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2020 BEST PRACTICES AWARD



Water Technologies

**2020 INDIAN WATER CHEMICALS
COMPANY OF THE YEAR AWARD**

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Background and Company Performance

Industry Challenges

With India's growing water crises and increasing water contamination because of rapid urbanization and industrialization, there is rising need for water treatment and conservation.

The Indian water chemicals market is highly fragmented with many multinational corporations (MNCs), national companies, and other smaller regional participants, which further increases market competition. The water chemicals industry comprises a variety of both commodity and specialty chemicals and customers are often uninformed or misguided about the best option available to them while dealing with small and local chemical providers. The industry is also decidedly competitive because consumers are highly price-sensitive. Indian water chemical companies typically offer discounts and substitutes for specialty chemicals to appeal to local markets. Many customers look to reduce their expenses on water treatment and usually opt for commodity chemicals but experience average results on applying them. However, their perceived cost savings encourage them to still proceed with using commodity chemicals. This trend is expected to hamper the market growth of specialty water treatment chemicals.

In the past two years, the Indian economy has been witnessing a downturn with the bulk of end-user industries experiencing limited growth and slow business momentum. The burden to generate revenue has led companies to adopt cost optimization initiatives resulting in lesser business for water treatment chemical providers. However, in the long-term, the Indian water infrastructure sector is poised for significant growth driven by expanding investments in water treatment plants and cleaning and desilting programs targeting the country's main rivers. The Indian government has also implemented clear regulations and standards governing industrial water discharge. The growing preference for green technologies and organic chemicals as well as the burgeoning textile industry are other factors guiding the growth of the Indian water chemicals market.

Visionary Innovation and Performance/Customer Impact

Addressing Unmet Needs

The water treatment chemical division of Chembond Water Technologies Limited is a pioneer in the Indian water chemicals industry. The company launched its range of water chemical products in 1980. In the decades since, Chembond expanded its product range to include the whole spectrum of water treatment chemicals such as membrane treatment chemicals, raw water and effluent treatment polymers, boiler water treatment chemicals, and defoamers.

The company's core market sectors include industries such as metals, petroleum refining, petrochemicals, power and fertilizer companies. Chembond also operates in the food and beverage, pharmaceutical, and manufacturing sectors. The company was also the first to offer chlorine-dioxide in India, a product it brought into the country through a joint

venture. Chlorine-dioxide is ideal to treat industrial waters and is also used as a disinfectant in drinking water.

Tata Chemicals was the first to use this technology at their fertilizer plant to deal with internal and external leakages. Later, fertilizer and chemical companies made it mandatory to use chlorine-dioxide for water treatment. Many international and domestic companies then started to offer this product on the market. However, Chembond's first-mover advantage and successful experience in handling the product helped it retain its market leadership. Chembond also introduced a series of innovative products to cater to the ever-changing needs of customers. For instance, the company introduced Bio-D-ORG for bio-degradation of chemical oxygen demand (COD) and biological oxygen demand (BOD) in industrial and domestic wastewater. Similarly for boiler water treatment MEKO based multifunctional oxygen scavenger and for cooling water treatment "BioClean" program for online cleaning of cooling towers. The company also invented a single-use bio-detergent for wastewater treatment and offers robustly developed corrosion inhibitors, oxygen scavengers, and antiscalants in its product range.

Visionary Scenarios Through Mega Trends

The company's dedicated team of experts work to keep themselves abreast of the latest developments in water treatment technology and carry out in-house research to boost the company's competence in the industry. As a result, Chembond can live up to customer expectations and provide high returns on investment. Chembond tracks the continuously evolving customer needs and operating environment to build innovative products and solutions to address these issues .

Implementation of Best Practices

Chembond has implemented feed-forward automation in which the control system analyzes data collected from sensors to proactively predict when problems such as system failures might occur and suggest enhanced control actions to counteract the change before it can impact the process. The company has deployed artificial intelligence engine in its monitoring and control devices for better operations and client management processes.

Chembond was the first water treatment chemicals company to have installed a pilot cooling tower for research and development and simulating new product performance in different industrial conditions. Chembond Water Technologies has been accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) and certified by the National Science Foundation (NSF). It is one of the first few companies in the water treatment chemicals industry in India to get these certifications.

Financial Performance

Chembond holds a leadership position in the Indian specialty water treatment chemicals market. It is one of the top companies in the domestic market with a 12-15% market

share, despite the market being highly fragmented with approximately half dominated by small and unorganized companies.

In the cooling water treatment chemicals segment, Chembond stands first in the market, occasionally dropping to second place when its competitor with a similar market share moves ahead. Cooling water treatment chemicals are widely used in the fertilizer, refinery, power, petrochemical and metals industries. Within the fertilizer industry's cooling water treatment chemicals market, Chembond holds a market share of 65–70%. Within the refinery industry, its share in private sector companies is approximately 50% and 15–20% in public companies. Similarly, in the steel industry, the company has a market share of 25–30% in the private sector and 15–20% in public sector companies. Revenue from the cooling water treatment chemicals segment in India is 60–65% of the company's total revenue. Its market positioning as one of the top two enterprises in the Indian water treatment segment is indicative of the company's strong market leadership and market share.

Chembond is one of the top 4 companies in several water chemical segments in the Indian market. It has held either the third or fourth rank in the boiler water-treatment chemicals, reverse osmosis (RO) chemicals, and polymer flocculent segments.

The Indian water treatment market is growing at a rate of $\pm 2\%$ in terms of gross domestic product (GDP) growth. Historically, the market grew by 7–8% while the company grew at a higher rate than the industry's rate of 12–15% driven by increasing demand from end-user industries. In terms of volume, Chembond's growth is at 10% compared to industrial growth of 12–15% because of price competitiveness and sensitivity.

Based on its 2018-19 annual report, Chembond Water Technologies Limited recorded revenue of INR 132.5 crores with profit before tax (PBT) of INR 12 crores and profit after tax (PAT) of INR 8.5 crores. Revenue in 2017–18 was INR 122.7 crores with the company registering year-on-year (Y-o-Y) growth of 8%.

The company estimates its addressable market to be worth approximately INR 500–600 crores with revenue of more than INR 130 crores. The company holds a market share of 22–26%.

Price/Performance Value

The Indian market is highly price sensitive owing to which many local and regional companies offer chemicals at competitive prices. However, some of these chemicals and solutions offered could be substandard and not up to par with industry standards. Well-informed customers give importance to quality chemicals and the specialty chemical providers that offer such advanced products; Chembond is one such company. In addition to high quality products and specialty chemicals, Chembond also provides troubleshooting and other value-added services for which customers are willing to pay a premium.

Chembond critically evaluates the problem statement of the customer and then recommends suitable products as a solution. The company has a strong policy on product quality and does not compromise its product offerings to win contracts.

This is how the company maintains its price and performance value.

Customer Ownership Experience

The company ensures that its customers have a high degree of satisfaction with its products and services. Despite offering relatively high-priced products in the price-sensitive Indian water chemicals market, the company's top-quality products and value-added services have built trust among customers and led to high customer retention rates. Customers using Chembond's products experience superior performance thereby resulting in higher plant productivity and lesser maintenance shutdowns. For cost-sensitive customers, Chembond provides a cost-benefit analysis on how they can save costs on reduced maintenance activity and prevent plant breakdowns and long turnaround losses by not using commodity or self-blended chemicals and opting for premium and high quality products instead.

Chembond also plays a major role in community work and activities. It sponsors and undertakes education, healthcare and village level water body excavation and rejuvenation projects.

The company takes customer feedback seriously and values its customers. Their staff continuously interacts with customers to understand if they have any challenges with the products performance, system limitations or, if they require any assistance. This proactive feedback mechanism helps the company to stay updated, hold their market position, and address customer complaints before they become critical.

Brand Equity

After working as JV partners for 15 years, Chembond Chemicals Limited acquired shares held by Solenis Netherlands B. V., in Chembond Water Technologies Limited thus making it a wholly owned subsidiary. This gave Chembond complete control over the water treatment business and also opened up growth opportunities in international markets.

To enhance and maintain its brand equity, Chembond actively participates in exhibitions, seminars, tradeshows and conducts roadshows.

In India, word of mouth also plays an important role in advertising a company's brand; many of Chembond's existing customers have made referrals to their business network. Customer feedback and recommendations impose a higher trust factor on the company when customers initially approach them.

Conclusion

India is facing growing water availability and deteriorating water quality crisis. This has resulted in rising demand for water treatment and water conservation measures. With 40 years of industry expertise and an extensive product range, the water treatment chemical division of Chembond is both a pioneer and leader in the water chemicals industry of India. The company exhibits excellence in strategy and implementation, leadership in customer value, remarkable brand positioning strategies, and successful market penetration. It also has strong brand visibility and high customer recall. The company has kept innovation and technology as a top priority and is known for frequently introducing innovations and improved products. Chembond also has a strong financial position and is among the top five companies in different product segments in the water chemicals industry in India.

With its strong overall performance, Chembond Water Technologies Limited has earned Frost & Sullivan's 2020 Company of the Year Award.

Significance of Company of the Year

To receive the Company of the Year Award (i.e., to be recognized as a leader not only in your industry, but among non-industry peers) requires a company to demonstrate excellence in growth, innovation, and leadership. This excellence typically translates into superior performance in three key areas—demand generation, brand development, and competitive positioning—that serve as the foundation of a company’s future success and prepare it to deliver on the 2 factors that define the Company of the Year Award: Visionary Innovation and Performance, and Customer Impact).



Understanding Company of the Year

Driving demand, brand strength, and competitive differentiation all play critical roles in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation and Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated each factor according to the criteria identified below.

Visionary Innovation and Performance

- Criterion 1: Addressing Unmet Needs
- Criterion 2: Visionary Scenarios through Mega Trends
- Criterion 3: Implementation of Best Practices
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Financial Performance

Customer Impact

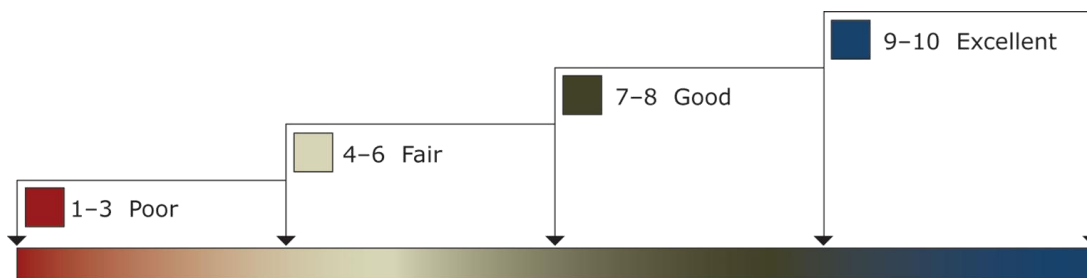
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practices Award Analysis for Chembond Water Technologies Limited

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows research and consulting teams to objectively analyze performance according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard considers Visionary Innovation and Performance and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key participants as Competitor 1 and Competitor 2.

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
Company of the Year	Visionary Innovation & Performance	Customer Impact	Average Rating
Chembond Water Technologies Limited	9	9	9
Competitor 1	7	6	6.5
Competitor 2	6	6	6

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs

Requirement: Implementing a robust process to continuously unearth customers’ unmet or underserved needs, and creating the products or solutions to address them effectively.

Criterion 2: Visionary Scenarios through Mega Trends

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling first-to-market growth opportunity solutions.

Criterion 3: Implementation of Best Practices

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy

Requirement: Strategic focus on creating a leadership position in a potentially uncontested market space, manifested by stiff barriers to entry for competitors.

Criterion 5: Financial Performance

Requirement: Strong overall business performance in terms of revenue, revenue growth, operating margin, and other key financial metrics.

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience

Requirement: Customers feel they are buying the optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company’s product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience

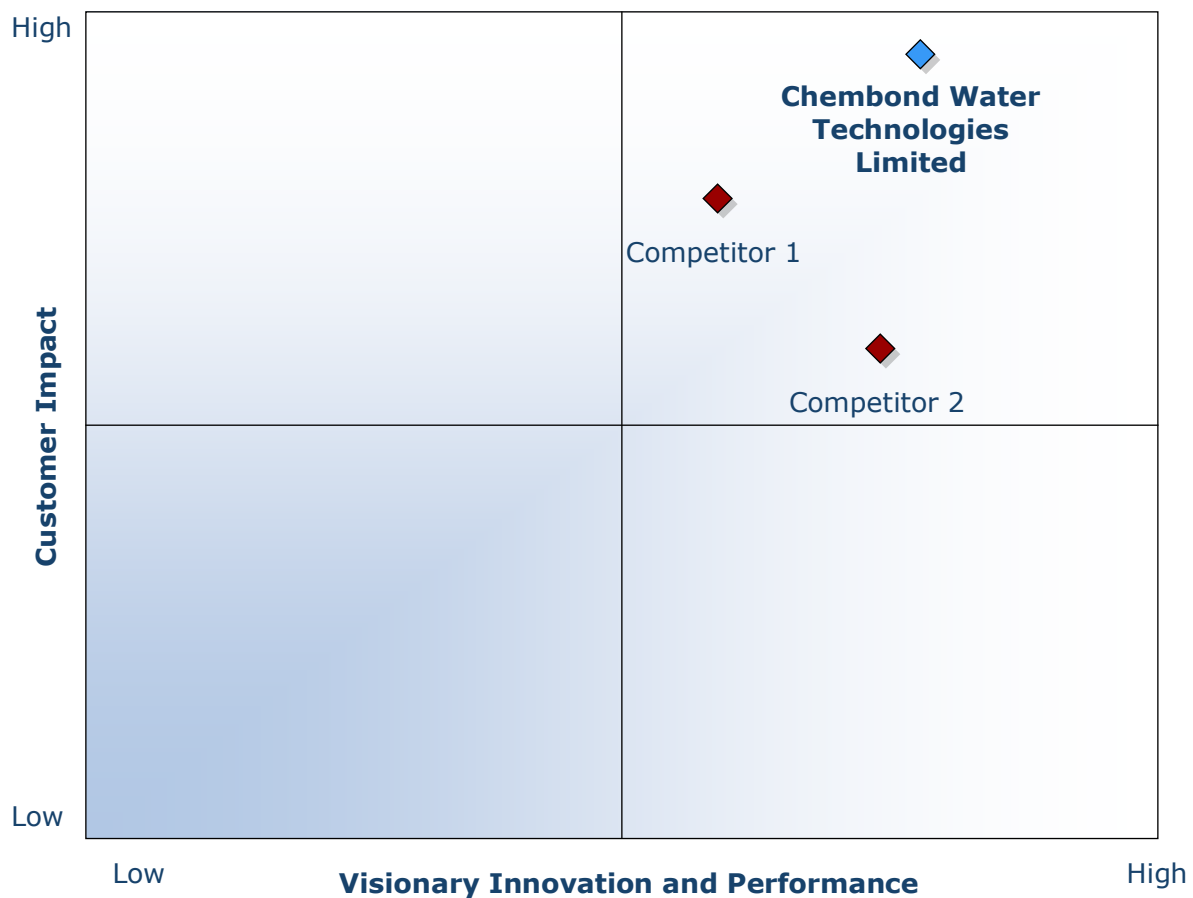
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify award recipient candidates from around the world	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging industries • Scan multiple regions 	Pipeline of candidates that potentially meet all best practices criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best practices positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible award candidates, representing success stories worldwide
7 Perform quality check	Develop official award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best practices award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select winner 	Decision on which company performs best against all best practices criteria
9 Communicate recognition	Inform award recipient of recognition	<ul style="list-style-type: none"> • Announce award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of award and plan for how recipient can use the award to enhance the brand
10 Take strategic action	Upon licensing, company able to share award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess award's role in strategic planning 	Widespread awareness of recipient's award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation, and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.