



# INFLUENCE OF PROMOTION OF DRUGS ON PRESCRIBING BEHAVIOR OF PHYSICIANS

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## ABSTRACT

The pharmaceutical business spends a lot of money promoting drugs, which drives up the cost of the medications. On the other hand, it is in the best interests of society for doctors to base their prescription decisions on careful assessment of whether medications are truly in the patient's best clinical interests and on the effect of the pharmaceutical industry's promotional activities. Pharmaceutical firms, physicians and chemist are linked together with the thread of promotion. The study is significant in analysing the influence of promotion of drugs on prescribing behavior of physicians.

**Keywords:** Pharmaceutical Industry, Promotional Activities, Physicians, Prescribing Behavior of Physicians.

## INTRODUCTION

The influence of a non-purchaser on the end consumer's purchase choice is particularly significant in the pharmaceutical business. It is vital to define doctors just as fully as patients due to their 'veto power' over the acceptance of a prescribed drug. Manufacturing the drug and making it accessible to the patient and the decision-maker, the doctor, are the main focuses of the marketing of prescription medications. Pharmaceutical enterprises frequently prosper as a result of highly sought-after pharmaceutical consulting firms that have executed an effective marketing strategy.

The process by which the market for pharmaceutical care is created might be characterised as pharmaceutical marketing, a subspecialty of marketing (Smith M. C. 1988). Pharmaceutical marketing efforts may be done by any party with an interest in the exchange for pharmaceutical treatment. Along with drug makers and wholesalers, community pharmacies, hospital pharmacies, and numerous other

businesses and people are involved in the marketing of pharmaceuticals. Pharmaceutical businesses used a variety of strategies, including physician-targeted promotions including free samples, journal adverts, printed product brochures, and other gifts, to help spread the word about their goods. Pharmaceutical marketing is the practise of promoting pharmaceutical products to consumers and healthcare professionals. Pharmaceutical marketers must identify client demands and develop strategies to address them if they are to be successful. Prescribers, pharmacists, consumers, payers, and distributors are the many types of customers in the pharmaceutical sector.

The pharmaceutical sector contributes to the process of preserving peoples' health. As a result, it plays a crucial and responsible role in society. Both doctors and chemists play crucial roles in this process. The common thread connecting pharmaceutical companies, doctors, and chemists is promotion. The pharmaceutical industry advertises pharmaceuticals to doctors, who then recommend them to patients, who then receive them from pharmacists. The pharmaceutical companies promote their products for financial gain. However, it has an impact on both the prescribing habits of doctors and the accessibility of medications in chemists' stores.

## **SIGNIFICANCE OF THE STUDY**

The pharmaceutical industry aids in the process of maintaining the wellbeing of individuals. Thus, it performs a very important and responsible role in society. Equally important in this process is the role of physicians and chemists. Pharmaceutical firms, physicians and chemist are linked together with the thread of promotion. The study is significant in analysing the influence of promotion of drugs on prescribing behavior of physicians.

## **REVIEW OF LITERATURE**

Though pharmacists were referred in the physician prescribing behaviour literature, but they are found as a weak source of information. In one of the studies it was found that physician specialty subgroups rated past experience with a pharmacist as an important information source characteristic in contradiction to their perceived likelihood of using pharmacists as an information source for prescribing purposes (**Evans and Beltramini 1986**).

Successful marketing by pharmaceutical manufacturing companies to members of the medical profession is greatly determined by a good understanding of the various factors that influence their purchasing behaviour. More specifically, it would be of benefit to pharmaceutical marketers to ascertain to what extent prescribing decisions are influenced by company's own promotional tools. (**Pitt and Nel 1988**).

**Smith and Sinha (2000)** used an experimental methodology to investigate the effects of three various promotions, including price promotion, volume promotion, and mixed marketing. The findings showed that, despite similar unit costs or total costs, consumer preference for stores and bargains is highly influenced by how offerings are framed. The conclusion suggested that consumers (subjects) typically favour promotions that offer quick gratification for almost no initial effort, like "percent off" or "buy one get one free," over promotions that seem to need additional commitment, like "buy two, get 50% off."

Pharmaceutical companies influence physicians choices and summarizes sixteen different forms of possible "entanglement" which may conflict with the physician's responsibility including visits from drug representatives, direct and indirect gifts, attending events sponsored by drug companies, stock ownership or consulting, sponsored research, and medical journals' reliance on advertising money from drug companies (**Moynihan 2003**)

Prescriptions, diminishing returns to detailing have also been frequently reported (**Manchanda, Rossi and Chintagunta 2004**) found that product detailing had positive effects on prescription behavior of high-volume physicians, while the low-volume physician were found to be more attentive and responsive towards detailing. Researches in the past also revealed that Detailing (30.6 percent) and sampling (50.6 percent) to physicians amount to 81 percent of promotion spending by pharmaceutical firms in 2000 (**Rosenthal et. al., 2003**). When the firm promotes a more effective drug, as compared to a less effective drug, its ability to lower physician uncertainty about the drug and increase physicians affect toward the drug is higher, and there will be stronger scientific evidence to back up the marketing effort (**Azoulay, 2002**) argued that a physician may financially subsidize low income or low-coverage patients through sample-dispensing and the prescribed drug is administered as a free sample.

The context of our analysis is physicians' prescription drug choice. An asymmetric social interaction or "peer effect" arises in this setting because nonspecialist physicians may rely on prominent physicians, the "opinion leaders," to help reduce the uncertainty about their prescription choices. The role of opinion leaders becomes most salient when changes occur in the therapeutic environment because these typically lead to increased uncertainty about drug efficacy among the non-specialist physicians. The pharmaceutical industry believes in the existence of such opinion leaders and has invested in targeting marketing activities at opinion leaders (**Cutting Edge Information 2004**).

**According to Chandiran (2005)**, marketers use a variety of marketing tactics as promotion methods to increase their market share. These tactics were used to boost earnings, market share, or sales volume once the product had already established itself on the market.

**According to Ibrahim, I.A.Y. & Bélanger, C.H. (2015)** Pharmaceutical companies mostly employed the tool which had the greatest motivational effect on pharmacists to dispense the promoted product, which in the end, strongly impacts on the consumers' purchasing decisions.

**Datta, A. & Dave, D. (2017)** As pharmaceutical spending continues to escalate and drug safety issues have become more common, such physician-directed outreach efforts have come under mounting public scrutiny.

**Abel Demerew Hailu et al. (2021)** study result concluded that more than half of physicians perceived that pharmaceutical marketing mix strategies influence their prescribing behavior. The qualitative design also revealed that pharmaceutical marketing mix strategies influenced physicians prescribing behavior. Strengthening the regulation and maintaining ethical practice would help to rationalize the physicians' prescribing practice.

## **OBJECTIVE OF THE RESEARCH PAPER**

1. To analyse the influence of promotion of drug on prescribing behavior of physician.

## **METHODOLOGY**

Every researcher needs a methodology in order to collect data for their research projects. Methodology is a technique adopted for an orderly arrangement of facts and principles. In this study, the methodology is set of various methods to be followed to analyse the influence of promotion of drug on prescribing behavior of physician.

## **RESEARCH DESIGN**

Research design is a description of procedures followed in testing the hypothesis and specification of operations for testing of a hypothesis under a given set of conditions. In the present research study researcher used descriptive survey research method.

## **SAMPLE DESIGN & SAMPLE SIZE**

The technique to determine how many items should be included in the sample is determined by the sampling design. In the present study, researcher used convenience sampling to collect the information from different respondents. The Sample used in the Study:

Number of Respondents- 500 Medical Representatives & Companies Officials (Selected from Meerut, Bareilly, and Muzaffarnagar (Western Uttar Pradesh).

## DATA COLLECTION METHODS

### 1. PRIMARY DATA

In the present study 500 medical representatives and companies officials have been included in the survey which has been selected from Meerut, Bareilly, and Muzaffarnagar districts.

### 2. SECONDARY DATA

The researcher has used reports and publications and various research journals.

**Table 1: Companies considered for selection of respondents**

S. No.	Companies Name
1	Mankind Pharmaceuticals
2	Lemford Biotech
3	IPCA limited
4	Sun Pharmaceuticals
5	Abott
6	Micro Labs
7	Macleods
8	Eris Pharmaceuticals
9	Koye Pharmaceuticals
10	Aristo

## ANALYSIS RELATED TO INFLUENCE OF PROMOTION OF DRUG ON PRESCRIBING BEHAVIOR OF PHYSICIAN

Table 2: Response to the question “Do you agree that drugs sample influence the prescribing behavior of physicians”?

S. No.	Components	No. of Respondents	Per cent
1	Strongly Agree	178	35.6
2	Agree	203	40.6
3	Neutral	17	3.4
4	Disagree	63	12.6
5	Strongly Disagree	39	7.8
	<b>Total</b>	<b>500</b>	<b>100</b>

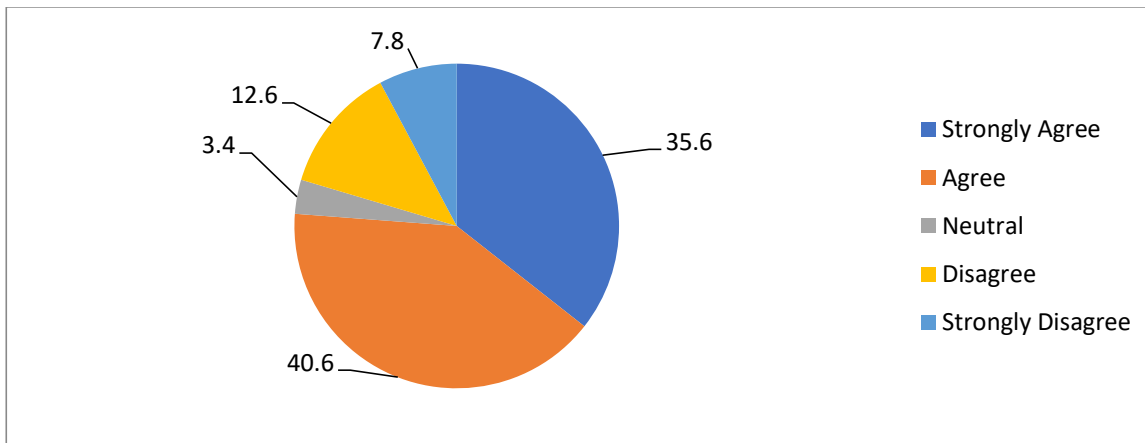


Figure 1: Response to the question “Do you agree that drugs sample influence the prescribing behavior of physicians”?

Analysis: Among all respondents, 35.6 per cent respondents strongly agreed, 40.6 per cent agreed, 3.4 per cent neutral, 12.6 per cent disagreed and only 7.8 per cent strongly disagreed that drugs sample influence the prescribing behavior of physicians.

Table 3: Response to the question “Do you agree that gifts influence the prescribing behavior of physicians”?

S. No.	Components	No. of Respondents	Per cent
1	Strongly Agree	132	26.4
2	Agree	157	31.4
3	Neutral	32	6.4
4	Disagree	103	20.6
5	Strongly Disagree	76	15.2
	<b>Total</b>	<b>500</b>	<b>100</b>

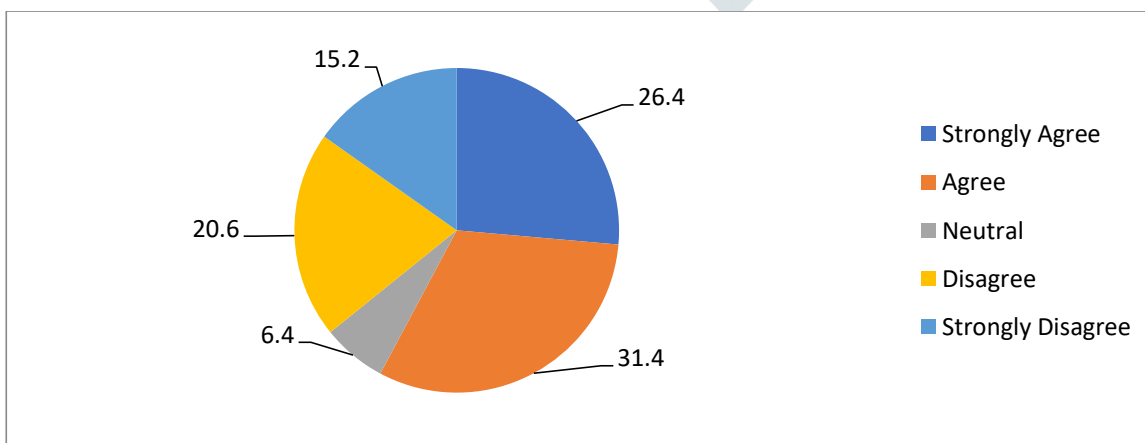


Figure 1: Response to the question “Do you agree that gifts influence the prescribing behavior of physicians”?



Analysis: Almost one fourth of respondents i.e. 26.4 per cent respondents strongly agreed, 31.4 per cent agreed, 6.4 per cent neutral, 20.6 per cent disagreed and 15.2 per cent strongly disagreed that gifts influence the prescribing behavior of physicians.

Table 4: Response to the question “Do you agree that academic detailing influence the prescribing behavior of physicians”?

S. No.	Components	No. of Respondents	Per cent
1	Strongly Agree	143	28.6
2	Agree	167	33.4
3	Neutral	30	6
4	Disagree	92	18.4
5	Strongly Disagree	68	13.6
	<b>Total</b>	<b>500</b>	<b>100</b>

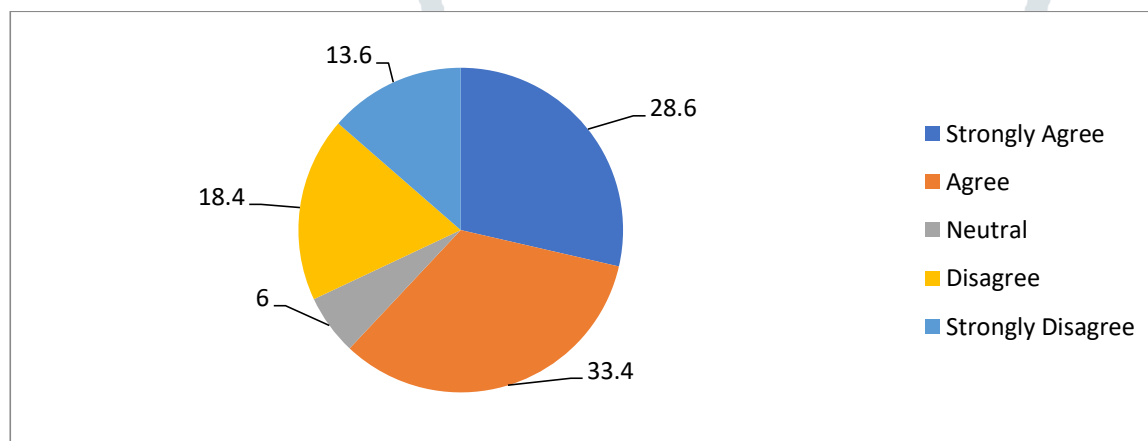


Figure 3: Response to the question “Do you agree that academic detailing influence the prescribing behavior of physicians”?

Analysis: Among all respondents, 28.6 per cent respondents strongly agreed, almost one third of respondents i.e. 33.4 per cent agreed, 6 per cent neutral, 18.4 per cent disagreed and 13.6 per cent strongly disagreed that academic detailing influence the prescribing behavior of physicians.

Table 5: Response to the question “Do you agree that promotional expenditure influence the prescribing behavior of physicians”?

S. No.	Components	No. of Respondents	Per cent
1	Strongly Agree	153	30.6
2	Agree	178	35.6
3	Neutral	32	6.4
4	Disagree	78	15.6
5	Strongly Disagree	59	11.8
	<b>Total</b>	<b>500</b>	<b>100</b>

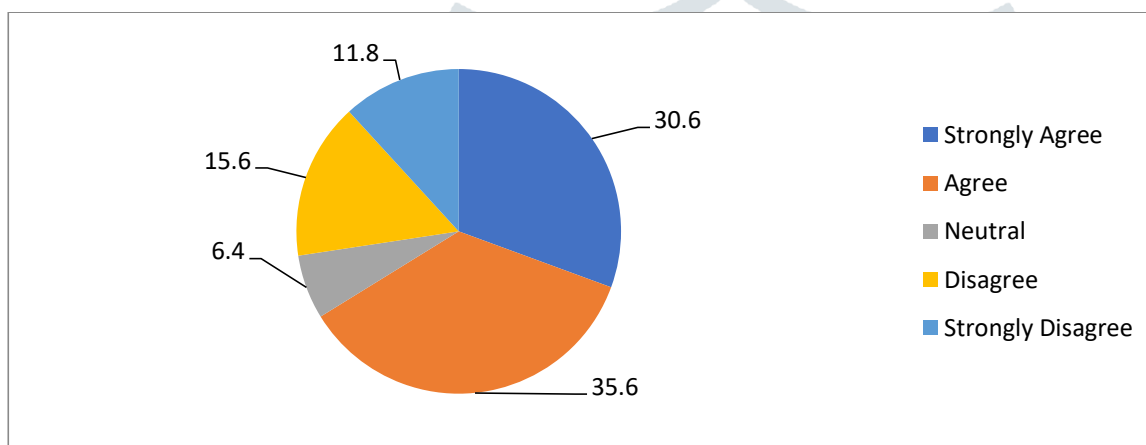


Figure 4: Response to the question “Do you agree that promotional expenditure influence the prescribing behavior of physicians”?

Analysis: Among all respondents, 30.6 per cent respondents strongly agreed, 35.6 per cent agreed, 6.4 per cent neutral, 15.6 per cent disagreed and 11.8 per cent strongly disagreed that promotional expenditure influence the prescribing behavior of physicians.

Table 5: Response to the question “Do you agree that continuous medical education programs influence the prescribing behavior of physicians”?

S. No.	Components	No. of Respondents	Per cent
1	Strongly Agree	132	26.4
2	Agree	147	29.4
3	Neutral	29	5.8
4	Disagree	108	21.6
5	Strongly Disagree	84	16.8
	<b>Total</b>	<b>500</b>	<b>100</b>



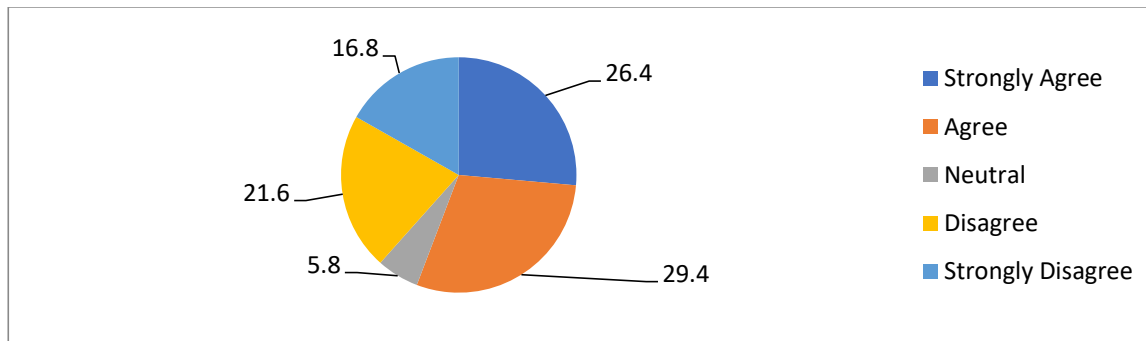


Figure 5: Response to the question “Do you agree that continuous medical education programs influence the prescribing behavior of physicians”?

Analysis: Almost one fourth of respondents i.e. 26.4 per cent strongly agreed, 29.4 per cent agreed, 5.8 per cent neutral, 21.6 per cent disagreed and 16.8 per cent strongly disagreed that continuous medical education programs influence the prescribing behavior of physicians.

## FINDINGS OF THE STUDY

1. The findings shows that among all respondents, 35.6 per cent respondents strongly agreed, 40.6 per cent agreed, 3.4 per cent neutral, 12.6 per cent disagreed and only 7.8 per cent strongly disagreed that drugs sample influence the prescribing behavior of physicians.
2. Almost one fourth of respondents i.e. 26.4 per cent respondents strongly agreed, 31.4 per cent agreed, 6.4 per cent neutral, 20.6 per cent disagreed and 15.2 per cent strongly disagreed that gifts influence the prescribing behavior of physicians.
3. The result reveals that 28.6 per cent respondents strongly agreed, almost one third of respondents i.e. 33.4 per cent agreed, 6 per cent neutral, 18.4 per cent disagreed and 13.6 per cent strongly disagreed that academic detailing influence the prescribing behavior of physicians.
4. The research study found that 30.6 per cent respondents strongly agreed, 35.6 per cent agreed, 6.4 per cent neutral, 15.6 per cent disagreed and 11.8 per cent strongly disagreed that promotional expenditure influence the prescribing behavior of physicians.
5. Almost one fourth of respondents i.e. 26.4 per cent strongly agreed, 29.4 per cent agreed, 5.8 per cent neutral, 21.6 per cent disagreed and 16.8 per cent strongly disagreed that continuous medical education programs influence the prescribing behavior of physicians.

## CONCLUSION

1. The present research has identified the influence of promotion of drugs on prescribing behavior of physicians. The several factors which were considered in the present research study are as follows:

- (a) Drugs Samples,

- (b) Gifts,
- (c) Academic Detailing Influence,
- (d) Promotional Expenditure,
- (e) Continuous Medical Education Programs,

2. The research study has concluded that among all the factors that influence the promotion of drugs on prescribing behavior of physicians. Respondents were more agreed drug samples influence more in prescribing behavior of physicians.

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