

Pharmaceutical Export Growth from India: The Impact of International Marketing Strategies and Branding

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Abstract

This article presents an in-depth examination of the Indian pharmaceutical sector, focusing on its global standing, export performance, and strategic pathways for sustained growth. Widely recognized as the “Pharmacy of the World,” India ranks among the top suppliers of generic medicines and vaccines, with exports amounting to US\$30.38 billion in FY 2024-25. A review of existing literature and market trends highlights that, despite its strong position, the industry continues to grapple with major challenges such as stiff international competition and complex regulatory frameworks. The study finds relation between research and development (R&D) intensity and export outcomes; however, Indian companies allocate considerably less to R&D than their global peers. To overcome these barriers the article emphasizes the need for comprehensive export strategies covering detailed market research, collaborative partnerships, and targeted brand positioning across specific therapeutic segments. Government initiatives like the PLI and SPI schemes remain critical for boosting infrastructure and advancing domestic manufacturing. The analysis concludes that India’s growth prospects lie in leveraging the “patent cliff” and diversifying into emerging fields such as biosimilars and gene therapies, while simultaneously ensuring greater public funding, regulatory simplification, and stronger R&D investments to reinforce its leadership in the global pharmaceutical market.

Key Words: - Pharmaceutical Marketing, Pharmaceutical Export, Marketing Strategies, Branding

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Introduction

The Indian pharmaceutical sector commands substantial share of international market. It stands as the major supplier of generic medications worldwide and is positioned third (3rd) in terms of production volume and fourteenth (14th) in terms of value (Palanisingham et al., 2022). Indian pharmaceutical industry drug and pharmaceutical exports reached a remarkable US\$30.38 billion in FY 2024-25, reflecting a robust growth of 9.20% from the previous fiscal year, which recorded US\$27.82 billion. India accounts for 20% of global exports in generic medications, and the Indian pharmaceutical market is anticipated to ascend to US\$130 billion by 2030 and an impressive US\$450 billion by 2047. The Indian pharmaceutical sector contributes a notable 1.72% to the nation's Gross Domestic Product (GDP) (India Brand Equity Foundation, 2025)

India's pharmaceutical exports are classified into four principal segments: Generic Formulations, which constitute 70% of total exports and comprise medications for both chronic and acute therapies; Active Pharmaceutical Ingredients (APIs), which are exported worldwide for utilization in drug manufacturing; Over-the-Counter (OTC) products and Nutraceuticals, both of which are experiencing an upsurge in demand across the United States, European Union, and Middle East; and Vaccines and Biologics, where India stands as global supplier with 60% of world export (Brickwork Ratings, 2024)

India's pharmaceutical sector stands as a major force on the global stage, particularly in the domain of generic medications, boasting a substantial export value. Nevertheless, the industry grapples with formidable challenges, including fierce competition and intricate regulatory frameworks, which necessitate the formulation of effective export strategies to sustain and enhance its international standing.

(Dun & Bradstreet India) Effective pharmaceutical export strategies necessitate a multifaceted approach: first, comprehending the global marketplace through comprehensive analysis of demographics, prevalent diseases, and regulatory frameworks to unearth potential opportunities; second, devising bespoke, culturally attuned marketing initiatives meticulously tailored to resonate with the target demographic; third, upholding rigorous adherence to a diverse array of regulatory compliance to assure product integrity and foster trust; fourth, procuring requisite certifications and licenses while simultaneously forging strategic alliances with local distributors; fifth, safeguarding intellectual property through patents and trademarks

to preclude unauthorized utilization; sixth, harnessing the power of digital marketing to engage a worldwide audience and gather data-driven insights; and ultimately, investing in research and development to propel innovation and align offerings with the ever-evolving global healthcare landscape.

(Nandy, 2023) it suggests relationship between R&D intensity and export performance within the Indian pharmaceutical sector, while concurrently juxtaposing Indian enterprises with their global counterparts. The methodology entailed the meticulous collection of data pertaining to R&D intensity, export figures, and patent filings spanning the years 2000 to 2019. The findings elucidate a positive correlation between R&D intensity and exports; however, a marked increase in both metrics was not discerned between 2012 and 2019. Furthermore, the study reveals that established Indian pharmaceutical firms exhibit a diminished R&D intensity, and that Indian companies, in aggregate, allocate significantly less to R&D compared to their international peers. From 2012 to 2019, India's pharmaceutical exports averaged an impressive \$14.9 billion, accompanied by an annual growth rate of 7.5%, whereas the mean R&D expenditure for Indian companies constituted a mere 7.3% of their annual sales.

Review of Literature

(Palanisingh et al., 2022) undertake a comprehensive analysis of India's pharmaceutical exports categorized by product, region, and country. The methodology employs secondary data alongside Analysis of Variance (ANOVA) for rigorous analysis and interpretation. The findings reveal a statistically significant disparity across all three categories: Drug Formulations and Biological Products emerge as the front runners in product exports, North America stands as the predominant regional export destination with a Compound Annual Growth Rate (CAGR) of 9.38%, and the United States is identified as the foremost single-country destination.

(Zamani et al., 2025) conduct a comprehensive analysis of the global trade in medicinal and aromatic plants (MAPs) from 2010 to 2023. The principal findings reveal that global export and import values for MAPs surged by approximately 98% during the specified period. China and India emerge as the foremost exporters, with India's exports experiencing a remarkable increase of 240%. The United States, Germany, and Japan stand out as the principal importers.

(Drug Patent Watch, 2025) India stands as a global pharmaceutical hub, having a trade surplus exceeding \$24 billion, thereby establishing itself as a pivotal manufacturing alternative to China through its high-volume, cost-effective production of superior generics. The nation supplies 40% of the generic medications in the United States and accounts for one in five generic drugs worldwide. Projections indicate that India's pharmaceutical exports, anticipated to more than double from \$27 billion in 2023 to \$65 billion by 2030, which further increase by its leadership in the rapidly expanding biosimilars sector.

(Harsha et al., 2023) study suggests fundamental principles of pharmaceutical marketing, critically assess its materials, and concentrate on facets such as consumer attitudes and sustainable marketing practices. The methodology employed is a comprehensive review article that synthesizes extant literature from scholars and industry executives, categorizing the findings into four distinct dimensions: prevailing strategies, consumer perceptions, a proposed sustainable marketing framework, and strategies for implementation. The conclusion suggest that pharmaceutical marketing constitutes a distinctive domain with challenges and opportunities, asserting that foundational marketing principles, sustainable practices, and technological innovation can empower companies to navigate competition and globalization. It further underscores the trans-formative role of intermediaries, evolving from passive observers to active collaborators, and concludes that proficient marketing is paramount to seize market opportunities and articulate its business strategy.

(Kumar, 2013) this study is to delve into the diverse typologies of pharmaceutical brand positioning, grounded in a conceptual understanding of the various definitions and practices that underpin this field. The methodology adopted is an exploratory study, This was executed through a comprehensive literature review encompassing an array of case studies and prior research, aimed at elucidating the correlation between brand positioning and financial performance. The initial findings, encapsulated as a synthesis of the literature, reveal that pharmaceutical companies predominantly concentrate on condition positioning as a principal brand typology. The study suggests that this comprehension can empower marketers to more effectively orchestrate initiatives that address patient needs and advocate for medications tailored to specific conditions.

(Patel, 2025) elucidates that international pharmaceutical corporations are instigating transformative shifts in marketing strategies within India. The research underscores that entities prioritizing innovative advancements are experiencing substantial growth, whereas those neglecting innovation are finding it increasingly challenging to compete. The study ultimately asserts that an effective marketing strategy is imperative for pharmaceutical firms to navigate the fierce competition posed by both domestic and global rivals

(Kumar & James, 2021) India is renowned as the "Pharmacy of the World" for its provision of affordable generic medications, including an impressive 80% of the global supply of anti-retroviral drugs for AIDS. The nation occupies a pivotal position in the global landscape, ranking third in volume. Furthermore, India satisfies over 50% of the world's vaccine demand, 40% of the generic drug requirements in the United States, and 25% of all medicinal imports into the United Kingdom. The report also highlights India's competitive pricing strategy, as its share of global formulation exports stands at 5.1% by volume, yet only 2.8% by value, underscoring its low-cost approach.

(Sarwal et al., 2025) author analyze the trade dynamics of goods and services in India, with the intent of uncovering avenues for the enhancement of wellness service exports, capitalizing on the nation's rich heritage in traditional medicine, particularly AYUSH. The methodology employed involves a comprehensive review and analysis of longitudinal trade data pertaining to both goods and services in India, meticulously sourced from the UNCTAD database. The findings explain that, despite constituting a modest 3% of global trade, India boasts a services trade surplus amounting to \$91 billion, with services exports escalating from 23% to 44% of total exports between 1991 and 2023. The study identifies the healthcare and wellness sector, with a specific emphasis on AYUSH, as a highly promising domain for expansion, highlighting that the global market is valued at over \$4.5 trillion and India's sector is anticipated to experience a remarkable growth rate of 18% CAGR. The paper concludes that robust government initiatives are imperative to seize this significant opportunity.

(Shrinivasan et al., 2025) The government ought to amplify its endeavors to elevate the global stature of the Indian pharmaceutical industry by actively participating in prestigious international events such as CPHI and orchestrating domestic exhibitions like iPHEX. This strategic positioning will reinforce India's reputation as the "Pharmacy of the World," fostering

the establishment of global partnerships and advocating for the reduction of regulatory impediments. Moreover, it is imperative to establish dedicated pharmaceutical export cells, comprising representatives from the Department of Pharmaceuticals, within Indian embassies to facilitate enhanced access to crucial global markets. The Indian government should champion collaboration among the pharmaceutical sector, premier academic institutions, biotechnology firms, and incubators to catalyze innovation. The government should expedite the development of talent by offering skilling subsidies, financing fundamental sciences, and liberalizing regulations to entice global universities and foreign-educated researchers to return to India.

(India Brand Equity Foundation, 2025) Strengthening of Pharmaceutical Industry (SPI) scheme: This scheme has a financial outlay of US\$ 64.5 million to strengthen existing infrastructure facilities. Production Linked Incentive (PLI) schemes: These schemes support the domestic manufacturing of 41 critical pharmaceutical ingredients with an outlay of US\$ 834 million until 2029-30. They are also in place for medical devices and bulk drug parks to encourage manufacturers, and are expected to generate incremental sales of US\$ 37.09 billion over six years (FY23-FY28). Pharmaceutical Promotion and Development Scheme (PPDS): Introduced in 2017, this scheme provides financial support for events like seminars, conferences, and exhibitions to promote the industry. Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS): This scheme helps Small and Medium-sized Enterprises (SMEs) achieve WHO-GMP norms to become more globally competitive. Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP): Originally launched in 2008 as the “Jan Aushadhi Scheme,” its objective is to provide quality, affordable generic medicines to all.

(Dubois & Majewska, 2025) how price and advertising strategies change when pharmaceutical companies merge in the U.S. market. The methodology uses a structural model of supply and demand, with a case study of the Pfizer-Wyeth merger in the antimicrobial drug market, and a reduced-form analysis across all drug classes. The findings show that while mergers increase prices, they also lead to a decrease in advertising spending. This reduction in advertising spending lowers the overall merger effect on prices and accounts for approximately 30% of the merged firm's profit increase, suggesting that competition policy should consider promotional strategies in addition to price competition.

(Meegle) Foreign market entry for pharmaceutical companies is a strategic move to diversify revenue streams, reduce domestic market dependence, and access larger patient populations. While it requires meticulous planning and investment, it is not just for large corporations, as even small and medium-sized enterprises (SMEs) can succeed with the right strategy. Overcoming challenges involves thorough market research, identifying target audiences, leveraging technology, and building strong local partnerships to navigate complex regulatory and cultural environments.

Findings and Discussion

The Indian pharmaceutical industry is a significant global player, ranking third by volume and fourteenth by value. It is the world's largest supplier of generic drugs, accounting for 20% of global exports in this category, and fulfills over 50% of the world's vaccine demand. The sector's exports reached US\$30.38 billion in FY 2024–25 and are projected to grow to US\$130 billion by 2030 and US\$450 billion by 2047. Key export segments include Generic Formulations (70% of exports), Active Pharmaceutical Ingredients (APIs), OTC products, and Vaccines.

Key Findings and Inferences

Competition and Strategy: International pharmaceutical companies are driving changes in marketing strategies in India, and a good marketing strategy is essential for domestic firms to compete. The industry faces challenges from fierce competition and complex regulatory frameworks, necessitating the development of effective export strategies.

R&D and Exports: A positive correlation exists between R&D intensity and exports in the Indian pharmaceutical industry, but R&D spending is significantly lower compared to global counterparts.

Government Initiatives: The government has launched several schemes to bolster the industry, including the Strengthening of Pharmaceutical Industry (SPI) scheme to upgrade infrastructure, Production Linked Incentive (PLI) schemes to promote domestic manufacturing of critical ingredients, and the Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS) to help SMEs meet global quality norms. There is a need for higher government allocation for healthcare, streamlined investment regulations, and stronger domestic supply chains for APIs.

Future Opportunities: The industry has numerous opportunities, including increasing domestic demand due to the universalization of healthcare, expansion into new product classes like biosimilars and gene therapies, leveraging new technologies, and capitalizing on the expiration of drug patents (the patent cliff). The AYUSH sector also presents a significant export opportunity, with the global wellness market valued at over \$4.5 trillion.

International Presence: The government should actively promote the "Pharmacy of the World" brand through participation in international events and establishing dedicated export cells in embassies abroad.

Merger Effects: Mergers in the U.S. pharmaceutical market, as shown in the Pfizer-Wyeth case study, lead to increased prices but a decrease in advertising spending. This decrease in advertising partially mitigates the overall price effect.

Market Entry Strategy: For foreign market entry, companies should diversify revenue streams, conduct thorough market research, and build strong local partnerships to navigate regulatory and cultural environments.

Opportunities and Challenges

(Kumar & James, 2021) The Indian pharmaceutical sector presents a plethora of opportunities, notably the surging demand for pharmaceuticals catalyzed by the universalize of healthcare and various government initiatives. Furthermore, there exists considerable potential in emerging product categories such as biosimilars, gene therapy, and specialty medications, in addition to harnessing cutting-edge technologies like artificial intelligence and cloud computing for drug discovery. The nation's expansive and cost-effective skilled workforce confers a distinct competitive advantage. A significant prospect lies in the "patent cliff," wherein the expiration of patents on branded medications with cumulative sales exceeding \$251 billion will facilitate the entry of Indian generics into these lucrative markets.

The Indian pharmaceutical industry needed several measures: an augmented fiscal allocation for healthcare from the government, alongside initiatives to expand the public healthcare system and bolster health insurance coverage. Additionally, it is imperative to streamline investment regulations, enhance the ease of conducting business, and establish resilient domestic supply chains for Active Pharmaceutical Ingredients (APIs). Furthermore, a substantial enhancement of public and private research and development funding is essential, coupled with technological advancements, particularly for Micro, Small, and Medium Enterprises (MSMEs), and a

concentrated effort to elevate quality standards to international benchmarks. The industry and government should also collaborate on public awareness and public relations campaigns internationally to reshape perceptions of Indian products and engage in health diplomacy to facilitate regulatory adjustments for developing nations. Specialized funding for MSMEs and private API startups is likewise advocated to foster growth.

Conclusion and Recommendations

The Indian pharmaceutical sector is a global powerhouse, maintaining a commanding position in the worldwide generic and vaccine markets. With exports exceeding US\$30 billion, the industry is on a steady growth path, supported by its large-scale, cost-effective production model. However, it confronts major challenges, including intense competition, complicated regulatory environments, and a significant gap in R&D investment when compared with international peers. To navigate these obstacles and achieve its ambitious expansion goals, the industry must follow a multi-dimensional strategy. This includes boosting R&D expenditure, utilizing government programs such as PLI and SPI, and adopting advanced, data-oriented marketing and brand-positioning techniques. Promising prospects exist in emerging domains like biosimilars, gene therapies, wellness, and AYUSH. Furthermore, the expiry of critical drug patents offers a major opportunity for Indian generics to broaden their global reach. In the long run, sustained dominance will demand joint efforts by both the government and the industry to promote innovation, simplify regulatory systems, strengthen domestic supply networks, and firmly establish India as the “Pharmacy of the World,” as well as a true pharmaceutical powerhouse by 2047 in alignment with the Viksit Bharat Vision.

Future Research

Impact Analysis of Government Schemes: A quantitative and qualitative study could assess the long-term effectiveness and economic impact of government initiatives such as the Production Linked Incentive (PLI) and Strengthening of Pharmaceutical Industry (SPI) schemes on export growth, R&D investment, and quality standards.

R&D Investment and Export Correlation: While a positive correlation has been identified, a more recent analysis, incorporating data from 2020 onward, is needed to understand how the relationship between R&D intensity and exports has evolved, especially in light of the COVID-19 pandemic and recent technological advancements.

Regional Market Strategies: A deep-dive case study focusing on the distinct strategic approaches required for different export markets (e.g., North America vs. Africa or the Middle East) could provide actionable insights for companies looking to diversify their export

destinations. This research could analyze regulatory differences, marketing strategies, and distribution channels.

The Rise of AYUSH and Wellness: An exploratory study could examine the potential of India's traditional medicine and wellness sector (AYUSH) for global export. Research could focus on consumer perceptions, market entry barriers, and the regulatory pathways required to establish these products in key international markets.

Digital Marketing and Brand Positioning: An investigation into the effectiveness of digital marketing and culturally attuned branding strategies for Indian pharmaceutical exports could provide valuable insights. This research could analyze how companies can leverage technology to build brand trust and navigate competition in a globalized market.

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