



A RESEARCH JOURNAL OF  
DR. VIKHE PATIL FOUNDATION'S,  
PRAVARA CENTRE FOR  
MANAGEMENT RESEARCH &  
DEVELOPMENT, PUNE

Online ISSN 2278-0165

Print ISSN 0975-7201

# PMMR

**PRAVARA MANAGEMENT REVIEW**

Vol 12 No. 2

JUL-DEC 2013

Listed in Cabells International Directory  
Indexed in Indian Citation Index (ICI)

1. **Emotional Intelligence and Job Satisfaction - A Correlational Study**  
Sharad. K. Gawade ..... 2
2. **Impact of Liberalization on Market Competitiveness of Small Scale Industry: A Study of Selected Garment Units in Delhi**  
Dr. Uma Gulati ..... 5
3. **Compulsory Licensing: The Indian Scenario- Patent v/s Patent**  
Aashish. R. Jaswal. .... 13
4. **Sugar Cooperatives in Maharashtra - An Overview**  
Dr. Vilas A. Patil ..... 17
5. **Dividend Payment Versus Ploughing Back Profits: An Exploration**  
Dr James Thomas ..... 25
6. **Analytical Study of Loans and Advances: A Case Study**  
Pratibha Ajit Jagtap, Dr. K. H. Shinde ..... 29
7. **Labour Welfare Measures in Tamilnadu Cements Corporation Limited [Tancem] at Alangulam Works - An Empirical Analysis.**  
S. Suresh Kumar, A. Ram Kumar ..... 33
8. **Impact of Promotional Items on Business Outcomes in Pharmaceutical Industry**  
Ganesh Pandit Pathak, Dr. Sarang S. Bhola ..... 38
9. **A Comparative Study of Performance of Marketing Intermediaries in the Non-Life Insurance Segment**  
Dr Liaqat Ali, Pooja Chatley ..... 46

# Impact of Promotional Items on Business Outcomes in Pharmaceutical Industry

Ganesh Pandit Pathak\*

Dr. Sarang S. Bhola\*\*

---

## Abstract:

*Pharmaceutical companies are using different strategies to develop relationship with employees and customer. CRM is one tool which is used for developing relationship with customers. Present research seeks the opinion of medical representatives and medical practitioners regarding use of promotional tools and its impact on business outcomes. Researcher has collected data by using structured schedule from 103 medical practitioners and 90 pharmaceutical company and analyzed using mean, S.D. and hypothesis is tested using independent sample 't' test resulted positive impact of promotional tools on business outcomes.*

**Keywords:** *Pharmaceutical Industry, Promotional Items, Business Outcomes.*

## Introduction:

Pharmaceutical industry is struggling for developing and maintaining the relation with the customers for which, sales representatives are trying to develop relation with medical practitioners. Medical practitioners are the decision maker and prescriber of the product. This study were to deal with various promotional tool used by medical representative and its impact on business outcomes.

## Review of Literature:

Despite the widespread recognition attached to market orientation (MO) as a strategic drive for firms to attain and maintain competitive advantage, relatively little is known of its performance implication for pharmaceutical firms. An market orientation concept successfully applied to the pharmaceutical industry should drive the manufacturing, distribution or over-the-counter sale of medicines for new diseases or medicines with better results in terms of health outcomes, which would enable the focal firms to enjoy some competitive advantages. It was observed that senior management factors consistently shaped the direction of market orientation of pharmaceutical firms; however, there were some inconsistencies regarding how interdepartmental dynamics, organization wide systems and external factors affect market orientation of these firms (Mahmoud, 2010). As far as concerned to marketing practices, pharmaceutical companies use different promotional strategies for different medicine classes. Role and importance of each promotional tool vary according to the medicine class (Jain, 2011). With the changing healthcare environment, the focus in pharmaceutical marketing needs to adapt to new stakeholders needs as payers and patients are becoming more actively involved and are requesting a higher health outcome. The

increasing complexity due to the changing healthcare environment, a broader perspective on Return on Investment (ROI) helps to cope with rising uncertainty and propose a simple, illustrative formula to visualize the effects of the different actions that can be taken into account. Direct interactions between pharmaceutical companies and payers will open the door for further market mechanisms. For instance, the latest healthcare reform in Germany allows now direct negotiations between drug manufacturers and payers. While this will initially benefit generic drugs, this will also lead to further price and value differentiation for patent-protected drugs; for example, when companies negotiate volume discounts on their late lifecycle medications if payer organizations at the same time promote highly innovative treatments. Those companies who manage to successfully negotiate commercial terms across their portfolio of drugs will lead the race. Individual selling at the GP-level will then lose its relative importance.

Pharmaceutical brand teams should not rely on the Internet as the sole touch point in reaching patients. Sales forces are characteristic of the pharmaceutical industry's ongoing marketing "arms race." which is chipping away at margins for all companies (Newton, 2005). It has become increasingly clear that companies striving to achieve marketing success in their retail operations must incorporate strategic supply chain planning distribution Networks into their decisions (Jennifer, 2009). The industry is already reacting to these pressures by adapting their sales forces and re-shuffling their commercial organisations. E-commercial costs, esp. sales and marketing costs are escalating. Even if the race for the higher share of voice in the physician 's office seems to have reached its peak, spend for DTC advertisements has grown tremendously and in countries like the US. The pharmaceutical industry is the largest

---

\*Assistant Professor, Rajiv Gandhi Business School, Tathawade, Pune

\*\*Associate Professor, Karmaveer Bhaurao Patil Institute of Management Studies and Research, Satara

spender for TV advertising but TV advertising is not the most effective use of funds in marketing prescription drugs. It is clear that the shift in the healthcare decision-making network needs more funds to address the information needs of patients and payers. Well-targeted and high-quality information will require pharmaceutical marketers to learn from other industries. Legal hurdles that still exist in many countries are expected to gradually be reduced if pharmaceutical takes a proactive approach to more transparency and patient-centricity (Guenther, 2008). Physicians are satisfied with physician-targeted communication strategies and greatly value two-way interactive approaches, though they have significantly differing attitudes across cultures towards the likely impacts of DTC advertising, with Greek physicians the most opposed. They generally support unbranded disease awareness campaigns though. Planned value creation for manufacturers and consumers through DTC advertising conflicts with the value delivery for the intermediary physician, which delays the expansion of this advertising policy (Reast, 2011). Advertising and marketing clearly have a place in the future of healthcare services. As far as consider to the dentists their present image is positive. Quality of service and the reputation of dentists were more important to the consumer than the price. Dentists will find that consumers are generally receptive to the use of advertising by their profession as a means of communicating information about their services. Dentists who carefully research the market and investigate attitudes and preferences of specific socio-economic groups are likely to enjoy a competitive advantage over other dentists (Homer, 2008).

Pharmaceutical companies use a variety of strategies, including gifts, to influence prescribing patterns of physicians. In December 2009, the Medical Council of India amended the Code of Medical Ethics to ban medical professionals from accepting gifts from pharmaceutical companies. In view of this ban, it is important to find out the magnitude and contours of the problem amongst Indian medical professionals. The majority of graduates agreed with existing guidelines: they accepted low cost gifts but considered expensive gifts unrelated to patient welfare unethical. Various reasons are accepted by the physicians behind accepting the gifts. The reasons are it was human nature to accept free gifts, stated that they accepted a gift because they did not want to say no. the gift helped them remember the products, salaries of doctors were inadequate, kind of perks are always welcome and since they are there in every profession, why not in the medical field; that it gave them a feeling of importance; that gifts were too lucrative for them to resist, and that small gifts did not matter when they were already using the same brand and liked it (Sharma, 2010). It must be noted that the rule in India is far more stringent than that in other countries such as the United States. If the Medical Council of India is really serious about setting right the numerous infractions of its ethical code, it needs to do much more than add another rule to a code which is seldom enforced (George, 2010) since entanglement between doctors and drug companies is widespread, and evidence shows that interactions with industry influence doctors' behavior. Pharmaceutical expenditures are rising rapidly, and entanglement may

undermine rational prescribing strategies (Ray, 2003).

Pharmaceutical companies can successfully build relationships with physicians through effective training and utilization of medical reps as key resources of their companies (Ramendra Singh, 2008). The negative relationship between frequency of contact and trust suggests that the drug's performance reinforces the trust in the relationship rather than constant contact with the salesperson (Lagace, 1991). The customer relationship dimension has a direct and significant effect on salesperson performance (Amdreas, 2010). Firms should encourage their salespeople to use open influence strategies to improve sales performance (Chakrabarty, 2011).

Marketers know that it costs less to retain customers than to compete for new ones (Melissa Clark, 2011). So the pharmaceutical companies use different promotional strategies for different medicine classes. Also, the role and importance of each promotional tool vary according to the medicine class (Jain, K. S., 2011). According to (Hauser, P. A. 2006) clinical marketing will become an instrumental part of the overall marketing strategy and should be aligned to product development. Pharmaceutical companies are using a variety of techniques ranging from media relations or publicity to direct-to-consumer (DTC) advertising where it is allowed. Consumers attain ever-greater significance as a target audience for marketers of ethical or prescription products (Buttle, J. B. 2001). Marketing recipes that worked in the past will not guarantee future success patient centricity and focus on health outcomes need to be at the heart of the pharma value proposition in the future. Direct interactions between pharmaceutical companies and payers will open the door for further market mechanisms (Guenther Illert, 2008).

Researchers mention various promotional items are used for promotion. The variables are product by reputed branded company, unique combination of molecule, combination as per case, medical trails taken on different patient groups, breadth of the product line offered, product quality offered, ease of product use for patient, available in different form (Tablet, Syrup, Injection), available in different Size/Quantity (100ml, 200ml), price less than other available brands, price as per quality of product, more margin on MRP, scheme given by company/stockiest, ease of placing orders, on-time delivery of products, accuracy of invoicing, free samples/drug Sample (Ramendra Singh, 2008) (Vishal Sharmal et.al 2010) (Mainous et.al. 2011), pens and pads (George Thomas, 2010) (Halperin et.al. 2009), medical books, other book (Novel, Biography etc.), other stationery materials, money for conducting social activity, money for purchasing any medical equipment, money to conduct research, railway/airline tickets or money for travel, sponsorship to an academic event, Conference/Travel Expenses, Passes/tickets to nonacademic events like movies and exhibitions, sports tournament fees/ tickets, perceived value of the gift to patients as well as its monetary value (Jastifer J et.al 2010), electronic appliances (T.V., Laptop, A.C. etc.), home utensils, dinner out, spouse meal at dinner out (Ray

Moynihan,2003), birthday/ anniversary wish, the overall value receives from medical rep./company, (Meike, 2003) overall service efficiency receives from medical rep./company, relationship maintain by medical rep./company, ease of using catalogue, product training provided, attitude of specialists, technical ability of specialists, rapid solutions of customers problems, availability of sales consultants/ specialists, frequency of contact of sales consultants/specialists, Product knowledge of sales consultants/specialists, ease of contacting customer service staff and convincing power.

#### **Research Methodology:**

Pharmaceutical companies are seeking ways to establish close and sustainable relation with customers. In Current market situation many pharmaceutical organizations are using electronic media to develop and maintain the relationship with targeted customers. Researcher wants to study the different promotional tools used for marketing and its impact on business outcomes. Present research is undertaken with objectives, to analyze the different promotional tools offer by pharmaceutical sales representative and to study the impact of promotional tools on business outcomes. The hypothesis is set to test is, 'there is no any impact of promotional items on business outcomes in pharmaceutical industry'.

The study is descriptive inferential in nature. Data about

demographic profile of respondents, different promotional tools used for developing and maintaining the relationship which were affected on business outcomes which were collected through Structured Schedules. Reliability of scales calculated by using Cronbach's Alpha for Medical Representative Samples was 0.940 which was significantly high and good for data collection. For the selection of sample researcher calculated the sample at 0.10 significance level. The calculated sample size for Medical Practitioners was 89.68 but researcher has taken 103 samples and for pharmaceutical company calculated sample size was 85.75 and researcher has taken 90 samples.

The data was processed in Ms-Excel especially for validation check. The data was further validated with the help of SPSS. The filtered and validated data was subjected to test of reliability using Cronbach's Alpha. Data was classified and presented in tables. Data Analysis was done using percentage, measures of central tendency and measures of dispersion. Hypotheses were tested by using Independent sample't' test and Mann-Whitney Test. Medical representative using various tools to motivate physician and retailer to prescribe and sale the product. The opinions of medical representatives about reason behind prescribing particular product of company were obtained. Researcher has articulated 48 parameters on five point likert scale, which are considered as tool for marketing of product.

**Data Presentation and Analysis:****Reasons for Prescribing Product****Table 1: Opinion of Medical Representatives on Prescribing Product of Company (n=90)**

Sr.	Parameter	Mean	S.D.	Rank
1	Product by Reputed branded company	4.01	0.81	19
2	Unique combination of molecule	4.09	0.79	6
3	Combination as per disease	4.00	0.72	20
4	Medical trails taken on different patient groups	3.87	0.85	33
5	Breadth of the product line offered	3.90	0.94	29
6	Product quality offered	4.13	0.84	4
7	Ease of product use for patient	4.09	0.86	6
8	Available in different form (Tablet, Syrup, Injection)	4.12	0.98	5
9	Available in different Size/Quantity (100ml, 200ml)	4.06	0.77	12
10	Price less than other available brands	3.97	0.84	25
11	Price as per quality of Product	3.99	0.84	23
12	More margin on MRP	3.74	0.97	37
13	Schem given by Company, Stockiest	3.73	0.93	39
14	Ease of placing orders	3.89	0.84	31
15	On time delivery of products	4.07	0.73	10
16	Accuracy of invoicing	4.14	0.86	2
17	Free samples/Drug Sample	3.87	0.90	33
18	Offer Pens and Pads	3.80	0.99	36
19	Offer Medical Books	3.89	1.04	31
20	Offer Other Book (Novel, Biography etc.)	4.06	1.05	12
21	Offer Other Stationery Materials	3.58	0.81	46
22	Financial assistance for conducting social activity	3.66	0.82	42
23	Financial assistance for purchasing any household item	3.82	0.83	35
24	Financial assistance to Conduct Research	4.02	0.83	16
25	Railway/Airline tickets or Financial assistance for Travel	3.94	1.05	27
26	Sponsorship to an academic event	3.90	0.94	29
27	Conference/Travel Expenses,	3.74	0.88	37
28	Passes/tickets to nonacademic events like movies and exhibitions	3.51	1.00	48
29	Sports tournament fees/ tickets	3.63	1.05	44
30	Perceived value of the gift to patients as well as its monetary value.	3.71	1.04	40
31	Offers Electronic Appliances (TV, Laptop, A.C. etc.)	3.68	1.12	41
32	Offers Home Utensils	3.64	1.12	43
33	Dinner out	3.53	1.06	47
34	Spouse meal at Dinner out	3.61	1.08	45
35	Greetings on Birthday/ Anniversary /Festivals	3.94	0.77	27
36	The overall value receives from Medical Company	3.99	0.88	23
37	Overall service efficiency receives from Medical rep./Company	4.04	0.79	14
38	Relationship maintain by Medical rep./Company	4.02	0.78	16
39	Ease of using catalogue	4.00	0.76	20
40	Product training provided	4.09	0.70	6
41	Attitude of specialists	4.00	0.75	20
42	Technical ability of specialists	4.02	0.75	16
43	Rapid solutions of customers problems	3.97	0.85	25
44	Availability of sales consultants/ specialists	4.04	0.81	14
45	Frequency of contact of sales consultants/specialists	4.07	0.80	10
46	Product knowledge of sales consultants/specialists	4.14	0.70	2
47	Ease of contacting customer service staff	4.08	0.78	9
48	Convincing power	4.16	0.69	1

This table reveals that convincing power of medical representative were more affected on prescribing the product of any company which having mean value 4.16 with 0.69 S.D. and secures 1<sup>st</sup> rank. This is followed by accuracy of invoicing and product knowledge of sales consultants/ specialists having same 4.14 mean value with 0.86 S.D. and 0.70 S.D. respectively. After this Product quality offered, Ease of product use for patient and products available in different form (Tablet, Syrup, Injection) carry 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> rank with 4.13, 4.09 and 4.12 mean value respectively and 0.84, 0.86, 0.98 standard deviation respectively. 21 variables received mean value more than 4 signifies that medical representatives are strongly agree on 21 variables which are affecting on prescription. Remaining 27 variables received mean value in between 3 to 4 which shows that medical representatives are agree with 27 variables which are affecting on prescription. Passes/tickets to nonacademic events like movies and exhibitions having 3.51 mean values which secure last i.e. 48<sup>th</sup> rank.

From the analysis it can be concluded that promotional items and various services offered by the medical representative affects on prescription behavior of physician and selling product by retailers. Among all the variables convincing power and product knowledge matters a lot to increase the sale of products but offering passes/tickets to nonacademic events like movies and exhibitions, dinner out with spouse were not affects on the business as much.

Medical representative using various tools to motivate physician to prescribe and sale the product. Researcher has taken the opinions of medical practitioner about reasons behind prescribing particular product of company.

**Independent sample 't' test between Medical Practitioner and Medical Representative**  
Source: Field Data

**Table 2:**  
**Opinion of Medical Practitioner on Prescribing Product of Any Company (n=103)**

Sr.	Parameter	Mean	S.D.	Rank
1	Product by Reputed branded company	4.15	1.08	4
2	Unique combination of molecule	3.88	0.96	7
3	Combination as per case	3.94	0.97	6
4	Medical trails taken on different patient groups	3.82	0.99	11
5	Breadth of the product line offered	3.55	0.94	23
6	Product quality offered	4.23	0.94	3
7	Ease of product use for patient	4.06	0.96	5
8	Available in different form (Tablet, Syrup, Injection)	4.48	0.79	1
9	Available in different Size/Quantity (100ml, 200ml)	4.26	0.84	2
10	Price less than other available brands	3.73	0.88	14
11	Price as per quality of Product	3.78	0.90	12
12	More margin on MRP	3.14	1.12	38
13	Scheme given by Company, Stockiest	3.45	1.06	27
14	Ease of placing orders	3.68	0.93	16
15	On-time delivery of prod ucts	3.83	0.90	10
16	Accuracy of invoicing	3.46	0.89	26
17	Free samples/Drug Sample	3.61	0.95	20
18	Offer Pens and Pads	3.31	1.21	34
19	Offer Medical Books	3.62	1.01	19
20	Offer Other Book (Novel, Biography etc.)	3.40	1.17	30
21	Offer Other Station ery Materials	3.22	1.06	36
22	Financial assistance for conducting social activity	3.39	1.09	31
23	Financial assistance for purchasing any medical equipment	3.23	1.09	35
24	Financial assistance to Conduct Research	3.19	1.03	37
25	Railway/Airline ticket s or Financial assistance for Travel	3.02	1.10	40
26	Sponsorship to an academic event	3.10	1.03	39
27	Conference/Travel Expenses,	3.09	1.05	39
28	Passes/tickets to nonacademic events like movies and exhibitions	2.78	0.96	46
29	Sports tournament fe es/ tickets	2.98	1.06	41
30	Perceived value of the gift to patients as well as its monetary value.	2.90	0.90	43
31	Offers Electronic Appliances (T.V.,Laptop,A.C. etc.)	2.76	0.98	47
32	Offers Home Utensils	2.81	0.98	45
33	Dinner out	2.86	1.02	44
34	Spouse meal at Dinner out	2.93	1.05	42
35	Greetings on Birthday/ Anniversary /Festivals	3.38	1.06	32
36	The overall value receives from Medical rep./Company	3.44	1.00	29
37	Overall service efficiency receives from Medical rep./Company	3.63	0.86	18
38	Relationship maintain by Medical rep./Company	3.77	0.89	13
39	Ease of using catalogue	3.38	0.90	32
40	Product training provided	3.45	0.90	27
41	Attitude of specialists	3.58	1.01	22
42	Technical ability of specialists	3.85	1.05	9
43	Rapid solutions of customers problems	3.64	1.04	17
44	Availability of sales consultants/ specialists	3.59	0.91	21
45	Frequency of contact of sales consultants/specialists	3.50	0.93	24
46	Product knowledge of sales consultants/specialists	3.88	0.86	7
47	Ease of contacting customer service staff	3.69	0.95	15
48	Convincing power	3.48	1.05	25

This table reveals that product available in different form (Tablet, Syrup, Injection) and available in different Size/Quantity (100ml, 200ml) were more affected on prescription behavior as having mean value 4.28 and 4.26 secures 1<sup>st</sup> & 2<sup>nd</sup> rank respectively. Followed to this practitioner prefer product quality, product by reputed brand, ease of product use for patient having ranks 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> respectively. 36 variables receive mean value in between 3 to 4 it shows that practitioners are agree on these 36 variables are responsible for prescribing product. Remaining 6 variable received mean value less than 3 it means that this variables are not that much responsible for prescribing product the variables are sports tournament fees/ tickets, spouse meal at dinner out, perceived value of the gift to patients as well as its monetary value, dinner out, offers home utensils, passes/tickets to nonacademic events like movies and exhibitions, offers electronic appliances (T.V.,Laptop,A.C. etc.).

After analysis it can conclude that as per the medical practitioners opinion product available in different form (Tablet, Syrup, Injection) and different size/quantity (100ml, 200ml) as well as quality more affect on prescribing product of any company. Medical practitioners are also given preference to product by reputed branded company and ease of product use for patient. As per the Medical practitioners opinion offering electronic appliances, passes/tickets to nonacademic events like movies and exhibitions, home utensils, dinner out for individual as well as with spouse are not affecting on sale of particular product. Hence, it is found that Medical practitioners are more focus on product quality and its specification than promotional items.

The sample Medical Representatives have opined on activities run by them for developing relationships with practitioners and Medical practitioners are opined on acceptance of that activity. The opinions were taken on five point scale. Independent sample 't' test of opinion of Medical Representative and Medical Practitioners has performed to check significance of relationship of these opinions.

**Table: 3**

**Independent samples statistics between perceived acceptance of activities run by medical representative in the mind of medical practitioner**

	N	Mean	S.D.	S.E. Mean
Perceived acceptance of activities run by medical representative in the mind of medical practitioner	48	3.4976	.41042	.05924
	48	3.9160	.18015	.02600

Source: Compiled by researcher

The mean value of perceived acceptance by medical practitioner is 3.49 and perceived offering by medical representative is 3.91. It shows that both are agree on tools which are used for motivation to prescribe the product. The standard deviation is 0.41 and 0.18 respectively it means that there is a consistency in opinion of medical representative and medical practitioner.

#### Independent Sample 't' test between Medical Practitioner and Medical Representative

The opinions of sample medical representatives about activities run by them for developing relationships with practitioners and opinion of medical practitioners about acceptance of that activity has analyzed using independent sample t test to see the significance of relationship.

**Table 4:**

**Independent Samples Statistics between perceived acceptance of activities run by medical representative in the mind of medical practitioner**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Perceived acceptance of activities run by medical representative in the mind of medical practitioner	Equal variances assumed	21.221	.000	-6.467	94	.000	-.41840	.06469	-.54685	-.28995
	Equal variances not assumed			-6.467	64.464	.000	-.41840	.06469	-.54762	-.28918

The 't' score calculated to be -6.467 with 94 df. 'p' value is 0.000 at 95% level of significance, the test is significant hence, null hypothesis is rejected and alternative hypothesis that there is significant relationship in promotional tools and business outcomes in pharmaceutical business is accepted. It means that what the promotional material offering by medical representatives are accepted by medical practitioner and affects on prescription.

#### Mann-Whitney Test between Perceived Acceptance of Activities Run by Medical Representative in the Mind of Medical Practitioner

Above hypothesis testing has been supported with non parametric test. Mann-Whitney Test has brought in used to check the significance of relationship between perceived acceptances of activities run by medical representative in the mind of medical practitioner. It has two tables, initial table discusses the descriptive statistics and later it discusses the Mann-Whitney Test.

**Table 5:**

**Mann-Whitney Test between perceived acceptance of activities run by Medical representative in the mind of Medical Practitioner**

		N	Mean Rank	Sum of Ranks
Perceived acceptance of activities run by medical representative in the mind of medical practitioner	1	48	32.73	1571.00
	2	48	64.27	3085.00
	Total	96		

Source: Compiled by researcher

**Test Statistics between Perceived Acceptance of Activities Run by Medical Representative in the Mind of Medical Practitioner**

Mann-Whitney Test has calculated to the relationship between the perceived acceptances of activities run by Medical representative in the mind of Medical Practitioner. The test is used to verify the results of independent sample t test.

**Table 6:**

**Test Statistics between perceived acceptance of activities run by Medical representative in the mind of Medical Practitioner**

Mann-Whitney U	395.000
Wilcoxon W	1.571E3
Z	-5.548
Asymp. Sig. (2-tailed)	.000
a. Grouping Variable: V37	

Source: Compiled by researcher

Mann-Whitney U Test shows the 'z' score calculated to be -5.548 and 'p' value is 0.000 at 95% level of significance, the test is significant hence, **null hypothesis is rejected** and alternative hypothesis that there is significant relationship in use of promotional tools and business outcomes in pharmaceutical business is accepted.

The results of independent sample 't' test and Mann-Whitney U are similar since the 'p' value is significant directs to reject null hypothesis.

**Findings:**

**Reasons for prescribing product:** After the analysis researcher found that promotional items and various services offered by the medical representative affects on prescription behavior of

physician and selling product by retailers. Among all the variables convincing power and product knowledge matters a lot to increase the sale of products but offering passes/tickets to nonacademic events like movies and exhibitions, dinner out with spouse were not affects on the business as much. More specifically same finding given by Vishal Sharma et.al. (2010) that most doctors do accept gifts from pharmaceutical companies. Since gift giving is a common practice (despite being regulated) with all pharmaceutical companies and physicians, and pertains more for new (rather than existing) products. Thus, disaggregating the impact of gifts and free samples for each type of drug (old and new) is likely to be speculative. It is also noted that in emerging markets like India, it is a common practice to sponsor the physicians in various ways, including paying for their trips to attend technical conferences, even when they are in foreign countries (which are in many ways, a disguised form of vacation for the physicians). This practice is very common among many pharma companies and since it serves the vested interests of both entities (companies as well as physicians), and is difficult to prove, the practice continues to date. The gifts reported to be accepted most frequently were of relatively lower cost like pens and pads. Certain gifts like direct cash and passes or tickets to non academic events were accepted by very few of them and were considered unethical by most young graduates.

**Reasons for prescribing product:** As per the medical practitioners opinion offering electronic appliances, passes/tickets to nonacademic events like movies and exhibitions, home utensils, dinner out for individual as well as with spouse are not affecting on sale of particular product. Hence, it is found that medical practitioners have more focus on product quality and its specification than promotional items.. Similar kind of finding drawn by Vishal Sharma et.al. (2010) that most doctors do accept gifts from pharmaceutical companies. The gifts reported to be accepted most frequently were of relatively lower cost like pens and pads. Certain gifts like direct cash and passes or tickets to non academic events were accepted by very few of them and were considered unethical by most young graduates. As well as author also mention pharmaceutical companies and physicians have an interdependent relation. When physicians accept gifts from a drug company, there may be a conflict of interest between their duty to prescribe effective and affordable treatment to the patient and any obligation that they may feel to prescribe that company's drugs. The pharmaceutical industry has often been blamed for bribing doctors, the blame cannot be entirely apportioned to them as doctors do not necessarily view acceptance of gifts as unethical.

**Conclusion:**

After the study it can conclude that medical practitioners are accepting this gift as a compliments. Many pharmaceutical organizations are developing relationship with practitioners with regular calls, follow up, reminding brands, customized service as per requirements, drug samples for trails, offering low valued gift like pen, pad and stationary material. But some pharmaceutical companies are offering high valued gifts like home utensils,

electronic appliances, financial assistance for conference, financial support for clinical research, academic tours, passes and tickets to nonacademic events like movies, exhibitions and tournaments etc. As per the data analysis and hypothesis testing it can be concluded that there is positive impact of promotional tools on business outcomes.

#### References:

- Amdreas, E. (2010). Exploring the impact of Sales technology on Salesperson performance: a task Based approach.
- Buttle, J. B. (2001). Customer Relationship Management in the Pharmaceutical Industry: The Role of the Patient Advocacy group. *International Journal of Medical Marketing*, 1 (3), 203-214.
- Georg, T. (2010). Gifts to Doctors, Scientific Information and The Credibility Gap in the Medical Council of India. *Indian Journal of Medical Ethics*.
- Guenther, I. (2008). The need for New Promotional Models. *Journal of Medical Marketing*, 23-30.
- Homer, M. R. (n.d.). How Consumers View Dental Advertising: An Empirical Analysis. *Journal of Medical Marketing*.
- Jain, K. S. (2011). Lifestyle and general medicines: A Study of Promotional mix strategies in India.
- Jain. (2011). Lifestyle and General Medicines: A Study of Promotional-mix Strategies in India. *Journal of Medical Marketing*, 119-126.
- Jennifer, S. (2009). *Distribution Network Redesign for Marketing Competitiveness*. American Marketing Association.
- Lagace (1991) The Relevance of Ethical Salesperson Behavior on Relationship Quality the Pharmaceutical Industry, *Journal of Personal Selling & Sales Management*.
- Meike, M. (2002). A Consistent Approach for Assessing the Value of Prescribing and Non Prescribing Customers. 309-315.
- Melissa Clark, D. V. (2011). Relationship Quality in the Pharmaceutical Industry: An Empirical Analysis. *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing*, 144.
- Mohammad, M. (2010). Antecedents, Environmental Moderators and Consequences of Market Orientation: A Study of Pharmaceutical Firms in Ghana. *Journal of Medical Marketing*, 231-244.
- Ramendra, S. (2008). Network Connectedness of Pharmaceutical Sales Rep (FLE)-Physician Dyad and Physician Prescription Behaviour: A Conceptual Model. *Journal of Medical Marketing*, 257-268.
- Ray, M. (2003). Who Pays for the pizza? Redefining the Relationships Between Doctors and Drug Companies.
- Reast. (2011). Prescription Drug Communication Strategies: A Comparative Analysis of Physician Attitudes in Europe, the Middle East, and the Far East. *Journal of Marketing Management*, 336-360.
- Sharma V. (2010). Attitudes and practices of Medical Graduates in Delhi Towards Gifts From the Pharmaceutical Industry. *Indian Journal of Medical Ethics*.
- Sharma, E. K. (August 2011). Pharma Cipla. *Hamied's Tough Options*.
- Vishal, S. (2010). Attitudes and practices of Medical Graduates in Delhi Towards Gifts From the Pharmaceutical Industry. *Indian Journal of Medical Ethics*.