

Marketing Communication Strategies and their Effect on Business Performance

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ABSTRACT

The pharmaceutical industry is crucial to the global economy and the welfare of its citizens. The pharmaceutical industry is fueled by innovation and spends more money on marketing than research and development. The majority of the studies focus on the soft outcome variable (say, physicians' prescription behavior), however, very few of the researchers examine the impact of pharmaceutical promotional expenditures on sales and profitability. Therefore, in this particular study, the impact of promotional expenditures is determined on the sales and profitability of the Pakistan pharmaceutical industry grounded on the AIDA (Attention, Interest, Desire, and Action) model and profit maximization theory. The Pakistan Stock Exchange lists 12 pharmaceutical businesses out of which 6 are multinationals. Stratified random sampling is used to select 50% of companies from each stratum. Financial statements of the selected companies are utilized to gather and organize the data regarding promotional expenditures, sales, and profitability. Software such as SPSS and MS Excel are utilized for data administration and analysis. Moreover, trend analysis (using line charts) and regression analysis were used as data analysis techniques. The findings show that promotional spending significantly improves sales and profitability which highlights the significance of promotion in Pakistan's pharmaceutical industry.

Keywords: Pharmaceutical Industry, Promotion, Sales, Profitability, Pakistan

Introduction

The pharmaceutical market of Pakistan is estimated at around Rs. 300 billion and expanding at a pace of approximately 12%. National companies dominate the market, controlling around two-thirds of it, while international corporations control the remaining one-third. Approximately 90% of the market is held by the top 10 pharmaceutical companies. Compared to multinational corporations, national organizations have seen greater growth in sales since the market is essentially a low-cost generic market with a large number of new generic medications offered at higher unit prices (Shahid, 2025).

Out of around 650 companies functioning in Pakistan's pharmaceutical sector, merely less than 30 are multinationals. The sector contributes more or less 1% of Pakistan's annual gross domestic product. There are approximately 9000 traded medicines sold on health care professionals' recommendation at licensed pharmacies in Pakistan. Additionally, there is a sizable over-the-Counter (OTC) product for instance pain killers, multivitamins, cold and flu relieves etc. (The Institute of Chartered Accountants of Pakistan, 2024).

The government strictly regulates the pharmaceutical industry in Pakistan. Registration of new production facilities and new drugs is controlled by The Drug Regulatory Authority of Pakistan (DRAP). Moreover, the highest possible retail price of all the traded medicines in Pakistan is also determined by the same authority. Though low or sometimes free healthcare services are provided by the government, the Pakistan pharmaceutical market is majorly an out-of-pocket market (healthcare expenditures come from the personal savings of the masses). Pakistan's health insurance market is expanding gradually to

offer hospitalization coverage to its inhabitants, even in the absence of a national healthcare insurance program. Public Private Partnerships in the Healthcare sector have also increased with numerous pharmaceutical corporations working with government and NGOs to make available patients' essential access to medicines (Drug Regulatory Authority of Pakistan, 2025).

Pharmaceutical organizations are forbidden from directly reaching the consumers (i.e., patients) via different mass media approaches which may include; print, electronic, social media billboards, etc. for prescription brands, under the Drugs Act 1976. Nevertheless, the organizations can advertise their Over-the-Counter (OTC) brands via mass media. OTC brands are those brands that do not necessarily require a physician's prescription and can be purchased directly from the pharmacies/ medical stores etc. Some of the widely advertised OTC brands include Panadol and Disprin (Aspirin) (Drug Regulatory Authority of Pakistan, 2021).

Despite the aforementioned constraint on advertisement, mass awareness of health issues and their cure can still be spread via several different strategies including mass media methods without talking about any brand name (Usman, 2018).

The significance of promotion has been widely accepted in various industries (Iqbal et al., 2023). Companies across the globe are significantly spending on marketing services (majorly on various promotional techniques) (Guttmann, Global marketing services spending 2012-2018, 2017). Personal selling is one of the oldest and most reliable methods of business promotion. Because customers and goods are becoming more complicated and competitive, it is often

necessary despite its high cost (Mohiuddin & Iqbal, 2018). For example, in the very competitive pharmaceutical sector, where several businesses offer the same or comparable goods, it is often the pharmaceutical sales representatives behind the item who make the difference (Saha, 2016).

Consumers find it easy to move between brands because there are several alternatives available to them in every product area (Iqbal & Mohiuddin, 2024). The marketing function is principally emphasized on creating awareness in health care professionals regarding the recent clinical/ medical research on the usefulness of their products or brands (Iqbal, 2018). These awareness sessions are carried through several promotional and scientific methods, e.g.

- Round table talks with physicians.
- Workshops and symposia
- Foreign and local scientific conference sponsorship
- Local speaker sessions

Other promotional expenses comprise modest spending associated with patient wellbeing, for example providing BR apparatus, weighing machines, glucometers, and so forth, to healthcare professionals (Ahmed, 2012).

Pharmaceutical organizations that follow a code of ethics, operate sound internal control processes to make sure that sales and marketing expenditures remain with the legal and ethical guiding principles. Any promotional expenditure on healthcare professionals without credentials of reason may lead to penalties and fines by the regulatory authorities, both locally as well as beyond the borders (Pharmaceutical Association of Malaysia, 2019).

Research Objectives

Broad research objectives include:

- To identify the impact of promotional expenditures on the sales of the Pakistan pharmaceutical industry.
- To identify the impact of promotional expenditures on the profitability of Pakistan's pharmaceutical industry.

Theoretical Framework

The AIDA (Attention, Interest, Desire, and Action) model and profit maximization theory serve as the foundation for a theoretical framework that explains how promotions affect profits (Wong, 2024). The AIDA model implies that promotional activities are aimed to catch the consumer's attention, build interest, establish a desire for the product, and finally lead to a buy action. Businesses may enhance sales volume and profitability by stimulating customer demand and influencing purchasing decisions through the efficient implementation of promotional methods like discounts, advertising, or sales campaigns. Furthermore, to maximize profit, firms seek to strike the best possible balance between expenses and revenues, according to the theory of profit maximization (Haring & Smith, 1959). Companies that carefully spend on marketing can increase market share and sales without raising expenditures, hence boosting profitability. This connection demonstrates how, when properly managed, promotional expenditures may result in a large boost in profit margins.

Literature Review

Manchanda and Honka (2005) state that the pharmaceutical sector makes a substantial contribution to the well-being of its residents as well as the global economy. A substantial amount of the US economy

is derived from this industry. Innovation is what drives the pharmaceutical sector, which invests more in marketing than in R&D. For instance, this sector expands above any other U.S. sector in its sales and marketing personnel and media advertising. Pharmaceutical firms typically direct their promotional efforts toward physicians. The promotional strategies directed at physicians include personal selling via medical representatives, medicine sampling, physician events and meetings, and medical journal ads. Personal selling is the major portion of promotional expenditures. Traditionally, personal selling (known as detailing in the pharmaceutical sector) has been the industry's most important promotional tool. The researchers tried to provide a thorough review of the academic literature about the purpose and significance of detailing. Major findings are highlighted that arise from the legal, medical, marketing, and economics literature.

As said before, the article's objective is to present a comprehensive assessment of the literature on personal selling. Therefore, to manage the large volume of research on the subject, organizational criteria must be provided. Two examples of criteria utilized to generate this review are the type of data the researcher collected and the outcome variable. The result variable is the one that is impacted by personal selling. These factors might be "softer" (such as physicians' views) or "harder" (such as pharmaceutical sales). The information collected may be survey data or actual behavioral (market) data.

It is concluded that physicians have neutral to negative perceptions regarding medical representatives. Differences in the perceptions are explained by several aspects. Some significant elements include the quality of information delivered via detailing or personal selling, the style of detailer, and the practicing scenario. Though doctors claim to

bear it as an essential evil, personal selling influences prescription behavior. From the business viewpoint, pharmaceutical companies continue to spend greatly on this method of promotion as it generally pays them off. Ibrahim and Bélanger (2015) also explored the softer variable (physicians' prescription behavior) with the help of primary research. The researchers attempted to find the key information sources for doctors regarding new medicines and the best methods for reminding used by medical representatives in Saudi Arabia. Convenience sampling was used to survey the Western region of the country. Around 100 physicians who met with medical representatives filled out the questionnaire. SPSS was used for analyzing the data. The findings indicate that healthcare providers are the most frequent source of information regarding new drugs. Leaflets were found to be the most effective reminder technique used by the medical representatives. Media marketing and frequent visits by medical representatives are known to have less of an impact on doctors' judgments regarding which drugs to prescribe than the patient's financial status and regular hospital restrictions.

The area of pharmaceutical promotion has also been examined on ethical grounds due to its unique nature (promotional efforts in the industry are designed to convince physicians who eventually make purchase decisions for their patients). Khazzaka (2019) discussed the ethical perspective of the area along with other dimensions. Researcher states that medicine marketing efforts aimed at doctors have been increasing consideration throughout the years. There are many strategies used by medicinal companies, for instance, advertising aimed at doctors that includes complimentary samples, journal advertisements, printed product literature, and other presents can assist

them in making their brands more palatable. Typically, pharmaceutical firms spend 20% or more of their sales on marketing which makes them a lot of money. It is estimated that 84% of pharmaceutical marketing efforts are directed toward physicians as from the company's viewpoint; physicians are the fundamental decision-makers.

The researcher claims that there aren't many published studies on the subject in the poor world, and even fewer in the Middle Eastern economy. The study aims to objectively investigate the effects of pharmaceutical firms' strategies on physicians' prescription behavior in the Lebanese market, taking into account the demographic features of physicians. This survey also looks into whether Lebanese physicians think it's moral to accept gifts and samples.

The study's findings show a relationship between doctors' prescription practices and pharmaceutical marketing tactics. The majority of tested promotional tactics encourage doctors to prescribe promoted medications, either exclusively or sometimes. Doctors are most motivated by the visits of medical personnel and drug samples, whereas pharmaceutical companies' sales calls are less significant. This study demonstrates that doctors consider accepting gifts to be immoral. The findings showed that most physicians use pharmaceutical samples to treat their patients. Furthermore, there is a relationship between the prescribing habits of doctors and their place of practice, age, and gender. Sales and marketing managers at pharmaceutical firms might utilize the study's findings to enhance their strategies for connecting with Lebanese physicians.

Advances in technology have made it possible to communicate in a variety of ways (Aslam et al., 2021). The medicinal industry is driven by novelty; it spends more finances on marketing than on research and development (Manchanda & Honka, 2005). Similarly, launching of new brand also requires significant sales and marketing efforts as Leeflang and Wieringa (2010) state in their research that successful innovation of recommended medicines needs a considerable extent of marketing assistance. Nevertheless, many stakeholders are worried about the impacts of sales and marketing expenditures on medicinal demand. Researchers further argue that overemphasis on marketing can create demand for the brands even in the absence of fundamental needs. This statement indicates that sales and marketing efforts done by pharmaceutical organizations may have a significant impact on demand and eventually on the sales and profitability of the companies, it is the hard outcome variable as mentioned by Manchanda and Honka (2005).

Mustafa et al. (2018) stated that the pharmaceutical sector of Pakistan is growing at an increasing rate and significantly contributing to the country's economy. Almost 400 of the roughly 750 approved pharmaceutical manufacturing facilities—including those operated by 24 multinational companies—are producing finished drugs. Additionally, about 80% of the local market's needs are satisfied by Pakistan's pharmaceutical industry.

Pharmaceutical companies' profitability is greatly impacted by the intricate and nuanced link between pharmaceutical advertising, sales, and profit. Increasing sales and, in turn, earnings require the implementation of efficient marketing plans and promotional budgets.

Important facets of this interaction are described in the sections that follow.

An R-squared value of 0.7662 indicates a substantial link between promotional expenditures and operational profit and profit after tax. It has been demonstrated that marketing strategies including consumer promotions and merchandising tactics raise average sales receipts in pharmacies, increasing total profitability. In the United States, organizations such as the FDA control pharmaceutical businesses' marketing and advertising strategies, which have a direct impact on their profitability. This rule guarantees that marketing initiatives maximize revenue while adhering to moral principles (Dumps, 2022).

In response to diminishing revenue per salesperson, businesses are concentrating more on refining their marketing techniques to increase revenue without correspondingly adding sales staff (Monika et al., 2023). Notwithstanding the potential for large profits, the pharmaceutical business confronts obstacles such the short patent life of medications, which calls for effective marketing to optimize earnings prior to the release of generics (Monika et al., 2023). The marketing environment is further complicated by the peculiarities of pharmaceutical marketing, where customers usually look for items only in an emergency (Harsha et al., 2023). In conclusion, even though successful marketing techniques may greatly increase sales and profits in the pharmaceutical sector, obstacles including market dynamics and regulatory restrictions must be carefully considered.

By looking at the literature discussing pharmaceutical sales and marketing or pharmaceutical promotion, it is found that the majority of the studies focus on the soft outcome variables (say, physicians'

prescription behavior), however, very few of the researchers examine the impact of pharmaceutical promotional expenditures on the sales and profitability. Therefore, in this particular study, the impact of promotional expenditures is determined on the sales and profitability of Pakistan's pharmaceutical industry.

Hypotheses

In light of the literature review, the following hypotheses are developed which will help achieve the research objectives.

H1. The pharmaceutical industry's sales in Pakistan are significantly boosted by promotional expenditures.

H2. The pharmaceutical industry's profitability in Pakistan is significantly improved by promotional expenditures.

Research Design

Pakistan's pharmaceutical industry has over 750 pharmaceutical players, however, the majority of the companies are not Pakistan Stock Exchange listed. Their financial statements are not in the approach of the researcher. Therefore, only Pakistan Stock Exchange-listed companies are used for this particular study. Six of the twelve pharmaceutical businesses listed on the Pakistan Stock Exchange are global corporations (Table 1). Stratified random sampling is used to select 50% of the companies (3 companies) from each stratum.

Stratum-1 comprises 6 multinational companies, while stratum-2 contains 6 national organizations. Selected multinationals include; Abbott Laboratories Pakistan Limited, GlaxoSmithKline Pakistan Limited, and Sanofi-Aventis Pakistan Limited. National companies carefully chosen for the research comprise; Highnoon Laboratories

Limited, Ferozsons Laboratories Limited, and The Searle Company Limited. Financial statements of the mentioned companies are utilized to gather and organize the data regarding promotional expenditures, sales, and profitability (2010-2019).

This study analyzes the relationship between promotional expenditures, sales, and profitability in the Pakistani pharmaceutical industry over 2010–2019. Although the data cover a historical period, they provide a comprehensive and reliable representation of industry trends, capturing a full decade of marketing practices. The findings remain highly relevant to current industry strategies, as promotional approaches in the pharmaceutical sector evolve gradually and core patterns of marketing effectiveness persist over time. Furthermore, these results align with recent evidence (Edwar, 2025), underscoring the enduring importance of promotional investment in driving both sales and profitability, and establishing a benchmark for future research and post-2020 market comparisons.

To draw conclusions about the population, inferential statistics techniques are used. While descriptive analysis allows the researcher to make inferences about a sample of the population, inferential analysis allows the researcher to make conclusions about the whole. To find the impact of promotional expenditures on sales and profitability regression analysis (inferential statistical method) is used. Moreover, the trend of the variables (promotional expenditures, sales, and profitability) is also examined through line charts. Data administration and analysis are done using Microsoft Excel and the Statistical Package for Social Sciences (SPSS), both of which offer user-friendly interfaces.

Justification for Selection of PSX-Listed Pharmaceutical Companies

Although Pakistan's pharmaceutical industry comprises more than 750 companies, only a small number are listed on the Pakistan Stock Exchange (PSX). These listed firms are legally required to publish audited and standardized financial statements, whereas most non-listed companies do not disclose detailed financial information. Since this study relies on secondary financial data over multiple years, only PSX-listed companies are considered to ensure data availability, consistency, and reliability.

Table 1

Pakistan Stock Exchange Listed Pharmaceutical Companies

Name	National/Multinational
Abbot Laboratories Pak Ltd.	Multinational
AGP Limited.	National
Ferozsons Laboratories Ltd.	National
GlaxoSmith Kline Pakistan Ltd.	Multinational
GlaxoSmithKline Healthcare Pak Ltd.	Multinational
Highnoon Laboratories Ltd.	National
IBL Health Care Limited.	National
Master International Limited.	National
Otsuka Pakistan Ltd.	Multinational
Sanofi-Aventis Pakistan Ltd.	Multinational
The Searle Company Ltd.	National

Wyeth Pakistan Limited	Multinational
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Source:PakistanStockExchangeLimited

Data Analysis

The study's independent variable is promotion. Informing customers about the things that are offered is the aim of promotion. Promotion is one of the "Four Ps" of the marketing mix and is essential to market success and profitability. The promotional mix may include public relations, publicity, sales promotion, direct marketing, advertising, personal selling, and sponsorship (Rowley, 1998). Rowley (1998) states that the study's dependent variables are sales and net profit and that promotion significantly affects profitability.

The trend line of promotional expenditures (Appendix, Figure-1), as well as (Appendix, Figure-2) and profitability (Appendix, Figure-3), reveals that thrice of the variables are increasing during the period of ten years i.e., It depicts that the investment of pharmaceutical companies in various promotional methods pays off. However, regression analysis provides more concrete evidence of the phenomenon.

Table 2

Model Summary (Promotional Expenditures & Sales)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808 ^a	.653	.647	5.313282

a. Predictors:(Constant), Promotional Expenditures

R-value is .808 (Table 2) which indicates that sales and promotional expenses have a substantial positive linear connection. Furthermore,

the R Square value is .653 (Table 2) which shows that around 65% of variation in the sales is explained by promotional expenditures.

Table 3

ANOVA^a (Promotional Expenditures & Sales)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3077.025	1	3077.025	108.995	.000 ^b
Residual	1637.396	58	28.231		
Total	4714.421	59			

a. good match for the data) since p

Dependent Variable: Sales

b. Predictors:(Constant), Promotional

Expenditures

In this case, the regression model statistically substantially predicts the sales (i.e., it is < 0.0005, which is less than 0.05).

Table 4

Coefficients (Promotional Expenditures & Sales)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error	Beta		
Constant	-1.565	1.406		-1.113	.270
PE	17.622	1.688	.808	10.440	.000

a. Dependent Variable: Sales

Regression Equation: Sales = -1.565 + 17.622 PE (Promotional Expenditures).

The regression equation depicts that if promotional expenditures increase by 1 unit, then sales increase by 17.622 units, keeping other things constant.

According to data analysis, hypothesis 1 is accepted, and it is determined that promotional spending significantly boosts pharmaceutical business sales in Pakistan.

Table 5

Model Summary (Promotional Expenditures & Profitability)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623 ^a	.388	.378	.889081

a. Predictors:(Constant), Promotional Expenditures

The R-value is .623 (Table 5) which indicates that there is a moderate positive linear relationship between promotional expenditures and profit. Furthermore, the R Square value is .388 (Table-5) which depicts that around 40% variation in the profit (net profit) is explained by promotional expenditures.

Table 6

ANOVA^a (Promotional Expenditures & Profitability)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	29.079	1	29.079	36.787	.000 ^b
1Residual	45.847	58	.790		
Total	74.926	59			

a. Dependent Variable: Profit

b. Predictors:(Constant), Promotional Expenditures

In this case, $p < 0.0005$, which is less than 0.05, shows that the regression model is a good fit for the data and, on average, statistically substantially predicts the net profit.

Table 7**Coefficients (Promotional Expenditures & Profitability)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.090	.235		-.383	.703
1 Promotional Expenditures	1.713	.282	.623	6.065	.000

a. Dependent Variable: Profit

Regression Equation: Profit = -0.090 + 1.713 (Promotional Expenditures)

The regression equation depicts that if promotional expenditures increase by 1 unit, then profit increases by 1.713 units, keeping other things constant.

The data analysis supports hypothesis 2, which states that promotional spending significantly improves the pharmaceutical industry's profitability in Pakistan.

Discussion and Conclusion

The acceptance of Hypotheses 1 and 2 suggests that promotional expenditures have an important role in improving the financial performance of Pakistan's pharmaceutical sector. The positive and

significant effect on sales demonstrates that successful promotional methods can boost market awareness and customer demand. This is consistent with prior research, which shows that promotional activities like advertising and sales promotions are critical instruments for increasing revenue.

Similarly, the positive effect on profitability means that promotional expenditures not only increase sales but also help to maintain profit margins. This might be ascribed to enhanced brand awareness, consumer loyalty, and a competitive advantage earned via focused marketing initiatives. The findings highlight the value of targeted promotional efforts in attaining financial growth and stability in the pharmaceutical industry.

Companies across the globe are significantly spending on marketing services (majorly on various promotional techniques) (Mohiuddin et al., 2018). The significance of promotion is recognized in every industry (Mohiuddin & Iqbal, 2020), however, in the case of the pharmaceutical sector its importance increases even more. Pharmaceutical industries of various economies of the world are inclined more towards promotion than research and development.

Companies in the pharmaceutical sector are forbidden from directly reaching the consumers (i.e., patients) via different mass media approaches which may include; print, electronic, social media, billboards, etc. for prescription brands, under the Drugs Act 1976. Only Over-the-Counter medicines can be promoted via mass media; therefore, pharmaceutical companies of Pakistan use a variety of different promotional strategies which include; giveaways and gifts, medicine samples, local and foreign-sponsored trips, seminars/symposiums/ workshops, paid medical representatives and so on to promote prescription medicines. These strategies are primarily

initiated and managed by the sales teams of the companies which enthusiastically work to promote their respective brands.

This research was intended to identify the impact of various promotional efforts on sales and profitability, results depict that promotional expenditures greatly facilitate companies in achieving financial goals and objectives, thus justifying promotion in the Pakistan pharmaceutical industry.

Policy Implications

The pharmaceutical sector plays an important role in the world's economy, as well as in ensuring the well-being of its people. The pharmaceutical sector is driven by novelty; it spends more finances on promotion than on R&D. The research has proved that promotional expenditures are indispensable for generating greater revenues and profits in Pakistan.

Pharmaceutical organizations that follow a code of ethics, operate sound internal control processes to make sure that sales and marketing expenditures remain with the legal and ethical guiding principles (Usman, 2018). However, it has been observed that companies sometimes cross ethical boundaries in promotion and the ultimate cost payer of this phenomenon is the patient and the industry image (Ahmed, 2012). Policies should be made to address this sensitive issue.

Limitations and Future Directions

The study's scope is limited to publicly listed pharmaceutical companies, which may exclude the performance of private and smaller businesses. Furthermore, relying on previous financial data limits the assessment of current market dynamics and changing methods of marketing. Future studies could look at broadening the sample to

include non-listed companies, incorporating qualitative comments from industry experts, and investigating the influence of digital and non-traditional promotional techniques on financial success.

References

- Ahmed, R. R. (2012). *Pharmaceutical drug promotion in Pakistan: Issues in ethical and non-ethical practices* (Ph.D. thesis). Hamdard University, Karachi.
- Aslam, W., Iqbal, H., & Zaman, S. U. (2021). Revisiting consumer-based brand equity: Gender-based analysis. *Journal of Management Sciences*, 8(2), 55–69.
- Drug Regulatory Authority of Pakistan. (2021). *Advertisement of therapeutic goods guidelines* (Edition 01) [PDF]. Drug Regulatory Authority of Pakistan. <https://www.dra.gov.pk/wp-content/uploads/2022/02/ADVERTISEMENT-OF-THERAPEUTIC-GOODS-.pdf>
- Drug Regulatory Authority of Pakistan. (2025). *Pharmaceuticals guidelines* [Web page]. Drug Regulatory Authority of Pakistan. <https://www.dra.gov.pk/publications/guidelines/pharmaceuticals/>
- E20-526, exam, dumps. (2022). Sales, marketing and advertising. <https://doi.org/10.1002/9781119913276.ch21>

- Edwar, R. A. (2025). *Analysis of The Influence of Production Costs, Promotion and Sales Volume on Net Profit at PT. XYZ*. 2(3), 256–262. <https://doi.org/10.38035/gijea.v2i3.315>
- Guttman, A. (2017, December). Global marketing services spending 2012-2018. Retrieved from Statista website: <https://www.statista.com/statistics/282197/global-marketing-spending/>
- Guttman, A. (2018, December). Global advertising spending 2010-2019. Retrieved from Statista website: <https://www.statista.com/statistics/236943/global-advertising-spending/>
- Haring, J. E., & Smith, G. C. (1959). *Utility theory, decision theory, and profit maximization*. *The American Economic Review*, 49(4), 566–583. <https://www.jstor.org/stable/1812912>
- Harsha, H., Kumar, A., Jwalapuram, S., & Kumar, S. (2023). Marketing strategies in the pharmaceutical industry. *The Scientific Temper*. <https://doi.org/10.58414/scientifictemper.2023.14.4.67>
- Ibrahim, I. A., & Bélanger, C. H. (2015). Pharmaceutical representatives and prescription decisions by physicians in Saudi Arabia. *Journal of Marketing Management*, 3(2), 69–79. <https://doi.org/10.15640/jmm.v3n2a7>
- Iqbal, H. (2018). *Modern retailing in the sub-continent and its various facets: Evidence from literature*. *International Journal of*

Advance Research in Computer Science and Management Studies, 6(2), 10–17.
<http://www.ijarcsms.com/docs/paper/volume6/issue2/V6I2-0002.pdf>

Iqbal, H., & Asrar Mohiuddin, Z. (2024). Bonding of market-based innovativeness with corporate reputation: Is emotional or rational? Evidence from the pharmaceutical industry of Pakistan. *International Journal of Social Science & Entrepreneurship*, 4(1), 22–38.
<https://doi.org/10.58661/ijssse.v4i1.234>

Iqbal, H., Siddiqui, D. A., & Khan, S. (2023). Relationship of advertising appeals and impulsive purchasing inclination: Role of self-control and marital status as moderators. *International Journal of Social Science & Entrepreneurship*, 3(4), 284–305. <https://doi.org/10.58661/ijssse.v3i4.221>

Khazzaka, M. (2019). Pharmaceutical marketing strategies' influence on physicians' prescribing pattern in Lebanon: Ethics, gifts, and samples. *BMC Health Services Research*, 19. <https://doi.org/10.1186/s12913-019-3887-6>

Leeftang, P. S., & Wieringa, J. E. (2010). Modeling the effects of pharmaceutical marketing. *Marketing Letters*, 21, 121–133.

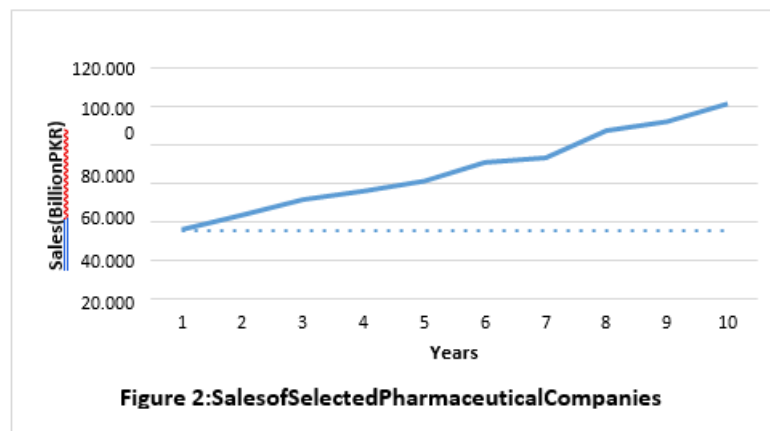
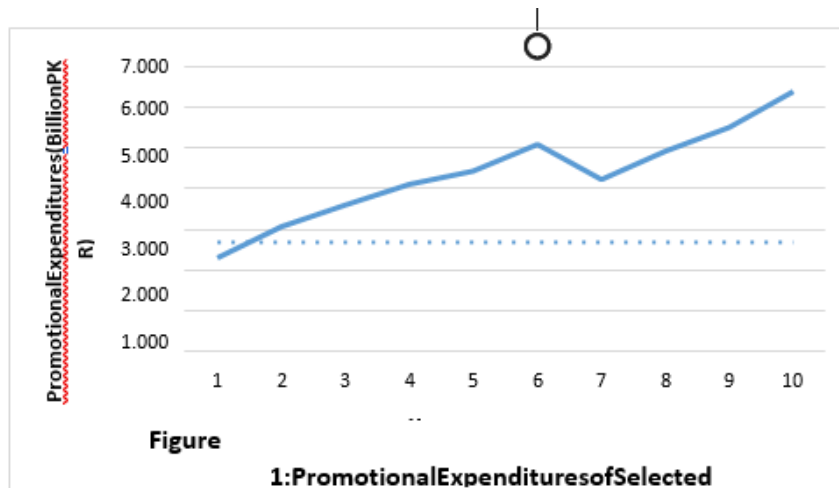
Manchanda, P., & Honka, E. (2005). The effects and role of direct-to-physician marketing in the pharmaceutical industry: An integrative review. *Yale Journal of Health Policy, Law, and Ethics*, 5(2), 785–882.

- Mohiuddin, Z. A., & Iqbal, H. (2018). *Are organizational communication, employees' performance and job satisfaction interrelated? Evidence from banking sector of Pakistan* [Journal article]. *International Journal of Management Sciences and Business Research*, 7(4), 33–39. <https://doi.org/10.5281/zenodo.3483449>
- Mohiuddin, Z. A., & Iqbal, H. (2020). *Students perspective regarding online education during 2019 pandemic: A case study on the public universities of Karachi*. *Pakistan Journal of Educational Research*, 3(2). <https://doi.org/10.52337/pjer.v3i2.40ejerp.id-sre.org+2pjer.org+2>
- Mohiuddin, Z. A., Iraqi, K., & Iqbal, H. (2018). *Social, economic and political perspective of social media: A case study of Pakistan*. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 1760–1772. <https://doi.org/10.6007/IJARBSS/v8-i12/5321>
- Monika, G., Shinde, S. K., & Sathe, A. B. (2023). Review on pharmaceutical sales and marketing. *International Journal of Advanced Research in Science, Communication and Technology*. <https://doi.org/10.48175/ijarsct-8311>
- Mustafa, D. S., Osama, A., Akber, R., & Johari, S. (2018). Promotion by pharmaceutical industry and patients' perspective in Pakistan. *European Scientific Journal*, 14(21), 119–131.

- Pharmaceutical Association of Malaysia. (2019). *PhAMA Code of pharmaceutical marketing practices (21st ed.)* [PDF]. International Federation of Pharmaceutical Manufacturers & Associations. <https://www.ifpma.org/wp-content/uploads/2022/12/PhAMA-Code-21st-Edition-1.pdf>
- Rowley, J. (1998). Promotion and marketing communications in the information marketplace. *Library Review*, 47(8), 383–387. <https://doi.org/10.1108/00242539810239543>
- Saha, R. (2016). *You can be a medical representative*. Notion Press.
- Shahid, N. (2025). *Scope of pharmaceutical sector in Pakistan* [Research report]. Lahore Chamber of Commerce & Industry. https://lcci.com.pk/Research_Reports2025/Pharamacuetical_Report%202025.pdf
- The Institute of Chartered Accountants of Pakistan. (2024). *Pharmaceutical industry: Industry-specific guideline (2nd ed.)* [PDF]. <https://www.icap.org.pk/paib/pdf/guidelines/PharmaIndustry2ndEdition.pdf>
- Usman, S. (2018, April). Pharmaceutical industry. *The Institute of Chartered Accountants of Pakistan*. Retrieved from <https://www.icap.org.pk/paib/pdf/guidelines/PharmaIndustry.pdf>

Wong, S. S. S. (2024). AIDA-based Customer Segmentation with User Journey Analysis for Wi-Fi Advertising System. *IEEE Access*, 1. <https://doi.org/10.1109/access.2024.3424833>

APPENDIX



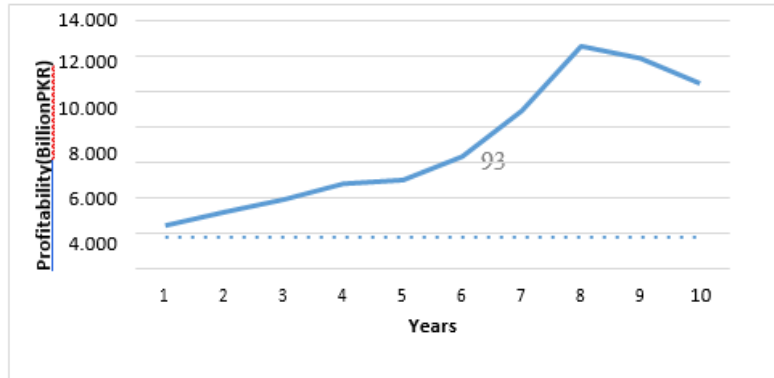


Figure 3: Profitability of Selected Pharmaceutical Companies

Pakistan Stock Exchange. (2025). *Listed companies: Financial statements of pharmaceutical sector*. <https://www.psx.com.pk>

