

**A STUDY TO DETERMINE IF GIFTS AND  
SPONSORSHIPS BY MEDICAL REPRESENTATIVES  
CAN CONTRIBUTE TOWARDS NEW PRODUCT  
ACCEPTANCE BY DOCTORS IN URBAN  
AND RURAL SETTINGS**

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**ABSTRACT**

*New products are coming out on a regular basis by pharmaceutical companies. Companies give a number of gifts and sponsorships to lure the doctors into prescribing their new products. Wishing to learn if these gifts and sponsorships contribute to doctors prescribing the new products of the companies, the study was conducted.*

*100 GP's and 100 Consultants from the urban area and 100 GP's and 100 Consultants from the rural area were selected for the study. Pearson's coefficient of correlation was used to find out if any correlation existed between gifts acceptance and new product prescriptions and similarly if any correlation existed between sponsorships acceptance and new product prescriptions. Doctors were made to rank 6 variables in which sponsorships and gifts (non-product based variables) were present and compared with product based variables in which new products were present.*

*The findings were that a low correlation existed between accepting gifts or sponsorships and prescriptions of new products by doctors*

**Keywords:** Prescriptions, gifts, sponsorships, consultants, general practitioners.

## **INTRODUCTION:**

The study was conducted to determine if gifts and sponsorships had any effect on new product prescriptions by doctors.

A gift may be anything ranging from a simple pen to a television set or even an air-conditioned car. Many doctors are given gifts and then lured into prescribing the new product of the company. On the other hand doctors could ask the company rep to give the gift of his/her choice and then agree to prescribe the new product. As such nowadays with the control by the Government getting stricter by the day, many doctors are avoiding taking gifts from medical representatives as they feel that if they are caught then their name will be ruined. Formerly doctors were not afraid to take gifts from doctors and in return prescribe the products of the company. This means that even if the doctor had no experience in using a new product, he would try it out for the sake of gift which he/she had accepted.

Sponsorships to conferences range from doing the registration to providing accommodation at the place of conference to providing accommodation and food. It could also mean providing a day for sight-seeing. Sponsorships could also mean sponsoring a doctor for a conference within the state where the doctor is residing.

New products are those products which are difficult to come on the pen of a doctor. In case of General Practitioners, they generally feel reluctant to prescribe anything new on account of the fact that they are unaware as to how the product will act and give relief to the patient. Once they are acquainted with the product then they have no hesitation in prescribing it. In the case of Consultants, they have a lot of knowledge on using different drugs. However they too are reluctant to prescribe a new product as they wish to get confirmation from their colleagues, the product should be featured in a journal, and it should be discussed in a conference.

This makes new products detailed by medical representatives not too convincing for doctors. The study was conducted on general practitioners and consultants to find out how much correlation was present in giving gifts /sponsoring doctor for a symposium and in return getting prescriptions for new products.

Pearsons coefficient of correlation was used to determine if any correlation existed between gifts given by medical representatives and desiring new products by doctors. Similarly Pearsons coefficient of correlation was used to determine if any correlation existed between sponsorships and desiring new products by doctors

100 General Practitioners and 100 Consultants in the urban market in Goa were selected and similarly 100 General Practitioners and 100 Consultants in the rural market in Goa were selected. The doctors were made to rank six different variables (non-product based variables) from 1 to 6 (1 most desired and 6 least desired) in which gifts and sponsorships provided were present. These ranks were compared with another set of six different variables (product based variables) in which new products was present.

## **LITERATURE REVIEW:**

The literature review was conducted to find out if samples and symposia had a positive effect on prescription habits of doctors in terms of new products.

Workneh, Gebrehiwot, Bayo, Gidey, Belay, Tesfaye and Kassa (2016) conducted a study in Mekelle, Northern Ethiopia wherein they found that the probability of physicians who received gifts from MRs being ready to prescribe their respective products was six times higher than those who reported not accepting any gifts. Stationery materials 23(35.4%) and drug samples 20(54.2%) were the commonest kinds of gifts given to physicians apart from other types of gifts.

Mikhael and Alhilali (2014) also did a similar study on the interaction between MRs and Iraqi physicians where they studied the effect of accepting a gift and the prescription pattern of a doctor after that. As per the study they found out that 41% of the physicians accepted gifts. Gift acceptance makes doctors shift from generic drugs to branded drugs.

Similarly Sharma (2012) too felt that gifts were responsible for prescription preferences. Sharma conducted a study on 100 doctors in western UP where the doctors were made to give

marks out of 10 and the average mark was calculated. The results proved that gifts influence prescribing preferences.

Turning to symposia, a study on the perception of 115 physicians on the promotion of drugs in India also showed a positive correlation between promotional tools such as symposia being used and prescription behavior. Handa, Vohra and Srivastava (2013) did a study on promotional tools having a positive effect on prescriptions. This showed that symposia were considered an effective mode of promotion of the different promotional tools being used.

Sharma too felt that a symposium was an effective mode of promotion. His study was conducted on 100 doctors in Western UP and the doctors were given marks out of 10. The average mark was calculated which was high enough to prove that symposia was an effective mode of promotion.

When it comes to new products, the followings studies were conducted to determine how the preference lies for new products. Stern and Wright (2016) felt that early adopters of new products generally were also found to be heavy users of the same. The study was done on 36 new drugs by them on doctors in the United Kingdom got the following results; on an average the prescribing rate of innovators is about 50% higher than that of non-innovators. This meant that by locating doctors who would innovate on a new product would lead to a better success rate.

A study by Cutts and Tett (2003) found the geographic remoteness had an effect on prescribing new drugs. According to Cutts and Tett, doctors residing in remote areas were less likely to prescribe new products as compared to doctors residing in urban areas. The study was conducted on 258 doctors in Queensland.

#### **IMPORTANCE OF THE STUDY:**

The study is important because it helps us to understand if gifts or sponsorships by medical representatives to the doctor can influence new product acceptance by the doctors.

#### **STATEMENT OF THE PROBLEM:**

New products by companies are growing day by day. As no advertisements are possible for prescription drugs, the role of the medical representative is vital. Wishing to find out if gifts or sponsorships provided by the medical representative to the doctor can influence new prescription drug acceptance by doctors, the study was conducted.

#### **OBJECTIVES:**

1. To find out if gifts given to doctors by the medical representatives can influence new product acceptance.
2. To find out if sponsorships given to doctors by medical representatives can influence new product acceptance.

#### **RESEARCH METHODOLOGY:**

The Pearson's coefficient of correlation was conducted on the following;

- a) Gifts given by Medical representatives with acceptance of new drugs/products by urban doctors
- b) Gifts given by Medical representatives with acceptance of new drugs/products by rural doctors
- c) Sponsorships given by Medical representatives with acceptance of new drugs/products by urban doctors
- d) Sponsorships given by Medical representatives with acceptance of new drugs/products by rural doctors

The Pearson's coefficient of correlation is as follows:

$$r (\text{correlation coefficient}) = \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}}$$

Where r = Pearson's coefficient of correlation

$X_i = x_i - \text{Mean}$

$Y_i = y_i - \text{Mean}$

$x_i = \text{value of the individual variable}$

$y_i = \text{value of the individual variable}$

### RESEARCH DESIGN:

A random, direct, structured questionnaire was utilized wherein a personal interview was conducted on 200 urban doctors and 200 rural doctors of Goa. The research design was of an exploratory design.

### FINDINGS AND ANALYSIS:

#### A. Correlation between Urban doctors desiring new products and receiving gifts from Medical Representatives.

Mean of x(urban new product)= 3.71

Mean of y(urban gifts)=4.86

$X_i = x - \text{mean}$  and  $Y_i = y - \text{mean}$

Where x and y are any variables from 1-200

$$r (\text{correlation coefficient}) = \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}}$$

$$= 88.88 / \text{Sqrt}(809.18 * 314.08)$$

$$= 88.88 / \text{sqrt}(254147.2544)$$

$$= 88.88 / 504.13$$

$$= 0.1763$$

The correlation between gifts to urban doctors and doctors prescribing new products is low.

#### B. Correlation between Urban doctors desiring new products and receiving sponsorships from Medical Representatives.

Mean of x(urban new product)= 3.71

Mean of y(urban sponsorships)=4.09

$X_i = x - \text{mean}$  and  $Y_i = y - \text{mean}$

Where x and y are any variables from 1-200

$$r (\text{correlation coefficient}) = \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}}$$

$$= 203.22 / \text{Sqrt}(809.18 * 203.22)$$

$$= 203.22 / \text{Sqrt}(164441.5596)$$

$$= 203.22 / 405.51$$

$$= 0.501146$$

There is a low positive correlation between urban doctors accepting sponsorships and accepting new products.

#### C. Correlation between Rural doctors desiring new products and receiving gifts from Medical Representatives.

Mean of x(rural new product)= 4.845

Mean of y(rural gifts)=4.075

$X_i = x\text{-mean}$  and  $Y_i = y\text{-mean}$

Where  $x$  and  $y$  are any variables from 1-200

$$r (\text{ correlation coefficient } ) = \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}}$$

$$\begin{aligned} &= -70.675 / \text{Sqrt} (406.195 * 559.875) \\ &= -70.675 / \text{Sqrt} (227418.4256) \\ &= -70.675 / 476.88 \\ &= -0.14820 \end{aligned}$$

There is a weak negative correlation between rural doctors accepting gifts and prescribing new products.

#### **D. Co-relation between Rural doctors desiring new products and receiving sponsorships from Medical Representatives.**

Mean of  $x$ (rural new product)= 4.845

Mean of  $y$ ( rural sponsorships)=4.825

$X_i = x\text{-mean}$  and  $Y_i = y\text{-mean}$

Where  $x$  and  $y$  are any variables from 1-200

$$r (\text{ correlation coefficient } ) = \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}}$$

$$\begin{aligned} &= 109.575 / \text{Sqrt}( 406.195 * 344.875) \\ &= 109.575 / \text{Sqrt}(140086.500) \\ &= 109.575 / 374.2812 \\ &= 0.2927 \end{aligned}$$

There is a weak positive correlation between rural doctors accepting sponsorships and prescribing new products.

#### **CONCLUSIONS:**

- 1.The correlation between urban doctors receiving gifts and prescribing the new products of the doctors is low. This is on account of urban doctors not giving much importance to gifts.
- 2.The correlation between urban doctors accepting sponsorships and prescribing the new products of companies is almost moderate. This could be on account of the fact that urban doctors like going on tours to places to attend conferences from time to time. As a result any sponsorship of their tour which could range from registration, to accommodation, meals and travel is highly appreciated by doctors who reciprocate by prescribing the new products of the company.
- 3.The correlation between accepting gifts by rural doctors and prescribing the new products of the company is low. This could stem from the fact that rural doctors do not prefer accepting gifts and then prescribing the new products of the doctors. Or else the doctors do not wish to show that they desire to accept gifts in return for new products prescriptions.
- 4.The correlation between rural doctors accepting sponsorships and in turn prescribing new products of the companies is low. As rural doctors do not attend much of conferences , their need for sponsorships too will be on the lower side.

#### **LIMITATION OF THE STUDY:**

1. The doctors who did not complete the questionnaire were discarded and new doctors were included. The findings of the first doctors could be different.
2. Bias may have set in the answers as doctors do not wish to convey that they are in favour of accepting gifts or sponsorships.

**SUGGESTIONS:**

The study could be reworked after a year to find out if the results are the same or have changed.

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