**Power BI Case Study: Make vs. Buy Decision for Tenate Industries**

**Description**

This Power BI case study simulates a make vs. buy decision faced by Tenate Industries, a fictional company specializing in replacement parts for industrial pizza ovens. As a supply chain analyst, the task was to determine the most cost-effective option for acquiring these parts, considering both internal manufacturing and external suppliers.

**Methodology**

The case study utilized two fictitious data sources:

* Quote Data Tables: These tables represented offers from various suppliers, providing details such as part number, volume, unit cost, and non-recurring expenses.
* Internal Manufacturing Estimates: This data represented the estimated costs associated with in-house production of the parts.

**Analysis**

The analysis involved several key steps:

1. Extended & Full Cost Calculation: Calculations were performed to determine both the extended cost (cost of goods only) and the full cost (extended cost + non-recurring expenses) for each quoted part at different volume levels. This facilitated the identification of the most cost-effective supplier based on both price and volume.
2. Dynamic Scenario Planning: A dynamic scenario analysis tool was developed within Power BI. This tool allowed for the calculation of full costs across a wider range of potential production volumes, beyond the specific volumes offered in the quotes. This provided valuable insights into long-term cost implications.
3. Make Option Analysis: Internal manufacturing estimates were incorporated into the analysis to calculate the full cost of in-house production for each part. This enabled a comprehensive comparison of the "make" and "buy" options for informed decision-making.
4. Row-Level Security (RLS): This security feature was implemented to ensure that each team within the organization only sees data relevant to their projects. This promotes data governance and prevents unauthorized access.

**Conclusion**

This Power BI case study successfully developed a comprehensive model for analyzing make vs. buy decisions. The model facilitates the calculation of extended and full costs for both external and internal production options across various volume scenarios. Additionally, the implementation of RLS strengthens data security and accessibility.