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## A Study on the Marketing Strategy of Pharmaceutical Industry

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### ABSTRACT:

In an increasingly competitive global environment, marketing strategies have become essential to the growth and sustainability of the Indian pharmaceutical industry. This research paper investigates the effectiveness of marketing strategies employed by pharmaceutical companies in India, with a focus on both traditional methods (such as personal selling and medical detailing) and digital marketing innovations. Using a combination of primary data (collected from surveys and interviews with marketing professionals and healthcare providers) and secondary sources (journals, reports, and market analyses), this study provides a detailed view of how marketing influences prescription behavior, customer engagement, and brand loyalty. The paper also discusses the challenges posed by ethical considerations and regulatory compliance in the pharmaceutical marketing space.

**Keywords:** Pharmaceutical Marketing, Medical Representatives, Digital Detailing, Pharma Strategy, Marketing Tools, CRM, Ethical Compliance

### INTRODUCTION:

In today's competitive pharmaceutical market, effective segmentation strategies are crucial for targeting diverse consumer groups with tailored products and marketing approaches. Market segmentation includes breaking a broad consumer or corporate market into subgroups of clients that have common needs, interests, or habits, & then devising and implementing strategies to target them effectively. The pharmaceutical industry operates in a dynamic environment characterized by rapid technological advancements, stringent regulatory requirements, and evolving consumer preferences. Effective market segmentation allows pharmaceutical companies to identify and prioritize specific market segments based on factors such as demographics, psychographics, behavior patterns, and medical needs. This targeted approach helps in optimizing resource allocation, enhancing product relevance, and improving overall marketing effectiveness.

#### Importance of Market strategies in Pharmaceuticals

The pharmaceutical industry operates in a dynamic environment characterized by rapid technological advancements, stringent regulatory requirements, and evolving consumer preferences. Effective market segmentation allows pharmaceutical companies to identify and prioritize specific market segments based on factors such as demographics, psychographics, behavior patterns, and medical needs. This targeted approach helps in optimizing resource allocation, enhancing product relevance, and improving overall marketing effectiveness.

#### Challenges in Pharmaceutical Market Segmentation

Segmenting the pharmaceutical market presents unique challenges compared to other industries. Healthcare decisions often involve complex considerations influenced by healthcare professionals, patients, caregivers, and regulatory bodies. Factors such as disease prevalence, treatment efficacy, safety profiles, and cost-effectiveness play critical roles in segmenting pharmaceutical markets. Moreover, regulatory compliance and ethical considerations further complicate segmentation efforts, requiring companies to navigate stringent guidelines while ensuring patient safety and welfare.

This study seeks to shed light on the complex landscape of market segmentation strategies in the pharmaceutical industry. By examining real-world examples through a case study approach, it aims to provide actionable insights that can guide pharmaceutical companies in navigating market complexities, optimizing resource allocation, and delivering impactful healthcare solutions to diverse patient populations.

#### Pharmaceutical Marketing In India: A Broad Perspective

The drug and pharmaceutical sectors are crucial for the healthcare system of any nation. The rapid expansion of this industry warrants more focus, as India, despite having approximately 15 percent of the global population, contributes to less than 2 percent of global drug production even after over 50 years of independence. The average per capita medicine consumption in India is under 2% of that of Japan. In terms of healthcare spending, India allocates a mere 0.8 percent of its GDP, in contrast to 12.4 percent in the U.S., 6.5 percent in Japan, and 6.2 percent in the U.K., despite facing a higher prevalence of diseases and malnutrition. The existence of poverty and illness in India necessitates an improved standard of healthcare and pharmaceutical production; however, it simultaneously hinders industrial growth due to the average Indian's limited financial means. Consequently, the

Drug and Pharmaceutical industry faces a challenging dilemma that many sectors have struggled with delivering a large quantity of high-quality products at affordable prices.

The Indian pharmaceutical sector, which is valued at \$46.2 billion, has experienced a steady growth rate of 15% to 20% over the last decade. This expansion has been fueled by India's large population, a growing proportion of income dedicated to healthcare, and rising exports. Currently, exports make up 20% of the production value and have seen a compound annual growth rate of 34% in recent years, attributed to the competitive price advantages stemming from India's low labor and other input costs.

The Indian pharmaceutical market is staggering at \$58.8 billion. The top 10 companies contribute to more than 30% of this total, and if you exclude 45 marketers, the average sales stay well below the \$2.5 million threshold, highlighting its fragmented nature, with roughly 50,000 brands from over 20,000 companies rapidly expanding, causing more than enough health issues to overwhelm the Indian population multiple times and transforming Dr. Dolittle into Dr. Don't Care.

### ***Regulatory Frameworks***

In a nation where free healthcare for everyone is not guaranteed (and where there is also no efficient health insurance system), the family of the underprivileged patient is left to cover the costs. This rationale supported the policy. However, it eliminated any motivation to invest in research and development (R&D), which is fundamental to the role of global pharmaceutical companies in the fight against diseases. India's per capita drug consumption is approximately \$3, while in the US it exceeds \$100 and in Japan it goes beyond \$400. Although India accounts for about 20% of the global disease burden, it represents only 16% of the world's population. Spending in Western countries is elevated because, in a system where the government covers medical expenses, patients tend to obtain prescriptions for various medications even for relatively minor health issues. So, what accounts for the low spending in India? Only 35% of the population has access to modern (allopathic) medicine. The alternative medical systems in India, such as Ayurveda, are legitimate, as are homeopaths who produce their own remedies.

India also exports significant amounts of drugs and pharmaceuticals. An increasing number of companies are exploring traditional healthcare systems in addition to modern medicine. With the introduction of the new drug policy, the licensing requirements for all bulk drug formulations and intermediates have been removed, except for five bulk drugs. Many drugs that were previously subject to price controls have now been released from such regulations. In fact, the list of controlled drugs has been reduced by half and now consists of only 73 items.

A higher return rate has been permitted for medications that remain subject to price control. Companies with a 51 percent foreign equity stake have been treated equally to fully Indian companies, and automatic approval will be granted for foreign equity at this level, as well as for foreign technology agreements. Previously, such companies faced limitations on the products they could produce or import. A National Drug Authority will be established to oversee quality control and promote the rational use of medicines. Additionally, a National Pharmaceutical Pricing Authority is to be formed to determine prices for drugs that will still fall under price regulation (Ramaswamy & Meerakumari, 1988).

The Indian pharmaceutical sector is extensively regulated, focusing on three main areas:

- Patents
- Price
- Product quality

The Indian Pharmaceutical Industry is governed by various laws, including:

- The Indian Patents Act of 1970 (along with its amendments)
- The Drug Price Control Order (which will soon be replaced by the Pharmaceutical Policy of 2002)
- The Drugs and Cosmetics Act of 1940

The legal structure for the industry should aim to bolster its strengths, address its weaknesses, avoid potential threats, and leverage available opportunities.

### ***Historical Perspective***

At the time of India's independence in 1947, the production of bulk drugs was virtually nonexistent. It grew from a mere \$715 million in 1962 to \$2.4 billion in 1980 and reached around \$8.4 billion by 1990. The formulation production saw an increase from \$90 million in 1947 to \$14.4 billion in 1980, and further to \$36.3 billion in 1990. The rise in pharmaceutical demand was driven by population growth, increased affordability for some segments of the population, and government initiatives focused on health programs. The industry expanded despite claims of price and production regulations. By the year 2000, the expected demand for pharmaceuticals was projected to reach about \$6.72 billion annually. Since 1970, there has been a staggering 1000% increase in the number of drug manufacturers in India. This was the year the Indian Patent Acts and Drug Price Control Order (DPCO) were implemented. While the first provided intellectual property protection for manufacturing processes rather than product formulas, the latter aimed to regulate prices to ensure that drug manufacturers, allowed to replicate foreign drugs, would sell them affordably to the general public.

The Indian Drug and Pharmaceutical industry showcase rapid development. Presently, India produces most of its bulk drugs and formulations domestically. In fact, over 30,000 distinct pharmaceutical formulations valued at \$210 million are produced and sold in the country. There are 45 major pharmaceutical companies, each investing significantly and achieving substantial sales. Investments range from \$1.47 to \$4.2 million, and sales range from \$2.10 to \$54.6 million annually. The industry experienced remarkable growth of 23.4 percent during 1997-98. This growth is exceptional compared to other sectors, any of which have faced losses or very minimal profits, contributing to a slowdown in their growth.

### **India's Pharmaceutical Sector**

India's pharmaceutical sector is among the most rapidly expanding components of the Indian economy, averaging a growth rate of 14 percent annually from 2005 to 2008. The overall pharmaceutical market in India is predicted to grow at an average annual pace of 15 to 20 percent from 2005 to 2010. This increase in production has been fueled by legislative changes, the rise of contract manufacturing and outsourcing, strategic foreign acquisitions and partnerships, India's expertise in reverse engineering patented drug molecules, and efforts to adhere to the World Trade Organization (WTO) Trade Related Intellectual Property Agreement (TRIPs). When India became a member of the WTO in 1995, its pharmaceutical exports were valued at less than \$600 million. By 2009, these exports soared to \$3.7 billion, contributing to over 61 percent of the industry's revenue. Presently, Indian pharmaceutical firms account for 20 to 22 percent of the global generic drug market in value and provide 60,000 finished medicines along with nearly 400 bulk drugs used in various formulations.

In recent years, India's pharmaceutical industry has been undergoing a significant transformation in its business model in anticipation of a product patent system that began in 2009. This change in approach has become essential due to the previous process patent regime established in 1972 by the Government of India, aimed at fostering and supporting the domestic healthcare sector in generating affordable and low-cost medications. Before this change, the Indian pharmaceutical landscape was largely controlled by multinational corporations (MNCs), which imported the majority of the bulk drugs (active pharmaceutical ingredients) from their foreign branches and marketed the final products (tablets, capsules, syrups, etc.) at rates that many Indians could not afford. Consequently, the Government of India revised its policy towards this sector in 1972, permitting Indian companies to reverse engineer patented medications and manufacture them using alternative processes that were not covered by patents. Furthermore, foreign involvement by MNCs was limited to a 40% equity stake. The licensing framework was also designed to favor domestic companies and those with lower foreign equity. These initiatives by the Government of India laid the groundwork for a robust manufacturing infrastructure for bulk drugs and formulations, propelling the growth of the Indian Pharmaceutical Industry (IPI), which now comprises more than 20,000 participants. As a result, the Indian pharmaceutical sector not only satisfies domestic demands but has also begun to export both bulk drugs and finished formulations to global markets.

### **Top Pharmaceutical Producers in India**

India's top pharmaceutical firms are working to establish their presence not only in the local Indian market but also in the international arena for both generic medications and proprietary products. Sales for the largest 200 pharmaceutical companies in India rose from \$7.9 billion in 2007 to \$8.6 billion in 2008, which represents a 9 percent increase. By the end of 2008, nine out of the ten leading Indian drug manufacturers were domestically owned companies, contributing to over 44 percent of the overall industry's sales. The five leading pharmaceutical companies in India by sales are Ranbaxy Laboratories, Dr. Reddy's Laboratories, Aurobindo Pharmaceutical, GSK-India, and Cipla. These organizations produce a variety of generic medications (both branded and non-branded), intermediates, and active pharmaceutical ingredients (APIs).

Ranbaxy Laboratories, in terms of total sales, is the largest pharmaceutical company in India and ranks among the top ten generic drug manufacturers globally. In 2009, nearly 80 percent of Ranbaxy's sales were generated from exports, with the United States being its principal market. Ranbaxy represents 23 percent of the revenue from India's pharmaceutical sector. As a vertically integrated organization, Ranbaxy operates across the entire pharmaceutical value chain, providing a variety of unbranded and branded generics, active pharmaceutical ingredients, and biotechnological products. The company sells its products in over 100 countries, maintains a sales presence in 23 of the top 25 pharmaceutical markets worldwide, and has manufacturing facilities located in eight different countries. Cipla, the second-largest pharmaceutical company in India, is particularly recognized for its anti-AIDS medications, while Dr. Reddy's Laboratories, ranked third in size, also depends significantly on exports for its revenue.

### **Multinational Corporations in India:**

Numerous prominent pharmaceutical companies globally have branches or other activities in India. Multinational corporations like GlaxoSmithKline (GSK), Baxter, Aventis, Pfizer, Novartis, Wyeth, and Merck have established operations in India's pharmaceutical market primarily through their subsidiaries. The reintroduction of product patents has led to the return of many other multinational corporations, some of which had existed during the era of process patents. MNC pharmaceutical companies have also been lured by tax incentives, deductions for capital R&D spending, and various financial benefits provided by the Indian government. Industry experts suggest that the most pressing challenges for MNCs are the unpredictability of pharmaceutical price regulations and issues surrounding data exclusivity.

Approximately 34 foreign pharmaceutical firms are active in the Indian market, including 15 of the largest 20 pharmaceutical companies globally. As per FICCI, while MNCs have not introduced new products, they have invested in the establishment of new manufacturing facilities and R&D centers, with many participating in contract manufacturing, clinical trials, and other outsourcing activities. In the fiscal year 2008-09, MNCs invested over \$172 million in India's pharmaceutical sector, with foreign direct investment (FDI) exhibiting a compound annual growth rate (CAGR) of 62 percent from 2002 to 2006. Nevertheless, many analysts contend that the return of leading global pharmaceutical firms may slowly diminish India's cost benefits. According to the Organization of Pharmaceutical Producers of India, multinational drug companies currently hold 24 percent of the Indian domestic market, although this share could potentially rise to 40 percent by the year 2010.

### Significant Share In The Generic Drug Market

Due to the lack of effective patent protection from 1970 to 2005, numerous Indian drug manufacturers imitated costly original formulations from foreign companies and produced generics using alternative production methods. This approach was more economical than the expensive research and development of original products, as it avoided the financial risks associated with R&D investments, which could amount to as much as EUR 600 million for just one drug. Only large corporations in industrialized nations could previously secure such funding. The cost-effective production methods underpin the competitiveness of generic manufacturers, with Indian firms currently taking the lead in this area. With a global market share of 20% in generic drugs, India's position is significantly greater than its approximate 2% share in the overall pharmaceutical market. Furthermore, Indian pharmaceutical companies have acquired expertise in producing generic medications, earning the country the label "pharmacy of the poor." This is particularly important for the domestic market, where around 140 million of the 192 million households in India have an average disposable income of just EUR 1,900 per year, meaning that most Indians are unable to afford expensive Western medications.

### Corporate Market Share And Local Companies

Between 1996 and 2006, the nominal sales of pharmaceuticals in the Indian subcontinent grew by 9% annually, significantly outpacing the overall global pharmaceutical market, which grew at 7% per year. Indian firms greatly increased their production capabilities, enabling the country to largely achieve self-sufficiency in this sector. However, despite total sector sales approximating EUR 10 billion, India's share of the global pharmaceutical market remains under 2% (1.5% in 1966). This positions the country twelfth worldwide, ranking lower than Korea, Spain, and Ireland, but higher than Brazil, Belgium, and Mexico. Within Asia, India's pharmaceutical industry occupies the fourth spot with an 8% market share, yet it has experienced a loss of market share to China, whose sales growth was almost double that of India, and whose sales volumes were nearly four times greater. The rise of globalization has not led to the abandonment of traditional medicine; however, due to increased education, rising income levels, and shifts in lifestyle, the importance of western medical treatment is on the rise. Currently, around 70% of the population in the Indian subcontinent relies fully or partially on traditional Indian medicine, which is more affordable and accessible compared to western pharmaceuticals.

Indian businesses have seized the opportunity presented by western pharmaceutical companies looking for lower costs and higher profit margins, leveraging their low-cost environment and a skilled workforce to build a vibrant outsourcing sector, thus establishing India as a significant provider of contract research and manufacturing services.

India is boosting its emphasis on research and development as well as biotechnology, taking advantage of the lower productivity in R&D observed in developed markets, which allows it to form partnerships with western companies. These collaborations give Indian firms access to expertise in drug discovery and development, while also maximizing revenues once products are launched in the market.

Pharmaceutical and biotech companies in the US, Europe, and Japan have acknowledged India's growing significance on the global stage. Many of these companies are outsourcing non-essential tasks associated with research and manufacturing. Outsourcing has become a favored option, and strategies like offshoring through direct investments, joint ventures, or acquisitions are also proving to be effective.

### Drug Distribution

Often, medications that are promoted by professional service representatives do not end up on the shelves of retail pharmacies. This situation can be linked to a poorly functioning distribution system. While distribution is acknowledged as a critical function in India, numerous pharmaceutical marketers view it merely as a supportive aspect; consequently, the distribution network has remained conventional with minimal innovations. Superstockists, stockists, distributors, and Carrying & Forwarding Agents (C&FA) have typically shown great loyalty to pharmaceutical companies. Thus, strategic alterations in distribution arrangements have seldom been proposed or executed. Any challenges that arose were usually resolved amicably, and modifications, if made, primarily focused on adding or removing stockists within the distribution hierarchy. Over the years, as the All-India Organization of Chemists & Druggists (AIOCD) organized retailers across each state, pharmaceutical firms faced restrictions on their ability to appoint stockists due to pressure from retailers. Additional changes have also occurred. One can visualize the distribution framework as a concentric arrangement with patients at the core, and each ring surrounding this core symbolizes a link in the chain. It's important to recognize that certain rings prefer to bypass the next one. For example, some companies interact directly with stockists, while select high-end products requiring specialized service are distributed directly to physicians. Innovative concepts have emerged from companies such as Hoechst<sup>TM</sup>, Sarabhai<sup>TM</sup>, Sandoz (Novartis<sup>TM</sup>), and now Nicholas Piramal<sup>TM</sup>. In 1988, Sandoz opted to revise its discounting method for C&F agents through a straightforward innovation. Rather than providing a direct percentage of sales to agents, it began compensating based on case loss. Each case lot weighed roughly 12-15 kg, and for each case lot, it paid between \$0.19 and \$0.32 to the C&FA. As a result, Sandoz<sup>TM</sup> cut operational costs by 1.2 percent of its overall revenue, a substantial amount when calculated in rupee terms. It is often the case that efficient distribution combined with appropriate pricing distinguishes success from failure in the market. In India, the majority of companies sell a wide range of products (which are also offered by others), and pricing decisions are often delegated. In a marketplace filled with various brands catering to the same need, even the rare marketer who starts by creating a program based on feedback from doctors and patients frequently overlooks profit considerations when establishing prices. In the past, production volumes were often maintained at fixed levels (either by the company or the licensing authority). Under these conditions, costs were straightforward to assess, and simple cost-plus pricing was effectively employed. Marketers also had to operate within the constraints of the Drug Price Control Order (DPCO), the government pricing regulation for essential medications.

Since the liberalization era began in 1991, the DPCO has gradually lost influence, allowing the prices of many formulations to be determined by market forces. Other aspects of liberalization have increased companies' desires for growth. In such a rapidly changing environment where growth is both

beneficial and attainable, pricing becomes more complex. The absence of strategic planning results in disorganized pricing practices. It is widely acknowledged that clever pricing can provide a competitive advantage for any product. Nonetheless, trends within the pharmaceutical industry indicate that sufficient consideration is not being given to such important decisions. A single entity's hasty marketing decision can have far-reaching effects on the entire market. Many marketing managers fail to comprehend the ramifications of their own decisions on the market. Consequently, they perceive themselves as either price takers or price makers. It is uncommon for marketers to intentionally disrupt the status quo by becoming aggressive in pricing strategies. This can be effectively demonstrated by looking at GlaxoTM: when it introduced CeterzineTM, an antihistamine, it acted as a price maker by setting a price it deemed appropriate, which was then followed by competitors who became price takers. Consequently, various companies like GlaxoTM, UCBTM, and UnichemTM were all offering their products at \$0.06 per tablet. However, SOLTM made the decision to alter the pricing landscape and played the role of a price breaker by selling its CeterzineTM product at \$0.023 per tablet. Within 18 months, SOLTM achieved higher sales volumes than GlaxoTM, the original price maker. Despite this shift, GlaxoTM did not respond and maintained its pricing. Presently, companies like Lupin and Core are selling at prices lower than those of SOL. Thus, while the price breaker initiated a price war, GlaxoTM has successfully regained its position as the brand leader.

### ***Method Of Drug Promotion***

"The commercial needs of countless, fiercely competing pharmaceutical companies has led them to depend on the tried and tested 3Cs: convince, if possible, confuse if necessary, and corrupt if nothing else works."

Healthcare workers in low-income countries operate within overloaded and poorly funded systems, earning low wages and facing challenging conditions. In these environments, the incentives offered by pharmaceutical companies can be appealing. The differences in healthcare expenditure between wealthy nations and poorer ones are such that even modest promotional efforts in a developing country can attract significantly more attention than they would in a developed nation.

The goal of drug promotions is to encourage individuals to purchase more medications and/or spend more on them. This is achieved by enhancing the perceived value of the drug through various strategies, including:

- Amplifying the perceived frequency and/or seriousness of the conditions treated.
- Expanding the indications to encompass a broader patient base.
- Heightening the perceived likelihood and extent of benefits.
- Reducing the perceived risks and potential side effects.
- Promoting extended use of the medication.

The World Health Organization characterizes drug promotion as "all informational and persuasive activities by manufacturers and distributors, which aim to induce the prescription, supply, purchase, and/or use of medicinal drugs." The primary objective of promotion is persuasion rather than education. Advertisements for consumer products typically do not provide detailed information about the product's characteristics; instead, much of the advertising focuses on linking the product to positive emotional experiences.

No matter their location, most pharmaceutical companies attempt to determine where individuals stand in terms of behavior change stages and then employ advanced marketing tactics to encourage progression through these stages toward repeat usage:

Each transition necessitates motivation and decision-making, prompting drug companies to analyze human motivations and choices. Public relations strategies often circumvent individuals' defenses by suggesting that the message originates from a credible source.

Doctor-guided promotion methods

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### **Research Methodology:**

The research methodology outlines the purpose of the study, the systematic approach adopted, how progress is assessed, and what constitutes success in relation to the research objectives. For this study, an exploratory research design has been employed to gain deeper insights into the core issues of pharmaceutical marketing. Exploratory research is particularly useful in identifying key problem areas and evaluating potential strategic actions, aligning well with the study's aim of drawing logical conclusions in an objective and scientific manner. The research design serves as the foundational blueprint that directs the entire research process. It provides the overall framework for conducting the study and determines the methods of data collection, sampling techniques, fieldwork procedures, and data analysis tools. This study follows an exploratory design, guiding the formulation and implementation of each research phase.

In terms of data, both primary and secondary sources were utilized. Primary data was collected directly from respondents through a self-administered questionnaire conducted in the presence of an interviewer. A total of 100 participants were surveyed, comprising officials from various pharmaceutical companies, medical practitioners, and medical representatives, all located within the Delhi NCR region. Secondary data was sourced from a wide range of materials, including articles, reports, journals, magazines, newspapers, and online content. These sources were both internal (specific to the research area) and external (originating from outside the study domain).

The sampling technique adopted was simple random sampling, ensuring that every unit in the population had an equal chance of being selected. This approach was employed to minimize bias and enhance the reliability of the results. To analyse the collected data, simple statistical tools such as percentages, diagrams, charts, and graphs were used. The average was also calculated to interpret percentage values effectively, using the formula:

$$\text{Mean} = \left( \frac{\text{Total Number of Participants}}{\text{Number of Participants}} \right) \times 100$$

An organized questionnaire served as the primary data collection tool, while visual aids like charts and graphs helped in presenting the results in a clear and comprehensible manner. Overall, the methodology ensures a robust and systematic investigation into the marketing strategies of the pharmaceutical industry.

#### Need For the Study:

The need for this study arises from the rapidly evolving pharmaceutical market, where effective marketing strategies are crucial for business growth and consumer awareness. With increasing competition, regulatory challenges, and the rise of digital marketing, companies must adopt innovative approaches to stay ahead. Understanding the impact of marketing techniques on consumer behavior, brand positioning, and sales performance is essential for sustainable success. This study will help identify key factors influencing pharmaceutical marketing, assess current trends, and provide insights into optimizing promotional strategies. The findings will benefit pharmaceutical companies, marketers, and policymakers in developing effective and ethical marketing frameworks.

#### Objectives Of the Study:

- To analyze the key marketing strategies adopted by pharmaceutical companies.
- To evaluate the impact of digital marketing on pharmaceutical product promotion.
- To examine the role of branding and pricing in consumer decision-making.
- To study the challenges and opportunities in pharmaceutical marketing.

### Data Analysis and Interpretation

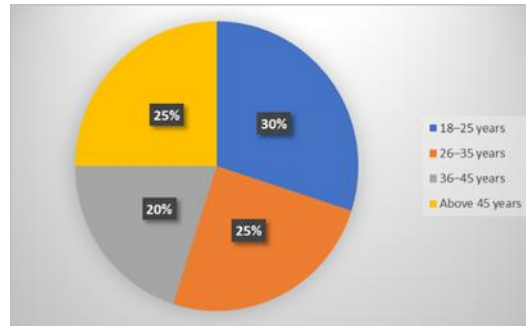
The systematic review identified 72 articles that met the inclusion criteria, which were analyzed using a thematic synthesis approach. The majority of the studies were conducted in North America, Europe, and Australia, with a smaller number of studies conducted in Asia, Africa, and South America. The research designs of the studies included qualitative, quantitative, and mixed methods approaches. The sample sizes of the studies ranged from a few participants to several hundred participants.

The analysis of the literature identified several key themes related to the academic and social integration of international students in higher education. These themes were grouped into categories and subcategories. Language proficiency was identified as a crucial factor for academic success and social integration. The studies highlighted the importance of English language proficiency in particular, as English is the primary language of instruction in most higher education institutions. The studies found that language barriers can limit communication and participation in academic and social activities, which can affect academic performance and social integration.

Academic preparation, including familiarity with the academic expectations and systems of the host institution, was found to be important for academic integration. The studies highlighted the challenges faced by international students in adapting to the different academic cultures and expectations of the host institution. The studies also emphasized the importance of academic support programs that provide guidance on academic

**Table 1: Age Categories**

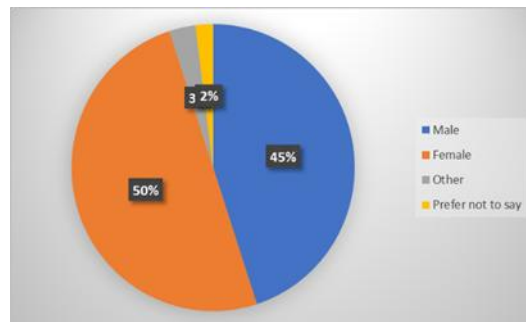
Age Group	No. of Responses	Percentage (%)
18 - 25 years	30	30%
26 - 35 years	25	25%
36 - 45 years	20	20%
Above 45 years	25	25%
Total	100	100%



**INTERPRETATION:** The age spread of participants shows a well-balanced representation among various age groups, with a considerable proportion in the 18–25 years (30%) and 26–35 years (25%) segments. This suggests that younger consumers significantly influence the pharmaceutical market, highlighting the importance of targeting marketing strategies to this demographic. The equal share of older respondents (25% above 45 years) implies that marketing efforts should also consider the needs of mature consumers who might prioritize prescription medications.

**Table 2: Gender**

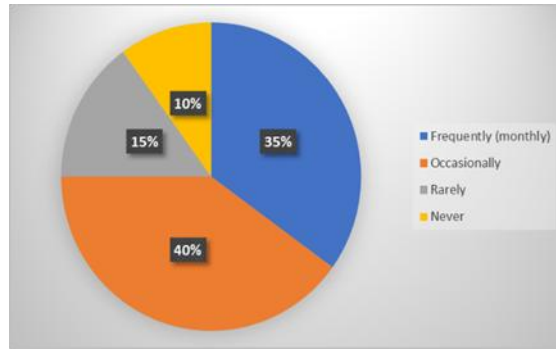
Gender	No. of Responses	Percentage (%)
Male	45	45%
Female	50	50%
Other	3	3%
Prefer not to say	2	2%
Total	100	100%



**INTERPRETATION:** The gender distribution is even, with males representing 45% and females 50% of respondents. This balance suggests that marketing strategies should be gender-neutral or diversified to appeal to both groups effectively. The minimal representation of other gender identities (3%) and those preferring not to disclose (2%) highlights an opportunity for pharmaceutical companies to adopt more inclusive marketing approaches that address the needs of all gender identities.

**Table 3: Frequency of Purchase**

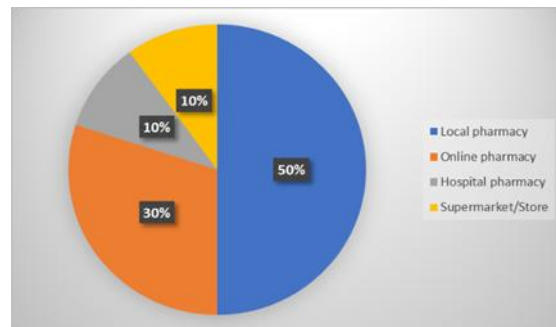
Frequency	No. of Responses	Percentage (%)
Frequently (monthly)	35	35%
Occasionally	40	40%
Rarely	15	15%
Never	10	10%
Total	100	100%



**INTERPRETATION:** The data reveals that 35% of respondents purchase pharmaceutical products frequently (monthly), while 40% do so occasionally, indicating a consistent demand for these products. The smaller proportion of rare (15%) and non-buyers (10%) suggests that most consumers maintain a regular or occasional purchase pattern, emphasizing the need for marketing strategies that reinforce customer loyalty and encourage more frequent purchases through targeted promotions and personalized offers.

**Table 4: Place of Purchase**

Place	No. of Responses	Percentage (%)
Local pharmacy	50	50%
Online pharmacy	30	30%
Hospital pharmacy	10	10%
Supermarket/Store	10	10%
Total	100	100%



**INTERPRETATION:** Local pharmacies dominate as the preferred purchase point (50%), followed by online pharmacies (30%). This reflects a blend of traditional and digital purchasing habits, implying that pharmaceutical companies should balance their focus between physical retail presence and expanding e-commerce capabilities. The lower preferences for hospital pharmacies (10%) and supermarkets (10%) indicate limited competition in these channels, presenting potential areas for market penetration.

**Table 5: Influencing Factors**

Factor	No. of Responses	Percentage (%)
Price	20	20%
Brand reputation	25	25%
Doctor's recommendation	40	40%
Availability	15	15%
Total	100	100%

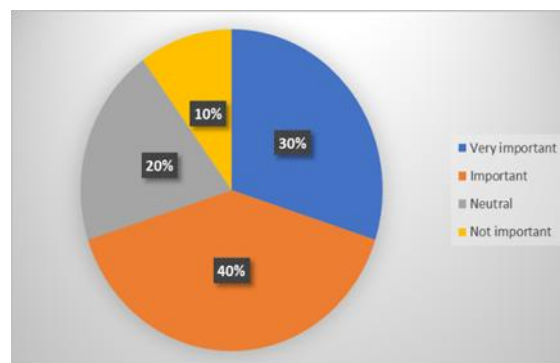




**INTERPRETATION:** Doctor's recommendations (40%) and brand reputation (25%) are the most significant factors influencing purchase decisions, underscoring the critical role of medical professionals and brand image in marketing strategies. The lower influence of price (20%) suggests that consumers might prioritize quality and trust over cost. Pharmaceutical companies should focus on building strong relationships with healthcare providers and enhancing brand credibility through effective communication of product efficacy and safety.

**Table 6: Brand Loyalty Importance**

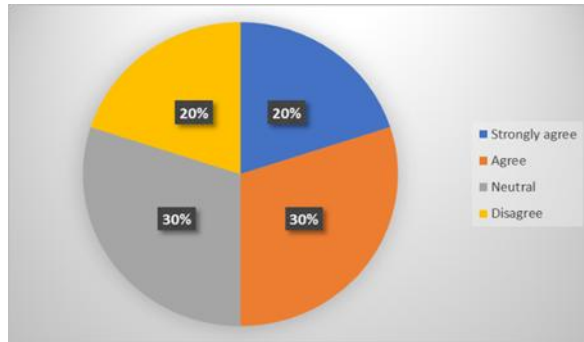
Importance	No. of Responses	Percentage (%)
Very important	30	30%
Important	40	40%
Neutral	20	20%
Not important	10	10%
Total	100	100%



**INTERPRETATION:** Most respondents (40%) consider brand loyalty important, with 30% viewing it as important. This implies that pharmaceutical companies need to invest in loyalty programs and consistent quality to retain customers. The 20% neutral and 10% not-important responses highlight a segment open to brand-switching, suggesting the need for competitive pricing and promotional strategies to attract these consumers.

**Table 7: Type of Pharmaceutical Products**

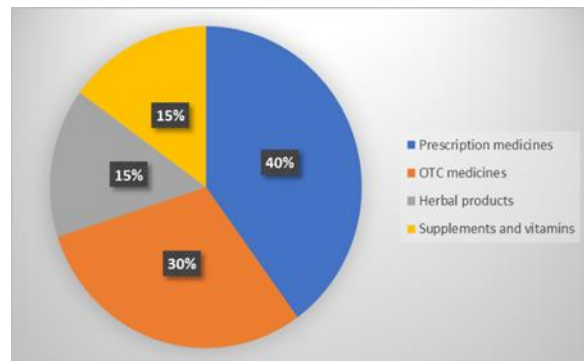
Type	No. of Responses	Percentage (%)
Prescription medicines	40	40%
OTC medicines	30	30%
Herbal products	15	15%
Supplements and vitamins	15	15%
Total	100	100%



**INTERPRETATION:** Prescription medicines are the most preferred (40%), followed by OTC medicines (30%). This suggests that while there is a strong reliance on doctor-prescribed products, there is also a significant demand for accessible, over-the-counter options. The interest in herbal products and supplements (each 15%) indicates a growing trend toward natural and preventive healthcare solutions, presenting opportunities for diversification in product offerings.

**Table 8: Influence of Advertisements**

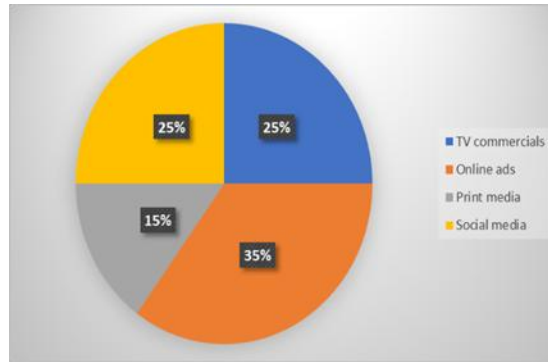
Influence	No. of Responses	Percentage (%)
Strongly agree	20	20%
Agree	30	30%
Neutral	30	30%
Disagree	20	20%
Total	100	100%



**INTERPRETATION:** The influence of advertisements appears moderate, with 30% agreeing and 20% strongly agreeing on its impact. However, the substantial neutral segment (30%) and disagreement (20%) suggest that ads alone may not significantly drive purchases. Pharmaceutical companies should consider complementing advertisements with informative and trust-building content, focusing on educating consumers about product benefits rather than merely promoting them.

**Table 9: Preferred Advertising Medium**

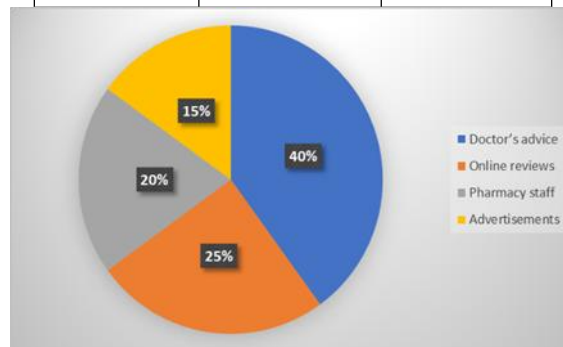
Medium	No. of Responses	Percentage (%)
TV commercials	25	25%
Online ads	35	35%
Print media	15	15%
Social media	25	25%
Total	100	100%



**INTERPRETATION:** Online ads (35%) and social media (25%) are the most favored advertising channels, reflecting the growing importance of digital marketing in the pharmaceutical sector. The continued relevance of TV commercials (25%) highlights the need for an integrated multi-channel approach. Print media’s lower preference (15%) suggests shifting budgets towards more dynamic and interactive platforms that can engage consumers effectively.

**Table 10: Source of Information**

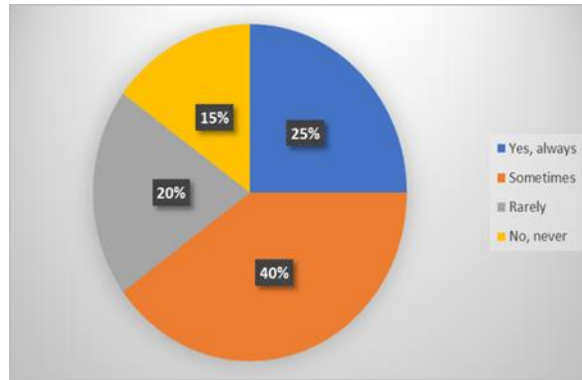
Source	No. of Responses	Percentage (%)
Doctor’s advice	40	40%
Online reviews	25	25%
Pharmacy staff	20	20%
Advertisements	15	15%
Total	100	100%



**INTERPRETATION:** Doctor’s advice is the most trusted information source (40%), emphasizing the importance of physician endorsements in marketing strategies. The influence of online reviews (25%) and pharmacy staff (20%) highlights the role of digital reputation management and in-store consultations. Pharmaceutical companies should focus on building trust through transparent communication, positive online presence, and training pharmacy staff to effectively convey product benefits.

**Table 11: Willingness to Pay for Branded Products**

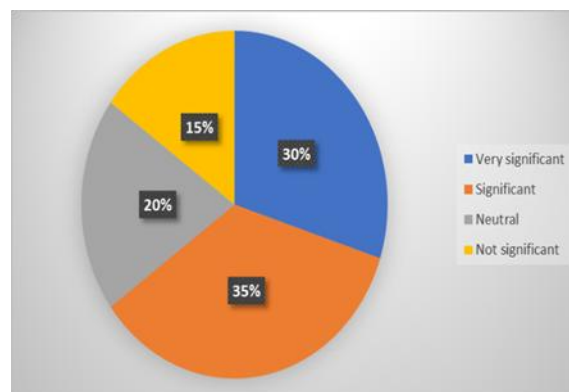
Response	No. of Responses	Percentage (%)
Yes, always	25	25%
Sometimes	40	40%
Rarely	20	20%
No, never	15	15%
Total	100	100%



**INTERPRETATION:** The data reveals that 25% of respondents are consistently willing to pay for branded pharmaceutical products, while 40% do so selectively. This indicates a substantial market for branded products, driven by perceived quality or efficacy. However, the 35% of respondents who rarely or never pay for branded options suggest a price-sensitive segment. Pharmaceutical companies might consider a tiered pricing strategy to capture both premium and cost-conscious consumers.

**Table 12: Importance of Packaging**

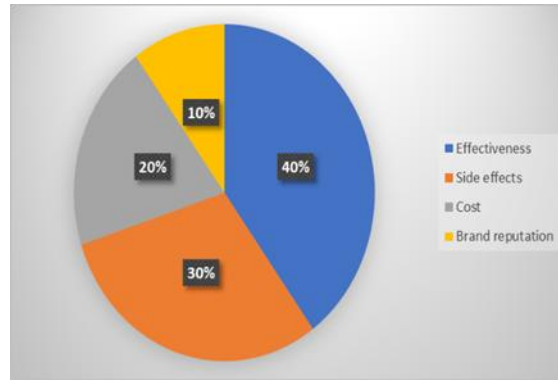
Importance	No. of Responses	Percentage (%)
Very significant	30	30%
Significant	35	35%
Neutral	20	20%
Not significant	15	15%
Total	100	100%



**INTERPRETATION:** The responses indicate that 65% of consumers consider packaging either significant or significant in their purchase decisions. This highlights the role of packaging in conveying product information and building trust. The 20% neutral and 15% not significant responses suggest a minority less influenced by packaging aesthetics. Focusing on clear, informative, and sustainable packaging could enhance appeal and trust among most consumers.

**Table 13: Primary Concern in Purchase**

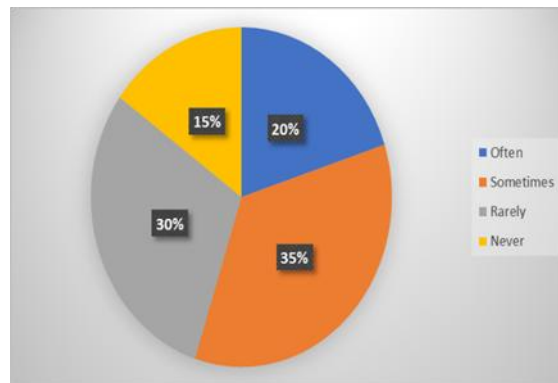
Concern	No. of Responses	Percentage (%)
Effectiveness	40	40%
Side effects	30	30%
Cost	20	20%
Brand reputation	10	10%
Total	100	100%



**INTERPRETATION:** Effectiveness (40%) and side effects (30%) are the dominant concerns for consumers when purchasing pharmaceutical products. This underscores the importance of transparent communication about product efficacy and safety in marketing strategies. The 20% prioritizing cost and 10% focusing on brand reputation suggest niche markets that could be targeted with price-sensitive and brand-centric promotions, respectively.

**Table 14: Brand Switching Behavior**

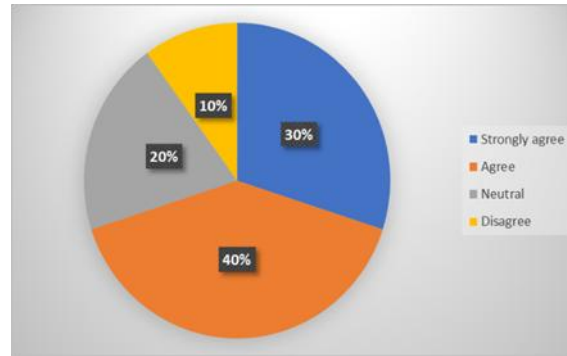
Frequency	No. of Responses	Percentage (%)
Often	20	20%
Sometimes	35	35%
Rarely	30	30%
Never	15	15%
Total	100	100%



**INTERPRETATION:** The data shows a mixed tendency for brand loyalty, with 35% of respondents switching brands occasionally and 20% doing so often. This indicates a moderately prominent level of brand-switching behaviours, likely influenced by factors such as price, availability, or promotions. Pharmaceutical companies might benefit from loyalty programs and consistent product quality to reduce brand-switching and enhance customer retention.

**Table 15: Influence of Discounts and Offers**

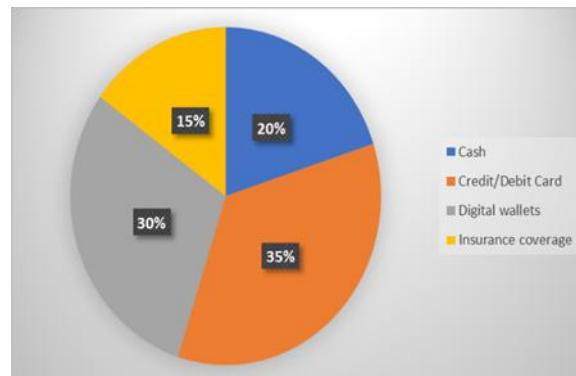
Influence	No. of Responses	Percentage (%)
Strongly agree	30	30%
Agree	40	40%
Neutral	20	20%
Disagree	10	10%
Total	100	100%



**INTERPRETATION:** The majority of respondents (70%) either strongly agree or agree that discounts and offers influence their purchase decisions. This suggests that promotional strategies such as discounts, bundling, and limited time offers could significantly impact sales volumes. However, the 30% of neutral and disagree responses indicate a segment of consumers more focused on factors like quality or brand trust, requiring a balanced marketing approach.

**Table 16: Preferred Payment Method**

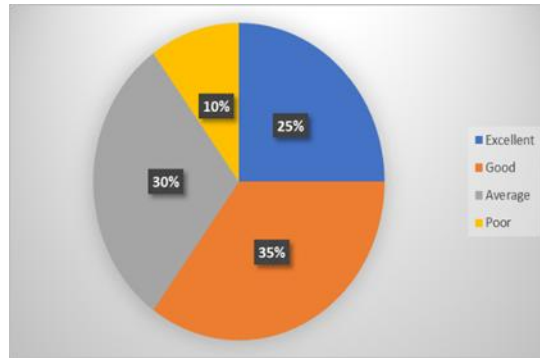
Payment Method	No. of Responses	Percentage (%)
Cash	20	20%
Credit/Debit Card	35	35%
Digital wallets	30	30%
Insurance coverage	15	15%
Total	100	100%



**INTERPRETATION:** Credit/Debit cards (35%) and digital wallets (30%) are the most preferred payment methods, indicating a strong inclination towards cashless transactions. The lower preference for cash (20%) and insurance coverage (15%) suggests an opportunity for pharmaceutical companies to enhance collaborations with digital payment platforms and insurance providers. Offering seamless and secure digital payment options could enhance customer convenience and satisfaction.

**Table 17: Product Availability Perception**

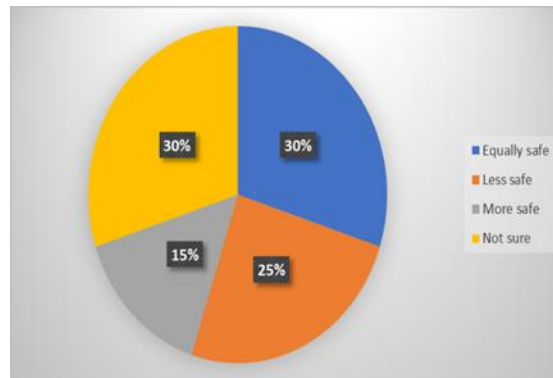
Rating	No. of Responses	Percentage (%)
Excellent	25	25%
Good	35	35%
Average	30	30%
Poor	10	10%
Total	100	100%



**INTERPRETATION:** A majority of respondents perceive product availability positively, with 60% rating it as either excellent or good. This suggests that pharmaceutical companies have managed distribution effectively. However, the 30% rating it as average and 10% as poor highlights areas for improvement, possibly in supply chain management or regional distribution strategies, to ensure consistent product availability.

**Table 18: Perception of Generic Medicines' Safety**

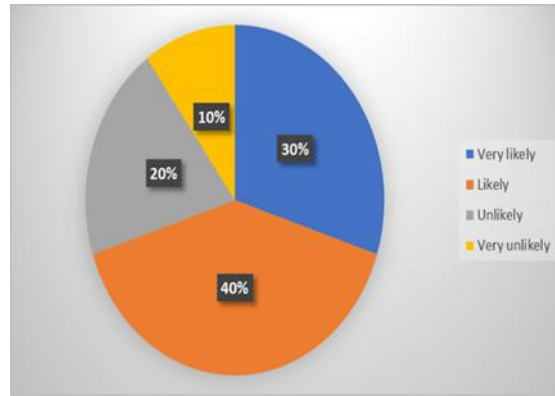
Perception	No. of Responses	Percentage (%)
Equally safe	30	30%
Less safe	25	25%
Safer	15	15%
Not sure	30	30%
Total	100	100%



**INTERPRETATION:** The perception of generic medicines' safety is divided, with 30% considering them equally safe as branded products and another 30% unsure. The 25% perceiving them as less safe indicates a trust deficit that generic manufacturers need to address. Enhanced educational campaigns focusing on regulatory approvals, testing standards, and cost-effectiveness might help improve trust in generics.

**Table 19: Likelihood of Recommending Products**

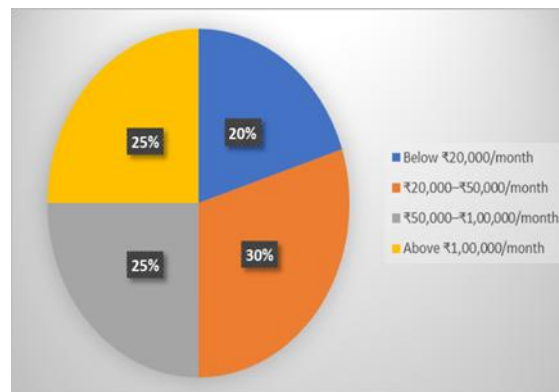
Likelihood	No. of Responses	Percentage (%)
Very likely	30	30%
Likely	40	40%
Unlikely	20	20%
Very unlikely	10	10%
Total	100	100%



**INTERPRETATION:** A substantial 70% of respondents are either likely or very likely to recommend pharmaceutical products, indicating high customer satisfaction and the potential for positive word-of-mouth marketing. The 30% who are unlikely or very unlikely to recommend suggest the need for further investigation into pain points such as product effectiveness, side effects, or service quality. Enhancing customer feedback mechanisms could help in refining marketing strategies.

**Table 20: Income Range**

Income Range	No. of Responses	Percentage (%)
Below ₹20,000/month	20	20%
₹20,000–₹50,000/month	30	30%
₹50,000–₹1,00,000/month	25	25%
Above ₹1,00,000/month	25	25%
Total	100	100%



**INTERPRETATION:** The distribution across income ranges suggests a diverse customer base, with a notable proportion (30%) in the ₹20,000–₹50,000/month bracket. This highlights the importance of mid-priced pharmaceutical products and affordable healthcare solutions. The 25% earning above ₹1,00,000/month present an opportunity for premium product offerings. A segmented pricing strategy based on income levels could enhance market penetration and customer satisfaction.

## Findings

The study revealed a range of key insights into consumer behavior and marketing trends in the pharmaceutical sector. A significant proportion of pharmaceutical consumers fall within the 18–35 age group, indicating that younger adults constitute the primary market. The gender distribution was found to be nearly balanced, suggesting that pharmaceutical marketing strategies should be inclusive and gender-neutral. Purchasing frequency patterns showed that most consumers buy pharmaceutical products either monthly or occasionally, reflecting a consistent and recurring demand. While local pharmacies continue to dominate as the preferred purchasing point, online pharmacies are increasingly gaining traction due to their convenience and accessibility. Doctor recommendations and brand reputation emerged as the most influential factors guiding consumer purchases, followed closely by promotional elements such as discounts, offers, and bundled deals. This indicates a degree of price sensitivity, particularly among mid-income groups. While brand loyalty exists, it is relatively moderate, with a notable portion of consumers willing to switch brands based on factors like price, effectiveness, and availability. Digital media—especially social media and online advertisements—plays a critical role in shaping consumer perceptions,



often more effectively than traditional media. However, endorsements from doctors and word-of-mouth recommendations remain the most credible sources of influence. Prescription medications were found to be the most commonly purchased, followed by over the counter (OTC) medicines and herbal supplements. Consumers ranked product effectiveness and safety above cost considerations, although there remains scepticism around the efficacy of generic medicines. Packaging was identified as a significant factor in consumer trust, with clarity, transparency, and proper labeling being essential components. Though pharmaceutical product availability is generally considered satisfactory, there are still occasional gaps in distribution networks. The shift toward digital payment methods like UPI, credit/debit cards, and mobile wallets is evident, signaling a move away from cash transactions. The growing adoption of e-commerce platforms for pharmaceutical products further reinforces the need for digital transformation in the industry. Consumers in the ₹20,000–₹50,000 monthly income range constitute a major segment of the market, underlining the importance of affordability. At the same time, high-income groups (earning above ₹1,00,000 per month) represent a valuable opportunity for companies to market premium, specialized pharmaceutical products. Overall, the study finds that consumers are generally satisfied with the available pharmaceutical options and are likely to recommend products they trust.

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## Recommendations

In light of the findings, several actionable recommendations can be proposed for pharmaceutical companies to enhance their market positioning and consumer engagement:

- **Digital Engagement:** *Invest significantly in social media campaigns, influencer partnerships, and online advertisements to boost brand visibility, especially among younger consumers.*
- **Healthcare Influencer Marketing:** *Leverage the credibility of healthcare professionals by encouraging them to act as brand ambassadors. Provide them with accurate and detailed product education materials.*
- **Consumer Education:** *Launch targeted awareness initiatives to educate consumers about the safety and effectiveness of generic medicines. Comparative data and success stories can help reduce skepticism.*
- **Product Affordability:** *Introduce tiered pricing strategies to cater to diverse income segments. Offer bundled packs and seasonal discounts to attract price-sensitive customers.*
- **Loyalty Programs:** *Implement customer retention strategies such as loyalty rewards, referral bonuses, and exclusive offers to promote repeat purchases.*
- **Online Distribution:** *Strengthen partnerships with online pharmacies and enhance e-commerce capabilities to meet the growing demand for digital access to medicines.*
- **Supply Chain Optimization:** *Improve supply chain systems to ensure product availability and reduce stock-outs, particularly in high-demand regions.*
- **Packaging Improvement:** *Enhance packaging to ensure clarity, safety, and eco-friendliness. Clear instructions and regulatory labeling help build trust among consumers.*
- **Secure Payment Systems:** *Incorporate reliable, user-friendly digital payment options. Promote cashless transactions through incentives like cashback or discounts.*
- **Personalized Marketing:** *Use data analytics to segment the market based on age, income, and buying behavior. Offer personalized recommendations based on past purchasing patterns.*
- **Feedback Mechanism:** *Establish systems to gather and analyze consumer feedback regularly to improve product offerings and service quality.*

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## Conclusion

The research underscores the importance of well-structured and consumer-centric marketing strategies in the pharmaceutical industry. With the market increasingly shaped by younger consumers, digital platforms, and informed decision-making, pharmaceutical companies must adapt by embracing digital transformation, refining branding strategies, and enhancing consumer trust. While traditional factors such as doctor endorsements and brand reputation remain critical, the rise of digital marketing and online pharmacies has created new avenues for growth. Moderate brand loyalty and high price sensitivity highlight the need for competitive pricing, compelling promotions, and effective consumer education—particularly in promoting the value of generic medicines. Transparent packaging, reliable distribution networks, and responsive customer service further reinforce brand credibility. Additionally, income-based segmentation and personalized engagement can help target both mid-range and premium customers more effectively. Ultimately, by aligning marketing strategies with consumer preferences and behavioural trends, pharmaceutical companies can achieve stronger market penetration, enhance consumer satisfaction, and maintain a competitive edge in a rapidly evolving healthcare landscape.

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