



## **A study to determine if rapport or information by Medical Representatives can contribute towards new product acceptance by doctors in urban and rural settings**

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**Abstract:** New products are products which one does not have a clue as to how they will fare. This is especially important with respect to the pharmaceutical industry where a number of new products are launched and there is no advertisements for it. Wishing to learn if rapport of the medical representative with the doctor or information provided by the medical representative is related to the acceptance of new products by the doctors, a study was conducted. Urban and rural doctors were interviewed. The correlation between medical representatives rapport with urban doctors and their desiring of new products and medical representatives providing information to urban doctors and their desiring of new products was tested by Pearson's coefficient of correlation. Similarly the correlation between medical representatives rapport with rural doctors and their desiring of new products and medical representatives providing information to rural doctors and their desiring of new products was tested by Pearson's coefficient of correlation. A total of 200 urban doctors and 200 rural doctors were taken for the survey.

**Key words:** Medical representative, new product, rapport, information, correlation

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### **1. Introduction**

New products are on the rise and companies are seeking ways and means to find out how to increase their sales. As advertising is prohibited for prescription drugs, the whole emphasis is on the medical representative.

A new product is a new molecule or in a combination which was not marketed or promoted earlier. A new product may also be a brand of a similar product available abroad and was not marketed earlier in India.

The study conducted was to determine if rapport of medical representative with an urban doctor or the information which he gives to an urban doctor has any correlation to acceptance of new products. Similarly in the case of the rural market, the study was conducted to find if rapport of medical representative with a rural doctor or the information which he gives to a rural doctor has any correlation to acceptance of new products.

The study was conducted on 200 urban doctors as well as 200 rural doctors. The test used was Pearson's coefficient of correlation.

Rapport with a doctor refers to how friendly and close a medical representative is with a doctor. Regular meetings with a doctor, and ability to answer any queries which the doctor may pose, develops good relations with a doctor or what is known as rapport with a doctor. Once a rapport is developed the it becomes more easy for a medical representative to get entry into the doctor's clinic, ask for prescriptions and gain acceptance for new products.

Similarly information which a medical representative gives to a doctor is the drug based information. In the case of a new product the doctor may not have a clear idea of the new product and the information which the medical representative provided may be crucial in accepting the new product. The convincing power of the medical representative in getting across the information plays a vital role in acceptance of the new product.

Bothe the urban and rural markets are different, and the study was conducted to determine if rapport of the medical representative with the doctor and information provided by the medical representative to the doctor had any effect on the acceptance of the new product by the doctor.

Pearson's coefficient of correlation was used to find out the correlation between providing of information and acceptance of new products as well as having a rapport with doctors and acceptance of new products, in both rural and urban markets.

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 rapport and information provided were present. These ranks were compared with another set of six different variables ( product based variables) in which new products was present.



## 2. Literature Review

The literature review was done on drug information provided by medical representatives, the rapport a medical representative has with the doctor and the acceptance of new products by doctors.

Macit , Taner, Mercanoglu and Mercanoglu (2016) conducted a study on brand loyalty wherein their findings were as follows. 18 physicians from the Cardiology department participated in the study. 85% of the respondents felt that scientific literature regarding the drug as their first priority while prescribing and another 45% declared that clinical trials resulted as a primary source of information .

According to a study by Michael and Alhilali (2014), they found that doctors accepted a drug depending on the information which the MR 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. However doctors in India are much more cautious and should not be prescribing only depending on the information give by MRs. This subject will have to be checked out in the study undertaken by me. Sharma (2012) too is in agreement as he states that literature updates play an important role in prescribing preferences of doctors.

Turning to rapport of medical representatives with doctors, Workneh, Gebrehiwot, Bayo, Gidey, Belay, Tesfaye and Kassa (2016) conducted a study in Mekelle, Northern Ethiopia wherein of the ninety physicians approached in the study, 40 (48.2%) of the physicians believed that their prescribing decisions were influenced by visits of medical representatives (MRs).

Sharma (2012) also feels that doctors are influenced by the regular visits by the MR's and the personality of the medical representative. In a study done on 100 doctors in western UP, the above factors were rated high by the doctors.

And finally the prescribing preference for new products was seen in studies conducted by Stern et al and Cutts and al. Stern and Wright (2016) felt that early adopters of new products generally were also found to be heavy users of the same. A study 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.

A study by Cutts and Tett (2003) found the geographic remoteness had an effect on prescribing new drugs. According to Cutts and Tett, "The prescribing of recently marketed drugs was more likely by doctors practicing in less remote rural areas." (pg 124-130). The study was conducted on 258 doctors in Queensland.

## 3. Importance of the study:

The study is important because it helps us to understand if rapport of the medical representative with the doctor and information provided by the medical representative can influence new product acceptance by the doctors.

## 4. Statement of the problem:

Companies are on the rise and with it comes a number of new products . As no advertisements are possible for prescription drugs, the role of the medical representative is vital. Wishing to find out if rapport of medical representatives with the doctor or information provided by the medical representative to the doctor can influence new prescription drug acceptance by doctors ,the study was conducted .

## 5. Objectives:

1. To find out if rapport with doctors by the medical representatives can influence new product acceptance.
2. To find out if information provided to doctors by medical representatives can influence new product acceptance.

## 6. Research Methodology

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

- a) Rapport of Medical representatives with acceptance of new drugs/products by urban doctors
- b) Rapport of Medical representatives with acceptance of new drugs/products by rural doctors
- c) Information provided by Medical representatives with acceptance of new drugs/products by urban doctors
- d) Information provided 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



$X_i = x_i - \text{Mean}$   
 $Y_i = y_i - \text{Mean}$   
 $x_i =$  value of the individual variable  
 $y_i =$  value of the individual variable

### 7. 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.

### 8. Findings and Analysis:

- A. The Pearson's coefficient of correlation of Rapport of Medical representatives with acceptance of new drugs/products by urban doctors was as follows:

$$\begin{aligned} r (\text{correlation coefficient}) &= \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}} \\ &= \frac{-10.62}{\sqrt{(809.18 \times 327.58)}} \\ &= \frac{-10.62}{514.85} \\ r &= -0.02062734 \end{aligned}$$

There is a low negative correlation between rapport of medical representatives and acceptance of new drugs by urban doctors.

- B. The Pearson's coefficient of correlation of Information provided by the Medical representatives with acceptance of new drugs/products by urban doctors was as follows:

$$\begin{aligned} r (\text{correlation coefficient}) &= \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}} \\ &= \frac{97.66}{\sqrt{(809.18 \times 335.42)}} \\ &= \frac{97.66}{\sqrt{271415}} \\ &= \frac{97.66}{520.975} \\ &= 0.187456 \end{aligned}$$

There is a low positive correlation between information provided by the medical representatives and acceptance of new drugs by the urban doctors.

- C. The Pearson's coefficient of correlation of rapport of the Medical representatives with the rural doctors and the acceptance of new drugs/products by rural doctors was as follows:

$$\begin{aligned} r (\text{correlation coefficient}) &= \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}} \\ &= \frac{-19.365}{\sqrt{(337.555 \times 406.195)}} \\ &= \frac{-19.365}{370.28} \\ &= -0.05229 \end{aligned}$$

There is a low negative correlation between rapport of medical representatives and acceptance of new drugs by rural doctors.

- D. The Pearson's coefficient of correlation of information provided by the Medical representatives to the rural doctors and the acceptance of new drugs/products by rural doctors was as follows:

$$\begin{aligned} r (\text{correlation coefficient}) &= \frac{\sum X_i Y_i}{\sqrt{(\sum X_i^2 * \sum Y_i^2)}} \\ &= \frac{43.055}{\sqrt{(695.195 \times 406.195)}} \\ &= \frac{43.055}{\sqrt{282384}} \\ &= \frac{43.055}{531} \\ &= 0.0810 \end{aligned}$$



There is a low positive correlation between information provided by the medical representatives and acceptance of new drugs by the rural doctors.

### 9. Conclusions:

1. There is a low negative correlation between rapport of medical representatives and acceptance of new drugs by urban doctors. This is probably because doctors may have a rapport but are not ready to accept the new product without any scientific data or peer advice.
2. There is a low positive correlation between information provided by the medical representatives and acceptance of new drugs by the urban doctors. The correlation is existing but not to a great level on account of the doctor accepting the MR's information but waiting for peer advice, journal reviews or scientific information.
3. There is a low negative correlation between rapport of medical representatives and acceptance of new drugs by rural doctors. This is probably on account of doctors not relying on the medical representative totally, and waiting for scientific information.
4. There is a low positive correlation between information provided by the medical representatives and acceptance of new drugs by the rural doctors. Here too the doctors may be waiting for more concrete scientific data before accepting the word of the medical representative.

### 10. Limitations

- a) The method or techniques used may not be appropriate.
- b) Bias may have been present in answering the questions on account of not wishing to disclose correct information.

### 11. Suggestions:

A year later a study can once again be undertaken and the factors could be checked for any change.

### 12. References:

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