

F R O S T & S U L L I V A N

Independent Market Research on the
Overview of the Global and Indian CDMO
Market



October 2023

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Frost & Sullivan: Introduction

Founded in 1961, we are a global company with 40+ offices on 6 continents. Frost & Sullivan has the broadest industry coverage of any company globally - covering 10 key industries, 35 sectors, and 300 markets. As the market leader in growth consulting, we deliver a global perspective that companies need to be successful in a truly global economy.

Frost & Sullivan's focus is to help companies achieve real and sustainable growth. Our market intelligence, customized growth consulting, growth strategies, and IPO support enable CEOs and their growth teams to identify growth opportunities, effectively evaluate which have the highest probability for success, and create highly effective collaborative teams that deliver results.

Frost & Sullivan works closely with companies and their management teams to accelerate growth and achieve best-in-class growth, innovation, and leadership positions. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages over 47 years of experience partnering with Global 1000 companies, emerging businesses, and the investment community.



- i. Market Intelligence Services
- ii. Growth Consulting Services
- iii. Growth Implementation Services



Frost & Sullivan Global Reach:

What makes Frost & Sullivan unique?

- **Focused Exclusively on Growth** – Frost & Sullivan works with clients to develop innovative growth strategies based on market intelligence, best practices, and industry thought leadership.
- **Broadest Industry Coverage of any Company Globally** – Today, more than ever, it is essential that companies look at more than just their industry. Economic shifts and emerging technologies are creating both competition and growth opportunities every day, and successful companies must look at several industries and markets in which to build successful growth strategies.
- **Global Team of Analysts and Consultants** – With over 1,800 industry analysts and consultants in 40 offices covering 80 countries, Frost & Sullivan is well-positioned to ensure clients have a timely understanding of global and regional industries and markets. We offer global support, coverage, and perspectives, allowing clients to operate effectively in today's global marketplace.
- **Industry and Career Focus** – Frost & Sullivan understands that executives need more than just industry information; they need to capture best practices to make their contribution to their companies more effective. Researching and capturing best practices brings together industry thought leaders with the most encompassing market intelligence.
- **360 Degree Perspective** – Frost & Sullivan's proprietary approach integrates 7 key research methodologies to significantly enhance the breadth and accuracy of decision-making capabilities.
- **From Market Research and IPO Support to implementation of marketing programs-** Building on our comprehensive research base covering market, technology, economic, and customer research, Frost & Sullivan works closely with clients to create successful integrated marketing programs to enhance our clients' brands, create powerful demand generation programs and support revenue generation programs. **Continuous Market Monitoring** – Frost & Sullivan produces a market information database considered one of the best collections of high-technology information, market research, and intelligence worldwide. Our leading industry analysts add to this daily from our global research offices.

Industries & Markets

Frost & Sullivan gives our clients visibility to the most extensive range of growth opportunities because we have the broadest industry and market research coverage of any company globally. With over 1,800 analysts and consultants on the ground in global markets, we are your global partner.

Our proprietary Methodology helps us track multiple industries seamlessly and provides our clients with information on their industries and their support and servicing industries. Our Methodology enables a client to have

- Continuous access to leading global research that encompasses economic, technology, industry, competitive, customer, and best practices information to make critical growth decisions
- Market information and analysis across a broad industry spectrum that ensures clients maintain a close eye on their markets, as well as complementary and converging markets
- Access to global Industry Analysts and Thought Leaders to personally discuss critical growth issues and gain a more in-depth perspective on the markets
- Real-time technology intelligence, including emerging and disruptive technologies, new R&D breakthroughs, and technology forecasting and impact analysis
 - Comprehensive analysis of key growth markets to provide clients with financial, marketing, and business development information on current trends and issues that impact investment and financial decisions



Project Scope –

- Develop a detailed DRHP report for Akums on the Global and Indian CDMO market.
- Period coverage across the report: – CY22 actuals, Forecasted period CY23 – CY26 and historic period CY18 – CY22 . For Indian companies, we will use FY details for company revenues and details wherever applicable in the competitive section

Table of Contents

Section 1: Global Macroeconomic Overview

- Overview of global GDP trend 2017-2022 and IMF's outlook for 2023-2027
- Overview of GDP of key economies, including the developed and developing world
- Overview of GDP growth of key countries such as the US, EU5, China, Japan, India
 - A long-term view of India and other fastest-growing markets
- Overview of global GDP per capita (2017-2027)

Section 2: Indian Macroeconomic Overview

- Overview of Indian GDP and GDP per capita trend 2017-2022 and IMF's outlook for 2023-2027
- Review of private final consumption expenditure (PFCE) for the last 10 years
- Overview of fundamental drivers of GDP growth in India
- Trends (historical and current) in healthcare pharmaceutical expenditure and comparison with the US, EU5, China, Japan, India
- Trends in sources of funding for healthcare expenditure – public, private, and Out of pocket (OOP)
 - Comparison of OOP expenditure with other countries such as the US, EU5, China, Japan

Section 3: Global Pharmaceutical Market Overview

- Global pharmaceutical market for prescription and non-prescription over-the-counter drugs
 - Formulation market size 2017-2027 in value terms
 - Formulations market by type of formulations (oral solids, injectable, liquids, etc.) in 2022
 - Global injectable market 2017-2027
 - APAC excluding India, India, NA, Europe, RoW formulation market in 2022
 - Market trends and growth drivers & restraints
 - APAC excluding India, India, NA, Europe, RoW formulation market in 2022
 - 2022 formulations market by key therapy areas
 - Key market dynamics and growth drivers for the global and regional formulations market
 - The dominance of small molecules in the current global markets
 - Key risks and challenges in the global pharma market
- Global Small molecule CDMO market
 - Introduction to the CDMO value chain and range of service offerings across development and manufacturing
 - Global CDMO market 2017-2027 in USD
 - Growth drivers for the CDMO market
 - Trends in the CDMO market

- Consolidation / M&A in the market and its impact on large players
- Increasing pharma R&D and manufacturing expenditure and the challenges such as compressed ROI on R&D, high cost of manufacturing, etc., driving increased outsourcing
 - Mix between captive and outsourcing of R&D and manufacturing
 - Growth in outsourcing
 - Advantages of outsourcing, including time to market, vertical integration, asset-light model, agility and flexibility, etc.
- Changing manufacturing footprint and trends such as China +1 making India a preferred destination
- Environmentally conscious pharma customers and trends in ESG compliance and stringency
- Need for new formulation capabilities, particularly injectable and advanced formats of oral solids (e.g., inlay tablet)
 - Key challenges for the Global CDMO market
- Global and Indian API market
 - Global and Indian API Market 2017-2027
 - India's position as a global supplier of APIs
 - Growth drivers of the Indian API market (e.g., PLI scheme)

Section 4: Indian Pharmaceutical Market Overview

- Indian domestic pharmaceutical market for prescription and non-prescription over-the-counter drugs
 - Formulation market size 2017-2027 in value terms
 - Market in 2022 for key therapy areas such as CVS, Anti-infectives, GI, Endocrine, vitamins and nutritional supplements, etc.
 - Trends & growth drivers in the market split by metros, tier 1 and tier 2, and market size in 2022
 - Trends & growth drivers in the market split between innovator and generics and market size in 2022
 - Trends & growth drivers in key dosage forms (solids, injectables, liquids, etc.) and market size in 2022
 - Trends and growth drivers in India's injectable market in 2017-2027
 - Trends & growth drivers in Indian trade generics and market size in 2017-2027 in value terms
 - Growth drivers of the Indian pharma market
 - Value growth
 - Volume growth
 - Portfolio growth
 - Evidence of growth in the segment through revenue growth in the last 5 years of the top 30 players in IPM
 - Key challenges and risks in the Indian pharma market
 - Recent trends and market dynamics in the Indian domestic pharma market
 - Conducive regulatory policies, etc.
- Indian formulations export
 - Formulations export 2017-2027 in USD

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- Key destinations of formulation export in 2022
 - Specific countries
 - Regulated vs. semi-regulated market outlook
 - Export trends in the last five years (e.g., growth in specific geographies)
 - Growth prospect for Indian formulation exports
 - Growth drivers for formulation exports
 - Trends in and level of outsourcing by Indian companies
 - Indian CDMO market
 - Indian CDMO market 2017-2027 in USD
 - Growth drivers for the Indian CDMO market
 - New export destinations
 - New formulations
 - New product opportunities from genericization
 - Risk factors and challenges in the Indian CDMO market
 - Key success factors for Indian CDMOs
 - Technological capabilities
 - Key Trends Impacting the Indian CDMO market
 - Impact of Schedule M
 - Government policies and incentives
 - India's favorable position in the global CDMO market and long-term growth outlook

Section 5: Indian CDMO Market Competitive Landscape

- Fragmented nature of the Global and Indian CDMO market
 - Introduction of large global CDMOs and their brief profiles, including company HQ, services offered, current revenue and revenue growth in last 5 years, manufacturing footprint (to the extent available)
- Consolidation / M&A in the market and its impact on large players
- Barriers to entry into the CDMO market
- Market share of 5 Indian companies in the Indian CDMO market in 2022
 - Positioning statement around market share
- Operational comparison of 5 global and 5 Indian CDMOs (on best effort basis)
 - Product portfolio & Product Capabilities
 - Manufacturing capacity/ facilities
 - Key therapeutic areas
 - R&D Spend
- Financial performance comparison of 5 global and 5 Indian CDMOs
 - Operating revenue
 - Profitability (operating and net level)
 - Return on capital employed
 - Interest Coverage
 - EBITDA
 - Fixed Asset Turnover Ratio
 - CAGR (Operating Revenue, EBITDA, PAT)
 - ROE
 - Fixed Asset Turnover Ratio
 - Gearing ratio

- Private equity investors for companies

Integrated across other sections: Positioning statements

- Company's market share in the Indian CDMO market in the last 5 years
- Company's information on/ Comparison to global standards or regulations if available:
 - IPs (DCGI/ FSSAI/ Patents)/ Filings
 - Customers/ Regulatory Audits
 - Broad/ one of the broadest product offerings
 - Client concentration (Top 5/10 etc)
 - Dosage-wise growth vis-à-vis Indian pharma industry
 - Energy efficiency/ carbon emissions/ renewable energy usage/ freshwater consumption
- Company's 3-5 products and their standing in respective therapy areas globally
- Company's product introduction history and achievements
- Quantitative metric showcasing the company's stringent focus on quality (using Audit/ number of observations, etc.)
- Company's position in the Indian branded formulation space and key therapies

Note:

- 1) All macroeconomic data points will be provided based on the latest available year from published sources.
- 2) Data being leveraged from external sources can have limitations in recency or comprehensiveness.
- 3) Competitor information would only be leveraged from published data sources, such as company filings for all quantitative and qualitative metrics.
- 4) As all data would be provided based on published sources, publicly available data for the latest years would be utilized.
- 5) Frost & Sullivan to collaborate with the client team and validate the positioning statements, wherever possible, before inclusion of the statements.
- 6) Client to share their company details, including revenue details, market share views, etc.
- 7) The Client is expected to provide market share metrics/hypotheses of key competitors and market trends. However, Frost & Sullivan would conduct their research to validate the same.
- 8) The Client will facilitate access and permissions to external databases such as IQVIA and AIOCD.
- 9) Updates for UDRHP 6 months beyond the submission of first consent letter will be charged additionally.

Timeline:

7 Weeks (Excluding public holidays) from the date of signing of the LoA.

- On completion, specific chapters will be shared by F&S for client feedback.
- The project will commence 3 days from receipt of confirmation.
- The timeline does not include delays stemming from third-party dependencies

Commercials

INR 30,00,000 + INR 7,00,000 + Applicable Taxes

Invoicing Terms:

- 40% on sign off
- 30% on delivery of the drat report
- 30% on delivery of the final report

Terms & Conditions:

- All invoices are due upon receipt. Unpaid invoices not paid within 30 days will be subject to a 1.5 percent late fee per month past due.
- Any change in the scope or content of work from that stated in the project scope will be reflected in a change of work order, agreed upon by both the Client and Frost & Sullivan. The revised scope may reflect additional billing as required and may result in a revised invoice or be reflected in a time and expenses billing. This additional work will begin only when the change order signed by the Client is received by Frost & Sullivan.
- The stated project fee includes the delivery to the Client at the project's completion of electronic copies of the research deliverables for this project in PowerPoint, Word, or Excel formats.
- Frost & Sullivan will undertake an update within the scope of the study based on queries from the Client to one or two sections of the study based on recent updates published in the public domain within 150 days from the report's delivery date. Any updates exceeding the above will be reviewed by Frost & Sullivan at additional cost.
- Any update request after 150 days will be reviewed, and any associate cost will be presented to the Client for evaluation and sign-off.
- Frost & Sullivan retains the right to use market-related knowledge from this project as part of its ongoing research, except for confidential materials that provide or relate to Client information, customized metrics, and strategic recommendations developed specifically for the Client in the context of this project.
- Written deliverables may be reproduced in printed and electronic format for distribution within the client organization. Any part of this report used in public domain communications (e.g., press releases) is reviewed and approved by Frost & Sullivan before publication. It is to assure that any data or conclusions are presented in the proper context, to avoid any misunderstanding by the reader or audience, and to ensure the accuracy of the data.
- Neither the Client nor its parent or any subsidiary organization will actively solicit to employ any Frost & Sullivan employee connected to this project for 12 months after completion. Should such an event occur, The Client agrees to damages of two times the person's annualized salary, due and payable immediately to Frost & Sullivan.
- Frost & Sullivan will always strive to provide first-rate work. However, there is no representation of certainty, express or implied, by Frost & Sullivan, except in the case of demonstrable negligence on the part of Frost & Sullivan. This is because the markets we study have varying degrees of fragmentation. The Client acknowledges this and accepts this point. The Client waives any claim to actual, consequential, or punitive damages against Frost & Sullivan based on their reliance on Frost & Sullivan's work, except in the case of demonstrable negligence on the part of Frost & Sullivan.

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- Some data may be considered proprietary or sensitive by companies and/or individuals to be interviewed or surveyed, and they may be unwilling to divulge any given piece of information or data to Frost & Sullivan. Therefore, all research and analysis will be executed on a "best efforts" basis.
 - The Client shall have 10 business days following the final presentation of the project results to request clarifications or submit reasonable questions within the project's original scope. Additional work beyond the project's scope or the 10 business days will be billed on a time and expenses basis.
 - The Client may terminate this agreement provided there is a reasonable basis, and both parties sign an agreement in writing. Work on the engagement will cease on the day that the request to terminate is received by Frost & Sullivan. The Client agrees to pay Frost & Sullivan
 - a pro-rata fee for tasks accomplished plus related direct expenses incurred before termination
 - a cancellation penalty of 10% of the full contract value,
 - Any costs Frost & Sullivan has incurred and/or any non-refundable portion of committed costs incurred before Frost & Sullivan received the engagement termination request.
 - Termination charges will be invoiced to the Client and must be paid in full immediately.
 - Frost & Sullivan shall not be liable for delays or failures in performing its obligations resulting from any cause beyond Frost & Sullivan's reasonable control. In case of any material delay, Frost & Sullivan will notify the Client and specify the revised schedules as soon as practicable.
 - Both parties must agree upon any change, extension, or reduction in the project's scope in writing. The revised scope will be reflected via either a letter of engagement or a time and expenses billing, reflecting additional billing required to complete additional work.
 - The Client may request Frost & Sullivan to make additional presentations of the results of this project beyond what has been specified in the project scope. Frost & Sullivan will bill the Client on a time and expenses basis, including preparation, presentation, and time.
 - All of our material is, by default, written in English unless it has been specifically agreed in the context of the project definition that our material would be written in another common language. If the Client wishes to have our material translated into an additional language, all translation costs will be charged to the Client.

Letter of Agreement:

By signing this agreement, both parties commit to the project as laid out in its entirety in the proposal dated 19th September 2023 and the terms and conditions outlined in this document

Engagement Title	Independent Market Research on the Overview of the Global and Indian CDMO Market
Project Value (Excluding Tax)	INR 30,00,000
Invoicing Terms	<ul style="list-style-type: none"> • 40% on sign off • 30% on delivery of the draft report • 30% on delivery of the final report
Payment Terms	Due Now
Whether the Client mandates PO before sending the invoice	No
Parties to this Contract:	
Frost & Sullivan (India) Private Limited ASV Hansa, No. 53 Greams Road Thousand Lights, Chennai – 600 006, Tamil Nadu Phone: 91.44.61606666 Fax: 91.44.42300369 CIN-U74140TN1999PTC079226 GSTIN*: 33AAACF4252A1ZE	Company Name: AKUMS AKUMS DRUGS AND PHARMACEUTICALS LTD Company Address: PLOT NO 131-133, BLOCK-MUNGOLPURI INDUSTRIAL AREA, PHASE I, DELHI 110083 GST Details: TAN Details: 07AAEC47090 B22X
Signature:	Signature: 
Name:	Name: SUMMEET SOOD
Title:	Title: CFO
Date:	Date: 10/7/2023