InfoCepts

Developing a MicroStrategy Based Clinical Trial Decision Tool for a Leading Pharmaceutical Company

Summary

Our client is a leading pharmaceutical company that wanted an efficient means of analyzing competitive data obtained from third party providers. This was to augment their new drug development efforts. Their earlier practice of analyzing data was restricted to Excel based data wrangling. We transformed their under-utilized MicroStrategy solution into an automated competitor-tracking tool.

Industry

Life Sciences

Users

Global Program Heads, Program & Project Managers and Competitive Intelligence Personnel

Technologies

Server 2102, MicroStrategy 10.2, JDK 1.6,
Third party Java Script libraries – Editable Grid Library 3.0, Library 4.0

Team Size

15 InfoCeptians
3 Client Associates

→ The Challenge

Our client, a leading pharmaceutical company needed an efficient way to analyze clinical trial intelligence data. For any pharmaceutical firm, clinical trials are an integral component of the drug approval process. In the competitive pharmaceutical industry, new drugs are critical to market leadership. Data obtained from pharmaceutical R&D intelligence specialists aids our client in being competitive. It contains all the latest clinical trial developments made by competing pharmaceutical companies. The analysis of this data has decisive implications on our client's new drug development efforts. They obtain it from data providers in the form of exported Excel sheets.

Our client uses data analysis to –

- Compare the competition's clinical trial progression with their own
- Make go or no-go decisions during any phase of the new drug development process

Analysis of clinical trial intelligence data is complex but indispensable due to the financial risks of developing pharmaceutical products. For instance, only 16 out of 100 drugs subjected to clinical trials make it to the FDA review phase. Our client's ability to mitigate such risks was limited to –

- Analyzing discretely formatted data gathered from multiple intelligence providers in MS Excel
- Vetting the findings through Subject Matter Experts (SME)

This practice was highly inefficient and laborious. Our client wanted to empower their business leaders to make on-the-fly decisions. To achieve this, they needed a user friendly solution that could provide effortless access to insights. They felt that if the desired solution's interface resembled Citeline, then it would ensure user adoption. Their users' routine usage of Citeline for gathering pharmaceutical intelligence played a critical role in this regard. While a Citeline replica would ensure user adoption, the success of this project depended on including dynamic and interactive features lacked by Citeline.

→ The Solution

Previously, our client had availed a MicroStrategy solution, but its organization wide utility was limited. We upgraded it and developed an automated reporting solution that is a visually interactive version of Citeline. It presents KPIs along 30 parameters such as therapy area, trial phase and status, patient/disease segment, molecule class/type, mechanism of action and outcomes.

The standout feature of our solution is a GANNT chart that provides timeline view of clinical trials to enable at-a-glance analysis. Users can refer to clinical trial details placed in a grid view along the chart and if the data looks interesting, they can take a deeper dive by clicking on the GANNT chart bars.

Key highlights

- Several MicroStrategy customizations were made to display insights across multiple panels in colors that reflect severity of competitors' threat
- Users can edit annotate (incl., maintain an audit trail), sort, reorder, as well as organize, display, capture and print snapshots of insights to suite their individual decision needs
- A complex nested search engine enables intuitive data discovery
- A purpose built SQL Server database imports data from Excel sheets
- Database gets updated on-the-go thanks to MicroStrategy Transaction Services
- A text parser consisting of a data dictionary and associated business rules/algorithms was created to parse and display key data from verbose fields while maintaining semantic context in an easy to read manner

→ The Results

We customized MicroStrategy's reporting features to not only replicate Citeline's interface, but also provide a more user-friendly version. Our client is now in possession of an automated competitor-tracking tool that delivers the following benefits:

- Exhaustive utilization of MicroStrategy's data discovery capabilities to enable self-service analytics and achieve seamless user adoption
- The tool is automatically synchronized with clinical intelligence data providers to enable better competitive decisions
- It is equipped with heat map, Google map, bubble graphs, drill functions and custom widgets to deliver go and no-go insights to enable fast and intuitive decision making
- It can be accessed through desktop, mobile and iPad to let business leaders make on-the-fly decisions
- Insights are generated from unstructured data leading to significant reduction in dependence on SMEs