Maximize customer experience with Product Intelligence

Utilize field and customer service data to improve products

Siemens

The customer experience has never been more important for the electronics industry. The new influx of Internet of Things (IoT) data and high-volume user feedback has increased the value of field and customer data to drive new products, features and future research and development. Despite the increased value and volume, field and customer data are continually surrounded by low availability, untimeliness, poor quality, and minimal context.

Product Intelligence, a cloud-based software as a service (SaaS) MindSphere application, aggregates, combines and contextualizes field and customer data in a high-availability environment to automate insights and improve product quality. Electronics companies can now fully leverage field and customer service data, rapidly discover and solve product performance problems, and increase decision-making velocity to transform and improve the customer experience.

Data barriers

The customer experience has become a key strategic focus for most electronics companies. The ability to differentiate along the customer experience spectrum defines industry leaders, who are using this competitive advantage to gain market share. Incorporating customer feedback into product design and development is at the core of this differentiation and requires quick access to customer service and field data. Yet even industry leaders still struggle to adequately leverage field and customer service data to improve product performance.

Fifty-one percent of electronics companies in a survey by Iyno Advisors reported that field service data is highly difficult to obtain or altogether inaccessible. Forty-five percent reported similar difficulty accessing customer service data. This low availability of data delays analysis and corrective measures that are essential to a positive customer experience. When data can be accessed, the poor quality and minimal context create further barriers to the effective use of field and customer service data.

These data barriers impact the enterprise by preventing tangible gains in the supply chain, customer experience and profitability. Field and customer service data analysis can also enable proactive fixes to customer problems to prevent complaints before they arise – dramatically improving the customer experience.

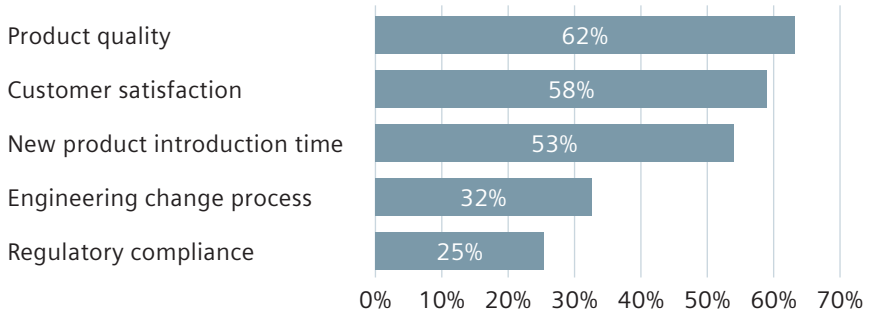
The customer voice

Every company benefits from being sensitive to customer opinion, but electronics companies are especially vulnerable to customer experience impact. It is a highly competitive market with frequent product versions and revisions intended to improve customer value. Yet the landscape is fraught with opportunities for negative customer experience to occur.

At a time when most customers have the ability to quickly voice their opinions, positive or negative, about product design, functionality, usability and reliability, electronics companies ignore customer experience at their peril. In an effort to maintain a strong brand, companies are looking to better leverage product data from customer and field service.

Poor response to customer issues can quickly create a nightmare for customer service and the company's reputation. Electronics companies are well aware of this: 58 percent of the survey respondents identified customer satisfaction as a critical area for improvement, second only to product quality at 62 percent, as Figure 1 shows.

Critical business areas to improve



Source: Capitalizing on Big Data from Products © 2015 Iyno Advisors Inc.

Figure 1: The top improvement initiatives most crucial to success for electronics companies; field data impacts all of them.

Barrier impacts on the enterprise

Supply chain

Field and customer service data that indicates a need to repair or recall products must go to suppliers, outsource partners and/or original equipment manufacturer (OEM) customers immediately. Seeing these patterns quickly is key for companies to limit the scope of the problem, to begin the troubleshooting process and to protect the brand and customer experience. This is not an easy task.

The first point of impact is notifying the specific suppliers, partners and customers for the units involved in an issue and not others. So that means the field service and product genealogy data must come together. However, data on field and customer service issues can be highly variable. This data is often gathered at least somewhat manually, and frequently in locations around the globe. The quality, availability and accuracy can vary even from a single location. Much of the data is text or unstructured rather than relational. Particularly if the company has partners for call centers or field service, the data streams are likely to be disjointed and not easy to consolidate and use. Even when service partners provide data in records-based form, the records may require additional formatting or translation between differing systems. Adding in the complexities of leveraging numerous data sources and formats in a complex, global supply chain, an electronics company's ability to identify specific supplier sources and notify only affected suppliers is greatly diminished.

A second point of impact is supplier accountability. Many OEMs have stringent agreements in which a faulty component from a supplier triggers compensation for far more than the value of the component. This supplier penalty approach helps financially cover the need to protect against brand image damage. Knowing that it puts a major squeeze on the suppliers, all parties have an interest in pinpointing issues and not over-penalizing or hurting either suppliers or customers.

The coherence of the supply chain can be the difference between happy and unhappy customers. Particularly when a product needs field service or repair, ensuring that all the right parts are available at the earliest moment the product can be fixed is critical.

Profitability

Customer and field services data can have a positive effect on profitability and the bottom line. For example, good field data can reveal supply, usage or production issues. If the data is readily available for analysis, faster resolution of product issues is more likely. The same data can help lower or avoid costs of new product designs based on the experience of previous product versions or models. The application of timely and accurate field data makes it possible to lower the cost of materials, labor, and field tech and customer service representative time. All of these have a positive effect on profitability and perhaps more importantly, help to ensure a better customer experience.

How Product Intelligence breaks down data barriers

Product Intelligence discovers field and customer service insights from high-quality, fully contextualized big data. The solution ingests data from customer service, field, IoT, manufacturing, test, supplier, and virtually any other source (including dark data) in your value chain. Product Intelligence eliminates the complexities of collecting, cleaning and formatting data and utilizes advanced visualizations for quick decision making. Product Intelligence then provides prompt answers to customer service and field questions that previously took days or weeks to analyze. Specifically, the solution provides:

- **Data aggregation and contextualization:** All of the high-volume streams of data from field, customer service, resolution and other data sources throughout the value chain are combined, providing a product framework to show relationships among disparate pieces of data.
- **Enforced data integrity:** The Data Quality feature validates data during load, detecting poor-quality data and quarantining it to ensure that your analysis is only based on reliable, high-integrity data.
- **Rapid search:** The Fast Contextual Search feature is a rapid, efficient search engine enabling the user to explore and drill into contextualized data surrounding product and services. It delivers rapid results from billions of records.
- **In-depth analytics:** The Performance Analytics feature automatically conducts combination analysis in seconds to discover correlations and emerging trends inside your customer data.
- **Radical visualization:** The Advanced Data Visualization feature integrates Tableau® visualizations and enables you to create simple, clear charts and graphs from multiple layers of complex data sets and KPIs.

Creating the path to the ultimate customer experience

The customer experience is explicitly tied to brand reputation and overall profitability for electronics companies. Understanding that customers are satisfied is no longer good enough. Companies must also understand why the customer experience is the way it is and figure out how to improve it. This next level of intelligence will define future success or failure for electronics companies.

The journey to happy, loyal customers begins with a single platform of available, timely, high-quality, and fully contextualized data from the field, customer service and product. Product Intelligence delivers comprehensive understanding of the why and how underlying the customer experience. Companies can now fully leverage field and customer service data, rapidly discover and solve problems and increase decision-making velocity. These factors are the pathway to transforming and improving the customer experience, which leads to long-term success.

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