

**Impact of Promotional Material on Sales of the Pharmaceutical Industry
(A Comparative Study of the Leading Multinational and National Pharmaceutical
Industry in Pakistan)**

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Abstract

The pharmaceutical industry operates differently than other industries since the primary customers and decision-makers are doctors, not end users or patients. Therefore, pharmaceutical companies put a strong emphasis on promoting their products to doctors, utilizing various techniques such as sampling, scientific materials, gifts, sponsorship trips, continuous meetings and visual aid (print).

To understand the impact of these promotional strategies, a study was conducted with 100 doctors and marketing managers of the pharmaceutical industry in Pakistan. The study used structured questionnaires to gather data and statistical tools used to analyze the results. The statistical analysis revealed a significant impact of pharmaceutical company promotion strategies on company sales, with different strategies having varying levels of influence.

Based on the findings, The spending on promotional materials by pharmaceutical companies has had a positive impact on multinational pharmaceutical companies compared to the national pharmaceutical industry. Researchers recommend certain promotional strategies for maximizing the marketing impact. These strategies can help companies achieve better results and increase their brand awareness among the medical community.

Keywords: Pharmaceutical industry, promotional strategies, sales, multinational and national pharmaceutical companies.

Introduction

This area of the study analyzes the research background which will cover the aspect of the impact of promotional material on company sales between national and multinational pharmaceutical industries in Pakistan. An essential point of the review incorporates the comprehension and breaking down of the impact of sales due to the promotional material provided by the national & multinational companies. This introduction also contains the persistence of the research, research problem and research questions, along with the research hypothesis and limitations of the research are also highlighted in this Introduction.

Physicians are perhaps the most important players in pharmaceutical sales. They write the prescriptions that determine which drugs will be used by the patient. Influencing the physician is the key to pharmaceutical sales. Historically, this was done by a large pharmaceutical sales force. A medium-sized pharmaceutical company might have a sales force of 1000 representatives. The largest companies have tens of thousands of representatives. Sales representatives called upon physicians regularly, providing information and free drug samples to the physicians. This is still the approach today; however, economic pressures on the industry are causing pharmaceutical companies to rethink the traditional sales process to physicians. (Moynihan. R 2007)

1.1 History of Pharmaceuticals:

The pharmaceutical industry emerged towards the end of the 19th century as a component of the burgeoning chemical sector. Many of the prominent pharmaceutical companies in existence today were established during this period, with early entrants hailing from Europe, predominantly German and Swiss firms like Bayer, Hoechst, Ciba, and Sandoz, who leveraged their expertise in organic chemicals and dyestuffs developed through German higher education. British and French companies also featured among the industry leaders. In the United States, the pharmaceutical industry developed after the turn of the century, with firms like Eli Lilly, Abbott, Smith Kline,

Upjohn, Squibb, Parke Davis (later merged with Warner-Lambert), Burroughs-Wellcome, and Wyeth (American Home Products) focused on processing, packaging, marketing, and distributing existing drugs sourced mainly from natural resources. US companies relied on the technologies provided by their European counterparts until World War I, with some firms engaged in the production and marketing of patented over-the-counter drugs, while others developed chemically based prescriptions or 'ethical' drugs for sale to pharmacists and doctors.

1.2 History of Pharmaceutical in Pakistan

The pharmaceutical sector in Pakistan has undergone a significant transformation from being almost non-existent in the early seventies to becoming a major provider of healthcare products, meeting almost 95 percent of the country's pharmaceutical needs. Since gaining independence, Pakistan has pursued a policy of economic expansion under a mixed economy, with entrepreneurs encouraged to set up new industrial units. The pharmaceutical industry is divided into two sectors: private and public. In 1947, there were only three manufacturing units located in Lahore, Rawalpindi, and Peshawar, and the country's requirements were met through imports of finished products. However, the discovery of antibiotics and tranquilizers changed the dynamics, and Pakistan had to import expensive medicines from Western countries. Multinational companies set up their distribution centers in Pakistan, importing drugs manufactured in Europe and the U.S. This led to a severe drain on foreign exchange, prompting the government to plan and develop the pharmaceutical industry. To achieve this, the government suspended the import licenses of pharmaceutical products under open general licenses, authorized a few pharmaceutical industries to operate locally, and imposed restrictions on foreign manufactured products. Essential drugs were the only ones allowed to be imported, encouraging drug producers to manufacture drugs locally and expand their facilities.

Research Methodology:

Research methodology system is one of the mainstays of research, it is a huge part and has a more noteworthy significance in the review. Research methodology sets the base for genuine term research, it essentially centers over setting out the structure and further research work is done.

2.1 Management Problem:

The British Medical Journal published a special edition in May 2003 that explored the relationship between doctors and pharmaceutical companies, titled "Time to Untangle Doctors from Drug Companies" (Moynihan 2003). This theme has prompted the medical profession in Europe, along with many social movements, to seriously consider the appropriateness of current relationships between Big Pharma and the health sector. Legal actions against corrupt sales practices in Europe, such as those against GlaxoSmithKline (GSK) in Germany (Gopal 2002) and Italy (Turone 2003), and the major action against TAP Pharmaceutical Products, Inc in the United States resulting in a \$875 million-dollar settlement in 2001 (Riccardi 2002), have also contributed to this scrutiny. Against this backdrop, a key question arises as to how drug companies promote their products to medical professionals. In an article published in the Electronic Journal of Business Ethics and Organization Studies titled "Pharmaceutical Marketing – Time to Change," Jon Buckley (2006) identifies two ways: creating pull and creating push. Pull strategy is more common in countries like the USA and New Zealand, where pharmaceutical companies can advertise their products on mass media through direct-to-consumer advertisements (DTCA). Conversely, many countries follow the push strategy, which is considered a more viable and reliable promotional method for pharmaceutical companies, especially where governments do not allow direct-to-consumer advertisements (Buckley, 2006). In this context, it is creating a provision to researcher to identify this factors which create push for the doctors to prescribe drugs. In this study, researcher looking to identify

“The impact of promotion strategies of pharmaceutical companies on sales between national and multinational pharmaceutical industries in Pakistan”.

2.2 Literature Review

According to a report on the total global pharmaceutical market from 2005 to 2014 (Total unaudited and audited global pharmaceutical market 2005-2014 2015), sales for pharmaceuticals worldwide reached \$1057.1 billion in 2014. Despite a recent shift towards developing expensive drugs for smaller markets, known as "niche-busters," marketing remains essential for promoting and boosting the sales of these products.

2.2.1 How are drugs promoted?

According to EFPIA (2002), the typical expense for developing a high-selling drug, commonly referred to as a "blockbuster drug," is around \$895 million. It's apparent that companies investing this amount of money need to recover their costs. The marketing strategy employed for this purpose varies depending on the type of drug. There are essentially two drug categories: self-medication or over-the-counter (OTC) drugs, and prescription drugs, which are also known as ethical drugs (de Mortanges and Rietbrock 1997).

2.2.2 Creating the Pull – Directly and Indirectly:

“Despite the boom in consumer ads, doctors are still king” Maguire (1999). Despite the significant impact and budgets devoted to direct-to-consumer advertising (DTCA) of drugs, the issue of targeted promotion to physicians is much more significant in terms of financial investment and eventual outcomes, according to Komesaroff and Kerridge (2002). They state that promotion and marketing to doctors make up between a quarter to a third of annual budgets, amounting to over \$11 billion per year in the United States alone. Of this amount, around \$3 billion is spent on advertising, \$5 billion on sales representatives, and the estimated expenditure per physician is over

\$8,000. The Canadian Medical Association Journal estimated the US promotional spend to be even higher, at approximately \$19 billion dollars in 2002. This activity includes advertising, gift-giving, and support for medically related activities such as travel to meetings and conferences.

The reason why firms spend so much on promoting their products to doctors is that they understand that physicians are the gatekeepers to the success of individual brands. Barnes (2003) explains that prescribing "event" such as a physician switching from one brand to another can significantly impact the success or failure of a brand.

2.2.2.1 Pharmaceutical Industry Gifts:

Pharmaceutical companies use various promotional techniques to market their products, and one of the most common techniques is giving gifts to physicians. The gifts include notepads, pen lights, ballpoint pens, lunches and dinners, and lavish expense paid trips to medical conferences at appealing vacation resorts (Blake & Mouton, 1995). However, the use of gifts as a promotional strategy by pharmaceutical companies has been a controversial issue, despite the availability of professional guidelines on the activity. The American College of Physicians (ACP) has acknowledged the need for knowledge of others' perspectives regarding the ethical implications of pharmaceutical industry gifts (Gibbons & Mackenzie, 1998).

Studies have shown that medical professionals receive numerous gifts from pharmaceutical companies. For example, a study conducted by the University of Toronto revealed that psychiatry residents and interns attended about 35 meetings, 70 lunches, and received approximately 75 promotional items in a year (Kerridge, et al., 2002). Although promotion and marketing are essential activities for pharmaceutical companies, the gifts given to physicians cannot be considered beneficial for patients as they increase healthcare expenses (Dana & Loewenstein, 2003).

2.3 Statement of Hypothesis

H1: *Promotional Material expenditure of pharmaceutical companies have been affecting positively on multinational pharmaceutical companies as compared to national pharmaceutical industry.*



Figure: 1 Statement of hypothesis

2.4 Sources

Primary Source	Population	Sample Method	Sample Size	Research Instrument
Doctors	100,000	Convince Sampling	80 Doctors	Questionnaire
Company Employees (4 managers in marketing department)	2500 (Top 5)	Convince Sampling	20 employees	Questionnaire
Top Management	15 (Top 5)	Certified Sampling	03 employees	Interview

Table 1: Sources

2.5 Sampling

The sample size would include 100 people selected based on convenience and certified sampling.

2.6 Research Method

Following methods are used in conducting the research:

- Visit
- Interviews

- Questionnaire
- Internet.

2.7 Data Collection

The study will utilize both primary and secondary data sources. The primary data will be obtained from the doctors & employees in the marketing department of pharmaceutical industry of Pakistan through a 11-question online questionnaire. The questionnaire is designed to explore the connection between promotional expenses and profitability and uses a Five-point Likert scale (-2 to 2) for response rating. The data will be collected through convenience sampling and analyzed based on 100 responses. Additionally, an interview with the CEO will be conducted to gather primary data through direct and unstructured questions.

Finding & Analysis

3.1 Finding of Secondary Data

The data for the analysis was gathered from the annual business reports of both multinational and national companies in Pakistan, covering a period of 10 years.

3.1.1 Top performing National Pharmaceutical Companies

As per the data retrieve from data IMS 2021, the total contribution of National pharmaceutical is around 67% in the total pharmaceutical market of Pakistan. The top 10 performer of the national pharmaceutical market are provided in table 2

Companies	Value	Market Share
GETZ PHARMA	44,367,736,831	6.39%
SAMI	41,983,689,965	6.04%
THE SEARLE COMPANY	39,310,358,654	5.66%
MARTIN DOW LIMITED	28,137,250,740	4.05%
HILTON	24,322,023,079	3.50%

HIGH-Q INTL	21,367,305,361	3.08%
BOSCH	18,922,499,247	2.72%
OBS	17,813,274,041	2.56%
HIGHNOON	16,922,715,184	2.44%
ATCO	14,768,273,513	2.13

Table 2 top 10 performer of the national pharmaceutical

Source: IMS Report 2022

Three national companies (AGP, Ferozsons and Hi-noon) are picked for analysis the impact of promotional activities on company sales.

3.1.2 Top performing Multinational Pharmaceutical Companies

As per the data retrieve from data IMS 2021, the total contribution of MNC's pharmaceutical is around 33% in the total pharmaceutical market of Pakistan. The top 10 performer of the MNC's pharmaceutical market are provided in table 3

Companies	Value	Market Size
GLAXOSMITHKLINE	42,187,013,349	6.07
ABBOTT LAB PAK LTD	41,661,349,770	6.00
GSK CONSUMER	22,401,556,866	3.23
SANOFI-AVENTIS PAK	16,886,845,386	2.43
PFIZER INC	13,046,090,985	1.88
NESTLE PAKISTAN LT	12,230,390,912	1.76
NOVARTIS PH.PAK LT	9,622,494,708	1.39

TABLE 3 top 10 performer of the Multinational pharmaceutical

Three multinational companies (Novartis, GSK and Abbott) are picked for analysis the impact of promotional activities on company sales.

1.3 Total Impact of promotional activities on sales (Multinational vs National)

Based on the secondary data, results of the ratio of sales to expense ratio shows that the promotional activities of Multinational companies has a positive impact towards the sales as compared to the national companies as shown in Table 4. The data has been evaluated on promotional activity & sales ratio.

	Abbott	GSK	Novartis	Mean
Multinational	3.97%	2.43%	4.63%	3.68%
	AGP	Ferozsans	Hi-noon	
National	6.82%	2.74%	2.90%	4.16%

Table 4 Total Impact of Promotional Material on Sales

3.2 Finding of Primary Data:

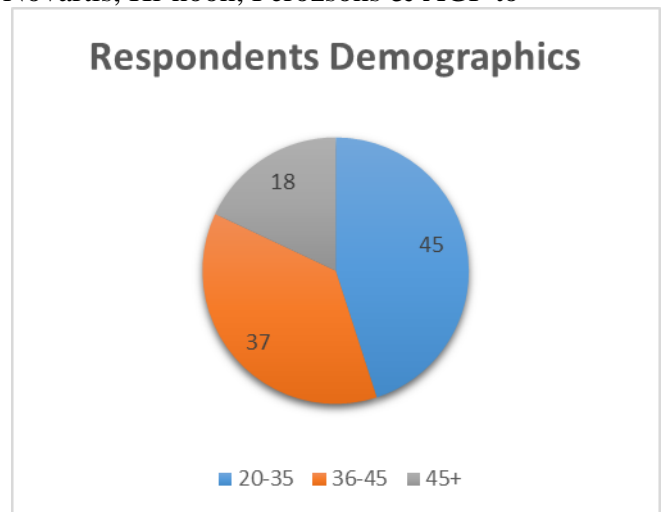
An 11-question survey was conducted among 100 doctors & marketing department of pharmaceutical companies in Pakistan i-e Abbott, GSK, Novartis, Hi-noon, Ferozsans & AGP to gain insight into their views on the connection between

the impact of promotional material on company sales.

The survey results provide valuable information on the perceptions and opinions of doctors and marketing departments of these pharmaceutical companies.

The graph displays the distribution of the respondents' age groups in of the doctors and marketing managers

of pharmaceutical companies in Pakistan. The largest group consists of 45 people aged 36-45, followed by 37 respondents aged 20-35 and 18 aged 45 and above. The smallest group is those aged 55 and above, with only 9 respondents. These results indicate that most of the respondents fall within the age range of 36-45 and 20-35.



Based on the data collected via questionnaire researcher had used to analyze the impact of promotional material on sales in the pharmaceutical industry in Pakistan. As shown in Table 5 the total impact of the promotional activities is more towards the high-impact category (0.5-1.4).

	Sample	Scientific Material	Gifts	Sponsorship Trip	Regularly meeting of Sales Representative	Visual Aid (printed)	Mean
National	0.46	0.37	0.95	1.14	1.49	-0.09	0.72
Multinational	1.07	1.09	0.82	1.5	1.54	0.39	1.07
Overall Impact	0.77	0.73	0.89	1.32	1.52	0.15	0.89

Table 5 Overall Impact of promotional Material

Moreover, based on the data shown in Table 3 shows that the impact of promotional material activities has more impact on Multinational companies as compared to the National companies.

3.3 Testing Hypothesis

Hypotheses have been developed with special attention to the main promotional material used by the national pharmaceutical companies and multinational pharmaceutical companies and its impact on company sales. Those hypotheses were developed by researcher with having special attention to the related literature and industry experience.

H1: Promotional Material expenditure of pharmaceutical companies have been affecting positively on multinational pharmaceutical companies as compared to national pharmaceutical industry.

The promotional strategies were operationalized under six variables such as sampling, scientific materials, gifts, sponsorship trip, continues meeting and visual aid (print). Accordingly, from the total of 100 respondents, respondents indicated that all promotional strategies are having significant impact on company sales. According to the respondents' feedback, the actual mean value for multinational companies is 1.07 and for national companies the mean value is 0.72.

Therefore, it is obvious that promotional material of multinational pharmaceutical companies have effecting positively as compared to the national pharmaceutical companies. Therefore, the hypothesis is accepted.

Conclusion

Based on the primary data, the six promotional strategies (sampling, scientific materials, gifts, sponsorship trips, continued meetings, and visual aid print) were implemented. All respondents agreed that these strategies have a significant impact on company sales. However, multinational companies received a higher average score (1.07) compared to national companies (0.72) in terms of effectiveness, leading to the conclusion that multinational pharmaceutical companies have a more positive effect on sales through their promotional materials. Moreover, as derived by the secondary indicates that promotional material activities have a greater impact on multinational companies than national companies.

Recommendation

In summary, the study found that the marketing efforts of pharmaceutical companies significantly impact the recommendations made by doctors. Therefore, those responsible for promoting the drugs need to adopt a balanced approach and focus on careful strategy planning, execution, and control to achieve meaningful and long-lasting results.

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Appendix:

Thank you for your co-operation.

1. Please indicate your age
 - a. 20 – 35
 - a. 36-45
 - b. 45 Above
2. Please indicate
 - a. Specialized Doctor
 - b. General Physician
 - c. Employee in Pharmaceutical company
 - d. Other _____
3. Which company are you working?
 - a. National
 - b. Multinational
4. What are the factors that influence to prescribe the drug? (Multiple selection)
 - a. Detailing
 - b. Sponsorship
 - c. Gifts
 - d. Sampling
 - e. Scientific Material

How do you rate the impact of following promotional material on increasing company sales:

S#	Characteristics	Very High	High	Neutral	Low	Very Low
1	Sample	National				
		Multinational				
2	Scientific materials	National				
		Multinational				
3	Gifts	National				
		Multinational				
4	Sponsorship Trip	National				
		Multinational				
5	Regularly meeting of Sales Representative	National				
		Multinational				
6	Visual Aid (printed)	National				
		Multinational				