THE INFLUENCE OF FINANCIAL INCENTIVES OF SALES MEDICAL REPRESENTATIVES ON SALES PROMOTION STRATEGY

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Abstract

Pharmaceutical Industry doesn't promote its products publically through the means of mass media. It is because of the nature and characteristics of Pharmaceutical products. Nature Sales Promotion is indirect, therefore entire Promotion Strategies of Industry through Medical Representatives (MRs) revolves around the Physicians. This paper has been prepared with the objective of evaluating the influence of Financial Incentives of Medical Representatives (MRs) on Sales Promotion Strategies. Primary data were collected through a self-designed questionnaire based on Rank Scale. The data were collected from a sample of 275 Medical Representatives. Spearman's Rank Correlation coefficient was used to analyze the data. T-test was also used to authenticate the significance of the results. Results revealed that the Financial Incentives of MRs plays a significant role in implementation of Sales Promotion Strategies of Pharmaceutical Companies. For the purpose of business implication, the priorities of implementation of these strategies have been represented in a Model.

Keywords: *Sales promotion strategies, pharmaceutical companies, priorities of implementation, bottom-line measurement, communication.*

Introduction:

Healthcare has become one of India's largest sectors, both in terms of revenue and employment. Healthcare comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment. The Indian healthcare sector is growing at a brisk pace due to its strengthening coverage, services and increasing expenditure by public as well private players.

Indian healthcare delivery system is categorized into two major components public and private. The Government, i.e. public healthcare system, comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of primary healthcare centres (PHCs) in rural areas. India's competitive advantage lies in its large pool of well-trained medical professionals. India is also cost- competitive compared to its peers in Asia and Western countries. The cost of surgery in India is about one-tenth of that in the US or Western Europe.

Pharmaceutical Industry and their Marketing Strategies

The Drug and Healthcare Industry is one of the most essential industries in the world. They make and market medicines that are being used for the treatment of diseases. The Pharmaceutical Marketing is a kind of specialized marketing in which product promotion is different than that of the Consumer Market. Physicians (Doctors), Medical Representatives (MRs), Companies, C&F, the Stockiest and Retailers are the major players. In Pharmaceutical Market, the nature of marketing is indirect; therefore, the nature of Pharmaceutical Product Promotion is also indirect. Unlike the Consumer/FMCG market where the commodities are directly booked from the retailers and this way the field staff or the companies comes to know immediately about the quantum of the sale; but in the pharmaceutical market, sales come through the retailers (chemists) but end- users (patients) do not directly ask for

medicines until it is prescribed by a Medical Doctor. According to the Indian Economic Survey 2021, the domestic market is expected to grow in the next decade. India's domestic pharmaceutical market is estimated at US\$ 42 billion in 2021 and likely to reach US\$ 65 billion by 2024 and further expand to reach US\$ 120-130 billion by 2030.India's biotechnology industry comprising biopharmaceuticals, bio-services, bio-agriculture, bio-industry, and bioinformatics. The Indian biotechnology industry was valued at US\$ 64 billion in 2019 and is expected to reach US\$ 150 billion by 2025.India's medical devices market stood at US\$ 10.36 billion in FY20. The market is expected to increase at a CAGR of 37% from 2020 to 2025 to reach US\$ 50 billion.

Review of literature

The literature was reviewed in order to know various promotion strategies which have been used by the MRs Many authors found that Product Samples, Gifts, CME, Sponsorship, and Advertisements were among the main strategies followed by MRs Through the literature survey, it was come to know about different prevailing the marketing strategies, their impacts on pharmaceutical companies and the impact of demographic variables of Medical Representatives on these strategies.

Pokharel (2017) shows the effect of promotional tools on pharmaceuticals marketing. The study is based on a survey method using marketing field force and their opinion in relation to the promotional tools used in pharmaceuticals marketing the study shows that doctors detailing is the most effective tool used as a promotional tool and has the most significant effect on marketing. The Use of product samples has also a significant effect on marketing after to the doctors detailing. In addition to that, pharmaceuticals' marketing has been positively influenced by the corporate presence in different health-related activities like CME programs, health camps where multiple promotional effects have been made. CME programs and health camps tools have been more successful ineffective marketing especially on specialty products like: anti-diabetics, anti-psychiatric, and cardiac products etc.

Fickweiler et al. (2017) found that Physician–pharmaceutical industry and its sales representative's interactions and acceptance of gifts from the company's PSRs have been found to affect physicians' prescribing behavior and are likely to contribute to irrational prescribing of the company's drug. Therefore, intervention in the form of policy implementation and education about the implications of these interactions is needed. The main reason for conducting the research by Meo et al. (2014) was to explore the influence of social surrounding, discount level and buying behavior on sales promotion. They found that buying behavior, free sample, and price reduction has a significant relationship with sales promotion.

Gopalkrishnan (2007) demonstrated that sales incentive programs can be very effective in delivering positive results from the standpoint of bottom-line measures.

Vancelik et al. (2007) suggested in their study that the promotional and educational courses of pharmaceutical companies were reported to be influential on their prescribing decisions by GPs. In addition to this, for the majority of the GPs, primary reference sources concerning prescribing was commercial information provided by sales representatives of pharmaceutical companies. All these results indicates a lack of formal continuing medical education and an adequate monitoring of prescribing behaviors provided by public sector.

Chimonas and Kessirer (2009) wrote in their article that everybody likes something free, and free prescription drug samples are no exception. Patients love to receive them, and doctors feel good about handing them out. The practice of providing free drug samples is based on the tacit assumption that "sampling" does much more good than harm. Free samples improve patient care,

foster appropriate medication use, and help millions of financially struggling patients. He further said that samples benefit physicians by exposing them to new treatment options.

Concluding on the Promotional and Marketing Strategies, **Brett et al. (2003)** found that marketing of drugs by the pharmaceutical industry is pervasive and has become a part of everyday life for most physicians. Virtually all medical journals include advertisements for drugs; pharmaceutical companies provide physicians with information about new products. He observed that many pharmaceutical marketing strategies are far more personal. They include the provision of gifts to physicians, sponsorship of educational and social activities for physicians, and cultivation of relationships between company representatives and physicians.

Katz et al. (2003), in their article, while discussing about gifts and the resulting behaviour, marked that in the business world, gifts are a valuable, time honoured marketing tool because they keep doors of communication open between cooperating parties. Gift exchange underlies the human tendency to engage in networks of obligation. When a gift or gesture of any size is bestowed, it imposes on the recipient a sense of indebtedness. The obligation to directly reciprocate, whether or not the recipient is conscious of it, tends to influence behaviour. They discussed that the benefits of promoting goodwill between physicians and the pharmaceutical industry cannot be discounted, the main objective of Drug Company gift-giving is to create relationships and interests on the part of recipient physicians that conflict with their primary obligation to act in the best interest of their patients.

Reinforcing sampling as a dominant technique of sales promotion strategies, **Cutrona et al. (2008)** concluded that free prescription drug samples are used widely in the United States. The retail value of drug samples distributed in the United States totalled more than $4.9 billion in 1996 and climbed to over $16.4 billion in 2004. They also confirmed with the help of various studies that free samples may influence the prescribing behaviour of physicians and many physicians believe that samples allow them to give free medications to their neediest patients.

A Report on "Financial Relationships with Industry in Continuing Medical Education" presented by **McMahon (2013)** in the Council on Ethical and Judicial Affairs examined the specific context of continuing medical education (CME) funded by the pharmaceutical companies. It has been observed from the report that CME has been an inevitable technique of sales promotion of pharmaceutical Industry. Discussing about heavy investment made for pharmaceutical product promotion, (**Smith, 2008**) wrote in his paper that pharmaceutical companies have ramped up direct-to-consumer (DTC) television and web advertising. In 2004, the pharmaceutical industry spent over $11 billion in pharmaceutical marketing, excluding medication samples (another $7 billion) directed at clinicians. These findings proved the weightage of sales promotion techniques in pharmaceutical Market.

Janodia and Udupa (2007) studied that marketing and advertising of pharmaceutical products to healthcare prescribers for prescription only products and to the consumers for over the counter medications had been one of the ethical issues and is a challenge to pharmaceutical companies. Various measures have been taken by certain regulatory agencies across the world to effectively control and curb the misleading or false claims related to pharmaceutical products through strict regulations or with stringent regulatory standards that scrutinizes all the advertisements for pharmaceuticals, targeted to doctors or consumers directly.

Answering "How web supported promotion could reshape sales activity", **Bernewitz (2001)** reinforced that drug promotion through sales representatives has been the remained the main technique of sales promotion strategies of pharmaceutical companies. Emphasizing on importance, he found that Face-to-face promotion, or product detailing in "pharma-speak", is the dominant

promotion tool for pharmaceutical, medical equipment and biotechnology companies, often making up 60-70 percent of their total promotional budget. In the US alone, pharmaceutical companies spend more than $ 10 billion on field force promotion.

Reinforcing the Relationship marketing Strategy, Wright et al. (2004) concluded that relationship marketing strategy is one of the primary drivers of sales in the pharmaceutical industry. Consequently, it is important to determine how physicians perceive pharmaceutical sales representatives. The purpose of their research is the development of a theoretical model illustrating the formation of physicians' perceptions of pharmaceutical sales representatives especially in three areas of interest:

1   Physicians' perception of the corporation for which the representative works;

2   Physicians' perception of the pharmaceutical sales representative's
     Values; and

3   Physicians' perception of the personal characteristics of the
     pharmaceutical sales representative.

Kothari et al. (2010) concluded their study by suggesting that there should be continuous patient level activity by sales force at least once in month. It would help sales force to make better and stronger relationship with physicians. The activity would help them for sales of overall product mix. They also recommended that there should be a campaign to differentiate product from old products that would help to make a brand image of product itself. With patient level activity there should be strong back up of reasonable and ethical promotion.

A study by **Clarka et al. (2011)**, conducted to know the effects of relationship marketing practices on the quality of relationship between the physician and the pharmaceutical sales representative (PSR), found that it is a topic of interest for pharmaceutical marketers and academics. The main focus of their research study is to understand the impact of relationship building activities by pharmaceutical firms in their effort to influence the decision making process of physicians. Specifically, this study was concerned with the relationships between relationship marketing concepts, such as relationship benefits, relationship investment, PSR expertise, and relational dependence, and relationship quality. A survey was administered to a physician sample, comprised of both PCPs and specialists. The results confirmed that relationship benefits, relationship investment, PSR expertise, and relational dependence are all important factors when building high quality relationships between PSRs and physicians.

Rationale of the Study

In the Pharmaceutical market, sales are generated mainly through the efforts of MRs. Therefore, the influence of demographic characteristics of MRs in the generation of sales of pharmaceutical products is of vital importance. Among these characteristics, Financial Incentives (FI) is the most important characteristic. Influence of Financial Incentives of MRs on generation of business is very vital to achieving sales. Financial Incentives of MRs plays a significant role in implementation of companies' promotion strategies.

A pilot study revealed that hundreds of promotion strategies are prevailing in the market. Almost all companies make use of them. Reader will agree that Financial Incentives of MRs is a significant motivational factor. All companies comprise of MRs, maximum of them are receiving varying Financial Incentives; therefore, they are at the different state of motivation due to which they start developing their own path of implementing the strategies; which may be differ from the companies' desires. This creates deviations and companies may not get results as expected.

In this paper an effort has been made to explore the influence of Financial Incentives of Medical Representatives on Sales Promotion Strategies of Pharmaceutical Companies so that companies may get desired results.

Objectives of the Study

The main objective is to study the influence of Incentives for MRs Sales Promotion Strategies.

1   To know the factors influencing on Medical Representatives on promotion of Sales.

2   To identify the promotion strategies adopted by Medical Representatives.

Hypotheses of the Study

Five major Strategies were identified in accordance with the study which formed the bases of the hypotheses as under:.

H01. There is no correlation in the perception of MRs of varying Financial Incentive Groups with respect to the Sales Promotion related Strategies

H02. There is no correlation in the perception of MRs of varying Financial Incentive Groups with respect to the Personal Selling (MR specific) Promotional Strategies

H03. There is no correlation in the perception of MRs of varying Financial Incentive Groups with respect to the Public Relations related Promotional Strategies

H04. There is no correlation in the perception of MRs of varying Financial Incentive Groups with respect to the Publicity related Promotional Strategies

H05. There is no correlation in the perception of MRs of varying Financial Incentive Groups with respect to the Advertisement related Promotional Strategies. Therefore, several sub hypotheses were formulated and put at test letter on.

Methodology:

The data is collected on the basis of structured questionnaire/Survey (Face to Face) method.

Research Design: The data for the study was collected through a well-structured, self-designed questionnaire. The questionnaire consisted of two parts A and B. Part-A consists of demographic variables like Age, Qualification, Experience and Financial Incentives of MRs. The Part-B consisted of statements regarding the Sales Promotion Strategies of Medical Representatives (MRs) of Med plus Pharmaceutical Company.

This Part- B consisted of forty statements related to Pharmaceutical Sales Promotion Strategies. These Statements were grouped under five major Strategies like Sales Promotion, Personal Selling, Public Relations related, Publicity related and Advertisement related Promotional Strategies have revealed almost all kinds of promotional strategies used in the Pharmaceutical Market. Each of the major strategies consists of eight statements. Ranking Scale was used in the questionnaire. All respondents were asked to rank their choices ranging from 1 to 8 for each major strategy, where 1 stands for topmost rank, 2 for next top rank,………, and 8 stands for the lowest rank.

Data Collection Procedure: *Validity and Reliability Assessment of the Questionnaire:* Initially, the questionnaire, immediately after the design, was submitted to 40 MRs to determine whether the questions were clear, understandable, and in a logical order (Face validity). Moreover, the same MRs, 10 Industry Experts who had long experience of working in Pharmaceutical Industry (working in the capacity of Regional Managers) and 5 experts of Management were asked to criticize the content of the questionnaire (Content validity). More specifically, they were asked to express

their views on whether they consider these main strategies and sub strategies of each, be representative of the Sales Promotion Strategies or if some additional statements need to be added. The Criterion validity of the questionnaire was not checked, as the gold standard tool for assessment of the Sales Promotion Strategies has not been proposed yet. Regarding face and content validity both MRs and experts reported that the statements were clear, easy to understand, in a logical order, and totally representative of the needs of the Product Promotion Strategies. Questionnaire was reliable too as it produced the same results when administered again and again. Therefore, the questionnaire is a valid and reliable measurement instrument for assessment of Sales Promotion Strategies.

Sampling Design*:* Non Probability purposive sampling technique was used to collect data from individual respondent of Med plus Pharmaceutical Company. The total sample size was 275 Medical Representatives (MRs), Sales Managers, Divisional Sales Managers of Med plus Pharmaceutical Company. The present study was undertaken at selected districts of Karnataka state. Sampling Unit was the Medical Representatives, Sales Managers, Divisional Sales Managers of Med plus Pharmaceutical Company in Karnataka.

Instrument Design: Present study is based on establishing a correlation between different sets of independent (varying levels of Financial Incentives) and dependent (strategies) variables. Since rank scale is used in the questionnaire, Spearman's Rank Correlation Coefficient "r" was used to analyze the data, which is worked out as under:

(i)   Spearman's "r" $= 1 - \{6 \sum d^2 / n\,(n^2 - 1)\}$

where n= number of paired observations Computed value of "r" was compared with tabulated value of "r" for degree of freedom {n=8 (number of paired observations)}. If computed value of "r" was less than the tabulated value of "r", null hypotheses were accepted else rejected.

In order to know the significance of correlation so calculated t-test was applied at 5% level of significance as under:

(ii) $t = r * \sqrt{\left[(n-2)/(1-r^2)\right]}$
        with (n-2) degree of freedom

Computed value of "t-statistics" was compared with tabulated value of "t-statistics"   for 6 degrees of freedom {(n-2) = 6, where n=8 (number of paired observations)}. If computed value of "t" was less than the tabulated value of "t", null hypotheses were accepted else rejected.

Analysis and Findings

Classification of Financial Incentives: The collected data was comprised of MRs receiving varying Financial Incentives. In order to perform brisk analysis, their Financial Incentives were classified (Table 1) as under:

Table 1: Varying Sets of Financial Incentives of Respondents

Distribution of Respondents	Financial Incentives (FI) Group Code	Frequency	Percent
Financial Incentives up to Rs.2,000/- PM	**FI Group 1**	87	31.6

Financial Incentives b/w Rs.2,000/- to 4,000/-PM	**FI Group 2**	100	36.4
Financial Incentives > Rs.4,000/- PM	**FI Group 3**	88	32
Total		**275**	**100**

Financial Incentive-wise Analysis and Discussion

Data were analyzed in two steps:

1   Rankings were computed as a first step i.e., average of rankings has been taken which were given by all MRs receiving varying Financial Incentives. They have ranked sub-strategies in the range of rank #1 to rank #8 for each of five broad categories of Sales Promotion Strategies. (Table 2. shows the average rankings of all 275 MRs receiving varying Financial Incentives).

Table 2: Financial Incentive-wise Ranking of Sales Promotion Strategies

Strategies	Sl. No.	Sub-strategies	FI Group 1	FI Group 2	FI Group 3
Sales Promotion related Promotion Strategies	1	Booking of Products from Doctors	3	6	5
	2	Gifts to Doctors	2	1	4
	3	Product Sampling	4	2	1
	4	Short Reminders through Rose Buds/ Reminder Cards	1	3	3
	5	Sponsorships to Doctors for Attending Medical Conferences/Symposia	5	4	2
	6	Sponsorships to Doctors for Recreation Tours/ Personal Tours	6	5	7
	7	Trade Discount, Offers and Schemes to Distributors / Chemists	7	7	6
	8	Trade Schemes on Booking to Doctors	8	8	8

Personal Selling (MRs specific) Promotion Strategies	1	Communication Skills	1	1	1
	2	Dressing Sense	5	5	5
	3	Incentive Plans for MRs	6	7	6
	4	Motivation Level of MRs	7	8	8
	5	Product Detailing.	3	4	4
	6	Regular Visits to Doctor	2	3	2
	7	Self Confidence	4	2	3
	8	Training and Development Programme of Company	8	6	7

Public Relation related Promotion Strategies	1	Arranging Health Care Camps etc. with the Doctors	1	1	1
	2	Celebration of Birthdays/ Anniversaries of Doctors and their Relatives	2	3	4
	3	Distribution (Stockiest) Network of the Company	3	4	6
	4	Providing Funds for Personal Needs of the Doctors	6	7	7
	5	Providing Medical Books and Medical Equipment's to Doctors	4	2	2
	6	Providing Medical Journals and Medical Literatures to Doctors	5	5	3
	7	Special Promotion at Chemist Level (also applicable for OTC Products)	8	8	8
	8	Sponsorships to arrange for Local Conferences/ Meetings/Forum etc.	7	6	5

Publicity related Promotion Strategies	1	Trendsetter Doctors' Help to Promote the Products	3	4	3
	2	Arranging Continuous Medical Education (CME) Programme.	1	1	1
	3	Providing Free Medicines and Diagnosis to Patients through Camps	2	2	2
	4	Research and Development activities of the Company	4	3	4
	5	Reputation and Level of Sales Volume (Size) of the Company	7	6	6
	6	Coverage (Geographic Coverage) of the Company	5	5	5
	7	Contribution of the Company to the Society	6	7	7
	8	Promoting through Stalls at Conferences/ Symposia etc.	8	8	8

Advertisement related Promotion Strategies	1	Advertisement through Print Media	2	2	2
	2	Advertisement through Electronic Media	4	3	4
	3	Advertisement through e-mail	5	6	6
	4	Advertisement through Social Media	6	4	5
	5	Advertisement through Hoardings	8	8	8
	6	Advertisement through Medical Journals	1	1	1
	7	Advertisement through Magazines	3	5	3
	8	Advertisement through Displays and Wall Paintings etc.	7	7	7

Source: Primary data

(2) Data analysis has been processed through statistical procedure (using Spearman's Correlation Coefficient's "r" along with t-test) covering demographic (varying level of Financial Incentives) variables. (Table 3 shows the status of hypotheses and Table 4 can be referred to know the value of "r" and "t-test" between various sets of Financial Incentive groups).

Table 3: Analysis and Result of Data

Strategies	Null Hypotheses	Value of Spearman's "r"	Value of t-test	Status of Null Hypotheses
Sales Promotion Strategies	$H_01.1$	0.7619	2.8814	Rejected
	$H_01.2$	0.7619	2.8814	Rejected
	$H_01.3$	0.6191	1.9311	Accepted
Personal Selling Strategies	$H_02.1$	0.8571	4.0754	Rejected
	$H_02.2$	0.9524	7.6526	Rejected
	$H_02.3$	0.9524	7.6526	Rejected
Public Relation Strategies	$H_03.1$	0.9048	5.2046	Rejected
	$H_03.2$	0.881	4.5612	Rejected
	$H_03.3$	0.6905	2.3353	Accepted
Publicity related Strategies	$H_04.1$	0.9524	7.6526	Rejected
	$H_04.2$	0.9762	11.0258	Rejected
	$H_04.3$	0.9762	11.0258	Rejected
Advertising Strategies	$H_05.1$	0.881	4.5612	Rejected
	$H_05.2$	0.9286	6.1296	Rejected
	$H_05.3$	0.9762	11.0258	Rejected

Source: Primary data

1. Sales Promotion Related Promotion Strategies

(A) Table 2. Shows Average Ranking of Sales Promotion related Strategies by different Financial Incentive Groups.

(B) Null hypotheses with respect to Sales Promotion related Promotion Strategies were as under:

$H_01.1$: There is no correlation in the perception of MRs of FI Group 1 and 2 with respect to Sales Promotion Strategies.

$H_01.2$: There is no correlation in the perception of MRs of FI Group 2 and 3 with respect to Sales Promotion Strategies.

$H_01.3$: There is no correlation in the perception of MRs of FI Group 1 and 3 with respect to Sales Promotion Strategies.

(C) Discussion: Table 3 shows that hypotheses H01.1 and H01.2 were rejected because calculated values of Spearman's "r" and "t-test" exceed their critical values which are

0.7147 and 2.447 respectively. This implies that opinions regarding the Sales Promotion Strategies of MRs between these FI groups were correlated. This fact can be understood through an interpretation that almost all FI groups 1, 2 and 3 have given same rank especially to the item number 7 and 8, where they have shown almost a perfect agreement. Rankings to other items like Booking of Products from Doctors, Gifts to Doctors, Product Sampling, and Short Reminders through Rose Buds / Reminder Cards, Sponsorships to Doctors for Attending Medical Conferences / Symposia, Sponsorships to Doctors for Recreation Tours / Personal Tours were not much distant.

$H_0$1.3 was accepted.

This indicates that the perception of MRs of FI group 1 and 3 towards the Sales Promotion Strategies is different or not correlated which is cleared by the values of Spearman's "r" (0.6191), which is lower than the Critical value (0.7147) and t-test (1.9311) which lower than the Critical value of t-test (2.447). Hence, it can be interpreted that MRs of both the FI groups have perceived different standards in ranking the items of this particular strategy. The difference in the Financial Incentives of both the groups might be the reason because group 3 consists of MRs receiving higher incentives (FI > 4, 000/- pm) while group 1 consists of MRs receiving comparatively lower incentives (FI <= 2,000/- pm).

Differences in the perception of MRs can also be explained by the ranks given by both the groups. e. g.- Group 1 has given first rank to "Short Reminders through Rose Buds/ Reminder Cards" while group 3 has given it 3rd rank, similarly Group 3 has given first rank to "Product Sampling" while 1 has given it 4th rank (just opposite in deciding rankings). It can be interpreted that the difference in the perception of MRs regarding the item of Sales Promotion Strategy with respect to the Financial Incentives of MRs can be best interpreted through the "Maslow's Hierarchy of Needs" Theory of Motivation (Robbins, 2005).

MRs of FI group 1 are primarily in quest of getting regular basic salary and job security etc. [these attributes are associated with "Physiological needs and Safety needs" (first two stages of theory)] that is why they don't want to do any experiment and straightly follow the guidelines of the companies. Therefore, they priorities the strategic implementation as per companies' policies and ranked the items of Sales Promotion Strategies accordingly like 'Short Reminders through Rose Buds/ Reminder Cards' as 1, 'Gifts to Doctors' as 2, 'Booking of Products from Doctors' as 3, 'Product Sampling' as 4.

While MRs of FI group 3 surpassed the first two stages i.e. "Physiological needs" and "safety needs" of "Maslow's Hierarchy of Needs" and entered the third stage i.e. "Belongingness needs" and now they are in the influence of 'Work groups', 'supervisors', 'stockists', 'Retailers' and other 'Co-workers'. One can observe this effect through their ranking to the items of Sales Promotion Strategies as they ranked 'Short Reminders through Rose Buds/ Reminder Cards' as 3, 'Gifts to Doctors' as 4, 'Booking of Products from Doctors' as 5, 'Product Sampling' as 1. Therefore, it can be interpreted that strategic implementation of MRs of FI group 1 are affected by the "Physiological needs and Safety needs" while MRs of FI group 3 are affected mainly by "Belongingness needs."

2. Personal Selling (MR Specific) Promotion Strategies

(A)   Table 2 about here shows the Average Ranking of Personal Selling (MR specific) Promotion Strategies by different FI groups.

(B)   Null Hypotheses with respect to Personal Selling (MR specific) Promotion Strategies were as under:

$H_02.1$: There is no correlation in the perception of MRs of FI Group 1and 2 with respect to Personal Selling (MR specific) Promotion Strategies.

$H_02.2$: There is no correlation in the perception of MRs of FI Group 2and 3 with respect to Personal Selling (MR specific) Promotion Strategies.

$H_02.3$: There is no correlation in the perception of MRs of FI Group 1and 3 with respect to Personal Selling (MR specific) Promotion Strategies.

(C) <u>Discussion:</u> Table 3 above shows that hypotheses H02.1, H02.2 and H02.3 were rejected because calculated values of Spearman's "r" and "t-test" exceeds their critical values which are 0.7147 and 2.447 respectively. This implies that opinions regarding the Personal Selling (MR specific**)** Promotion Strategies of MRs between these FI groups have been the same or correlated.

This fact can be understood through an interpretation that almost all FI groups 1, 2 and 3 have given top rank to the item number 1 i.e. "Communication Skills" and to item number 7 and 8, where they have shown almost a perfect agreement. Ranking patterns describe that items associated to personal selling factors are ranked almost in similar trend and the fluctuation is a matter of chance. Thus, Implementation of Personal Selling (MR specific) Promotion Strategies are correlated irrespective of Financial Incentives.

3. **Public Relations Related Promotional Strategies**

(A) Table 2 above shows Average Ranking of Public Relations related Promotion Strategies by different FI groups.

(B) Null Hypotheses with respect to Public Relations related Promotion Strategies were as under:

$H_03.1$: There is no correlation between MRs of FI Group 1and 2 with respect to Public Relation related Promotion Strategies.

$H_03.2$: There is no correlation between MRs of FI Group 2 and 3with respect to Public Relation related Promotion Strategies.

$H_03.3$: There is no correlation between MRs of FI Group 1 and 3 with respect to Public Relation related Promotion Strategies.

(C) Discussion: Table 3 above shows that hypotheses H03.1 and H03.2 were rejected because calculated values of Spearman's "r" and "t-test" exceed their critical values which are 0.7147 and 2.447 respectively. This implies that perception regarding the Public relation related promotion Strategies of MRs between these FI groups have been the same and correlated. Rankings to items like 'Celebration of Birthdays/Anniversaries of Doctors and their Relatives', 'Distribution (Stockiest) Network of the Company', 'Providing Funds for Personal Needs of the Doctors', 'Providing Medical Books and Medical Equipment's to Doctors', 'Sponsorships to arrange for Local Conferences/ Meetings/Forum etc.' were not much distant.

$H_03.3$ was accepted.

This indicates that the opinions of MRs of FI group 1 and 3 towards these Strategies were not correlated because the value of Spearman's "r"

(0.6905), which is lower than the Critical value (0.7147) and t-test (2.3383) which is also lower than the Critical value of t-test (2.447). This implies that the MRs of both the FI groups have perceived different standards in ranking the items of this particular strategy. The difference in the Financial Incentives of both the groups might be the reason because group 3 consists of MRs receiving higher incentives (FI > 4, 000/- pm) while group 1 consists of MRs receiving comparatively lower incentives (FI <= 2,000/- pm).

The differences in perception or ranking can be again interpreted through the initial stages like "Physiological needs, Safety needs and Belongingness needs" of "Maslow's Hierarchy of Needs" Theory of Motivation (Robins, 2005) in which MRs of FI group 1 belong to first two stages which are associated with regular base salary and job security etc. whereas MRs of FI group 3 belong to third stage which is associated with the influence of 'Work groups', 'supervisors', 'stockiest', 'Retailers' and other 'Co-workers'. This is the reason that the said two groups are not correlated in their perception.

3   Publicity Related Promotional Strategies

3.a   Table 2 above shows the Average Ranking of Publicity related Promotion Strategies by different FI groups.

3.b   Null Hypotheses with respect to Publicity related Promotion strategies were as under:

$H_0$4.1: There is no correlation between MRs of FI Group 1and 2 with respect to Publicity related Promotion Strategies.

$H_0$4.2: There is no correlation between MRs of FI Group 2 and 3 with respect to Publicity related Promotion Strategies.

$H_0$4.3: There is no correlation between MRs of FI Group 1and 3 with respect to Publicity related Promotion Strategies.

(C)   Discussion: Table 3 above shows that hypotheses H04.1, H04.2 and H04.3 were rejected because calculated values of Spearman's "r" and "t-test" exceed their critical values which are 0.7147 and 2.447 respectively. This implies that opinions regarding the Publicity related Promotion Strategies of MRs between these FI groups have been the same and correlated. This fact can be interpreted as almost all FI groups 1, 2 and 3 have given first and second rank to the item number 2 and 4 i.e. "Arranging Continuous Medical Education (CME) Programme" and "Providing Free Medicines and Diagnosis to Patients through Camps" where they have shown almost a perfect agreement.

5.   Advertisement Related Promotional Strategies

a.   Table 2 above shows the Average Ranking of Advertisement related Promotion Strategies by different FI groups.

b.   Null Hypotheses with respect to Advertisement related Promotion strategies were as under:

$H_0$5.1: There is no correlation between MRs of FI Group 1 and 2 with respect to Advertisement related Promotion Strategies.

$H_0$5.2: There is no correlation between MRs of FI Group 2 and 3 with respect to Advertisement related Promotion Strategies.

$H_05.3$: There is no correlation between MRs of FI Group 1 and 3 with respect to Advertisement related Promotion Strategies.

(D) **Discussion:** Table 3 above shows that hypotheses H05.1, H05.2 and H05.3 were rejected which means that the perceptions of MRs of all FI groups were correlated with respect to Advertisement related Promotional Strategies.

This implies that MRs of these FI groups have applied probably the same standard in ranking their perception regarding the Advertisement related Promotional Strategies. This fact clarifies that MRs give due importance and weightage to these items irrespective of their FI. It can also be interpreted that perception of MRs regarding the implementation of items of Advertisement related Promotional Strategies are correlated and financial factor has less impact on strategies.

Though the "Advertisements" are not much preferred way of promoting the pharmaceutical products and its share in overall promotion activities are lesser than any other mode in all respect but promotion through this mode is also used up to permissible extent. It is due to the fact that pharmaceutical product promotion is not meant for mass promotion. These products are sold in the

market after recommendation of physicians only. That's why advertisements are limited to Medical Journals, Magazines and other similar kinds of advertisement tools. MRs under study had given preference only for these tools.

Implications for Business

Financial Incentives have been proved to be a great motivating factor which contributes significantly in promotion and implementation of strategies by the MRs. The proposed MODEL has following implications for the pharmaceutical industry:

   It can be concluded that Financial Incentives of MRs play an important role in prioritizing the selection and implementation of Sales promotion strategies. Financial Incentive is a kind of strong stimulus that triggers MRs to take up and implement strategies differently.

   Pharmaceutical market is distributed in various zones, regions and areas for almost each company. Therefore, it is suggested that MRs of each zone, region or area of every pharmaceutical company should be segregated in appropriate Incentive Mix.

   Formulation of Incentive Mix and assignments of strategies to this Mix can be done conveniently at each zone, region or area instead of company as a whole. This task can be done in their Cyclic/ Review meetings because of easy identification of incentives of MRs.

   Intrinsic liking for various strategies is discovered and filtered. The specific Incentive group of MRs can now be assigned with specific strategies.

   It saves money, energy and time of both companies and MRs; companies' in terms of strategy formulation and MRs' in terms of implementation.

   Reduces chances of overburden of assignments to the MRs, which in turn, proves helpful in increasing the efficiency of MRs.

   Fruitful results can be arrived at effectively.

Scope for Further Research

1. This study has much scope for future research. Some research can be done in more comprehensive way to generalize the results. The area of study can be extended and number of respondents can also be increased to arrive at a more realistic conclusion regarding the Sales promotion strategies.

2. Present study focused on the ethical promotion of Pharmaceutical products through Medical Representatives. Pharmaceutical Industry has some more segments like OTC, Generic segments etc. A few studies related to manufacturing, quality, distribution, marketing and promotion of these variables can be taken up.

3. Social, cultural and family factors are such independent variables which can affect companies differently. If some research studies can be done taking these independent variables one by one, more concrete results can be arrived at.

4. Perception of female elements was not investigated in this study, therefore some researches comprising the female respondents can be conducted.

5.

Conclusion of the Study

After discussion over analysis, it has been found that the Financial Incentives of MRs have significant impact on formulation and implementation of companies' strategies. For ease and convenience of reader, a MODEL (refer Table-5) has been put forwarded. This MODEL reveals the two most sought after sub-strategies to be implemented by the MRs receiving varying Financial Incentives with respect to five broad level strategies. This MODEL basically provides readymade guidelines to the companies regarding the assignment of strategies to the MRs for implementation as per their interest (which is dependent on varying Financial Incentives).

It has been further concluded that Medical Representatives have been using varied Sales Promotion Strategies. Pokharel (2017) showed that doctor's detailing is the most effective tool used as a promotional tool and has most significant effect on marketing. Use of product sample has also significant effect on marketing subsequent to the doctor's detailing. In addition to that, CME programs, health camps were also used as promotional tools. Meo et al. (2014) found that buying behavior, free sample, and price reduction has a significant relationship with sales promotion. Gopalkrishnan (2007) demonstrated that sales incentive programs can be very effective in delivering positive results from the standpoint of bottom-line measures. Katz et al. (2003) marked that in the business world, gifts are a valuable, time honored marketing tool because they keep doors of communication open between the cooperating parties.

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<u>Appendices</u>

Table 4: Spearman's Rank Correlation Coefficient "r" for various set of Financial Incentives & Strategies

S.N.	Strategies	inc1 to inc2	inc2 to inc3	inc1 to inc3
1	Sales Promotion Related Strategies	0.7619	0.7619	0.6191
2	Personal Selling (MRs specific) Promotional Strategies	0.8571	0.9524	0.9524
3	Public Relation related Promotional Strategies	0.9048	0.8810	0.6905
4	Publicity related Promotional Strategies	0.9524	0.9762	0.9762
5	Advertising related Promotional Strategies	0.8810	0.9286	0.9762

"t-statistics" for various set of Financial Incentives

S.N.	Strategies	inc1 to inc2	inc2 to inc3	inc1 to inc3
1	Sales Promotion Related Strategies	2.8814	2.8814	1.9311
2	Personal Selling (MRs specific) Promotional Strategies	4.0754	7.6526	7.6526
3	Public Relation related Promotional Strategies	5.2046	4.5612	2.3383
4	Publicity related Promotional Strategies	7.6526	11.0258	11.0258
5	Advertising related Promotional Strategies	4.5612	6.1296	11.0258

Table No.-5
Suggested Model for Selection of 'Product Promotion Strategies' for Pharmaceutical Industry

Finacial Incentives (FI) Group(in Rs./-)	Preference	Strategies				
		Sales Promotion	**Personal Selling**	**Public Relation**	**Publicity**	**Advertisements**
FI Group 1 (FI up to Rs.2,000/- PM)	First	Short Reminders through Rose Buds/ Reminder Cards	Communication Skills	Arranging Health Care Camps etc with the Doctors	Arranging Continuous Medical Education (CME) Programme	Advertisement through Medical Journals,
	Second	Gifts to Doctors	Regular Visits to Doctor	Celebration of Birthdays/Anni-versaries of Doctors and their Relatives	Providing Free Medicines and Diagnosis to Patients through Camps	Advertisement through Print Media
FI Group 2 (FI b/w Rs.2,000 /- to 4,000/- PM)	First	Gifts to Doctors	Communication Skills	Arranging Health Care Camps etc with the Doctors	Arranging Continuous Medical Education (CME) Programme	Advertisement through Medical Journals,
	Second	Product Sampling	Self Confidence	Providing Medical Books and Medical Equipments to Doctors	Providing Free Medicines and Diagnosis to Patients through Camps	Advertisement through Print Media
FI Group 3 (FI > Rs.4,000/- PM)	First	Product Sampling	Communication Skills	Arranging Health Care Camps etc with the Doctors	Arranging Continuous Medical Education (CME) Programme	Advertisement through Medical Journals,
	Second	Sponsorships to Doctors for Attending Medical Conferences/	Regular Visits to Doctor	Providing Medical Books and Medical Equipments to Doctors	Providing Free Medicines and Diagnosis to Patients through Campus	Advertisement through Print Media