Project: Strategic Sales & P&L Analysis Dashboard

Role: Data Analyst Tools: Python, Power BI, Excel

Disclaimer: The datasets, company names, and personnel information utilized in this project are entirely synthetic and generated via Python scripts for demonstration purposes only. This project does not contain or disclose any proprietary, confidential, or actual financial data from any specific organization. Any resemblance to real entities or persons is purely coincidental.

1. Project Background The company, an EdTech consultancy, faced challenges in tracking product profitability and setting accurate sales quotas. The existing reporting process was manual and failed to account for the difference between organic marketing revenue and agent-driven revenue. I developed an automated BI solution to solve these issues.

2. Technical Implementation

- **Data Simulation (Python):** Used Python (Pandas/Numpy) to generate a synthetic dataset covering 2 years of sales transactions, expenses, and KPI targets. I wrote scripts to simulate business logic, including seasonal trends and channel attribution (Direct vs. Agent).

- **Data Modeling (Power BI):** Designed a Galaxy Schema data model. This involved connecting two distinct fact tables (Fact_Sales and Fact_Targets) through shared dimension tables (Date and Employee) to enable accurate multi-grain analysis.

- **Analysis & Metrics (DAX):** Created DAX measures to calculate critical KPIs such as Net Profit Margin, Sales Target Achievement Rate, and Revenue Variance. I also implemented logic to handle dynamic time intelligence (YTD/QTD).

3. Key Insights Delivered

- **Profitability Analysis:** Identified that while the "Seminar" product line had the highest revenue, it had the lowest profit margin due to high costs. Recommended a strategic shift towards lower-cost "Application Services" to improve overall profitability.

- **Sales Performance Correction:** Discovered that sales quotas were incorrectly set by including marketing-driven revenue. I proposed a new quota model that excluded direct sales, which adjusted the team's achievement rate from an artificial 30% to a realistic 90-110%, improving

staff retention and morale.