Business Intelligence Solution for a Multinational Food and Beverage Company

-   A Case Study

Client

A multinational food and beverage company headquartered in Pittsburgh. It has over 5 brands under its profile. Their operations are spread across about 50 countries and have been expanding in the Middle East, notably Oman and Bahrain.

Problem Statement

Our client was specifically looking for artificial intelligence and business intelligence solutions that can help them grow their business in the regions where they were not getting enough traction. The sales were stagnant, operational costs were high, and overall operations lacked the efficiency seen in other locations. The pandemic was another major factor that led to the plummeting of sales.

Other concerns shared by the client:

- Organizational data that was majorly unprocessed was spread across multiple systems. There was no central data warehouse implemented.
- Issues with keeping track of supplier information, inventory level, etc. Inability to forecast product demands.
- Absence of a visual and comprehensive dashboard and reports to track the KPIs. The client was using spreadsheets to analyze the data which was inefficient because it was prone to human error and it was tough to handle large amounts of data through this method.

- Marketing efforts in building awareness about the brand in these upcoming regions were futile. The team was not able to leverage the target customers' data and make strategic decisions and campaigns that would pique the audience.

Proposed Solution

We understood the concerns shared by the stakeholders carefully and noted down what all work needs to be done.

- The data had to be sourced and stored in a centralized system.
- Analyze the data from different sources and build a quality data model in the cloud that is scalable and less cumbersome.
- Clean the data and remove unnecessary segments, characters, etc., to make it useful.
- Create visual and real-time dashboards that are easy to understand and gain insights from.
- Build an AI solution for forecasting product demands to ensure real-time and optimized inventory and resource management. This parallel project also focused on improving *(1) supply chain management with the help of AI systems that can track and map the distribution pattern, movement, and usage of the products; and (2) maintenance of machinery with the help of sensors that can detect or predict issues in the machinery so that prompt action can be taken.*

Business Impact

- The actionable insights from the predictive analytics model helped the client clock in 13% more product sales by the following quarter. About half of the credit goes to the improved and targeted promotional campaigns run by the marketing team as per the insights.

- The overall speed of the operations and the manufacturing cycle increased by 23% by end of FY.
- The operational costs and wastages were reduced by 1/3rd in 2 subsequent quarters. This was due to better inventory management and monitoring of stock levels.
- Ad hoc analytics/reporting support and redressal requirements were reduced from 50 to 7 sessions in a month after the implementation of the self service analytics dashboards throughout the organization.