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# BEST PRACTICES

AWARDS

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2019

BEST  
PRACTICES  
AWARD



**Canon**

**2019 NORTH AMERICAN  
CLINICAL PARTNERSHIP IN IMAGING  
CUSTOMER VALUE LEADERSHIP AWARD**

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## Background and Company Performance

### *Industry Challenges*

Globally, the increasing tendency to curb spending on medical imaging represents one of the prime areas affecting healthcare cuts. Utilized in 65 to 75% of medical cases, imaging adds significant value to patient outcomes, but at the same time the technology suffers from inappropriate utilization, leading to inefficiencies in the healthcare system. To ensure appropriate utilization of imaging solutions as a way to maximize patient outcomes, the reimbursement model is gradually but steadily moving from fee-for-service to outcome-based payments. The Centers for Medicare & Medicaid Services (CMS) estimates that by 2021 in the United States, fee-for-service payments will comprise only 20% of total reimbursements.

Frost & Sullivan recognizes that while the transition to value-based care signifies a drastic change in the US health system operating model, CMS in the past few years has introduced various initiatives such as rate cuts, code bundling, and so on that have greatly affected reimbursement for various imaging procedures, stimulating the need for innovative business models in imaging that prioritize efficiency, accuracy, and delivery of best patient outcomes.

### **Challenges for the Provider Industry**

**Financial constraints:** Reimbursement pressure and rising healthcare costs that are not matched by comparable revenue growth are leading to conservative budgeting among providers. Specifically, limited scope of high CAPEX and tight revenue expenditure are constraining the growth of radiology departments in hospitals.

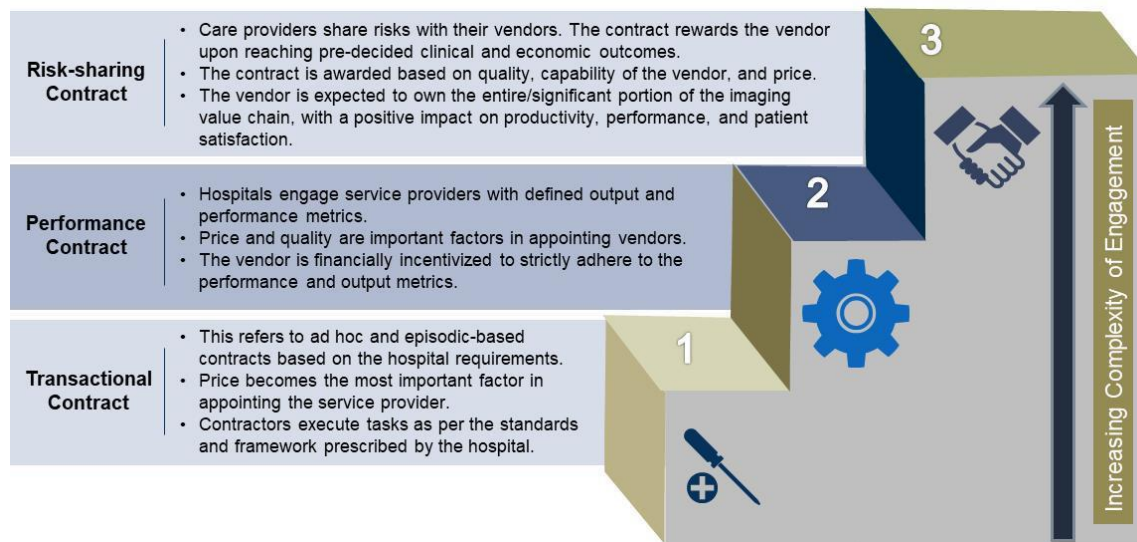
**Lack of expertise:** The technological landscape, particularly in the imaging segment, is rapidly changing. The technical know-how within hospitals' biomedical departments is quite limited, leaving in-house teams unable to decisively communicate the business case for extending the life of an obsolete technology or its replacement with a new technology.

**Increased focus on clinical outcomes:** The administration is responsible for the clinical, financial, and operational aspects of the hospital. With emerging policies on reimbursement, administrators are constantly under increased pressure to ensure improved clinical outcomes, which conversely compromises their attention on operational and financial aspects.

**Complicated procurement process:** The degree of sophistication in imaging technology is increasing day by day. Hospital biomedical staff cannot remain continually knowledgeable about the latest and best value-for-money technology, so procurement decisions based on this limited knowledge are bound to carry extreme risks in the form of investing in inappropriate capital-intensive technology for the hospital.

Frost & Sullivan observes that this scope of challenges is prompting providers to seek the most appropriate, innovative solutions from their imaging technology vendors while vendors across the value chain are trying to compete by positioning themselves as the ideal partners in customers' journey, which is expressed through risk-sharing and outcome-based business contracts (Exhibit 1). In the process, vendors are addressing some of the critical challenges providers (hospitals) face.

## Exhibit 1: Types of Provider-OEM Contracts



Canon Medical, with its strong portfolio in both imaging hardware and software segments (Vital Images), is leveraging this opportunity by offering customers a unique value proposition it refers to as “Collaborative Imaging” that promises to improve operational, financial, and clinical outcomes for its clients.

### *Customer Impact and Business Impact*

#### **Legacy of Excellent Customer-centric Initiatives**

Canon Medical upholds a long history of according the highest priority to serving its customers through its unique support and value-added solutions. The company has demonstrated excellent partnership-building capabilities by working closely with its customers on their journey towards achieving operational excellence. The acquisition of Toshiba Medical and integration of its Vital Images solution provided Canon Medical industry-leading breadth and depth of its portfolio, covering both hardware and software, which it leveraged to approach the market in offering total integrated solutions based on its ‘*Made for Life*’ philosophy. The fact that high-quality diagnostic imaging was becoming a commodity and there was much-needed differentiation in value propositions being offered to customers catalyzed Canon Medical’s evolution from equipment vendor to next-generation solution provider.

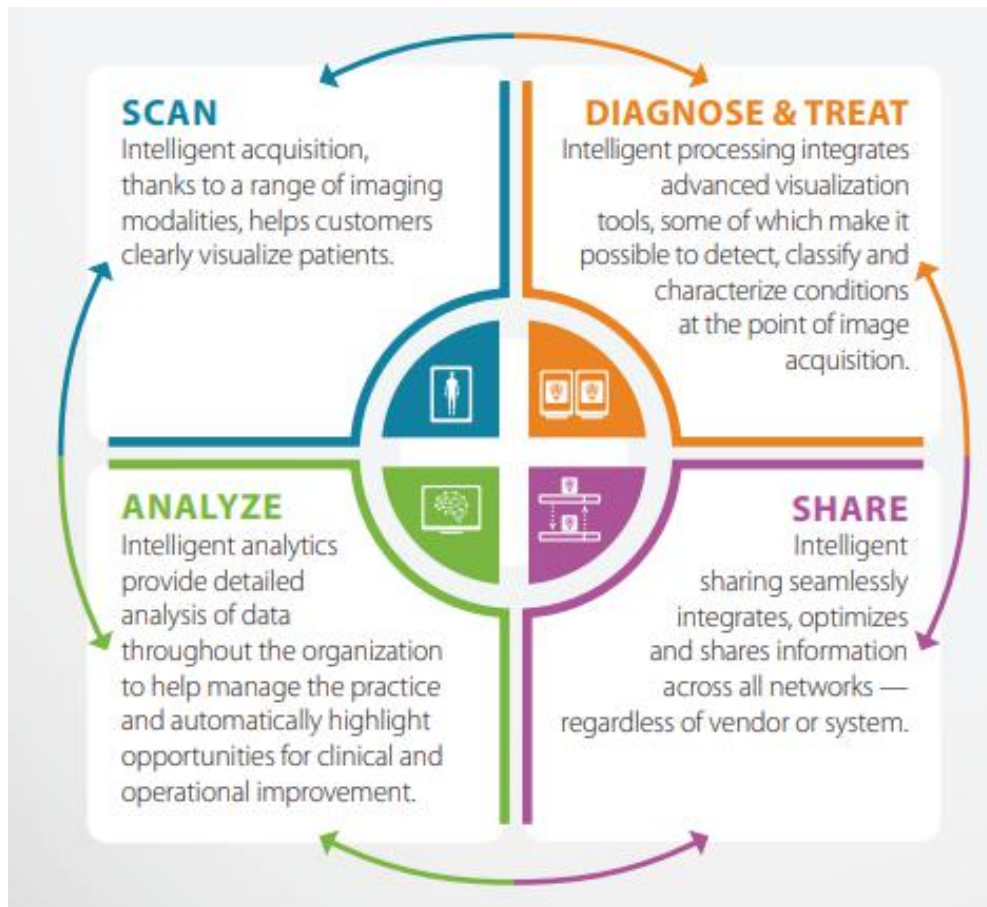
#### **‘Collaborative Imaging’ Delivers Superior Value to Customers**

Canon Medical leveraged its *Made for Life* philosophy to create the foundation for Collaborative Imaging targeting providers, patients, and employees. The underlying essence of Canon Medical’s transformation is that the company offers not just medical equipment but also supports its customers by leveraging technology solutions to achieve clinical, financial, and operational excellence. Collaborative Imaging ensures seamless integration of imaging applications along every step of the patient’s journey by partnering with several enterprise imaging companies that offer vendor-agnostic image integration services.

## Collaborative Imaging Model: Scan | Diagnose & Treat | Analyze | Share

Collaborative Imaging revolves around the four pillars of **Scan, Diagnose & Treat, Analyze, and Share**, which are the cornerstones of a patient's journey during an illness, as described in Exhibit 2.

### Exhibit 2: Canon Medical's Collaborative Imaging Model – Key Components



The *Scan* segment of this solution is built on Canon Medical's equipment, but other segments are manufacturer-agnostic and embed artificial intelligence (AI) heavily across the 4 steps. For instance, Canon Medical has secured US FDA 510k status for its CT Deep Convolutional Neural Network algorithm. The AI algorithms achieve dose reduction in CT as well as maintain a high level of image quality. In contrast, the dose reduction achieved by Canon Medical's top competitors' models has come at the cost of image quality, which is not appreciated by radiologists.

*Scan* forms an important component of the value proposition underpinning Collaborative Imaging. The differentiated feature of Canon Medical is that it offers the same platform from entry level to high-end scanners, with a focus on delivering the same clinical functionalities across the entire range, which is not usually seen by competitors.

Canon Medical is investing heavily in high definition (HD) scanner technology as well as in imaging informatics for better visualization tools across diagnostic applications as well as

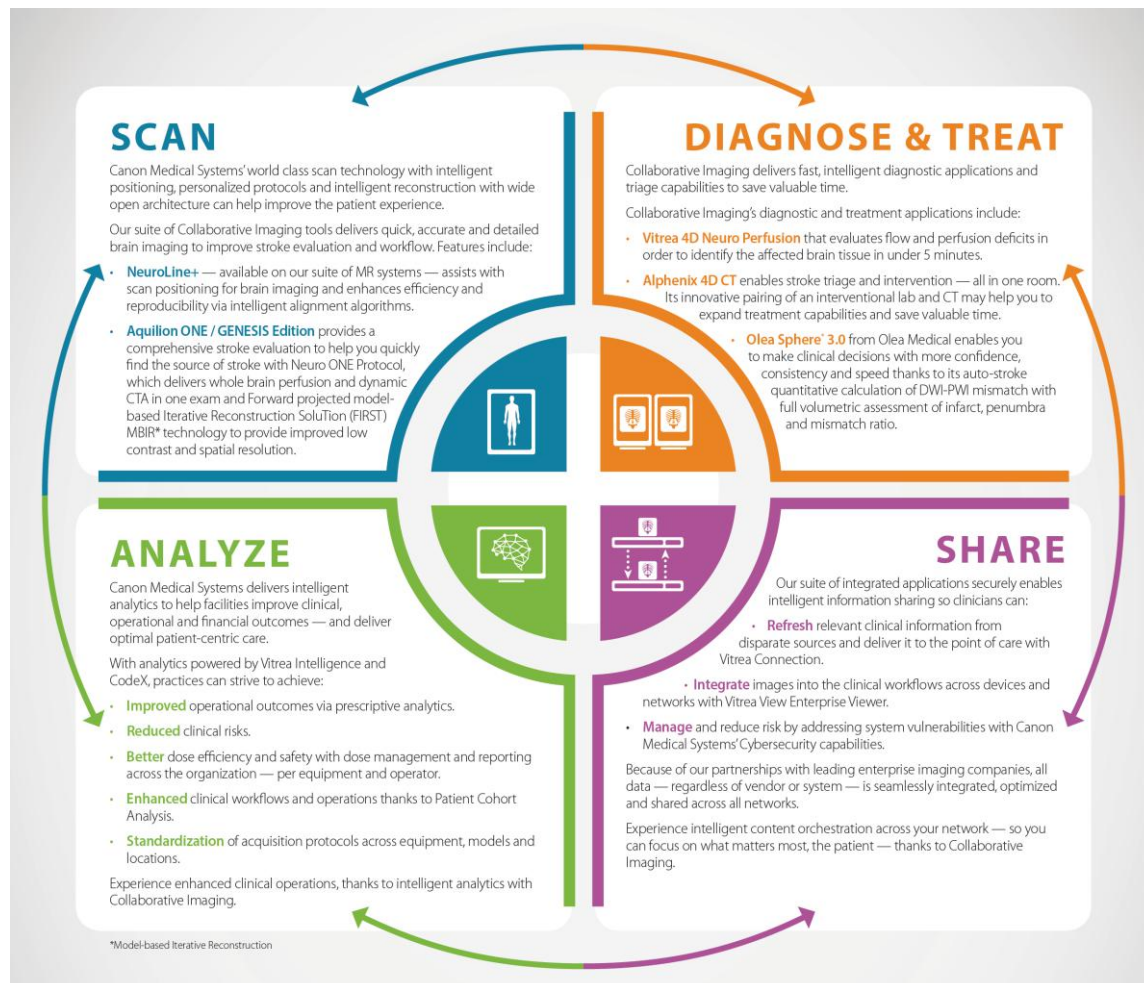
for interventional procedures. For instance, the company has launched an HD 75 micron detector technology on its vascular platform. Also, substantial focus is directed on ensuring interoperability between scanners and modalities, essentially creating a seamless workflow that can be leveraged for better triaging, better planning, and better treating; ultimately leading to improvements in clinical, financial, and operational outcomes.

**Differentiated Proposition**

Canon Medical’s core technology is fortified by another layer of solutions comprising software, services, education, productivity tools, real-time monitoring, and various other value-added solutions. These include both a depreciated financial model and risk-sharing models.

Frost & Sullivan is impressed with Canon Medical’s track record of providing the highest level of service and applications around its core technology. Leveraging its market credibility, Canon Medical has moved up the value chain with its key, unique proposition of clinical partnering and optimization of clinical workflows that symbolizes a true Collaborative Imaging approach built around critical illnesses, such as stroke (see Exhibit 3), that have a high economic burden.

**Exhibit 3: Collaborative Imaging in Stroke**



While similar offerings from competitors claim to be “comprehensive solutions,” they are primarily guided by the objective to convert capital expenditure to operational expenditure through pay-as-you-go arrangements, combined with an enterprise-wide multi-vendor service contract. Conversely, Canon Medical is transitioning its business model from one in which the end point was sale of equipment and annual maintenance contracts to an updated model where the endpoint is customers reaching their clinical, financial, and operational improvement goals. The difference here is that the sales engagement process has transitioned from discussing CT/MR specifications to optimization of workflow, achieving operational excellence, plugging leaks in the system, and achieving referral marketing, which elevates Canon Medical’s status from a vendor to a strategic business partner.

### **Financial Performance**

From a sales perspective, ‘Collaborative Imaging’ is driving reimagined engagement between Canon Medical and its customers that positions the company as a dynamic strategic partner rather than as a static technology vendor. The solution, which has been introduced in the developed markets, is already witnessing traction in Europe and United States, apart from Japan. In fact, revenue has shown a phenomenal growth rate outpacing the industry’s by 2 to 3 times. Also, the proposition is driving higher engagement in the company’s services business.

Moreover, Collaborative Imaging is refined to suit the reimbursement requirements of different markets such as Australia, New Zealand, and various countries in Europe. However, it will be another 2 to 3 years before these solutions are introduced in any of the emerging markets.

### **Growth Potential**

Value-based care is a foundational concept influencing providers to adopt new healthcare business models. Another big driver is the changing role of radiologists, which is transforming into a service line solution within the health system and leading to a complex system with multiple handovers to different stakeholders. Collaborative Imaging promotes patient-centric care where information from multiple modalities is integrated and analyzed through innovative ‘intelligent’ applications that mitigate or manage risks to ensure better clinical, operational, and financial outcomes. Because of the industry-leading partnership with various stakeholders in the ecosystem, images from various vendors are seamlessly integrated and shared across the network of hospitals. Canon Medical will target the high cost, chronic conditions segment with its solutions to begin with and subsequently cover the transactional/episodic care segments down the road.

Frost & Sullivan finds the adoption of value-based care across the globe offers a strong growth opportunity for Canon Medical, which is well positioned to exploit the potential with its robust solutions built to address the challenges threatening today’s provider industry.

## *Conclusion*

Value-based care is transforming the way healthcare is being delivered across the globe. With value becoming the new currency in healthcare, Canon Medical has rapidly transformed from equipment vendor to an integrated solution provider offering a differentiated proposition centered on improving clinical, operational, and financial outcomes by establishing strong partnerships with its customers. Canon Medical has built solutions strategically around key chronic illnesses such as stroke, structural heart disease, and liver cancer that enable integrated and prioritized information, actionable clinical findings, improved workflow efficiencies, automated routine tasks, and expanded analytic and reporting capabilities. The unique proposition built around clinical partnerships will add significant value to clients and will support Canon Medical's leadership position in the next generation of medical imaging.

For its strong overall performance, Canon Medical has earned Frost & Sullivan's 2019 Customer Value Leadership Award.



## Significance of Customer Value Leadership

Ultimately, growth in any organization depends on customers purchasing from a company and then making the decision to return time and again. Satisfying customers is the cornerstone of any successful growth strategy. To achieve this, an organization must be best in class in 3 key areas: understanding demand, nurturing the brand, and differentiating from the competition.



## Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by 2 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 performance. This dual satisfaction translates into repeat purchases and a lifetime of customer value.

### *Key Benchmarking Criteria*

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated 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**

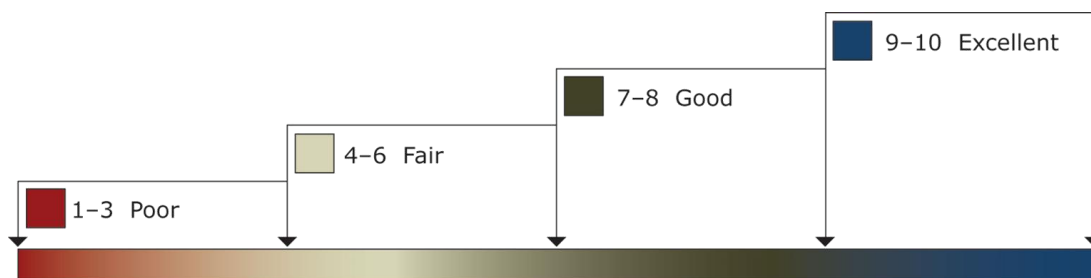
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

## **Best Practices Award Analysis for Canon Medical Systems**

### *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 Customer Impact and Business 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>			
<b>Customer Value Leadership</b>	Customer Impact	Business Impact	Average Rating
<b>Canon Medical</b>	<b>9.5</b>	<b>9</b>	<b>9.25</b>
Competitor 1	9	9	7
Competitor 2	8.5	9	6.75

### *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.

### *Business Impact*

#### **Criterion 1: Financial Performance**

Requirement: Overall financial performance is strong in terms of revenue, 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**

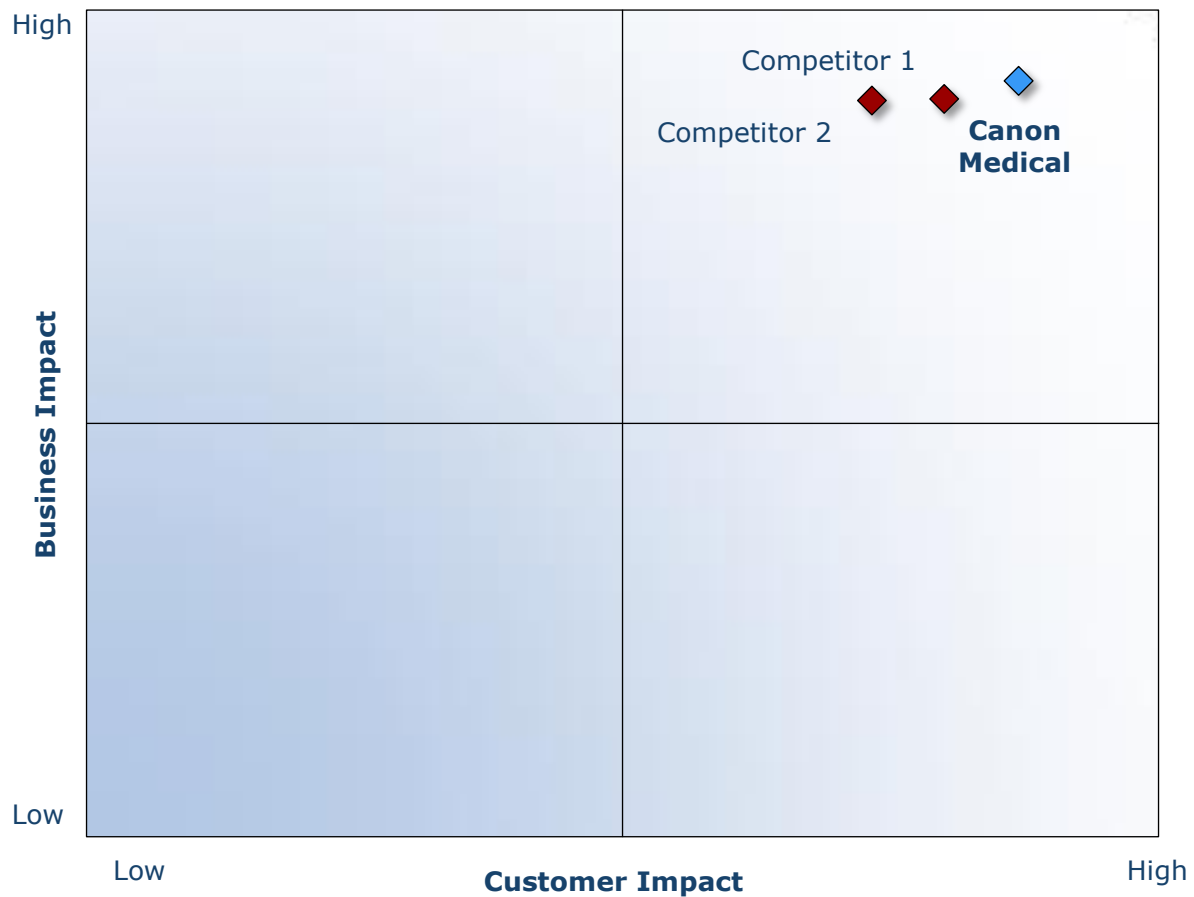
Requirements: Customer focus strengthens brand, reinforces customer loyalty, and enhances growth potential.

**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 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 practices criteria. The reputation and integrity of the awards are based on close adherence to this process.

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



### 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>.