2016 North American Class 8 Tractor Customer Value Leadership Award
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Background and Company Performance

Industry Challenges

Strengthening government regulations are driving truck original equipment manufacturers (OEMs) and Tier I suppliers to actively work together to cut vehicular emissions to naught. Thus, rethinking the individual systems in a vehicle has become a necessity. In a sub-system where the impact on fuel efficiency is direct, such as in a transmission, significant results can be most rapidly obtained through re-invention. However, in the cost-conscious commercial truck market, innovation cannot come at any cost, and is increasingly being demanded at a low-cost or at an on-par-cost with existing solutions.

The technological landscape of heavy-duty linehaul truck transmissions is presently dominated by manual transmissions (MTs), with automated-manual transmissions (AMTs) commonly being perceived by the industry to hold immediate promises of meeting targets for on-par fuel-efficiency and cost. While leading transmission and truck manufacturers are convinced that their in-production AMT solutions can already match the performance of MTs, end customers, such as fleet owners and truck drivers, are not fully convinced of their fuel-economy benefits in heavy-duty, long-haul applications.

Tier I transmission suppliers and OEMs with a vertically-integrated transmission supply chain have sought to improve shift performance and reduce engine torque interruptions through the adaption of dual-clutch transmissions (DCT) in the heavy-duty truck segment. However, unlike its success with the passenger car segment, DCTs have not made a perceptible impact on fuel efficiency in long-haul heavy-duty trucks, thus discouraging fleet owners from the mass adoption of this technology. In addition, linehaul fleets have traditionally preferred manual transmissions owing to the ability of such transmissions in delivering fuel efficiency benefits when driven by skilled drivers. However, with North American linehaul trucking industry facing driver shortage of skilled drivers and with improvements in fuel efficiency benefits of AMTs and automatic transmissions relative to manual transmissions, fleets are now offered competitive options for linehaul truck transmissions.

Customer Impact and Business Impact

Customer Impact

Customer Purchase Experience

MTs demand skilled drivers while fully automatic transmissions (AT) free the driver from transmission actuation. Fleet owners in North America are faced with the twin challenges of driver shortages and strengthening emission regulations while striving to lower fuel expenses. With an AT, customers feel they are buying an optimal solution that addresses both their unique needs and their unique constraints. Transmission (Allison) is the world’s largest manufacturer of ATs for medium- and heavy-duty commercial truck applications. Allison has 13 product lines which have earned a reputation as being rugged
and dependable. It offers product solutions that are customized to customer's unique usage applications through the combination of a variety of product models and unique software calibrations. Allison’s technology leadership, consistent product performance, strong partnerships with global commercial vehicle (CV) OEMs, and its commitment to innovation have helped the company to steadily grow its market share in the North American on-highway heavy-duty truck market.

**Customer Service Experience**

Allison has strong aftersales relationships with its customers; hence, its aftermarket sales and services accounted for 19% of revenue in 2015. The company views the availability of genuine parts and fluids in each of its dealership locations as an extension of its brand promise. Allison’s extensive network of 1,400 independent distributor and dealer locations which sell, service, and support its transmissions enables the company to provide high-quality customer service that is easily accessible, fast, and stress-free. The company has numerous avenues for customer service in its representatives, distributors, and OEM dealers who educate customers and respond to the specific applications, requirements, and needs of numerous specialty markets.

Allison’s commitment to lowering total cost of ownership and improving customer experience has reaped benefits with fleet managers in North America. Many have reported that Allison’s ATs have helped them reduce transmission maintenance expenses and spare parts inventory as with a manual transmission. Truck drivers also report superior steering comfort; Allison-fitted trucks are supposedly as easy to drive as passenger cars.

**Brand Equity**

Not all companies can survive the economic, demographic, and social changes over the course of 100 years and continue to retain technology leadership. Allison’s centennial celebrations in 2015 speak for its enduring product quality and innovation culture that have helped it stay on top of the myriad of changes in the business environment. Allison is, thus, one of the most recognized brands in the transmissions industry. The brand is strongly associated with high quality, durability, vocational value, technological leadership, and superior customer service. Globally, over 300 OEMs offer Allison automatics as an option to their standard transmission fitments. This speaks of the unique position that the brand holds over other suppliers in the truck industry.

**Business Impact**

**Financial Performance**

For 2015, Allison reported revenues of $1,985 million with an operating margin of 21%, making it one of the most profitable businesses in the transmission industry.
Customer Acquisition

Approximately 80% of revenue in 2015 came from North America, Allison has a global clientele base spanning Europe, Asia, South America, and Africa. These customers are serviced through its global network of independent distributor and dealer locations. For example, most of the transmissions sold in North American on-highway metro tractor applications are to OEMs. These transmissions are either standard fitments in OEM vehicles or are specifically requested by fleets while purchasing these trucks. Customer-facing processes support the consistent acquisition of new customers and enhance the retention of current customers.

Growth Potential

Allison’s customer focus strengthens its brand, reinforces customer loyalty, and enhances growth potential. Allison estimates that it had 63% of the global market share of all fully-automatic transmissions sold for medium- and heavy-duty on-highway commercial vehicle applications in 2015. Its core North American on-highway market includes Class 4-5, Class 6-7, and Class 8 straight trucks, conventional transit, shuttle and coach buses, school buses, and motorhomes.

Class 8 trucks have two sub-segments: straight and tractor. Allison is already established in the Class 8 straight trucks sub-segment while it previously did not have any significant market share in the Class 8 tractor market. However, Allison has identified a portion of the Class 8 tractor market that it calls metro tractors, which are mostly used in urban environments. During 2013, it began production of a fully-automatic transmission, the “TC10®,” that meets the unique duty cycle requirements of Class 8 metro tractors and many linehaul applications. With its twin countershaft and torque converter architecture, the TC10 provides the best of both AT and MT, by combining the drivability, performance, and durability benefits of full power-shifting automatic transmissions with the cruising fuel economy inherent in twin countershaft architecture. The design utilizes a torque converter for initial launch only, a 5-speed countershaft main transmission, and a 2-speed planetary range output section. With this technology, there is no torque interruption between shifts. The unique value proposition of the TC10 in the tractor market will spur growth for Allison’s AT solutions in the Class 8 tractor market.

First introduced in 2014 with Navistar’s International truck powered by the N13 engine, the Allison TC10 remains the first fully automatic transmission for the Class 8 on-highway segment. In October of 2015, Navistar announced that the Allison TC10, coupled with a Cummins ISX15 engine would be available in early 2016. In that same month, one of the largest fleet operators in North America, Mesilla Valley Transportation (MVT), announced its selection of TC10 for its 2015/2016 purchases. MVT made the decision after comparing real-world performance data on manual, automated-manual, and automatic transmissions. Over 60 test fleets have provided Allison with detailed fuel data revealing 80% of these fleets report improved fuel economy with TC10 equipped tractors compared to the average fuel economy of a fleet, which includes different vehicles, and engine and
transmission types. When used in actual fleets in a variety of duty-cycles, the Allison TC10 delivered 5% better fuel economy than current manual-or automated manual transmission equipped tractors. This is consistent with Allison’s early pre-production testing and engineering simulations.

**Conclusion**

Allison continues to make significant commitments to enhancing customer value through a myriad of new efforts around customer service infrastructure, product development, and strategic partnerships. Frost & Sullivan’s independent analysis clearly shows that Allison’s legacy of automatic transmission expertise spanning over a century, its executive leadership team, and its continued commitment to excellence will enable the company to expand and enhance its leadership position in the on highway tractor segment.

In the on highway tractor market, which has been traditionally dominated by manual transmissions, Allison’s TC10 holds strong promise for product leadership through enhanced fuel efficiency and driveability. It combines the startability and continuous, uninterrupted power shifting qualities of a fully-automatic transmission with the cruising aspects of a manual transmission. This product is growing Allison’s market share in the metro-tractor sub-segment, thereby strengthening its leadership in the overall Class 8 truck segment in North America.

Because of its strong overall performance and value created by the innovative TC10, Allison Transmission has earned Frost & Sullivan’s 2016 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 Allison Transmission

**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, Frost & Sullivan chooses to refer to the other key players as Competitor 2 and Competitor 3.

**DECISION SUPPORT SCORECARD: CUSTOMER VALUE LEADERSHIP AWARD**

<table>
<thead>
<tr>
<th>Measurement of 1–10 (1 = poor; 10 = excellent)</th>
<th>Customer Impact</th>
<th>Business Impact</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Value Leadership</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allison Transmission</td>
<td>9</td>
<td>9</td>
<td>9.0</td>
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<tr>
<td>Competitor 2</td>
<td>9</td>
<td>8</td>
<td>8.5</td>
</tr>
<tr>
<td>Competitor 3</td>
<td>8</td>
<td>8</td>
<td>8.0</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.

[Decision Support Matrix Image]
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.

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 over 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 40 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.