# **Original Research Paper**



# Pharma

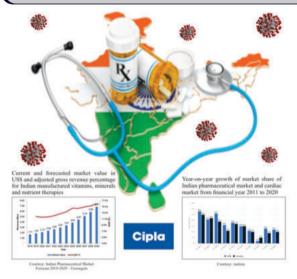
ALTERING LANDSCAPES IN THE PHARMA WORLD AN ANALYSIS OF THE PANDEMIC-INDUCED CHANGES IN THE PHARMACEUTICAL INDUSTRY, ALONG WITH A CASE STUDY ON THE GROWTH TRENDS OF 'CIPLA' - A LEADING INDIAN-BASED MULTINATIONAL PHARMA BRAND

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ABSTRACT Interning at the marketing team of Emcure Pharmaceuticals Ltd. Pune, India, in June 2022, I researched on changing trends in the global pharma sector due to the ongoing pandemic. While individual pharma firms navigated several of these amendments, some alterations were steered industry-wide and exterior aspects, including public and government involvement, also influenced the shaping of the new normal healing situation, which are discussed here. Further, this white paper analyzes the current and future trends of the Indian pharmaceutical world including - the market value of the sector, pharma exports and imports from which nations, the advantages faced by this industry and the investments in research and development within this sector as a percentage of pharmaceutical sales. This report talks about the establishment of Cipla; the brand's core values; its robust progress in India as well as in its prime international markets of North America and South Africa in terms of - branded prescriptions, trade generics and consumer wellness, digital leap and revenue enhancement. It concludes with information on the pandemic-centric new operating models leapfrogging the pharma world, the fresh technological skills adopted by the industry to enhance future growth and the rethinking of strategies for progress.

# **KEYWORDS:**



### PREFACE

The covid-19 pandemic is a medical emergency and for the pharmaceutical industry to assist to manage this situation is fundamentally crucial. Leading players in the pharma sector mobilized to facilitate the supply of crucial drugs across national boundaries, administered workforce health protection managed evolving government constraints, while commencing to formulate new vaccines and therapeutics. Also, a majority of pharmaceutical firms established crisis-response command centers to suitably administer healthcare catastrophes, anticipated future human pharma requirements, developed resilience to boost medical needs and turned their attention to recovery and the next new normal scenario. This brought about essential modifications in pharmaceutical functioning and network systems.

While individual pharma firms navigated several of these amendments, some alterations were steered industry-wide and exterior aspects, including public and government involvement, also influenced the shaping of the post-pandemic healing as demonstrated in figure 1. For example, at the industry level, network techniques have matured and landed expenses are no longer the pivotal metric as the emphasis shifts to the expenditure implications of area risk. As the covid-19 era persists, the pharma supply chains can face substantial risk when there is overdependence on an area that may be susceptible to disruption. Also, developing risk mitigation strategies involving changing output generation locations, so that manufacturing is in proximity to end markets or in lower-risk nations that are subjected to limited disruptions, are the current routine considerations. Pharma supply chains are evolving to be more patient-centric due to the raised adoption of fresh digital technologies, telehealth and emerging appbased ecosystems.



Courtesy: Pharma operations: The path to recovery and the next normal, McKinsey & Company

Figure1: Amendment strategies adopted by individual firms, industries and governments to survive the pandemic

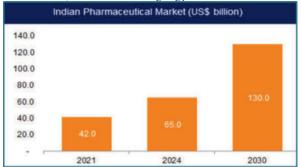
As a consequence of the pandemic, the severe emphasis on risk administration across systems and supply chains continues, despite the unavoidable raised costs. At the individual firm level, corporations concentrate on functional stability and expediting drives that facilitate greater flexibility comprising workforce skillfulness as workforces evolve to be more distant and distributed—and translucency via the tremendous deployment of digital and analytics instruments and mechanization. Also, industry and government considerations are likely to develop during the recovery process and each of these modifications at every level will have crucial implications for pharma operations.

# Current And Future Trends Of The Indian Pharma

Over the last twenty years, the Indian pharmaceutical industry has developed immensely, ridden by its strength in the expansion of the worldwide generic space to the magnitude of being bestowed the prestige of becoming the pharmacy of the world. The Indian drug industry ranks third internationally in terms of production by quantity and caters to 20% of the worldwide demand in the generic market in terms of volume. With a robust system of 3,000 pharma firms and nearly 10,500 manufacturing units spread across the nation, India delivers an extraordinary competitive benefit in the international pharma industry. Refer to figure 2 which demonstrate the market size of the Indian pharmaceutical industry at US\$ 42 billion in 2021 and its anticipated growth in the next few years.

The Indian pharma market was the 11th biggest drug market globally in value in 2017. It is anticipated to have the second highest CAGR growth and expansion among all nations till 2023 and enhance its position to achieve the 9th rank in the international drugs market. The Indian pharma industry is anticipated to swell in the forthcoming years due to the following reasons - aging and expanding population (greater than 6% of the Indian community is above 65 years of age), increasing revenue levels, rising healthcare awareness concerns and access to

quality medical facilities, surging medical needs and the emergence of recent diseases, infections and the ongoing pandemic.



Courtesy: Pharmaceutical Companies in India, Indian Pharma Industry-IRFF

Figure 2: Market Value Of The Indian Pharma Sector

The United States of America, South Africa, United Kingdom, Nigeria, Russia, Brazil, Australia, Kenya, Nepal and Philippines were the prime ten nations importing Indian pharmaceuticals and account for 56.68% of the total export revenues earned by the Indian pharma industry in 2018. The United States of America, Germany, Switzerland, China, France, Denmark, Belgium, Italy, Brazil and Indonesia were the prime ten nations exporting pharmaceutical products to the Indian market and accounted for 71.77% of the total imports by the Indian pharma market in 2018. For the Indian pharmaceutical industry to rise further in the international pharma order, it requires focus on constructing a facilitative environment for stimulating domestic manufacturing and exports and boost innovation via a heightened research and development thrust.

The 10 key players in the Indian pharma market are namely the following - Abbott India Limited, Aurobindo Pharma Limited, Biocon Limited, Cipla Limited, Divis Laboratories Limited, Dr. Reddy's Laboratories, IPCA Laboratories Limited, Lupin Limited, Sun Pharmaceuticals Limited and Torrent Pharmaceuticals Limited. Refer to figure 3 which explains these facts in detail.



Courtesy: India Pharmaceuticals Industry Analysis and Trends 2023 | NAVADHI Market Research

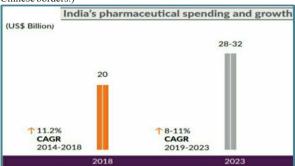
**Figure 3:** Indian pharma export and import markets and the leading Indian pharmaceutical brands

Also, the current pandemic has expedited the Indian pharmaceutical industry's re-imagination drive and the industry indicated an outstanding partnership across the globe and stood in solidarity with global pharmaceutical firms to diminish the threat to human life. The Indian pharma industry adopted a technology-driven strategy and harnessed data to open fresh expansion opportunities and imbibed pivotal lessons.

With its unique abilities in healthcare product development, manufacturing efficiency trends and a powerful distribution network, today, India's pharma exports are employed in 206 nations worldwide and in FY 21 the pharma exports were valued at US\$ 24.44 billion. Refer to figure 4 for further details. However, for India to build an international authority in the pharmaceutical industry it will require sometime.

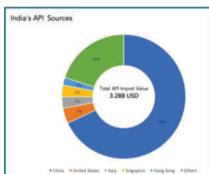
The shifting landscape of the Indian pharmaceutical industry has experienced the following trends:

- 1. India's domestic pharma market has observed a YoY growth of 9.8% and there is a change from being importers to exporters of quality medications. This has been feasible by deploying endeavors that bolstered the quality administration systems and entrenched a tradition of quality maintenance within the industry.
- 2. Also, pharma firms are striving for fresher avenues for expansion and growth biologics, therapeutic medication advancement and digital tools, but the Indian pharmaceutical industry is still lagging in incremental innovation, expansion of new molecular entities and active pharmaceutical ingredient (API) research and development. (Refer to figure 5 which indicates the value of API imports from various nations in 2020. A majority of these imports were from China, which were severely impacted due to the pandemic and sealing of the Chinese borders.)



Courtesy: Pharmaceutical Industry in India 2022 | Pharma Sector - IndianCompanies.in

Figure 4: Indian Export Pharma Industry's Spending And Growth Trends



Courtesy: CII, Ministry of Commerce and Industry, GOI

Figure 5: Import sources of API

India has a few high-quality academic establishments; yet it is not a scientific or research power. For our nation to be fully triumphant as an international scientific and intellectual force, it requires research institutes and industry-oriented study priority, along with satisfactory government policy and infrastructure to pilot the commercialization of the research. In this report, we will highlight these points. Refer to figure 6 which indicates the advantages which the Indian pharmaceutical industry can avail.



Courtesy: Pharmaceutical Companies in India, Indian Pharma Industry-IBEF

Figure 6: The advantages the Indian pharma industry can benefit from

The Indian government has been contributing to enable a suitable habitat by launching prominent endeavors to stimulate indigenous manufacturing of API and formulations, output generation associated with incentive programs to stimulate production of vital API/key commencing equipment, promotion of generic medicines by the 'Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana'. These interventions are a step forward in the favorable path and their rapid and beneficial execution will assist in building competitiveness of the Indian pharmaceutical industry.

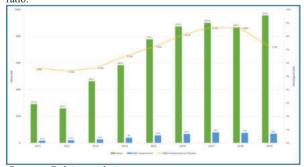
Indians on an average spend 64.21% of their healthcare expenditure out-of-pocket of which pharmaceuticals account for 51.67%. Also, in 2028, the Indian government launched the world's biggest public healthcare proposal 'Ayushman Bharat Yojana' or 'Pradhan Mantri Jan Arogya Yojana' under the National Health Protection Scheme (NHPS) which intends to deliver free healthcare coverage of up to INR 0.5 million to around 100 million people. Under the sponsorship of the 'Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana' the Indian government has established 'Jan Aushadhi Kendra' (drugstores) which deliver quality medications at affordable prices.

These public contributions are anticipated to boost the access of drugs to a greater number of individuals in the world's second most populous nation. The government has also provided for free vaccines and drugs to prevent the spread of the pandemic. Opening the future development pillars within this industry, there is no ingrained absence of skills and workforce, but the absence of a reliable pricing and policy restricts the advancement of the industry. Hence, all the stakeholders pertaining to the sector must help to work collaboratively to develop a strategy to manufacture economically feasible healthcare and pharmaceutical products which are supported by proper clinical examinations and regulatory requirements.

Globally, the pandemic has intensified the necessity for all nations to develop a powerful manufacturing and marketing base of pharmaceutical products and its economical price structure. Indian pharma firms presently have remarkable chances to partner with international pharmaceutical players across multiple facets - from contract production and licensing agreements to franchising and joint venture openings. Today's digitalization tool is resulting in a major transformation in India's healthcare ecosystem, bringing about functional efficiencies, managing supplies through online platforms and stimulating more meaningful engagements with stakeholders.

The unfolding of the consumerization tale post the pandemic in India has demonstrated a paradigm transition in attitude from illness to wellness and self-care among patients. Drug manufacturing businesses are required to play a substantial function in this curative-behavioral transition by equipping patients with the right set of equipment, devices and therapy alternatives to steer their steadfastness mission.

In the patient funnel, diagnostics is another crucial sector the pharma industry requires to prioritize. Building therapies around the care continuum from simple and timely diagnostics to effective healing, treatment and monitoring should be focused on. Also, financing and propelling innovative techniques, to give rise to fresher and bigger openings for healthcare maintenance should be motivated at all levels. Refer to figure 7 which shows the pharma sales and R & D investments as a percentage of sales in the Indian pharmaceuticals industry, which depicts a corresponding reduction in the R & D investment to sales ratio.



Courtesy: Deloitte analysis

Figure 7: Pharma sales, R & D and R & D investments as a percentage of sales in the Indian pharmaceuticals industry

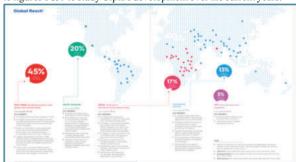
The pharmaceutical industry that has the patient at the center of 'care' can enhance access to healthcare with the usage of augmented/virtual reality, advanced analytics, robotics and big data automation. Touchless pharma manufacturing units are paving the way for future-fit companies with a diminished scope for errors, enhanced outputs and reduced timelines.

Our nation must also improve its momentum on formulating new and improved medication, biologics, medical devices, diagnostics, and vaccines. This will contribute further stimulus to the quality, accessibility and affordability of pharmaceutical products through invention and rigid regulatory management. There is a sharp necessity to build collaborative synergy between academia, business, exploration laboratories and regulators along with a facilitative program structure to enable innovations. Through such collective actions India will be in a good position to provide high-quality pharmaceuticals globally.

Case Study: Cipla The Worldwide Leading Pharmaceutical Firm - "Care To Cure"

#### **Establishment Of The Brand**

Cipla, a leading Indian pharmaceutical manufacturing multinational business institution, has been established with a primary purpose of caring for life. It is spread in more than 80 nations providing over 1,500 medical products across numerous therapeutic and healing classifications in more than 50 dosage forms, ensuring quality healthcare is available at affordable prices globally. Supporting patients for the last 80 years, Cipla is a highly trusted pharmaceutical brand amongst the medical fraternity. In recent years, Cipla is exacerbating its existence in the major markets of India, South Africa and the U.S. among additional economies of the emerging globe. Refer to figures 8 & 9 to study Cipla's development over the current years.



Courtesy: Cipla Annual-Report-2021-22

Figure 8: Cipla's growth and expansion over the years



Courtesy: JP Morgan Healthcare Conference, 2022 **Figure 9:** Spread of Cipla across the globe

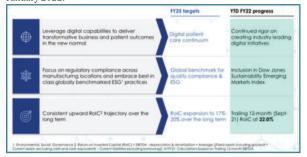
Expanding lung leadenhip globally and maximising value opportunity in US complex genefics

| Expanding lung leadenhip globally and maximising value opportunity in US complex genefics | Incremental apportunity in add \$2,000.00 \$3,000.00

Courtesy: JP Morgan Healthcare Conference, 2022

Figure 10: In FY22 Cipla achieved robust progress on their strategic emphases for FY25 (1/2)

Established in 1935, Cipla has revamped into a renowned pharmaceutical firm with a powerful branded and unbranded generic market franchise, backed with extensive research and development abilities and a robust performance capacity. During the covid-19 pandemic, the organization has developed ingenious respiratory drugdevice assortments, sophisticated formulations and broad-spectrum capacities in injectable, oral solids and inhalation technology. Figure Skating 10 & 11 depict the strategic accomplishments of Cipla up to January 2022.



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 11: In FY22 Cipla achieved robust progress on their strategic emphases for FY25 (2/2)

#### Core Values And Basic Principles Of The Firm

Figure 12 depicts the core values and basic principles of the firm. These involve commitment to betterment of human healthcare and sustainable growth techniques.



Courtesy: Cipla Annual-Report-2021-22

Figure 12: Core values of Cipla

#### **Growth In India And Prime Overseas Markets**

Over the years this pharmaceutical brand has built dominant consumer confidence in India, with persistent rigor on portfolio performance and its monetary generation enterprises have enhanced the firm's financial metrics over the last few years, which are portrayed in figure 13.



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 13: Growth and expansion of Cipla from FY17-FY21

In India, Cipla's policy resumes observing seamless performance indicating large-scale expansion and renewed acceleration, which is demonstrated in figure 14. It is labeled as India's third largest pharmaceutical brand harnessing profitable growth opportunities. Under the 'One-India' strategy, Cipla's branded prescription enterprise is moving upwards to a US\$ 1 billion, franchise business and market generics are broadening classifications and heightening relationships.



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 14: Expansion of Cipla in India in terms of branded prescriptions, trade generics, consumer wellness and revenue growth

Cipla's medical philosophy has formulated the triple antiretroviral therapy to cure HIV/AIDS, priced at less than a dollar a day in Africa in 2001. For this accomplishment the firm has been recognized globally for contributing to the inclusiveness and accessibility and affordability of HIV campaigns. As a credible corporate business foundation, Cipla's humanitarian strategy to healthcare is to attain its objective of caring for life and extensive community links, making it a supporter for worldwide health administrative organizations and stakeholders. Cipla's worldwide customer healthcare franchise is trailing in line with FY25 aspirations of 10% of income stake, which is explained in figure 15.



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 15: Comparison of growth of Cipla in India vs. South Africa, the focus categories of drugs and the share of consumer business



Courtesy: JP Morgan Healthcare Conference, 2022

**Figure 16:** Cipla gear-up their organic imprint through concentrated DTMs (direct to markets) and recent horizon markets with portfolio and skills

Guided by the firm's philosophy of, "Care to cure", Cipla following the humanitarian policy has been at the vanguard in combating diseases be it HIV/AIDS, Bird-Flu, Swine-Flu and now the Covid-19 pandemic. Cipla is well established to evolve into a 'pioneer', constructing India's healthcare industry. The firm concentrates on developing ingenious, digitally-driven healthcare treatments, equipped with intense patient understandings, scientific proficiency and a legacy of caring.

Cipla's accomplishment in FY 2021-22:

- The second-largest inhaler selling firm worldwide
- In India, Cipla is a leader in respiratory treatment and the brand is recognized as an international lung authority among the healthcare
- Six of Cipla branded pharmaceuticals were headlined in the top 10 respiratory names in India
- The brand has launched multiple respiratory products in Spain and entered markets in Saudi Arabia, Mexico and China, refer to figure 16
- Cipla pioneered "Berok Zindagi", a patient-focused digital program which creates awareness of medical care related to asthma and the use of inhalers and this platform has garnered more than a 25 crore audience, refer to figure 17 for further details



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 17: Cipla's developing consumer insights, digital platforms and media campaigns

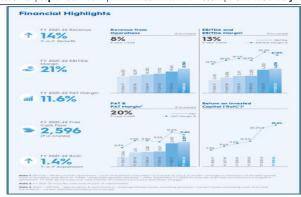
- The 'Breathefree Digital Educator' program is a Cipla innovation scheme where more than 55,000 patients were educated through live video counseling on the usage of inhalers, nebulizers and nasal spray, refer to figure 17 for further details
- Involved in exploring sustainable environment-friendly propellant HFA 152a for the MDIs (metered dose inhalers) to reduce carbon
- The brand's emphasis on innovating strategies has enabled in bolstering respiratory franchise and possess a comprehensive spectrum of Synchro Breathe offerings in India
- Cipla has obtained a USFDA authorization for a generic therapeutic equivalent version of Sunovion Pharmaceuticals Inc.'s Brovana®
- Launched Spotify®, India's first pneumotech-based wireless, portable equipment capable of conducting lung function examinations outdoors and in remote regions, for diagnosing chronic obstructive pulmonary disease ('COPD') and asthma, refer to figure 18 for further details



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 18: The brand builds an innovation engine broadening its horizons beyond respiratory and biopharma medicare

• Establishment of a joint venture agreement with Kemwell Biopharma Private Limited to formulate, produce and commercialize biosimilars to enhance respiratory therapy

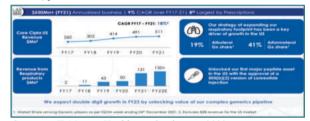


Courtesy: Cipla Annual-Report-2021-22 Figure 19: Growth of Cipla for FY 2021-22



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 20: In South Africa, Cipla resumes to navigate the market with a winning performance in prescription as well as OTC (over-thecounter) portfolio



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 21: In North America, generics business resumes to mature navigation by respiratory footprint development & unlocking of sophisticated generics channel



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 22: In North America, Cipla's emphasis continues to be on propelling the generics business expansion through the powerful enactment of their sophisticated asset channel to medium and long term agendas



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 23: The evidence of sophisticated dosage aspects in the North America generics portfolio resumes to broaden from 2018-21 for respiratory therapy and injectables

#### Administrative Skills, Human Talent And Digital Leap

Cipla has been awarded the 'Global Employer of Choice' award by Forbes 2021 and also been certified as 'Great Place To Work' for four years in a row. Also, the firm was bestowed with the 'Company of the Year' award at the Business Standard Annual Awards 2021. The brand bagged three prizes at the ET Healthworld's India Pharma World Awards for 'Excellence in Supply Chain, Logistics & Distribution and Product Development'. The reasons for these prestigious awards are explained in figures 24 & 25.



Courtesy: JP Morgan Healthcare Conference, 2022

Figure 24: Human talent and modern medical equipment are the most crucial assets to build future-ready Cipla



Courtesy: JP Morgan Healthcare Conference, 2022

**Figure 25:** Digital leap for modifying its IPD (inpatient department) requirements, pharmacy production processes, supply chains and achieving excellence in management and functioning for greater medical aid

# Sustainability And Community Service Highlights

Cipla believes in credible resource consumption endeavors to improve access and affordability of healthcare therapies and treatments globally, along with a powerful monetary expansion, delivering a vigorous institution to create accountable business actions and be devoted to tenable development. By 2025, Cipla strives to be carbon neutral, water neutral and zero waste to landfills. The brand also targets to accomplish antimicrobial stewardship, green chemistry and assure the well-being of employees and collaborator firms. Figure 26 & 27 explains Cipla's contribution to U.N. Sustainable Development Goals and its sustainable targets by 2025.



Courtesy: Cipla Annual-Report-2021-22

Figure 26: Cipla participates in the U.N. SDGs via its products, processes and philanthropic activities

As an ethical corporate organization, Cipla's humanitarian strategy to provide healthcare in the quest of its objective of 'Caring for Life' and is deeply embedded to conduct community outreach programs wherever it exists and prepares itself as a supporter for global health bodies and charitable organizations. Figure 28 demonstrates a few examples of the community linkage programs Cipla has been involved in India.



Courtesy: Cipla Annual-Report-2021-22

**Figure 27:** Cipla's sustainability goals for 2025 are aligned with the functioning system within its industry and the effect on natural and financial capital resources



Courtesy: Cipla Annual-Report-2021-22

Figure 28: Community highlights of Cipla in India from 2012-22

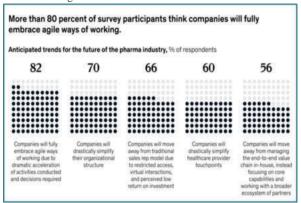
# $The \ Pandemic \ Leap frogging \ New \ Operating \ Models \ For \ Pharma$

The current pandemic forced a majority of businesses to operate in a different manner with emphasis on minimal human contact and exposure, building digital platforms for online connectivity and virtual business strategies. This situation verified the strength of companies that conditioned themselves to flexible working styles and they were the ones that were able to adapt faster to the pandemic. Moves were made to restructure business units by postponing activities that seemed relatively unimportant, in the next-normal environment.

McKinsey and Company surveyed fifty senior executives in commercial roles at global pharmaceutical firms, to comprehend the modifications this industry went through during the pandemic. The survey respondents evaluated the magnitude to which specific tendencies might take hold in the medium to long time term—that is, within five to ten years. Greater than 80% of the survey participants felt that it is likely that businesses will completely adopt agile working structures, and 70% survey participants felt that organizational patterns would be radically simplified. Figure 29 explains this in greater depth. Also, a small majority of the survey respondents felt that the conventional commercial model would no longer be capable of operations, touch points with healthcare providers would be streamlined and pharma firms would outsource more components of the value chain to concentrate on their core abilities.

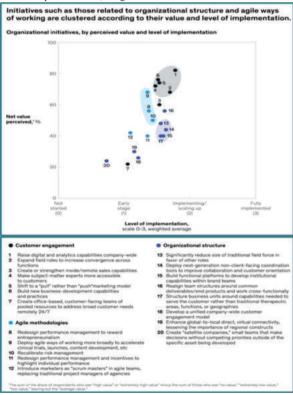
Further, the survey focused on where the pharma firms were concentrating their efforts and endeavors currently. Hence, the survey participants were told to consider 20 different organizational

initiatives and evaluate them by the recent degree of execution within the firm and their anticipated value. However, the survey findings didn't invariably square with the widespread perceptions of the medium-to-long-term outlook.



Courtesy: Mckinsey Future Of Organization Survey, February 2021 Figure 29: McKinsey Future Of Organization Survey results to study the future trends of the pharma industry (n=50)

Although a majority of the survey respondents acknowledge that organizational structures would evolve to be much simpler, they contemplate that a few of the endeavors could transmit a change having low value, for example, deploying new internal coordination tools to enable collaboration. What has demonstrated through the survey results was the degree to which specific categories of initiatives and endeavors that healthcare providers and the respective stakeholders engaged in due to the pandemic, the corresponding organizational structure and the associated agile ways of working in the pharmaceutical industry, depicted according to their value and level of implementation, in figure 30.



Courtesy: Mckinsey Future Of Organization Survey, February 2021 Figure 30: McKinsey Future Of Organization Survey results to study the changes in the levels of organizational structure and the flexible working pattern due to the pandemic and the net value perceived (n=50)

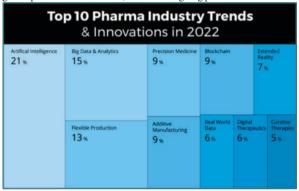
# Stakeholder-engagement Endeavors: Increased Value; Increased Implementation

One assortment of these endeavors that survey respondent's review

would provide increased value and corporations have made decent improvement in executing them. A majority of these endeavors fall into the stakeholder-engagement classification.

As per the survey results depicted in figure 30, the broader development of digital and analytic capabilities, was a big priority even before the current pandemic, but several corporations are now doubling down on enhancing these skills to bolster virtual interchanges with healthcare experts, provide a greater number of employees with more data accessibility and inputs for rapid decision making, and stimulate seamless arrangements with related stakeholders.

However, many stakeholder-engagement endeavors which were in the increased-value, increased-implementation category were not a priority for numerous firms before the pandemic. For example, only a handful of firms saw justification to alter the conventional "push" marketing prototype, whereby sales representatives relied on inperson meetings with the medical fraternity. During the pandemic, inperson meetings were often banned because of the pandemic social distancing norms, and the healthcare providers were too involved to meet with pharmaceutical sales force personnel in person or virtually. Figures 31 & 32 depict how digital technology has expanded in the global pharmaceutical sector, due to the ongoing pandemic.



Courtesy: Top 10 Pharma Industry Trends & Innovations 2022 | StartUs Insights

Figure 31: The technology and data analysis platforms adopted by the pharma sector globally due to the pandemic



Courtesy: Top 10 Pharma Industry Trends & Innovations 2022 StartUs Insights

Figure 32: Global pharma brands adopting digital strategies

These challenges have educated pharmaceutical marketing executives the significance of ensuring interchanges are adequately customized. Online and email interactions now help some organizations track the types of information that the healthcare system and their patients are seeking. Also, pharma firms are prioritizing medical fraternity and related stakeholders' access to subject-matter specialists, which was rare before the pandemic. Most healthcare providers now appreciate a proposal to transfer their calls to experts—a shift that enhances a firm's distant interactions with the medical community and expands experts' reach.

# Agile Drives: High Value; Poor Implementation

Agile drives are inclined to be distinguished as fundamental preferences, and firms that have executed them have seen rewards.

However, their enactment has not been extensive, as 50% of survey participants claim that they have not yet begun enforcing agile endeavors or are only in the initial phases of doing so.

It has been observed that firms with better knowledge in agile exercises have had the edge under the pandemic emergency, but it takes time to build such skills. Firms should be familiarized with functioning with lesser personnel, who are empowered to take decisions, and crossfunctional committees are there to accelerate advancement and are knowledgeable of techniques that enable them to adapt.

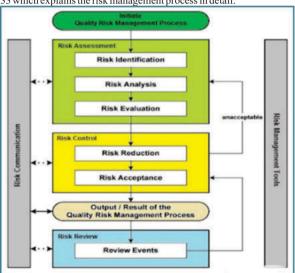
The pandemic experience helps to clarify the increased significance that survey participants assign to inducting agile procedures more extensively across the institution and to supporting initiatives.

## Performance Administration:

This drive is to redesign the performance administration to encompass metrics other than sales to stimulate entrepreneurial activity and an emphasis on what matters greatly to the medical community. For example, a huge pharmaceutical firm aims to replace emphasis on sales volume with healthcare provider's feedback as a measure of its performance index.

### **Risk Supervision:**

Comprehending the disparities to manage risk for each pharma product or business entity can support expediting speed to market. A firm's fresh risk-review technique pulls concurrently the reasonable lawful, compliance, medical, and marketing resources for every business unit rather than having a sole risk management committee, to assure that all risk reviews are capable of objective and profitability. Refer to figure 33 which explains the risk management process in detail.



Courtesy: Quality Risk Management in Pharmaceuticals Pharmaguideline

Figure 33: Process of quality risk assessment and administration in the pharma sector

# Organizational Drives: Lesser Value; Higher Implementation

The McKinsey survey results underline the initiatives that multiple pharma firms had been executing at scale but whose significance currently appears to be limited. Some of these include organizational initiatives, like a little significance is now dedicated to reassessing the extent of the field workforce, which was a popular, pre-pandemic initiative directed at deploying resources cost-effectively. Also, if we evaluate the potency of the field workforce, the quality of medical community engagement is of greater significance than the workforce coverage. Managers are in doubting whether it is worth capitalizing so vastly in internal organizational endeavors, having observed businesses still prospering when their current structures have been knocked off by the pandemic. Hence, medical fraternity engagements and agility prove to be the fundamental answers to accomplishment.

# Miscellaneous Endeavors: Lesser Value; Lower Execution

These groups of endeavors have ceased to function to attain traction within a lesser-value, lower-execution assortment. Certain marketers adopt "scrum master" functions in agile squads and depend on businesses making substantial growth in enforcing agile working

patterns, and still they might not have been detected to contribute ample supplementary value. For example, experimental stakeholder-facing committees of pooled resources to deal with broad stakeholder requirements remotely 24/7 failed to prove their worth.

#### **Brief Overview:**

The pandemic has built an articulation juncture at which firms review where they are capitalizing time and resources. Pharmaceutical corporations need to execute increased value stakeholder-engagement endeavors otherwise they are likely to face severe competition against those firms that are able to deliver what the medical community and other stakeholders desire.

Corporations are also required to evaluate organizational constructs and the value generated from drives needs to be considered otherwise resources will need to be reallocated. Reorganizing the field workforce can accelerate fresh engagement prototypes. Also, investing in internal collaboration and alliance mechanisms can provide outsize advantages, as numerous firms retain some element of remote work after the pandemic.

The future functioning prototypes for pharma firms may not be crystal clear, but the options that firms make presently will impact the models' result - to market, efficiency, and capacity to serve a greater number of patients with promising therapies. Hence, firms prioritize those components of the model that are more inclined to navigate success and deprioritize those that won't guarantee success.

#### **CONCLUSION:**

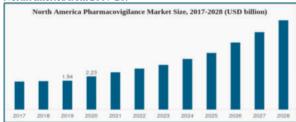
# Fresh Technological Skills & Rethinking Strategies Within The Pharmaceuticals Industry

Today, the pharma industry globally stands on the cusp of unprecedented modifications in terms of technological and specialized skills, monetary power, demographic and regulatory requirements. A vast volume of acquisitions, mergers and shutdowns have stemmed in pharmaceutical industry consolidation. The pharma sector due to the pandemic has observed a tremendous surge in over-the-counter sales and panic buying of vitamins, minerals & immunity supplements and cough, cold and flu medicines and this account for greater than 50% of sales of over-the-counter products worldwide. Also, pharma products like masks, gloves, face shields and sanitizers experienced a relatively high demand.

There is no doubt that the pharma industry can transmit vigorous momentum for our nation's economy, when it requires hearing promising news on the financial front. Over the years this sector has matured in confidence and is positively steering towards accelerated growth. Listed here are a few key trends which pharma brands have adopted to attain success.

## 1. The pharmacovigilance market expands:

Pharmacovigilance comprises a set of scientific research for curbing unfavorable medication impacts and additional medicine-related safety difficulties. The main goal is to optimize the benefit-risk ratio of medicinal products usage by sharing detailed information with patients and medical fraternity. The Fortune Business Insights analyzed that the worldwide pharmacovigilance market will expand from US\$ 6.28 in 2021 billion to US\$ 14.85 billion in 2028, a CAGR of 13.1%. Refer to figure 34 to study the pharmacovigilance trends in North America from 2017-28.



Courtesy: Top 10 pharmaceutical industry trends in 2022 - Avenga Figure 34: Pharmacovigilance trends in North America from 2017-28

## 2. Technology Advancement Fuels Research And Development:

The pandemic caused global markets to be flooded with new drugs and pharma firms have already invested and also plan to invest in the future in testing, marketing approval, and post-approval research and development for drugs and vaccines. 63% of the survey respondents in

a recent Deloitte report conducted for pharma firms assessed that research and development was one of the fundamental preferences for their firm's growth in the future. The research and development involved the following - cost-effective trials for medication composition, allocation of resources to begin and alter medical therapies, enhance algorithms for medication analysis, collect fitness data more efficiently and increase doctor patient engagement.

#### 3. Data analytics stimulates biotechnology innovation:

Machine learning algorithms along with data analytics can stimulate predictive medicine and track the consequences of numerous therapies on patient groups. The advantages of executing big data analytics in the pharma and healthcare world helps in early stage infection detection, high-risk patient identification, modeling of ailment spreading and bolstering preventive care to mitigate the mass spread of the diseases.

# 4. Natural Language Processing (NLP) upgrades information transmission in the pharma sector:

NLP takes credit for a considerable fraction of the AI expansion, particularly in AI application in healthcare, medical and life sciences. This component of the NLP global market share is anticipated to reach US\$ 4.3 billion in 2026, as compared to 2021's US\$ 1.8 billion.

### 5. Digital Platforms And Tools Enhance Patient Results:

Tele-consultations and remote-working instruments are likely to alter patient interactions making availability to medical facilities simpler. Adopting modern technologies increases alternatives for more detailed chronic ailment administration and supervision. Also, the pharma sector can leverage databases to keep up with public health challenges. Refer to figure 35 which graphically depicts the expansion of digital strategies in the medical field, which helps in proper disease management and growth in the pharmaceutical sectors.

Physician expectations of remote-workin % of respondents by remote tool (n = 213)	ng-tool usag	e postcrisis rela	tive to precrisis,	
	Less	Equal to	Greater	Significantly greater
Remote-working tools (eg, wearables, sensors, devices) allowing to measure patient vitals	11	33	33	22
Clinical-decision-support tools such as those driven by Al	7	47	40	7
Remote learning (education online/apps) for myself	10	47	29	14
Remote learning (education online/apps) for my nurses and practice staff	16	38	27	20
Telemedicine for behavioral/mental-health consultation	26	16	43	15
Telemedicine for physical-health consultation	26	18	36	20
Videoconferencing for professional use	30	21	30	18

Courtesy: Sermo COVID-19 HCP survey, April 2020

Figure 35: Growth of digital strategies in the medical and pharmaceutical sectors

- **6. Real-word-evidence (RWE) facilitates vaccine advancement:** Employing RWE enables to foresee the future growth of an ailment and examining the efficacy of vaccines or medical treatment. This can also be utilized to expand the prevention techniques of diseases and precisely deduce the potency of prospective therapy.
- 7. Deep learning (DL) modifies unfavorable events scrutinizing: The worldwide pharmacovigilance market is anticipated to enhance in value to approximately US\$ 15 billion by 2028, DL can considerably provide to the improvement of anomaly detection and unfavorable event scrutinizing. Machine learning (ML), and its subfield DL specifically, has a tremendous ability to improve unfavorable event examination.
- **8. Enhancing cyber security:** The pharma industry is a resource of abundant sensitive data which a cyber-perpetrator can cheat. A report by Reposify demonstrates that 92% of the firms that have had their databases exposed to likely leakage at least once, while 46% had an exposed Server Message Block (SMB) service. This threat can occur in various sources and configurations, from unauthorized access to third-party agents to phishing invasions and employee mistakes.

The concern on the growth of the India pharma sector would depend on it utilizing its entire magnitude of its potential. Powerful pharma players' financial and digital investments and productive business actions would underpin prospective development and facilitate the Indian pharma industry to disrupt the international top tier.

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