Challenges

- **Rising warranty cost**. Your reserves need to keep pace with claims; if not, capital flow can suffer, hampering your ability to reinvest in research and development.

- M**aintaining a positive brand image**. In today's social media culture, even small issues can make headlines, leading to reduced demand and pricing pressure that affect your bottom line.

- **New issue detection and resolution**. When issues affect too many customers and take too long to resolve, warranty costs rise, satisfaction declines and brand equity is harmed.

SAS® Field Quality Analytics on SAP HANA

Improve quality performance, lower warranty costs and enhance brand reputation.

Overview

You value exceptional customer service as a crucial competitive differentiator. While your product quality is excellent, issues can emerge in the field. When these issues go undetected, more customers are affected and the cost of containment and resolution rises. And worst of all, the brand equity you worked so hard to build begins to erode.

The answer is SAS Field Quality Analytics for SAP HANA. It lowers service and warranty costs, reduces operational risk and improves customer satisfaction. You can integrate field performance data with key customer, product, manufacturing and geographic information to alert you to new issues sooner and help you find the root cause faster.

Organizations like yours have been able to shave months off of their issue-detection-to-correction time and reduce their service and warranty costs by up to 15 percent. SAS Field Quality Analytics for SAP HANA will help you proactively address issues, minimize your operation risk and enhance your reputation.

Why SAS®?

SAS Field Quality Analytics for SAP HANA integrates all of the relevant field quality data from warranty systems, customer service records and more to automatically detect emerging issues before they have a significant impact on performance. SAS Field Quality Analytics for SAP HANA increases your product and service quality, customer satisfaction and brand equity.

Automated Detection of Emerging Issues

Integrate all relevant data sources, including call center and work order notes, for a complete view of the issue. Define which combinations of attributes are driving failures to prioritize issues and focus your resources for the greatest impact. An array of analytical tools enables users to investigate the issue to determine a root cause and quickly arrive at a solution.

Benefits

- Detect new issues sooner.

- Accelerate root cause analysis.

- Improve product quality and reliability.

- Lower warranty costs.

- Improve the customer experience.

- Minimize the size and cost of campaigns and recalls.

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THE POWER TO KNOW®

Reduce Warranty Costs

Earlier issue detection and shorter detection-to-correction cycles mean a reduction in problem resolution cycle time by 50-70 percent. It also helps reduce the shipment of faulty products, results in smaller and more focused product recalls, and reduces warranty costs by up to 15-20 percent.

A Better Customer Experience

Through early detection and faster problem resolution, fewer customers are affected, and those that are experience less inconvenience. Research from Zendesk shows that 62 percent of business customers and 42 percent of consumers purchased more following a good customer service experience. And 69 percent attributed their good customer service experience to quick resolution of their problem. On the other hand, 66 percent of business and 52 percent of consumers stopped buying after a bad customer service interaction.

Reduce and Better Manage Risk

SAS enables you to have smaller, more focused campaigns and recalls because fewer customers are affected. This enables you to better protect, and even enhance, your brand reputation. And you can quickly identify, report and resolve issues while improving compliance with government regulations.

Simplified IT Landscape

Do you keep your data in SAP HANA? No problem. SAS allows you to store your data and related tables in this popular data storage solution, which helps you reduce your overall IT maintenance costs and total cost of ownership.

Capabilities

Quality Analytic Suite

SAS Field Quality Analytics for SAP HANA is part of a suite of quality-improvement solutions. These solutions provide an enterprise view of your quality performance data so you can more easily identify potential issues and quickly find their root causes. This helps you to maximize production yield, manage the cost of quality and increase customer satisfaction. You'll experience an increased ease of use across SAS quality improvement applications due to:

- A common framework for your quality life cycle.
- Enterprise quality-data management.
- Advanced early-warning analytics.
- Automated control monitoring and alerts.
- Superior root cause analysis.

Robust Data Integration

Eliminates data silos by consolidating all relevant data sources (warranty, call center, engineering, etc.) into a single view for fast and accurate issue detection and resolution. And now you can store this integrated data in your SAP HANA environment, reducing data movement.

Automated Process Monitoring and Alerting

The emerging issues system automatically tracks claim activity across production periods, claim periods and time in service. Analytic routines use historical performance data to calculate critical values and alert users whenever a statistically significant increase in claim activity occurs. Users can subscribe to alerts and be notified whenever a new issue is detected. In addition, users can set manual thresholds based on claim rates, cost and other analysis variables. These thresholds are often useful for safety and regulatory issues.

Integrated Text Analysis and Analytics

Users can find patterns in text from multiple sources – such as customer comments, technician notes and call center notes – allowing the grouping of similar claims. You can transform text-based warranty data into a meaningful format ready for use in data exploration, clustering and statistical modeling. This allows you to extract and categorize essential information from text-based data, combine it with structured data, and analyze it to gain valuable knowledge about critical service and product issues.

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Advanced Analysis

Power users can access detailed data and perform complex, comprehensive queries without programmer training. Choose from hundreds of analyses (regression, ANOVA, survival, capability, reliability, etc.) and a full array of charting options. This advanced toolset includes dozens of interactive reporting and analysis features to help derive meaningful results from your analysis. A point-and-click interface enables you to organize warranty data and analysis in a self-contained environment that lets you share results with others.

Issue Impact Analysis

The reporting-and-analysis interface enables you to prioritize and define issues. Using forecasting and reliability techniques (including Weibull) you can understand which issues will have the most significant effect in the future. You can then define root causes using decision trees, control charts, Pareto charts and other analyses. Users can interact with the output, select which data to display, drill into charts and easily export graphics and tables to PDF, Excel, Power-Point and other applications.

Failure Definition and Root Cause Analysis

Advanced techniques, like Weibull distribution, help engineers focus on the issues that have the biggest impact. Charting tools help visualize and trace the root cause. A full array of analytical tools – such as regression, ANOVA, survival, capability and reliability – allows for more advanced root cause analyses.

Advanced text analytics enables the exploration of comments from engineering, customer complaints and call-center technicians. Unstructured text data is categorized, organized and presented in context with structured data to paint a more complete picture.

The SAS® Difference

Early warning

- Detect issues quickly to minimize their effect on customers.
- Reduce the total cost of a campaign by minimizing recalls so that fewer customers are affected.
- Minimize the impact on your brand reputation.

Prioritization of issues

- Understand the impact of issues on costs and customers.
- Focus your resources where they will have the greatest impact.

Root-cause definition

- Identify correlation and causation between variables that lead to failures.
- Isolate failure models to enable more effective problem resolutions.