

Research

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An S&P Global Company

Technical Proposal

**Update: Assessment of the healthcare delivery sector
in India**

September 2022

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Proposal for- Global Health Limited

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About CRISIL Limited

CRISIL is a global analytical company providing ratings, research, and risk and policy advisory services. We are India's leading ratings agency. We are also the foremost provider of high-end research to the world's largest banks and leading corporations.

CRISIL is majority owned by S&P Global Inc., a leading provider of transparent and Independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

About CRISIL Research

CRISIL Research is India's largest independent integrated research house. We provide insights, opinion and analysis on the Indian economy, industry, capital markets and companies. We also conduct training programs to financial sector professionals on a wide array of technical issues. We are India's most credible provider of economy and industry research. Our industry research covers 88 sectors and is known for its rich insights and perspectives. Our analysis is supported by inputs from our network of more than 5,000 primary sources, including industry experts, industry associations and trade channels. We play a key role in India's fixed income markets. We are the largest provider of valuation of fixed income securities to the mutual fund, insurance and banking industries in the country. We are also the sole provider of debt and hybrid indices to India's mutual fund and life insurance industries. We pioneered independent equity research in India, and are today the country's largest independent equity research house. Our defining trait is the ability to convert information and data into expert judgements and forecasts with complete objectivity. We leverage our deep understanding of the macro-economy and our extensive sector coverage to provide unique insights on micro-macro and cross-sectoral linkages. Our talent pool comprises economists, sector experts, company analysts and information management specialists.

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1. BACKGROUND AND OBJECTIVE OF THE ASSIGNMENT

About the client

Global Health Limited (hereafter referred to as the 'client' or "GHL") is in business of establishing, building and management of hospitals/clinics providing all types of health, pathology and medical services under 'Medanta' brand. GHL runs its flagship hospital 'Medanta - The Medicity' at Gurugram along with hospitals in Indore and Ranchi. GHL also runs hospitals in Patna and Lucknow through its subsidiaries.

Objective of the assignment

The client has approached CRISIL Research to prepare a report on the healthcare delivery sector in India. This document presents the outline of scope of work for the required assessment.

Module I - Macro economic, social & healthcare and disease profile scenario assessment of India

Module II - Structure of the healthcare delivery (hospital) industry in India

Module III - Assessment of the healthcare delivery industry in India

Module IV - Competition analysis

2. SCOPE AND DELIVERABLES

The detailed scope for assessment is as follows:

Module I - Macro-economic, social & healthcare and disease profile scenario assessment of India

Macroeconomic Indicators:

In this section, we shall provide a snapshot of the socio-economic scenario in India.

- ❖ Trend in GDP growth in India, real and nominal, based on the new series of 2011-12
- ❖ Trend in private final consumption expenditure (PFCE) over the last few years (FY12 onwards)
- ❖ Trend in per capita income levels (FY12 onwards)
- ❖ CRISIL Research outlook on GDP growth for fiscal years 2023 and 2024
- ❖ Population growth as per previous two census data (2001 and 2011)
- ❖ Key union budget 2022-23 impact on healthcare
- ❖ Qualitative review of key fiscal measures announced by the central government to deal with the implications of COVID-19 pandemic

State-wise macroeconomic indicators (for top states under the non-special category in India):

- ❖ Trend in GSDP growth and contribution to India's GDP, based on the new series of 2011-12
- ❖ Trend in population and per capita NSDP levels over the last few years (FY12 onwards)
- ❖ State-wise rank on health spending Vs rank on health index (based on latest available data from Niti Ayog)
- ❖ State-wise spending on health (based on latest available data from state budget documents, RBI data, CEIC)

Social indicators and healthcare related parameters:

The quality of healthcare in a country can be gauged through the adequacy of healthcare infrastructure and personnel in that country which, in turn, can be assessed from the expenditure levels, bed density (bed count per 10,000 population) and the availability of physicians and nurses (per 10,000 population).

In this section, we shall touch upon various aspects of current healthcare delivery scenario in India and compare it with similar economies globally.

- ❖ Trend in total expenditure on healthcare (as % of GDP) and comparison vis-à-vis global benchmarks/ comparable economies
- ❖ Trend in government expenditure on healthcare (as % of Total healthcare expenditure) and comparison vis-à-vis global benchmarks/ comparable economies
- ❖ Trend in proportion of out of pocket expenditure on healthcare (as % of Total healthcare expenditure) and comparison vis-à-vis global benchmarks/ comparable economies
- ❖ Bed density (hospital beds per 10,000 population) and shortfall vis-à-vis global benchmarks/ comparable economies

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- ❖ Personnel (Physician and Nurse) density (per 10,000 population) and shortfall vis-à-vis global benchmarks/ comparable economies
- ❖ State-wise personnel (Physician and Nurse) density (per 10,000 population)

Disease Profile in India

In this section, we shall also touch upon the various disease profiles existing in the country.

- ❖ Review of the category-wise share in Daily Adjusted Life Years lost in India of Indian population
- ❖ Communicable disease
 - Tuberculosis
 - Diarrhoeal diseases
 - Respiratory infections
- ❖ Non-Communicable Diseases
 - Cancers
 - Diabetes mellitus
 - Mental Disorders
 - Cardiovascular Diseases
 - Respiratory diseases
 - Other NCDs
- ❖ State-wise proportion of total disease burden from NCDs in 2016
- ❖ State-wise no. of persons diagnosed with NCDs
- ❖ State-wise age group-wise population for 2011

Module II – Structure of the healthcare delivery (hospital) industry in India

In this section, we shall elaborate on the structure of the healthcare delivery (hospital) industry in India while touching upon the characteristics of the industry in terms of factors mentioned below:

- ❖ Overview of the structure of the industry
- ❖ Review of overall healthcare delivery market size in value terms (hospitals, diagnostic centres, medical devices and domestic pharmaceutical) for FY22
- ❖ Overview of classification of healthcare institutions based on:
 - Services offered
 - Complexity of ailment
 - Type of ownership (Privately-owned & managed, trust-owned and managed, trust-owned but managed by a private party, etc.)
- ❖ Review of key business models currently deployed in the industry
 - Typical doctor engagement models adopted by players
- ❖ Review of typical revenue and cost structure for a hospital in tier-I and tier-II cities (revenue mix, capital costs and operating costs)
- ❖ Expansion trend of select key listed players in tier-I and tier-II cities across India
- ❖ Typical ROCE exhibited by players in tier-I and tier-II cities

- jects
- ❖ Break-even and maturity period for brownfield and greenfield projects for brownfield and greenfield healthcare delivery industry in India
 - ❖ Review of government policies and regulatory framework for healthcare delivery industry and policy implementation
 - ❖ Government agencies in-charge of healthcare regulation and policy implementation
 - ❖ Government schemes and programmes under implementation and program (for e.g. Ayushman Bharat National Health Policy, etc.)
 - ❖ Review of incentives and subsidies given by the government
 - ❖ Statutory approvals for healthcare infrastructure
 - ❖ Regulations pertaining to financing of healthcare infrastructure

Module III – Assessment of the healthcare delivery industry in India

In this section, we shall elaborate on the current scenario of healthcare delivery industry in India:

- ❖ Review of overall **healthcare delivery market size in value & volume terms** (hospitals) for the last five years (FY17-22) and forecast for the next four years (FY23-26)
- ❖ **Segmentation** of healthcare delivery market size based on:
 - Out-Patient (OPD) vs. In-Patient (IPD) treatments
 - Share of treatments (value terms): Private vs. government
- ❖ **Qualitative analysis of the likely Covid-19 Impact** on the sector
 - Impact on the business model (new business models adopted by key listed players like healthcare through apps and others as applicable)
 - New emerging opportunities (telemedicine, e-pharmacy, home based treatments) and threats in post COVID-19 world
 - Change in Government policy and focus
- ❖ **City-wise** (Delhi-NCR, MMR, Chennai, Bangalore, Hyderabad, Ranchi, Lucknow, Indore and Patna) hospital statistics for fiscal 2022
 - Population
 - Estimated beds per 1,000 population
 - Key hospitals chains in the city
 - Specialities provided by key hospital chains
- ❖ **Micro-market level** (Ujjain, Bhopal, Kanpur, Allahabad, Bokaro, Jamshedpur, Gaya) hospital statistics for fiscal 2022
 - Population
 - Estimated beds per 1,000 population
 - Key hospitals chains in the city
 - Specialities provided by key hospital chains
- ❖ **Qualitative comments on typical operational metrics** (average of key listed players)
 - Average length of stay (ALOS)
 - Average revenue per operating bed (ARPOB)
 - Occupancy rate

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- Specialty mix
- ❖ Region-wise revenue concentration by key listed players
 - Qualitative comments on the advantages that regional focus brings to the hospital chains (brand name, trust, understanding of regional nuances, etc.) as applicable
- ❖ Review of trend in industry profitability
- ❖ **Key growth drivers** for the industry

In this section, we shall elaborate on the key factors that are expected to influence the future growth in healthcare delivery industry in India.

 - Favourable income demographics (rising income levels)
 - Shift in age demographics
 - Focus on improvement on key social indicators (Life expectancy (at birth) & infant mortality rate)
 - Change in disease profile - shift to non-communicable diseases (lifestyle related diseases)
 - Government policies to improve healthcare coverage
 - Rise medical tourism in India and indicative statistics
 - Past growth of medical tourists in India
 - Break-up of medical tourists by major regions of origin
 - Qualitative overview of insurance penetration (Government vs. Private)
 - Qualitative comments on its impact on increase in hospitalisation
 - State-wise comparison of insurance penetration in the states of UP v/s other states of India
- ❖ **Key challenges and actionable areas** for the industry
 - Commentary on shortfall analysis
 - ✓ Shortfall in bed capacity
 - ✓ Paucity of healthcare personnel
 - ✓ Inadequate investments in the sector
 - Diversification into different formats/areas to increase both, reach and efficiency
 - Use of emerging technologies to increase efficiencies
- Qualitative comment on the trend in consolidation along with suitable examples from recent trends in the industry

Module IV – Competition analysis*

In this section, we shall analyse key players in the healthcare delivery industry on key operational and financial parameters for FY21/FY22. The players shall be shortlisted in consensus with the client in order to include key chains operating in Delhi NCR, Indore and Ranchi as well.

- ❖ Vintage of the player
- ❖ Geographical presence
- ❖ Recent expansions and planned capacity expansions
- ❖ Review of performance on key operational parameters etc. as available in public domain
 - No. of hospitals
 - Beds
 - ALOS
 - ARPOB
 - Occupancy rate
 - Assets in metro locations vs non-metro locations
 - Mode of operations (Owned/Managed/trust-based)
 - Speciality mix
- ❖ Review of financial performance on following parameters (based on publicly available data for FY21/FY22 - latest available)
 - Operating income
 - Comparison based on last 3 years' revenue growth
 - Regional revenue mix
 - OPBDIT
 - EBITDA/CFO
 - Operating margins
 - Net margins
 - ROCE
 - Interest coverage
 - Gearing ratio
 - Asset turnover ratio
- ❖ Brief overview of in-house pharmacy business of competitive hospitals (based on publicly available data for players)
 - Break-up of revenue from operations by revenue from healthcare services, in-house pharmacy and other classifications based on disclosures by companies
 - Percentage share of revenue from various items to the revenue from operations

*Note: The above mentioned competitive assessment of players shall be done based on information available in public domain on a best effort basis.

3. ABOUT CRISIL LIMITED AND CRISIL RESEARCH

1 About CRISIL Limited

Who we are

CRISIL is a global analytical company providing ratings, research, and risk and policy advisory services.

We are India's leading ratings agency. We are also the foremost provider of high-end research to the world's largest banks and leading corporations. With sustainable competitive advantage arising from our strong brand, unmatched credibility, market leadership across businesses, and large customer base, we deliver analysis, opinions, and solutions that make markets function better.

Our defining trait is our ability to convert data and information into expert judgements and forecasts across a wide range of domains, with deep expertise and complete objectivity.

At the core of our credibility, built up assiduously over the years, are our values: Integrity, Independence, Analytical Rigour, Commitment and Innovation.

CRISIL's majority shareholder is Standard and Poor's (S&P). Standard & Poor's, a part of The McGraw-Hill Companies (NYSE:MHP), is the world's foremost provider of credit ratings.

Who We Serve

We address a rich and globally diversified client base. Within India our customers range from small enterprises to the largest corporations and financial institutions; outside India our customers include the world's largest banks and leading corporations. We also work with governments and policy-makers in India and other emerging markets in the infrastructure domain.

How We Add Value

We empower our customers, and the markets at large, with independent analysis, benchmarks and tools. These help lenders and borrowers, issuers and investors, regulators, and market intermediaries make better-informed investment and business decisions. Our offerings allow markets and market participants to become more transparent and efficient - by mitigating and managing risk, taking pricing decisions, generating more revenue, reducing time to market and enhancing returns. By helping shape public policy on infrastructure in emerging markets, we help catalyse economic growth and development in these countries.

Ratings

- India's first, largest, and most prominent credit rating agency
- Rs. 36 trillion of debt rated
- Market share in bank loan ratings exceeds 50 per cent
- Rates two-thirds of bonds outstanding in India
- Highest number of outstanding SME ratings in India

Global Research & Analytics

- Largest and top ranked provider of high-end research and analytics to the world's largest financial institutions and leading global corporations
- Works with 12 of the top 15 global investment banks
- Client list includes 30 Fortune 500 companies, across a range of industries

Research

- India's largest independent research house, providing comprehensive research coverage to more than 1200 Indian and global customers
- Provides coverage on 85 industries
- 90 per cent of India's commercial banks are our customers
- Largest independent equity research house in India
- Official provider of valuations to all mutual funds in India
- Helps Employees' Provident Fund Organisation (EPFO) select fund managers

CRISIL Risk and Infrastructure Solutions (CRIS) *Wholly-owned subsidiary of CRISIL

- Offers a wide range of solutions focused on Infrastructure policy, corporate advisory, integrated risk management and associated consulting services
- Serves a variety of clients, including government bodies, multilaterals, banks and infrastructure companies
- Practical and innovative solutions in 31 countries
- Client roster includes 50 financial institutions in India and abroad
- Flagship product, RAM, is India's leading internal risk rating solution

2 About CRISIL Research

Who We Are

CRISIL Research is a division of CRISIL Limited. CRISIL Research is India's largest independent and integrated research house providing comprehensive research coverage to more than 1200 Indian and global customers. We provide insights, opinions, and analysis on the Indian economy, industries, capital markets and companies.

We are India's most credible provider of economy and industry research. Our Industry research covers 85 sectors and is known for its rich insights and perspectives. Our analysis is supported by inputs from our network of more than 4,500 primary sources, including industry experts, industry associations, and trade channels.

We play a key role in India's fixed income markets. We are India's largest provider of valuations of fixed income securities, serving the mutual fund, insurance, and banking industries. We are the sole provider of debt and hybrid indices to India's mutual fund and life insurance industries.

We pioneered independent equity research in India, and are today India's largest independent equity research house.

Our defining trait is the ability to convert information and data into expert judgements and forecasts with complete objectivity. We leverage our deep understanding of the macroeconomics and our extensive sector coverage to provide unique insights on micro-macro and cross-sector linkages.

We deliver our research through an innovative web-based research platform. Our talent pool comprises economists, sector experts, company analysts, and information management specialists.

Who We Serve

We serve more than 1,200 Indian and global clients. These include banks, exchanges, companies, mutual funds, insurance companies, wealth managers, brokers, private equity firms, investment banks, consultants, industry associations, and educational institutions. Our clients include:

- 90 per cent of India's banks
- 15 of the top 25 Indian companies (by market capitalization)
- The entire Indian mutual fund industry
- 22 of the 24 life insurance companies
- Top 5 global consulting firms

How We Add Value

Our independent research helps our clients mitigate and managing risk.

How We Add Value

Our independent research helps our clients mitigate and managing risk.

investors with independent benchmarks to evaluate the performance of their investments.

Our independent equity and company research reports provide insights to investors on under-researched companies. Our reports have improved transparency levels and trading volumes in India's equity markets.

Our Research offerings

CRISIL Research provides the most comprehensive and independent coverage on Indian economy, Industries and companies. This integrated offering of research under these three verticals along with customised research is one of the key differentiators of CRISIL Research.

Economy Research: Covers an in-depth analysis of short and medium term trends and outlook on key macroeconomic variables, events, policies and key economic issues.

Industry Research: Covers detailed research on 85 industries. These reports are either on-going research reports on various industries or are special detailed analysis on topical sectors such as real estate, infrastructure, logistics, and SME, and on emerging segments of the economy.

Our extensive coverage on 85 industries and 139 sub-sectors; provides comprehensive analysis encompassing:

- Growth forecasts
- Profitability analysis
- Emerging trends
- Expected investments
- Industry structure
- Regulatory frameworks

Company Reports: Covers data analysis of the top-150 listed companies.

Customised Research: Customised Research typically addresses client needs in the areas of business planning, market sizing, demand and price forecasting, project and location feasibility assessments and specific company credit reports.

Industry Research: Snapshot of CRISIL Research Industry Coverage

Sectors	Sub-sectors	Sectors	Sub-sectors
Infrastructure	Housing	Metals	Aluminium
	Roads and Highways		Steel Products
	Ports		Steel Intermediates
	Airports	Chemicals	Petrochemicals
	Construction		Pharmaceuticals
Energy	Coal	Commodity Chemicals	
	Crude Oil	Industrials	Cement
	Natural gas		Paper
	Power		Fertilisers
	Refining and Marketing	Consumer Products	Tea
Renewable Energy Sources	Coffee		
Automobiles	Automotive Components	Household Appliances	
	Cars and Utility Vehicles	Sugar	
	Commercial Vehicles	Distillers and Brewers	
	Two Wheelers	Services	Banking and Financial Services
	Tyres		IT/ITES
Tractors	Retailing		
Textiles	Cotton Yarn		Hotels
	Man Made Fibres		Hospitals
	Readymade Garments	Media and Entertainment	
		Domestic Freight Transportation Services	
		Educational Services	
		Telecom Data Services	
MESCOR (Mid-size Emerging Segments and Company Research)		Research reports on mid-size emerging sectors	

CRISIL Research has been tracking 85 sectors backed by:

- Unique ability to correlate economic and sectoral factors
- Advantage of cross-sectoral linkages
- Propriety models, knowledge database and robust research methodologies
- Extensive data and information sourcing network across industry experts, dealers, suppliers and other intermediates

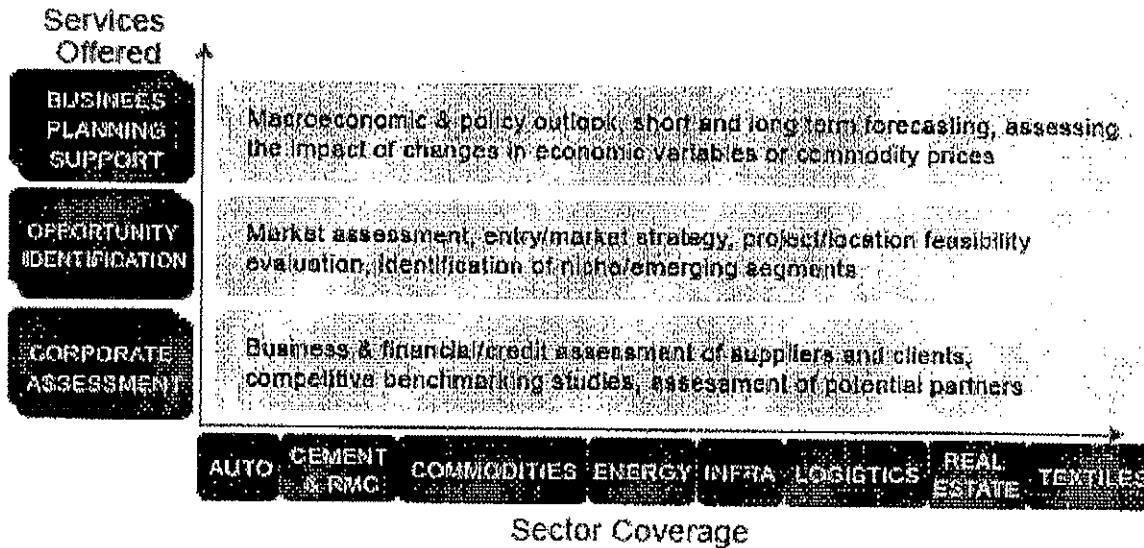
Research

Customised Research Services

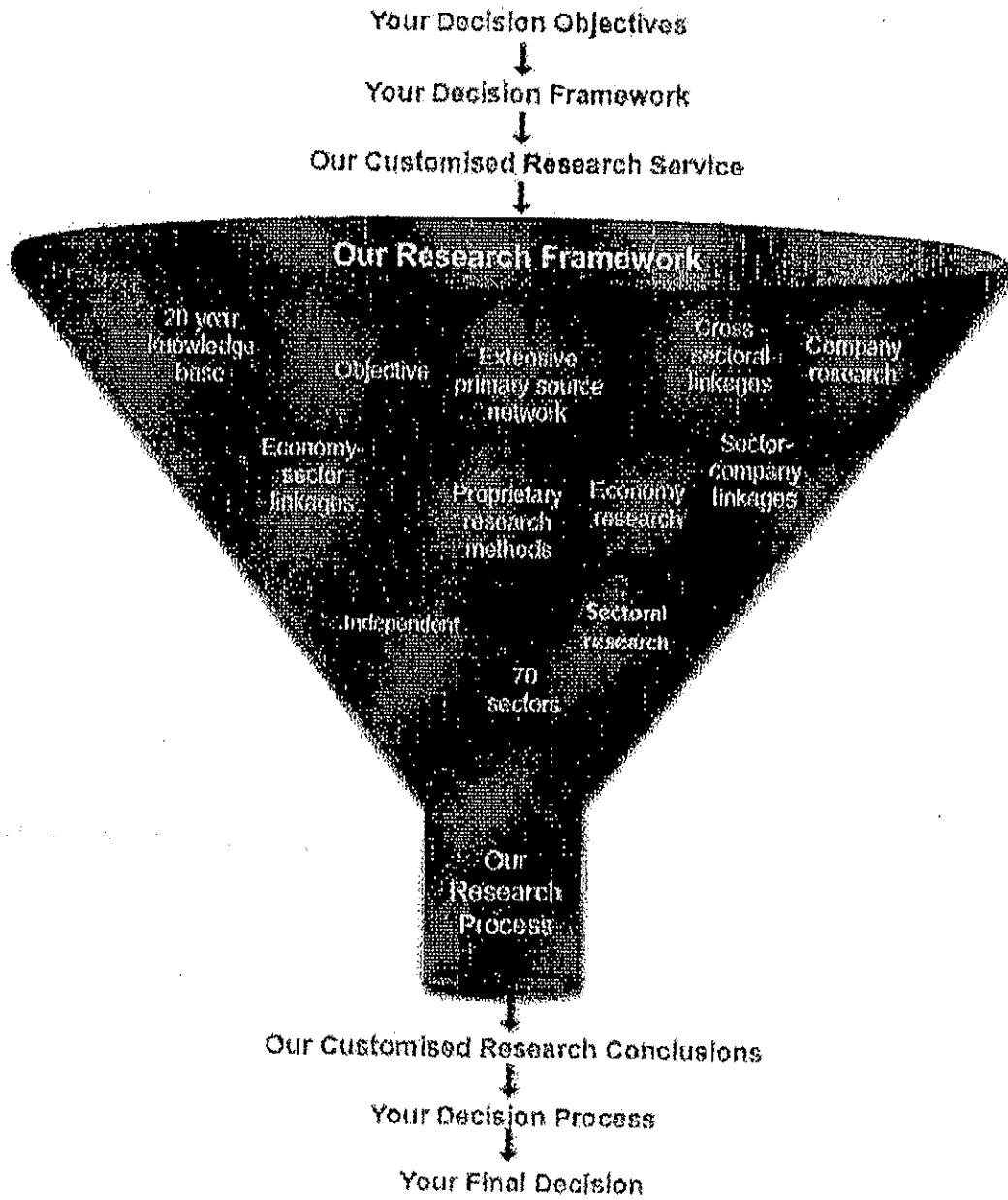
CRISIL Research leverages on its proprietary Information networks, database and methodologies to provide its clients with customised research inputs and conclusions for business planning, monitoring and decision-making purposes.

We believe we are ideally positioned to successfully undertake research assignments because over the past 20 years, we have acquired and refined:

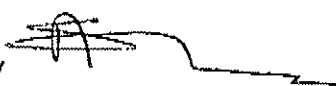
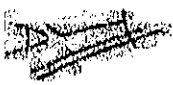

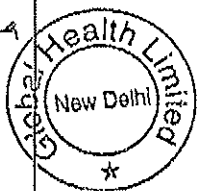
- An in-depth understanding of the Indian economy, industries, companies and financial markets
- Rich insights into the Information requirements of players in the real and financial sector, and of those involved in policy, strategic, lending and investment decisions
- An extensive network of around 4,500 primary sources, among corporates, industry participants, dealers, associations, departments and ministries have been built to acquire their perspectives.



CRISIL Research usually adopts a two stage model to analyse the specific objective of clients across industries. The first stage primarily involves gathering information through interactions across the entire value chain of the industry. Further we utilize published industry information from in-house databases and public information sources to support our analysis. We strongly leverage our knowledge base across multiple industries developed over the period of two decades. Equipped with insights from our internal databases and from various stakeholders, we analyse critical data points and build an informed view.



Please return to us the enclosed duplicate of this Letter duly signed by you in acceptance hereof.
We agree, accept and confirm

For CRISIL Research, a division of CRISIL Ltd.	For Client Name
Authorised Signatory	Authorised Signatory 
 	Name: <i>Abhishek Sharma</i>
Name: Dharmendra Sharma	Designation: <i>VP Finance</i>
Designation: Director	Stamp 
Company Stamp	
DATE : 15 th September 2022	DATE:

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CRISIL Limited: CRISIL House, Central Avenue, Hiranandani Business Park, Powai, Mumbai - 400076, India

Phone: + 91 22 3342 3000 | Fax: + 91 22 3342 3001 | www.crisil.com

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