FROST & SULLIVAN
BEST PRACTICES
AWARDS

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2020 BEST PRACTICES AWARD

MACHINEMAX

2020 EUROPEAN
EQUIPMENT MANAGEMENT PLATFORM FOR
OFF-HIGHWAY FLEET AND HEAVY MACHINERY
ENTREPRENEURIAL COMPANY OF THE YEAR AWARD

Contents

Background and Company Performance

Industry Challenges

The optimum usage and management of expensive assets have long been a challenge in the industrial sector. Industry verticals such as automotive, construction, mining, additives and heavy manufacturing often end up spending a lot of money procuring assets, machines, or equipment. However, these assets are often poorly utilized. For example, a company might buy an excavator for hundreds of dollars but the equipment may not be utilized to its optimum level, leading to the cost of investment not being realized. In other words, its asset utilization ratio may be low. When an asset is running but is not doing anything useful it tends to burn a huge volume of fuel per hour while also pushing the hour meter of the machine forward. As a result, the asset depreciates faster and requires additional maintenance. Assets not being available for use as and when required, thus affects the productivity of the company, delaying project completions. Having a proper line of sight into assets can be an easy solution to a lot of these problems. Knowing how an asset is being used is crucial as it affects fuel consumption, staffing decisions, maintenance scheduling, and rental costs.

While equipment or asset management platforms are emerging as a viable solution to the aforementioned issues, most of the solutions available in the market involve complex installation processes that also intrude into customer privacy. Aspects such as who owns the data (that is gathered and processed on equipment management platforms) and how it will be shared is a grey area which leaves customers undecided about using the platform. The installation and management of such equipment management solutions also entail cumbersome processes and need skilled operators that are sufficiently trained. As a result, end users often decide against using such solutions.

Entrepreneurial Innovation and Customer Impact

Founded in 2018, London-based MachineMax is a startup backed by Royal Dutch Shell and BCG Digital Venture. The company aims to provide telematics for off-highway fleets and asset utilization analytics for heavy machinery to help customers maximize the profitability and productivity of their assets. Its ground-breaking equipment management platform has enabled the company to have 30 of the top companies located across the globe as its clients within just two years of its inception.

Market Disruption, Competitive Differentiation, and Market Gaps

The equipment management platform from MachineMax is a digital solution that helps end users from heavy industries optimize asset utilization and enhance the profitability of their assets. The product includes wireless sensors that measure machine vibrations and uses artificial intelligence (AI) to analyze and interpret machine utilization data. It then transfers this data to the cloud to deliver real-time insights to machine operators located across the globe. Machine operators then use this data to track or monitor these machines and obtain a comprehensive understanding of where and how they are being utilized.

One of the biggest advantages of the MachineMax solution is that unlike competing solutions, it makes use of non-invasive sensors which means that the device does not

intrude into the privacy of the end-user equipment. These sensors have an independent power source and do not require invasive installation. A key reason why end users often shy away from using asset management solutions is the need to secure company data. MachineMax's ground-breaking use of non-invasive sensors allows end users to avail of the advantages of an asset management solution without having to compromise the security of their data. This truly differentiates the company from its peers. Further, these sensors can be directly fitted onto machines and can instantly start tracking the machines' utilization. End users do not require any training or special skills to set up the equipment, which is often necessary when installing competing solutions. The hardware attaches itself to any equipment using a powerful magnet, which makes installation extremely easy. The software setup also takes under a minute and the cloud-based solution enables real-time monitoring of asset condition and performance. This plug-and-play feature is also a key differentiator for the company, pushing its solution ahead of those offered by its competitors.

The solution delivers live and instant updates on any owned or rented equipment to concerned authorities without a time lag, which leads to improved asset utilization and enhanced productivity. For example, the solution can alert the supervisor when equipment is idle for too long. Identifying and resolving an issue, therefore, is almost instant, resulting in improved asset utilization and enhanced productivity.

An accurate view of machine activity implies reduced machine idle time which prevents unwanted fuel consumption. For example, using MachineMax sensors, a heavy equipment company was able to identify if and when a piece of equipment was active. MachineMax enhanced the value of the end user's assets by providing real-time information and on-demand reports.

MachineMax automatically transfers the data collected by its sensors to the Cloud using long-range wide-area networks (LoRaWan), low power cellular technologies (NBIoT, LTE, 2G) or a Bluetooth Low Energy (BLE) network. The ability to track a machine or asset continuously leaves no room for unauthorized asset usage (such as an asset being moved by an unassigned personnel). Not having to manually keep track of assets means resources can be used to attend to other critical tasks, leading to better employee productivity.

Customer Purchase, Customer Service, and Customer Ownership Experience

MachineMax works relentlessly to meet and exceed the needs of its customers by offering a hassle-free plug-and-play solution that eliminates the need of complex installations and rigorous staff training. Purchasing and integrating MachineMax's equipment management platform is quick and easy and does not affect the day-to-day activities of the customer's business operations.

MachineMax has been enhancing the way its solution can be delivered to end customers. The company offers its solution through a per-equipment-per-month subscription model, which allows customers to set up based on their business requirements at a lower cost and with an ease that is not possible when installing competing solutions. Furthermore, the company has a team of technical experts that provides round-the-clock online technical support and offers detailed guidelines and information on its offerings.

MachineMax has been deployed in over 10 countries worldwide since its inception in 2018 and has received extremely positive product feedback from customers. For instance, a global mining company noticed that the dump trucks had big blocks of idle time in each haul cycle and by analysing real-time sensor data, the production managers identified that the bottlenecks were happening during loading. They brought another loader online and the impact was immediate. The overall dump truck fleet increased their output by as much as 20% and overall equipment efficiency increased with a dramatic drop in idle time.

Passionate Persistence

MachineMax was founded on the principle of addressing workforce-related challenges and bringing substantial changes in heavy industries. Two years since its inception, MachineMax is still strongly focused on building brand visibility in the industry by consistently reaching out to customers worldwide and by continuously growing its partner ecosystem. The company has already added some of the top companies to its clientele, including Flannery Plant Hire, JSW, Ultratech, Shell, Tata, Explore Transport, Ronez, Select Plant Hire, Imerys, Harsco, and others. Backed by a strong foothold in the heavy industries domain, the company boasts a strong network of partners across several countries, which helped it build a loyal customer base. The company's current objective is to continue developing its product roadmap and adding more features to its solution, based on the feedback the company regularly collects from customers. Organizations in the global flexible heavy industries segment are turning to MachineMax because of its fierce emphasis on delivering high-quality service and its customer-centric approach.

Conclusion

MachineMax's equipment management platform delivers unparalleled value to end users by improving their operational efficiencies and productivity. The company's strong focus on delivering personalized, intelligent, and easy-to-install solutions has allowed it to distinguish itself in the market in a short time, making it one of the fastest-growing companies that offer equipment management solutions in Europe. The company's unique product, the value it generates of its customers, and its superior customer service are expected to drive the company's continued growth in the years to come.

With its strong overall performance, MachineMax has earned Frost & Sullivan's 2020 Entrepreneurial Company of the Year Award for its equipment management solutions in the European Off-highway Fleet and Heavy Machinery market.

Significance of Entrepreneurial Leadership

Ultimately, growth in any organization depends on customers purchasing from a company and then making the decision to return time and again. In a sense, then, everything is truly about the customer. Making customers happy is the cornerstone of any successful long-term innovation or growth strategy. To achieve the dual goals of customer engagement and growth, an organization must be best in class in 3 key areas: understanding demand, nurturing the brand, and differentiating from competition.

Understanding Entrepreneurial Leadership

Demand forecasting, branding, and differentiation underpin an entrepreneurial company's journey toward forming deep relationships with customers and permanently altering the market with their actions. Entrepreneurial Innovation and Customer Impact are the cornerstones of this award, as discussed further in the next section.

Key Benchmarking Criteria

For the Entrepreneurial Company of the Year Award, Frost & Sullivan analysts independently evaluated Entrepreneurial Innovation and Customer Impact according to the criteria identified below.

Entrepreneurial Innovation

Criterion 1: Market Disruption
Criterion 2: Competitive Differentiation
Criterion 3: Market Gaps
Criterion 4: Blue Ocean Strategy
Criterion 5: Passionate Persistence

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 MachineMax

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
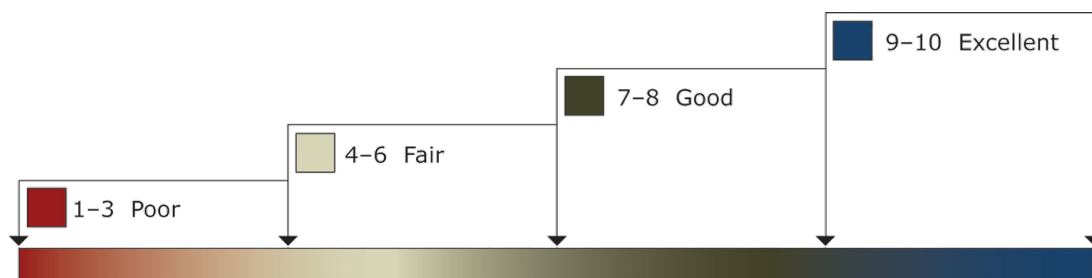
The Decision Support Scorecard considers Entrepreneurial Innovation and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through 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.

Measurement of 1–10 (1 = poor; 10 = excellent)			
Entrepreneurial Company of the Year	Entrepreneurial Innovation	Customer Impact	**Average Rating**
MachineMax	**9.5**	**9**	**9.25**
Competitor 2	6	5	5.5
Competitor 3	7	5	6

Entrepreneurial Innovation

Criterion 1: Market Disruption
Requirement: Innovative solutions that have genuine potential to disrupt the market, making current solutions obsolete and shaking up competition.

Criterion 2: Competitive Differentiation
Requirement: Deep understanding of both current and emerging competition to create and communicate strong competitive differentiators in the market.

Criterion 3: Market Gaps
Requirement: A clear understanding of customers' desired outcomes, the products that currently help them achieve those outcomes, and where gaps exist.

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: Passionate Persistence
Requirement: A deep belief in the rightness of an idea and a commitment to pursuing it despite seemingly insurmountable obstacles.

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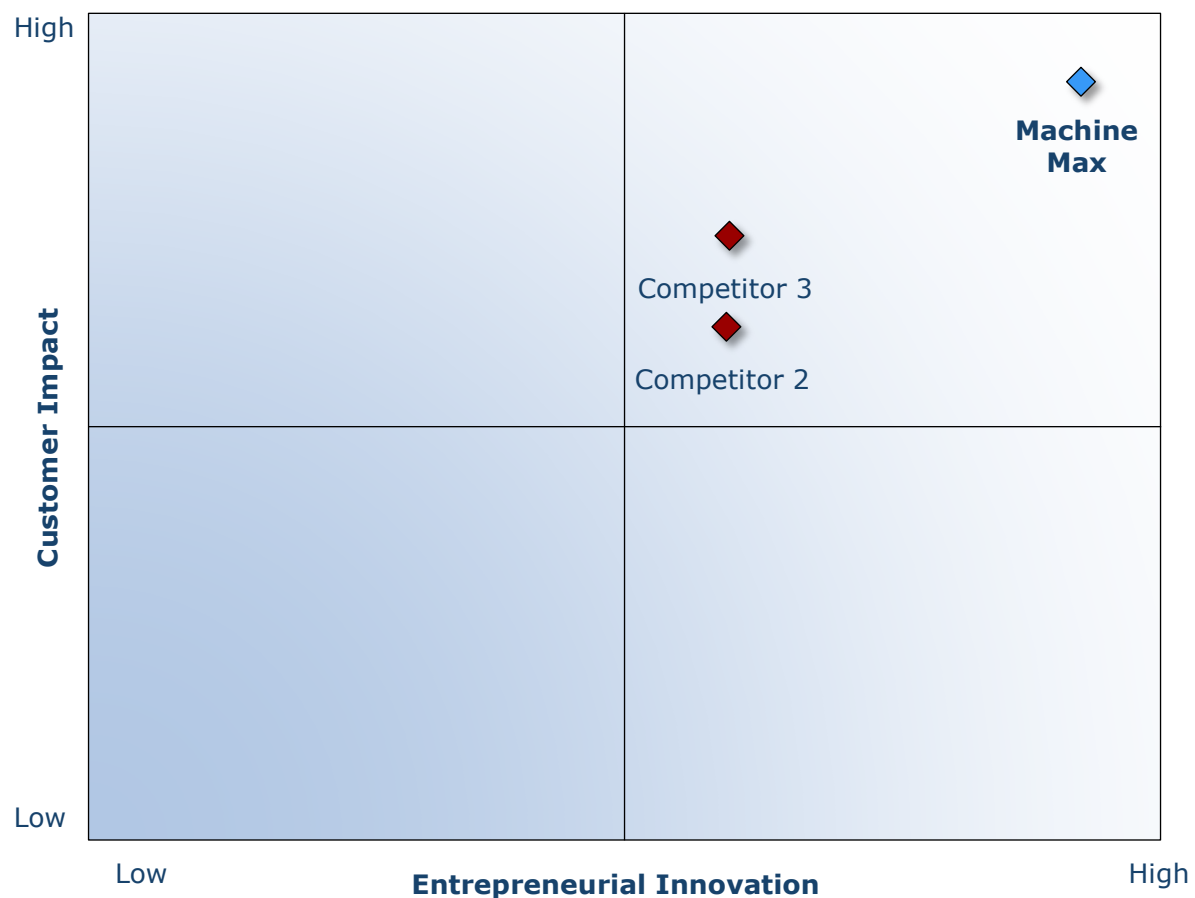
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

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	• 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	• 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	• 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	• 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	• 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 practices award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best practices criteria
9	**Communicate recognition**	Inform award recipient of recognition	• 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 is able to share award news with stakeholders and customers	• 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

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

participants and for identifying those performing at best-in-class levels.

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.