2015 North American EMC Test Services Customer Value Leadership Award
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Background and Company Performance

Industry Challenges

Customers in the North American EMC Test Services market are very price sensitive. The reality is that end users are looking for more affordable test equipment despite increasing certification requirements. However, improving performance while keeping prices low is a daunting challenge. In the end, many market participants end up reducing service costs in an attempt to sustain their market position. However, companies that do not surrender to this pricing pressure and instead maintain greater 'quality of service' have been contributing to market growth.

Calibration is the other key challenge that EMC Test Services providers are struggling with because today's calibration requirements are extremely rigorous. Ultimately, companies that have a quality pool of resources and the best trained staff find it much easier to meet accreditation requirements, and are thus able to deliver truly enhanced customer value.

Customer Impact and Business Impact

Price/Performance Value

TÜV Rheinland is a customer-driven company that exemplifies 'optimum value' across all levels of service delivery. Today's EMC testing has become more challenging for companies because of aggressive competition. To create a sound balance between price and performance, companies must acutely focus on their service approach.

To create superior value, TÜV Rheinland has created a portfolio of EMC test services for different industry verticals, keeping abreast of the latest industry standards. The company also has an in-depth understanding of gaps in the market. By dropping prices, some laboratories neither meet the standard requirements nor do they perform detailed testing, which leads to inaccurate results. Contrariwise, TÜV Rheinland collaborates with its customers to identify key problems and then it designs its solutions to meet unique customer needs. By following this 'custom tailored' methodology, TÜV Rheinland can maintain best-in-class quality services. To illustrate the quality difference in the market and how competing companies save time by not focusing on precision, consider this:

_During an A2LA or an NVLAP audit, exclusive bifurcations of each test setup and test measurements are not taken into consideration to identify conformity to the accreditation standards. Because examining machines from 30 MHz to 2 GHz involves a significant amount of time, many companies look at 30 MHz increments, avoiding precise details thereof._

In contrast, TÜV Rheinland follows a dedicated practice of examining at increments of 5 MHz. Although it takes longer to execute such tests, the broad window of examination...
enables TÜV Rheinland to be much more accurate; it's this level of accuracy that customers really value.

**Customer Service Experience**

In the telecommunications industry in North America, compliance with Federal Communications Commission (FCC) regulations is a key growth driver for companies. In line with this requirement, TÜV Rheinland has put in place a dedicated group that focuses exclusively on conducting the work related to the Change Control Board (CCB) for wireless products alone. In addition, the company also participates in a number of activities and technical symposiums to expand its reach. Moreover, TÜV Rheinland collaborates closely with both regulatory agencies and customers alike. This helps TÜV Rheinland improve and evolve its existing EMC testing services while also building customer awareness regarding emerging technologies and the significance of EMC testing. Thanks to these strategies, TÜV Rheinland boasts some of the world's most prestigious companies as its customers, 95% to 98% of whom are global companies.

As in any industry, fast and stress-free customer service provides significant competitive advantage. As a valued EMC Test Services provider in the North American market, TÜV Rheinland excels at service delivery. In the EMC Test Services space, the key challenge is centered on ensuring expeditious turnaround time for customers without compromising on quality. TÜV Rheinland's staff works both morning and night shifts so that all customers are serviced in a timely and efficient manner.

**Growth Potential**

TÜV Rheinland has identified industries that have a broader scope for growth in the EMC Test Services market, building a strong foundation in the North American space, while also reinforcing customer loyalty. Because regulatory standards evolve quickly, it is essential to have the latest certifications. Generally, after an update is published, there is a transition period of 9 to 18 months, depending on the standard. TÜV Rheinland takes a proactive approach where, 9 months to a year before the update is published and the transition starts, the company notifies all of its customers about the impending update and enquires about the potential testing time.

TÜV Rheinland also conducts webinars, creates white papers, and arranges for one-on-one information exchange sessions with customers to help it stay appraised of emerging customer needs. This has been a key driver in the company's impressive growth. Frost & Sullivan also feels that TÜV Rheinland's ability to act as a one-stop shop for customers further reinforces the company's strong brand identity and positions it for significant growth in the years to come.
Conclusion

Building on its vast market experience, unparalleled technical expertise, and the strategic presence of 5 state-of-the-art EMC testing facilities spread across North America, TÜV Rheinland provides superior value and service in EMC Testing. Its precision in testing, expeditious service time, and highly reliable test reports further illustrate the company’s unwavering focus on providing the best possible customer value in EMC Testing Services in North America. Because of its strong overall performance, TÜV Rheinland is recognized with Frost & Sullivan’s 2015 Customer Value Leadership Award.
Significance of Customer Value Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. Delighting customers is therefore the cornerstone of any successful growth strategy. To achieve these dual goals (growth and customer delight), an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by two macro-level categories: customer impact and business impact. These two sides work together to make customers feel valued, and confident in their products’ quality and long shelf life. This dual satisfaction translates into repeat purchases and a high lifetime customer value.
**Key Benchmarking Criteria**

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Customer Impact and Business Impact—according to the criteria identified below.

**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

**Business Impact**
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

**Best Practice Award Analysis for TÜV Rheinland**

**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 our 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 is organized by Customer Impact and Business Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria 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, we have chosen to refer to the other key players as Competitor 2 and Competitor 3.

<table>
<thead>
<tr>
<th>Customer Value Leadership</th>
<th>Customer Impact</th>
<th>Business Impact</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>TÜV Rheinland</td>
<td>9.0</td>
<td>9.5</td>
<td>9.3</td>
</tr>
<tr>
<td>Competitor 2</td>
<td>9.0</td>
<td>8.5</td>
<td>8.8</td>
</tr>
<tr>
<td>Competitor 3</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
</tr>
</tbody>
</table>

**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 like they are buying the most 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

**Business Impact**

**Criterion 1: Financial Performance**
Requirement: Strong overall financial performance in terms of revenues, revenue growth, operating margin and other key financial metrics

**Criterion 2: Customer Acquisition**
Requirement: Customer facing processes support the efficient and consistent acquisition of new customers, even as it enhances retention of current customers

**Criterion 3: Operational Efficiency**
Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard
**Criterion 4: Growth Potential**
Requirements: Customer focus strengthens brand, reinforces customer loyalty and enhances growth potential

**Criterion 5: Human Capital**
Requirement: Company culture is characterized by a strong commitment to quality and customers, which in turn enhances employee morale and retention

**Decision Support Matrix**
Once all companies have been evaluated according to the Decision Support Scorecard, analysts can 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.
The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan’s 360-degree research methodology represents the analytical rigor of our 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, leading to 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 players and for identifying those performing at best-in-class levels.
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards 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.

<table>
<thead>
<tr>
<th>STEP</th>
<th>OBJECTIVE</th>
<th>KEY ACTIVITIES</th>
<th>OUTPUT</th>
</tr>
</thead>
</table>
| 1 Monitor, target, and screen | Identify award recipient candidates from around the globe | - Conduct in-depth industry research  
- Identify emerging sectors  
- Scan multiple geographies | Pipeline of candidates who potentially meet all best-practice criteria |
| 2 Perform 360-degree research | Perform comprehensive, 360-degree research on all candidates in the pipeline | - Interview thought leaders and industry practitioners  
- Assess candidates’ fit with best-practice criteria  
- Rank all candidates | Matrix positioning all candidates’ performance relative to one another |
| 3 Invite thought leadership in best practices | Perform in-depth examination of all candidates | - Confirm best-practice 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 | - Brainstorm ranking options  
- Invite multiple perspectives on candidates’ performance  
- Update candidate profiles | Final prioritization of all eligible candidates and companion best-practice positioning paper |
| 5 Assemble panel of industry experts | Present findings to an expert panel of industry thought leaders | - 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 | - 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 | - 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-practice award recipient | - Review analysis with panel  
- Build consensus  
- Select winner | Decision on which company performs best against all best-practice criteria |
| 9 Communicate recognition | Inform award recipient of award recognition | - Present 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 may share award news with stakeholders and customers | - Coordinate media outreach  
- Design a marketing plan  
- Assess award’s role in future strategic planning | Widespread awareness of recipient’s award status among investors, media personnel, and employees |
About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to 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 practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.