The Challenge

Creating the future together

Scenario:

- A large multinational company has a vast amount of data that is not always structured in a simple and organized manner. This is often due to the inherent challenges of managing such a diverse and dynamic set of information that characterizes multi-plant and multi-country companies.

The Data:

The primary data available is distributed across four different ERP software systems.

- Customer Master Data
- Supplier Master Data
- Raw Material List
- Finished Product List
- Order List
- Shipment List
- Invoice List
- Warehouse Inventory
- Customer Quality Performance Index (PPM, used to gauge the non-conformity level per million pieces produced for a specific customer. Typically reported by the customer but occasionally intercepted by the company)
- OTIF (on time in full)
- Number of new codes provided to each customer (development/innovation rate)

Due to the company's ever-expanding and evolving nature, this data resides on various IT platforms that have been created over the course of the company's growth and evolution.

The available data is not updated in real time and can sometimes be inconsistent across the different systems on which it is distributed, resulting in decisions that are not always timely or accurate.

The company's primary business activity involves purchasing raw materials and transforming them into a finished product customized to customer requirements. Production is made to order, while the raw material is standard and managed in stock.

The Problem to be solved:

While the purchases made by the company's large customers can be monitored and analyzed with greater precision, there is no such in-depth analysis for small customers. Although small customers generate lower turnover figures, they are quantitatively more numerous than large customers and are therefore very important to the company's overall financial health.

Monitoring is currently performed subjectively. Moreover, there is no system in place to highlight delays in receiving delivery schedules.

The Challenge:

Leveraging the company's historical information, rumor and sentiment collection, and relevant information on the web, **how can generative intelligence be used to identify early warning signs of customer churn or significant value reduction?**

You are tasked with developing a **concrete and feasible concept through a sandbox solution** to assist the company in **anticipating customer requirements** and **preventing them from shifting their purchases to competitors.**

Requirements

the solution should cope with:

- The solution must be implemented as a sandbox.
- It must be capable of collecting data from various datamarts and ERP software systems.
- It must provide analytical output.
- It must offer multiple solutions tailored to the specific type of customer being analyzed.

Focus on the company's decision-making process based on the data available:

- Why does a customer choose a competitor?
- What can be done to improve customer loyalty?
- How can customer dissatisfaction be anticipated?
- How much time should be dedicated to a customer?

Key elements of your presentation:

- Scenario and Context
- Solution description
- Deployment Diagram
- Project timeline

Evaluation Criteria:

Relevance: *How well does the proposed solution address the specific needs and challenges outlined in the scenario, particularly regarding predicting and preventing customer churn in a multi-customer, multi-platform environment?*

Clarity: *Is the proposed solution clearly explained, with understandable language and well-defined terminology? Can a non-technical audience grasp the core concepts and functionalities?*

Innovation: *Does the proposed solution leverage technology or approaches in a novel or creative way to address the problem? Does it offer unique advantages or address limitations of existing solutions?*

Usability: *How easy is the proposed solution to use and implement? Can the target users (e.g., company employees) readily understand and utilize the system without extensive training or technical expertise?*

Feasibility: *Can the proposed solution be realistically implemented within a reasonable timeframe and budget? Are the required resources (e.g., technical expertise, data availability) readily accessible or attainable?*

Thank you