

F R O S T & S U L L I V A N

FROST & SULLIVAN BEST PRACTICES AWARD

RADIO-FREQUENCY IDENTIFICATION FOR RETAIL
SELF CHECKOUTS - EUROPE

New Product Innovation 2019

nordic^{RF}id

FROST & SULLIVAN

2019

BEST
PRACTICES
AWARD

Background and Company Performance

Industry Challenges

The radio-frequency identification (RFID) market continues to experience steady growth due to technology advances, declining prices, and the advent of the Internet of Things. Historically, retail has been the major revenue contributor for RFID companies. Verticals such as manufacturing and healthcare are also contributing significantly to RFID adoption.

In retail, omnichannel retailing has been a game changer. With customers becoming adept in using their smartphones or other computing devices to shop for their needs, retailers moving away from the concept of brick and mortar to online shopping. The biggest challenge for retailers at the store is to enhance the customer shopping experience.

Retailers need to understand customer behavior patterns, identify customer requirements and address customer pain points within a store to offer a wholesome shopping experience resulting in improved sales and competitive positioning in the market.

Frost & Sullivan predicts that the retail segment of the RFID market will grow from \$2.7 billion in 2018 to \$5.4 billion by 2020 at 38.9% compound annual growth rate.¹ Moreover, Europe and North America will represent the regions with the highest revenue by 2020 standing at \$2.5 billion and \$2.1 billion, respectively. In their turn, APAC (Asia-Pacific) and LATAM (Latin America) regions will reach \$511 million and \$276 million. Also, Frost & Sullivan research predicts that such segments of the retail sector as apparel and footwear represent to most significant growth opportunities for companies worldwide by 2020.

Despite the steady demand for RFID use across different verticals, issues about consumer data privacy and data security still prevail in certain quarters—attributing to the lack of knowledge, and the fear of privacy loss on the part of consumers. Thus, retailers are unsure about the reliability and security of data stored in the tags—precluding market growth.

Economic fluctuation is another crucial challenge impeding more active development of the RFID market. Today, in spite of the pricing of RFID components and systems on a decline, implementation of RFID technology still requires considerable up-front investment and implementation periods.

New Product Attributes and Customer Impact of Nordic ID

Leading the Way in the RFID Industry

Founded in 1986 in Salo, Finland, Nordic ID has quickly developed an excellent reputation by providing RFID systems to worldwide customers in retail, manufacturing, asset management, and other sectors. By leveraging its hands-on knowledge and top-notch

¹ *Analysis of the Global RFID Market in Retail*, (Frost & Sullivan, March 2015)

experience creating RFID innovations, Nordic ID excels at providing effective and innovative RFID solutions, meeting the changing needs of its customers worldwide.

In spite of fierce competition and economic challenges that hinders the growth perspectives for many companies, Nordic ID stepped up its performance and market-driven research in the RFID segment to deliver superior RFID item tracking and tracking devices and solutions with ease, efficiency and speed, unmatched by other competitors.

In less than four decades, Nordic ID has extended its commercial activity to over 10 locations worldwide (e.g., Europe, North America, and South-East Asia). For instance, in December 2018, the company signed a distributor agreement with PT Softorb ID Pic, an Indonesian information technology solution provider covering the Nordic ID hardware portfolio strengthening the company's presence in Asia.

The Latest RFID Product Solution: Self-checkout

Nordic ID maintains deep and strategic cooperation with various companies in the manufacturing, retail, and other sectors. For instance, in Spring 2018, the company entered into a strategic partnership with IBM iX, the design and consulting division of IBM which resulted in the development of a groundbreaking invention for instant checkout, elevating customer experience to a new level.² Specifically, instead of having to scan single items one by one at the self-checkout, customers can scan them instantly by using this groundbreaking solution. Based on the company's empirical research, checkout times can reduce significantly—one-tenth of time compared to 9 items traditionally scanned by a manual cashier within one minute.

With their new solution, the Nordic ID Self-Checkout, recently revealed at the 2019 National Retail Federation exhibit, Nordic ID is helping retail clients with pain points by making the checkout experience quicker and more accurate for retail consumers.³

Innovation that Continues

Today, the company has at its disposal a range of RAIN RFID handheld and fixed readers along with various RAIN RFID reader enhancements and modules. The company works relentlessly to meet and exceed the needs of customers by constantly improving and developing new RFID solutions. For instance, in January 2019, Nordic ID launched an advanced information desk solution providing the customer with product information offering shop owners a cutting-edge and effective tool to serve customers on the shop floor.⁴ This solution provides an integrated reading area and touchscreen display for digital content, retrieving the necessary information on the chosen product instantly whenever

² <https://www.nordicid.com/resources/news/nordic-id-and-ibm-ix-collaborate-to-break-barriers-of-rfid-for-ibm-instant-checkout/>

³ <https://www.nordicid.com/resources/news/nordic-id-has-set-out-to-eliminate-checkout-queues-releases-ground-breaking-solution-at-nrf/>

⁴ <https://www.nordicid.com/resources/news/nordic-id-retail-innovation-enhances-the-in-store-customer-experience-presented-for-the-first-time-at-nrf/>

needed. Hence, this innovative solution enables merchants to maximize support for customers by easing the way to learn and select products for purchase effortlessly and effectively.

Delivering Effective Customer Support

At the heart of the company's success is an unwavering commitment to customers across diverse segments of the economy. Nordic ID offers informational materials and various technical and other support services to meet customers' needs across different industries. The company provides detailed reports, manuals, and guides on its RFID solutions to optimize customers' use case including one API (Application Program Interface) for all of its hardware which enables faster and less costly integration. Further, the company offers extensive software and hardware data to help customers utilize its RFID solutions to maximum potential.

Also, to ensure the optimal application of its products by customers, the company has a comprehensive support partner network consisting of its service facilities and authorized service partners worldwide. The company offers EasyService, an extensive service contract which covers all failures and damages from broken touchscreens to cracked mechanics for a fixed one-time service fee. To this end, in case of any damage to RFID devices, company's specialists at company's service centers in Europe and North America will resolve any manufacture defects and accidental breakage and ship it back to customers as soon as possible. Moreover, the company provides 3-day and 10-day repair turnaround to fix and deliver repaired products to customers worldwide.

The company also offers additional services such as advanced device replacement and on-site device replacement. Specifically, it offers 3 and 5-year service contracts available allowing the replacement device to be ready on the next business day. Moreover, in cases where it is not possible, Nordic ID provides on-site device repair and replacement service at its service center around the globe. Moreover, in case Nordic ID cannot repair or solve the issue at one of its service facilities, a full support partner can handle both warranty and non-warranty repairs regionally and locally.

A number of case studies across different industries have proven the company's high quality and efficient RFID solutions.⁵ For example, Nordic ID helped Austrian Airlines, Austria's largest carrier to optimize aircraft maintenance processes crucial to flight safety.⁶ Specifically, the company's Nordic ID Merlin solution helped to save time spent by technicians reading the safety information onboard, using RFID-enabled measurements to cut down the necessary in-cabin maintenance tasks such as checking data on oxygen generators and life vests by 90%. As a result, it reduced the need for labor by 66% as maintenance tasks could be performed by one instead of 3 people, leading to higher efficiency and extra maintenance savings.

⁵ <https://www.nordicid.com/our-customers/>

⁶ <https://www.nordicid.com/our-customers/austrian-airlines/>

Conclusion

The RFID market is highly competitive as economic fluctuations and issues on consumer data privacy and security preclude addressable market growth opportunities. In a space where economic and technological challenges limit many RFID companies from increasing market share, Nordic ID excels at developing high-quality, cutting-edge RFID solutions that provide users with high efficiency, reliability, and ease of use unmatched on the market.

With its latest RFID solution geared toward retail self-checkouts, Nordic ID is elevating the retail consumers' experience by allowing a significantly faster checkout experience to ensure that its retail clients do not lose customers due to slow checkout lines.

With its unrivaled expertise and know-how, innovation-driven solutions and customer-centric approach, Nordic ID earns Frost & Sullivan's 2019 Europe New Product Innovation award for its latest RFID solution for the retail self-checkout market.

Significance of New Product Innovation

Ultimately, growth in any organization depends upon continually introducing new products to the market and successfully commercializing those products. For these dual goals to occur, a company must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding New Product Innovation

Innovation is about finding a productive outlet for creativity—for consistently translating ideas into high-quality products that have a profound impact on the customer.

Key Benchmarking Criteria

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated two key factors—New Product Attributes and Customer Impact—according to the criteria identified below.

New Product Attributes

Criterion 1: Match to Needs

Requirement: Customer needs directly influence and inspire the product's design and positioning.

Criterion 2: Reliability

Requirement: The product consistently meets or exceeds customer expectations for consistent performance during its entire life cycle.

Criterion 3: Quality

Requirement: Product offers best-in-class quality, with a full complement of features and functionalities.

Criterion 4: Positioning

Requirement: The product serves a unique, unmet need that competitors cannot easily replicate.

Criterion 5: Design

Requirement: The product features an innovative design, enhancing both visual appeal and ease of use.

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 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.

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 globe	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice 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-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	<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-practice 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-practice Award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select recipient 	Decision on which company performs best against all best-practice criteria
9 Communicate recognition	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> • 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 is 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 future 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 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 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, 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 more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.