

## **Effect of Gifts and Sponsorships on Acceptance of High Priced Prescription Drugs by Doctors: A Study**

**Dr. Cedric Thomas Silveira,**

Assistant Professor  
Don Bosco College, Panaji, Goa, India.

### **ABSTRACT**

*Doctors are usually ready to accept gifts or sponsorships when given by medical representatives. Doctors travel a lot to attend seminars, workshops and conferences and may take their family along with them too as a get away from their routine. As a result they may look for their trip to be sponsored by companies and in return are ready to prescribe the high priced products of companies. The study was conducted to find out if gifts and sponsorships have an effect on the prescription pattern of doctors when it comes to prescribing high priced products. Since gifts and sponsorships should be desired by doctors it would be interesting to find out the effect of these two variables on the acceptance of the pricing of products by companies to doctors. Fifty doctors from urban areas and fifty doctors from rural areas were selected for the study. The findings were that doctors in rural areas favoured high priced products when gifted whereas doctors in urban areas favoured high priced products when sponsored for conferences or seminars.*

**Keywords:** Prescriptions, gifts, sponsorships, medical representative, brands.

### **INTRODUCTION:**

Finding out if sponsorships and gifts will make a doctor indifferent to price was what I wished to study. If gifted or sponsored many a time doctors may turn a blind eye to the price whatsoever the price may be. In this way many companies whose products are priced very high manage to get the doctors to prescribe their brands. Wishing to find out, I conducted a study on these two parameters, namely gifts and sponsorships and their effect on price. Gifts are desired by every doctor, especially the younger doctors like interns or residents. A gift is a gift no matter what its size is. A doctor when gifted could feel obliged to the medical representative and prescribe irrespective of the price.

On the other hand, sponsorships are something which most doctors desire especially for their meetings or whenever they travel to go for seminars or meetings outside their state. Here too the doctors feel obliged to the medical representative and when sponsored, they do not look at what the price is.

Both these parameters are quite interesting and I conducted a study to find out if sponsorships or gifts had any bearing on the price. The study was conducted in Goa wherein 50 doctors from urban areas and 50 doctors from rural areas were interviewed. The correlation between sponsorships and acceptance of price by doctors and the correlation between gifts and acceptance of price by doctors was found out.

### **LITERATURE REVIEW:**

The literature review was conducted to find out if gifts or sponsorships had any effect on doctors being indifferent to price of brands marketed to them.

Workneh, Gebrehiwot, Bayo, Gidey, Belay, Tesfaye and Kassa (2016) conducted a study in Mekelle, Northern Ethiopia wherein they found that the chances of physicians receiving gifts from MRs and then prescribing their products was six times higher than when they were not gifted. This showed that a doctor was obliged to the company who gifted them.

Similarly Mikhael and Alhilali (2014) who conducted a study between Iraqi physicians and doctors felt that prescriptions increased after the gift was given. In their study 41% of doctors were ready to accept gifts. Gifting also had an effect of making a doctor shift from a generic drug to a branded drug.

Sharma(2012) who conducted a study in western UP also felt that if gifted doctors were ready to prescribe irrespective of the cost. The study was conducted on 100 doctors .

Symposia when studied also had a positive correlation between promotional tools such as symposia and prescription behavior. Handa, Vohra and Srivastava (2013) did a study on promotional tools having a positive effect on prescriptions. Symposia was considered a san important tool for promotion which increased the prescriptions of doctors .

Sharma (2012) too felt that symposia had a positive effect on prescriptions wherein doctors started prescribing after being sponsored for a symposia ..

McGuire, King, Roche-Nagle and Barry (2009) felt that cost had an effect on prescription pattern.. They studied 102 medical and surgical non consultant hospital doctors and consultants in two University teaching hospitals. According to them, “ 68 percent felt that cost was an important factor in prescribing, yet 88 percent were unaware of the costs. Barely 33 percent has access to drug costs and 3 percent were formally educated about the same” (pg 277-280).

This proved that a lot of doctors were unaware of the cost and when gifted or sponsored were ready to prescribe the products irrespective of the cost. This called for education of doctors when prescribing.

Dixit, Patil, Chandrashekar, S, Madhuri and Mane ( 2014) conducted a study on 156 doctors to find out what made a doctor prescribe a brand. 25.64 percent of the doctors felt that cost played an important factor while prescribing.

Sharma (2000) too found that cost or price was an important factor while prescribing wherein a number of doctors ranked cost of the product high on the scale.

## **OBJECTIVES:**

1. To find out if gifts or sponsorships have any influence on the doctors prescriptions of high priced products among urban doctors.
2. To find out if gifts or sponsorships have any influence on the doctors prescriptions of high priced products among rural doctors.

## **RESEARCH DESIGN:**

A random, direct, structured questionnaire was utilized wherein a personal interview was conducted on 50 urban doctors and 50 rural doctors of Goa. The research design was of an exploratory design.

## **FINDINGS:**

The Karl Pearson's coefficient of correlation is as follows:

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

Where r = Pearson's coefficient of correlation

$X_i$  =  $x_i$  – Mean  $Y_i$  =  $y_i$  – Mean

$X_i$  = value of the individual variable from 1-50  $y_i$ = value of the individual variable from 1-50

It was conducted on the following:

Correlation between acceptance of gifts from medical representatives and acceptance of price by urban doctors:

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

Mean of urban gifts = 4.86 Mean of urban price = 4.06

$$\begin{aligned}
 &= 31.68/\sqrt{(314.08 \times 573.28)} \\
 &= 31.68/\sqrt{180055.8} \\
 &= 31.68/424.32 \\
 &= 0.074
 \end{aligned}$$

There is low positive correlation between giving gifts by medical representatives and acceptance of price by doctors from urban areas.

Correlation between desiring sponsorships from medical representatives and acceptance of price by urban doctors.

$$r(\text{correlation coefficient}) = \frac{\sum X_I Y_I}{\sqrt{(\sum X_I^2 \times \sum Y_I^2)}}$$

$$\begin{aligned}
 \text{Mean of sponsorships} &= 4.09 \quad \text{Mean of price} = 4.06 \\
 &= -184.08/\sqrt{416.38 \times 573.28} \\
 &= -184.08/\sqrt{238702.32} \\
 &= -184.08/488.57 \\
 &= -0.3767
 \end{aligned}$$

There is medium negative correlation between desiring sponsorships from medical representatives and acceptance of price by urban doctors.

Correlation between accepting gifts from medical representatives and acceptance of price by rural doctors:

$$r(\text{correlation coefficient}) = \frac{\sum X_I Y_I}{\sqrt{(\sum X_I^2 \times \sum Y_I^2)}}$$

$$\begin{aligned}
 \text{Mean of rural gifts} &= 4.075 \quad \text{Mean of rural price} = 2.76 \\
 &= 258.6/\sqrt{(559.875 \times 478.48)} \\
 &= 258.6/\sqrt{(267888.95)} \\
 &= 258.6/517.579 \\
 &= 0.49963
 \end{aligned}$$

There is a medium positive correlation between desiring gifts by rural doctors and acceptance of price.

Correlation between desiring sponsorships from medical representatives and acceptance of price by rural doctors.

$$r(\text{correlation coefficient}) = \frac{\sum X_I Y_I}{\sqrt{(\sum X_I^2 \times \sum Y_I^2)}}$$

$$\begin{aligned}
 \text{Mean of rural sponsorships} &= 4.825 \quad \text{Mean of rural price} = 2.76 \\
 &= -55.4/\sqrt{(344.875 \times 478.48)} \\
 &= -55.4/\sqrt{(165015.79)} \\
 &= -55.4/406.221 \\
 &= -0.13637
 \end{aligned}$$

There is a low negative correlation between desiring sponsorships by rural doctors from medical representatives and acceptance of price.

## CONCLUSIONS:

1. There is a low positive correlation between price and gifts among urban doctors. This is perhaps because urban doctors do not desire gifts as much and as a result do not place any emphasis on receiving gifts. As a result high price plays a factor even after receiving a gift, which means a doctors will not prescribe a high priced product.
2. There is a negative medium correlation between price and sponsorships among urban doctors. This may be on account of the fact that urban doctors travel a lot for seminars and conferences and as a result they may be

interested in sponsorships and thereby price will not a factor for them even after it being high, which means that they will prescribe the drug even though it is priced high.

3. There is a medium positive correlation between gifts and price among rural doctors. This is because rural doctors treasure gifts to a larger extent as compared to urban doctors and thereby are ready to prescribe high priced products when gifted by a medical representative.
4. There is a negative low correlation between price and sponsorships among rural doctors because they usually do not go for conferences or seminars and thereby are influenced by economical products to a larger extent, and will not prescribe high priced products.

#### **LIMITATIONS OF THE STUDY:**

1. The study was conducted on 100 doctors . some questionnaires were found to be incomplete which resulted in discarding them and selecting new doctors.
2. Other tools and techniques could have been used . However Karl Pearson's coefficient of correlation was found to be sufficient.

#### **SUGGESTIONS:**

The above study could be revisited to see if any changes have occurred.

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