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"Effect of Samples and Frequent Visits on Acceptance of high Priced Prescription Drugs by Doctors: A Study"

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Abstract:
Doctors often desire samples and frequent visits. If there two variables could have any effect on the price of a brand which a doctor prescribes was to be seen . That is, even if the product is priced high, a doctor who is given samples and is frequently visited will prescribe it. The study was conducted on 200 urban doctors and 200 rural doctors in Goa. As such urban doctors do not normally desire samples and neither do they desire frequent visits as they are usually busy and have no time for medical representatives. On the other hand rural doctors would like samples as well as frequent visits because medical representatives seldom visit them and they also indulge in dispensing practice. However the study when conducted, it was found that urban doctors had a moderate acceptance of the high priced products. This could stem from the fact that they conduct a lot of evaluation trials and once found successful would not hesitate to prescribe the same to the patients. On the other hand frequent visits had no such effect on urban doctors because they are busy and do not have time for frequent visits. Conversely the rural doctors although they may accept samples and desire frequent visits may not be in a position to prescribe high priced brand because their patients would not be able to afford the same.

Keywords: *Brands, Frequent Visits, Medical Representative, Prescriptions, Samples*

I. INTRODUCTION

Samples or frequent visits and their effect on price was what I wished to study. Medical representatives visit doctors and give samples . Rural doctors in general who tend to dispense more will favour the samples as compared to urban doctors who may not care much for samples. It is to be seen the effect on prescribing high priced product after receiving a sample of it.

Similarly frequent visits is something that doctors in rural areas prefer rather than urban doctors. Doctors in urban areas as such usually do not have the time to sit and listen to medical representatives. In comparison rural doctors like when medical representatives come and meet them often. Here too the effect of frequent visits on prescription of high priced products is to be seen.

The study was conducted on 200 rural doctors and 200 urban doctors. Companies introduce many high priced products and then expect the medical representatives to get doctors to prescribe them. Giving samples or visiting the doctors often is something that medical representatives try out to get doctors to prescribe them. Once the product is prescribed then its stays on the pen of the doctor for a long time. Giving samples or frequent visits helps the product to be reinforced in the mind of the doctor. In this way even a high priced product will be prescribed if reinforced

II. LITERATURE REVIEW

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

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Mikhael and Alhilali (2014) conducted a study on the interaction between MRs and Iraqi physicians , where they found that 59% of the physicians accepted samples . Sharma (2012) too was of the opinion that samples generated prescription preferences. 100 doctors in western UP were made to give marks out of 10 and the average mark was calculated.

Morgan, Dana, Loewenstein, Zinberg, Schulkin, (2006) when they conducted a study on samples given to obstetricians and gynecologists found a positive response in terms of prescriptions. 397 members of the American College of Obstetricians and Gynecologists participated in the study and the response rate was 55%. Many of the respondents felt it appropriate to accept samples 92%, and 33% felt that their decision to prescribe was influenced by the samples. Doctors also gave samples to patients for other reasons such as for economically weaker patients (94%) , for convenience (63%) or for its efficacy (63%).

Further in another study by Michael and Alhilali (2014), they found that doctors accepted a drug depending on the information which the Medical Representative gives. The study showed that the MR can influence the physician to a large extent in prescribing drugs even to the extent of prescribing new medications. Could frequent visits to doctors also influence prescriptions is to be seen and if frequent visits could lead to prescribing high priced products.

McGuire, King, Roche-Nagle and Barry (2009) conducted a study on cost and prescription pattern. 102 medical and surgical non consultant hospital doctors and consultants in two University teaching hospitals were chosen for the study. Their findings showed that , " 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 given samples or frequently visited they tend to prescribe the brand irrespective of the cost of the brand. This called for education of doctors when prescribing.

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

Sharma (2012) also felt that cost or price was an important factor while prescribing as seen from his findings a number of doctors ranked cost high on the scale.

III. Objectives

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

IV. 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.

V. Finding

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

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

Where r = Pearson's coefficient of correlation

Xi= xi – Mean
Yi = yi –Mean

xi= value of the individual variable from 1-200

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yi= value of the individual variable from 1-200

It was conducted on the following:

A. Correlation between acceptance of samples from medical representatives and acceptance of price by urban doctors:

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

Mean of urban samples = 4.09
Mean of urban price = 4.06

= 239.92/√(568.38 x 573.28)

= 239.92/√(325840.88)

=31.68/570.82

=0.4203

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

B. Correlation between desiring frequent visits from medical representatives and acceptance of price by urban doctors.

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

Mean of frequent visits =3.615
Mean of price= 4.06

= 33.62/√(267.355 x573.28)

= 33.62/√(153269.3)

= 33.62/391.496

= 0.0858

There is low positive correlation between desiring frequent visits from medical representatives and acceptance of price by urban doctors.

C. Correlation between accepting samples from medical representatives and acceptance of price by rural doctors:

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

Mean of rural samples = 2.585
Mean of rural price = 2.76

= 81.08/ √(530.555 x 478.48)

= 81.08/ √(253859.9564)

= 81.08/503.845

= 0.1609

There is a low positive correlation between desiring samples by rural doctors and acceptance of price.

D. Correlation between desiring frequent visits from medical representatives and acceptance of price by rural doctors .

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

Mean of rural frequent visits= 3.525
Mean of rural price = 2.76

= -22.8/√(341.875 x 478.48)

= -22.8/√(163580.35)

= -22.8/404.45

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= - 0.0563

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

VI. Conclusion

There is a medium positive correlation between price and samples among urban doctors. This is perhaps because urban doctors desire samples to conduct evaluation trials on their patients and if found successful will not hesitate to prescribe the product even at a high price.

There is a low positive correlation between price and frequent visits among urban doctors. This may be on account of the fact that urban doctors may not desire frequent visits by medical representatives and as a result may not prescribe the high priced products too.

There is a low positive correlation between samples and price among rural doctors. This is because rural doctors may not be swayed by samples when it comes to prescribing higher priced products. As such the doctors patients may not be able to afford the high priced products so although they may accept the samples they will not prescribe the high priced product.

There is a low negative correlation between price and frequent visits among rural doctors this is because although the doctor may welcome the medical representative at his clinic he may not be in a position to prescribe the high priced product because of its affordability.

VII. Limitations of the Study

The study was conducted on 400 doctors. As some questionnaires were found to be incomplete or wrongly filled up, they were discarded resulting in selection of new doctors.

Other tools and techniques could have been used . However Karl Pearson's coefficient of correlation was found to be sufficient.

VIII. Suggestions

After a year the study could be redone and checked to see what changes have occurred since the earlier study.

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