

# Store Performance Monitoring Solution for a Fast Food Chain Restaurant

Developed by Megaputer Intelligence

## Background

A major fast food company, earning billions of dollars in annual revenue, has thousands of franchisee-owned chain restaurants. These restaurants sell fast food, desserts, and beverages to hundreds of millions of customers. Each year, these patrons provide millions of Voice of Customer (VoC) feedbacks via surveys, online reviews, and call centers.

As a leader in the competitive fast food industry, this company strives to provide excellent quality to its customers. To continually improve overall quality, and in turn, customer satisfaction, the company decided to measure and track the performance of the fast food chain at the national, regional, city, franchisee, and individual restaurant level. Since VoC feedback captures the experiences, complaints, and suggestions of customers, the company decided to analyze these VoC reviews to measure performance.

## Challenge

With thousands of franchisees and restaurants to manage, the company desired uniformity, transparency, and timeliness in their performance measurement process. To promote uniformity and transparency, the company created a list of more than 500 quality criteria and required each VoC feedback received to be analyzed and measured against these criteria. Since the company receives millions of feedbacks every year, this task was prohibitively time-consuming and labor-intensive when performed manually. Furthermore, to meet the needs of its managers from multiple departments and management levels, the company wanted weekly and monthly performance management reports with access to the underlying data.

As an industry leader, the company is always under the watchful eye of the public. Bad news travels fast over social media and news outlets, immediately damaging a company's brand image. Thus, the company realized its need to identify and monitor the emergence of critical issues from across its chain restaurants that required management's immediate attention. This required scrutinizing approximately 4,000 VoC feedbacks received from customers every day.

The company realized it needed a customizable, automated solution with deep linguistic analysis capabilities to quickly, accurately, and consistently analyze VoC feedback from multiple sources and create various management reports. To provide such reports, the solution needed to accommodate the company's ever expanding and dynamic business operations: opening new restaurants, closing restaurants, and changing the administrative regions each restaurant falls into.

## Solution

Megaputer used its proprietary data and text analysis tool, PolyAnalyst™, to develop and deploy the Store Performance Monitoring Solution (SPMS) within 2 months. This custom solution generates performance scorecards for each restaurant based on the analysis of customer feedback. The solution employs a combination of innovative linguistic, semantic, and machine learning techniques to analyze and score textual customer feedback against multiple quality criteria defined by the fast food company, providing comprehensive data management, text analysis, and reporting capabilities.



### For more information:

Megaputer Intelligence | [info@megaputer.com](mailto:info@megaputer.com) | 812-330-0110

[www.megaputer.com](http://www.megaputer.com)



Using the tool's built-in text analysis features, Megaputer's analysts created a collection of verifiable and modifiable criteria for extracting attributes from text-based messages. SPMS automatically and accurately extracts more than 500 attributes—such as cold food, dry food, overcooked food, and food poisoning—that correspond to the company's quality criteria. These attributes are categorized under 27 key categories ranging from core and test products to services and restaurant management. After the system summarizes the results at the product and restaurant level, it aggregates scores at the franchisee, city, regional, and national level.

To monitor restaurant performance, management can conveniently access web-based reports that are automatically generated by SPMS. These reports contain interactive charts and scorecards that allow the company's managers to monitor the near real-time performance of each restaurant, city, region, or franchisee from different functional perspectives, such as Marketing and Operations. The reports allow managers to drill down to the necessary level of detail, including the original textual customer feedback with highlighted patterns corresponding to the key attributes identified by the system.

SPMS generates the following reports:

**Daily Issue Reporting.** To discover new issues reported by customers in the last 24 hours that require management's immediate attention, SPMS automatically downloads the VoC data from the company's secured site daily at 4:00 am. The system quickly verifies and analyzes this data to generate an alert report. System-generated emails are sent to the designated managers who are then empowered to start addressing these top priority issues as early as 4 hours after receiving the VoC feedback.

**Weekly Performance Reporting.** SPMS provides management with weekly performance reports every Monday morning. The reports contain a summary of restaurant performance for the most recent week as well as a comparison of weekly performance over the last 4 weeks. The system delivers these aggregated weekly scores in an easy-to-comprehend format to over 20 managers in 7 different departments: Brand Marketing, Quality Assurance, Operations, New Product Testing & Integration, Consumer Insights, Product Research & Development, and Regulatory Compliance & Inspectional Services.

**Monthly Performance Reporting.** On the first Friday of every month, SPMS analyzes customer feedback collected over the past 18 months. The system provides an aggregated web report that shows the monthly performance scorecard of individual restaurants and products, as well as reveals performance trends at the product, restaurant, city, regional, franchisee, and national level over the last 18 months.

SPMS can be easily customized to accommodate changing business needs, such as changes in the quality criteria and increasing the frequency of Daily Issue Report generation to multiple times a day. The system can also be set up to analyze VoC feedback from additional data sources, such as the company's social media sites. Furthermore, the system accommodates the fast food company's dynamic administrative regions and management changes by importing an alignment file every week. The alignment file has a list of all restaurants, including new restaurants, and how these restaurants are aligned to different franchisees, regions, and management teams.



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## Results & Benefits

The implementation of SPMS yielded a multi-purpose, scalable solution that can accommodate large increases in the number of franchisees, restaurant locations, or VoC feedbacks received. Key current and potential benefits from implementing SPMS include:

- **Comprehensive and Timely Performance Management:** SPMS generates a series of interactive daily, weekly, and monthly web reports for managers from multiple departments that are available through a secure online connection. These comprehensive reports allow drill down to the underlying records as well as a comparison of performance over time at the restaurant, city, franchisee, regional, or national level. This enables managers to discover customer insights that could potentially lower customer churn rates, increase restaurant sales, and enhance brand value. Moreover, the automated solution provides near-real time performance management capabilities and establishes consistency of analysis over time and across the organization.
- **Early Alerts for Effective Crisis Management:** SPMS generates an alert report every morning to highlight any potential crisis situation or issues originating from the previous day. The system delivers the alert report to managers, enabling them to fix issues in a proactive manner to ensure brand image and customer satisfaction are upheld.
- **Increased Customer Satisfaction & Loyalty:** The fast food company can use SPMS to pinpoint the areas in which their restaurants excel as well as the areas that need improvement. In addition to helping the company identify the root causes of customer churn, management can now find and implement best practices across their restaurants, thus increasing customer satisfaction and customer loyalty.
- **New Launch Performance Tracking:** The VoC feedback for a new product or restaurant can be filtered and analyzed on a daily basis. This allows the company to track the performance of the new product or restaurant on a near real-time basis, helping managers minimize risks associated with new launches.
- **Relevant Menu Offerings:** Using SPMS, the company can identify customer preferences more effectively: what they like and do not like to eat. This can go a long way in keeping the menu relevant by introducing food offerings that people like, as well as removing menu items that people do not like. This exercise can be done at all levels: national, regional, or even at the city level.
- **Company Expansion & Franchisee Management:** The scalable solution streamlines the performance management process and allows the company to conveniently monitor the performance of its chain restaurants at the individual restaurant and franchisee level. This increased level of control enables management to make restaurant expansion decisions with confidence.

The implementation of SPMS resulted in increased customer satisfaction, enabling the company to surpass its competitors in the customer satisfaction index within a year of its implementation. This was a game changer for the company in an industry where customer satisfaction and customer loyalty are immensely important. Within a year of implementation, the company's same-restaurant sales increased by more than twice the industry average during the same time period. Encouraged by the ease in measuring and tracking the performance of restaurants as well the high accuracy of results generated, the company also planned to open hundreds of new franchisee restaurant locations.

