

case study -

# Driving innovation in medical insights with AI-powered analytics

Web development

Front-end development

Architecture

Data augmentation



## Overview

Resolute partnered with a healthcare technology company transitioning from a consulting model to a product-driven business. The goal was to build a next-generation analytics platform that delivers real-time medical insights, automates manual data processes, and empowers medical affairs teams to engage more strategically. Resolute helped bring the platform to life in just three months, generating strong industry interest at its first conference debut.

## Challenge

The client's CRM system lacked the flexibility and depth needed for fast, meaningful insights. Manual data entry slowed decision-making, especially for users without CRM licenses. Existing BI tools like Power BI

- 3 months from idea to launch
- Interactive dashboards
- Real-time, drill-down reporting
- Flexible setup: use with CRM or on its own

offered only static dashboards, making it hard to track engagement trends or explore data dynamically. Medical affairs teams struggled to adapt strategies over time without historical sentiment tracking. A more flexible, intelligent solution was urgently needed.

## Solution

Resolute developed a scalable analytics platform that automates data extraction, supports manual input for non-CRM users, and delivers real-time insights through AI-powered dashboards. Unlike traditional tools, it offers interactive visualizations, engagement tracking across channels, and sentiment analysis over time. Built with React, .NET, and Azure, the solution integrates seamlessly with or without a CRM—driving faster, more informed decisions.

## Results

- ✓ **Instant access to critical insights**, improving the speed and quality of strategic decisions
- ✓ **Enhanced engagement tracking**, allowing targeted and data-informed outreach
- ✓ **Streamlined workflows**, reducing data processing time significantly
- ✓ **Greater adaptability**, thanks to flexible data input and reporting options
- ✓ **High user engagement**, as seen during a successful product launch at a key industry conference

# Driving innovation in medical insights with AI-powered analytics

Medical Affairs is a specialized function within pharmaceutical, biotech, and medical device companies that serves as a bridge between scientific research, healthcare professionals, and commercial teams. It plays a critical role in ensuring that medical and scientific information is accurately communicated to stakeholders, supporting evidence-based decision-making in healthcare.

Resolute's client, a healthcare-focused consulting company that specializes in medical affairs and collecting insights from healthcare professionals, had initially developed a data analytics platform using Power BI. The client was transitioning from a consulting model to a product-based approach and wanted to create a more interactive and flexible reporting solution that would extend beyond traditional out-of-the-box reporting tools. Their primary goal was to help clients understand sentiment and performance across various healthcare initiatives through advanced data visualization and analysis.

The client wanted to prepare a next-generation platform for a critical conference milestone, but realized their internal team and existing contractors couldn't efficiently deliver the required technical capabilities. Resolute was brought in to conduct a technical assessment, develop a new architecture, and implement a modern solution using .NET and React.

challenge –

## Overcoming CRM limitations to unlock real-time, dynamic medical insights and reporting

Pharmaceutical companies rely on medical liaisons – industry experts who engage with doctors and other healthcare professionals – to gather insights on treatments, research, and market needs. However, the existing CRM and data management processes presented several challenges:

- ✓ **Limited visibility in the CRM:** The CRM stored valuable data but lacked intuitive analytics and reporting capabilities, making it difficult to extract meaningful insights.
- ✓ **Manual data entry for non-CRM users:** Companies without CRM licenses had to manually collect and input survey responses, leading to delays and inconsistencies.
- ✓ **Lack of historical tracking:** Medical affairs companies often struggle to track how a doctor's opinion or sentiment evolves over time, limiting their ability to align treatment strategies.
- ✓ **Rigid visualization and reporting tools:** Existing solutions like Power BI provide static dashboards, restricting deep data exploration and customization.

## challenge –

Recognizing these pain points, the client sought to build a solution that would streamline data collection, improve visualization, and provide actionable insights while integrating seamlessly with the CRM – or functioning independently for companies without a CRM license. Key requirements included:

- ✓ Provide interactive and rich user experiences
- ✓ Allow for more control over data presentation
- ✓ Support dynamic configuration of widgets and reports
- ✓ Reduce per-user licensing costs
- ✓ Create a framework for future expansion and innovation

The client collaborated with Resolute to develop a next-generation analytics platform that addressed all of these challenges.

## Reimagining medical affairs reporting with AI, automation, and interactivity

Designed for seamless data integration, the new platform automates CRM data extraction, eliminating the need for manual entry and ensuring companies could instantly access meaningful insights. For those without CRM access, the platform allows for customizable manual data input, so users can enter survey responses while still leveraging powerful analytics and visualization tools.

To provide a comprehensive view of customer interactions, the system tracks multi-channel engagement and captures touchpoints across various platforms. It also incorporates historical sentiment analysis, enabling users to monitor shifts in medical professionals' opinions over time and adjust their strategies accordingly.

Unlike traditional tools like Power BI, the new platform provides highly interactive data visualizations that enable users to drill down into insights for deeper analysis. Built-in AI-powered summarization tools help to analyze trends, sentiment, and key takeaways from medical liaison interactions, improving decision-making with meaningful intelligence.

## Overcoming technical challenges

Building a solution with such robust functionality presented several technical challenges, requiring Resolute's expertise.

Resolute built the entire system from the ground up using React (frontend), .NET (backend), SQL (database), and Azure (cloud infrastructure) – all within an ambitious 3-month timeframe. The first iteration was introduced at a major industry conference, where it generated strong customer interest and engagement.

The team developed a layered architecture that dynamically transforms raw data from multiple sources into actionable insights, striking a balance between flexibility and performance. This approach enables efficient data processing while adapting to varying workloads, ensuring that insights remain both timely and relevant.

With the potential for rapid data expansion, Resolute designed the system for seamless scalability. It can transition from real-time data retrieval to a pre-processed analytics store, maintaining smooth performance as usage grows. Additionally, the platform was built for seamless integration, functioning both as a standalone solution, and as an extension of existing CRM systems, providing customers with maximum adaptability.

## Real-time medical intelligence drives engagement and competitive advantage

Using the next-generation analytics platform, pharmaceutical companies can more efficiently extract, analyze, and act on medical insights. Real-time data processing provides access to critical insights instantly, rather than waiting for fragmented reports. By tracking interactions across multiple channels, users gain a clearer understanding of healthcare professional engagement and can tailor their outreach efforts accordingly.

Another key benefit is a dramatic reduction in data processing time. By automating data extraction from the CRM, the new platform significantly reduces manual data entry, freeing teams to focus on analysis and strategy. Plus, interactive AI-powered dashboards provide unparalleled customization and drill-down capabilities, replacing rigid BI tools while enhancing visualization and reporting.

By addressing gaps in existing CRM functionality, the new platform is an essential tool for pharmaceutical companies looking to optimize their medical affairs strategies.

# A future-ready architecture for continuous innovation

Following the success of the new platform, Resolute is collaborating with the client to further expand its capabilities. Planned enhancements include:

- ✓ Enhancing AI-driven analytics and summarization tools for deeper insights.
- ✓ Optimizing PowerPoint Export Functionality to streamline how users generate presentation-ready reports.
- ✓ Exploring New Market Opportunities beyond insights and engagement tracking into research and development (R&D) applications.
- ✓ Partnering with industry leaders in pharmaceutical market intelligence to provide a more comprehensive data ecosystem.

These initiatives position the platform to provide greater value and usability, and ultimately, greater industry-wide impact.



**Learn how Resolute can support your organization in modernizing your healthcare technology with innovative, data-driven solutions.**

**Visit our website or contact us today.**

# Let's talk about your technology requirements.

Get in touch

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