brand image. Also, focus should be given to Publications and Brochures and Booklets promoting company's product.

Pharmaceutical companies must try to understand physician needs and their prescription practices so that they can mould and adapt their marketing communication strategy as per their requirements. In a sense, marketing communications represent the voice of the company and its brands; they are a means by which the firm can establish a dialogue and build relationships with consumers. By strengthening customer loyalty, marketing communications can contribute to customer equity. Thus, it can contribute to brand equity—by establishing the brand in memory and creating a brand image, as well as drive sales. Companies have to allocate the marketing communications budget over the eight major modes of communication. Thus, it is of paramount importance for the company to understand the significance of various marketing communication elements, so that they can allocate budget and focus on the right element in order to get the maximum benefit and sales.

To make our study wider, a question regarding the preference of physician regarding the prescription of generic named or branded product was included. Motivation behind this was the prices of branded medicines are generally higher than generic medicines due to various reasons like patent .If the proper quality unbranded generic products are sold , then medicines can be made available at affordable prices for all, especially the poor and the disadvantaged.

Our results depicted that graduate doctors preferred the generic while post graduate favored the branded. This response is of utmost importance as large number of graduate doctors prefers rural area for practice contrary to the post graduates, who concentrate mostly in urban settings for their lucrative practice. Since majority of Indian population reside in rural areas therefore this type of response is encouraging from graduate doctors.

Thus, it's of utmost importance to understand the preference of prescribing physician, as ultimately he/she will be recommending that to the end-users or patients for consumption. For this purpose, a Campaign in the name of 'Jan Aushadhi Campaign' has also been launched by Government of India , which aims at educating doctors that unbranded generic medicines provide a better option than branded products since quality of generic medicines can be equally efficacious and safe at much lower prices [10].

One expects that response to question like accepting of gifts which ranked very low in preference may not depict the real ground situation as some doctors might have taken idealistic attitude while responding. This type of result was more so expected as the Medical Council Of India has notified that a medical practitioner shall not receive any gift , cash or

monetary grants , hospitality or accept any travel facility from any pharmaceutical or allied healthcare industry or their representatives for self and family members [11].

### CONCLUSIONS

In the present study the impact of marketing promotional strategies on prescribing of physicians were studied. 55 physicians were self administered a detailed questionnaire highlighting eight major marketing communication modes comprised of 17 factors. Cost of product, Seminars, Publications featuring products, Brochures and Booklets and Reputation of company were the most important factors considered by the physicians while the mailing information about products, gifts and print and broadcast ads were least important factors. The graduate and post graduate doctors showed preference in almost similar pattern. However, the graduate doctors preferred generic over brand name contrary to the post graduates. Therefore the pharmaceutical companies should understand physician prescription practices and mould and adapt their marketing communication strategy as per their requirements.

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