Automated Revenue Intelligence System – Case Study

This case study documents the design and implementation of an automated revenue intelligence system that detects revenue risks, growth drivers, and pricing signals on a weekly basis using SQL analytics, Make.com automation, and AI-generated executive insights.

Problem Statement

Many businesses rely on manual reporting or delayed dashboards to understand revenue performance. This leads to late detection of revenue drops, discount-driven growth, or margin erosion. The goal was to build a system that automatically monitors revenue trends and produces executive-ready insights without manual analysis.

Solution Overview

The system aggregates transactional sales data weekly, compares current performance against recent moving averages and historical benchmarks, and classifies business conditions into growth, risk, or plateau states. AI is used strictly for interpretation and recommendations, not for decision-making.

Architecture

• PostgreSQL / Supabase for data storage and analytics • SQL for weekly aggregation, moving averages, and YoY comparisons • Make.com for orchestration, logic, and automation • OpenAI for executive-level explanations • Google Sheets for persistent reporting and audit history

Key Features

• Weekly revenue, order volume, and AOV tracking • Deterministic risk and growth detection (non-AI) • Detection of pricing-led vs volume-led growth • Automated executive summaries • Persistent weekly intelligence log

Data Quality Safeguards

Before processing, the system validates data completeness by checking for missing dates, zero-row weeks, and abnormal null values. If data is incomplete, the automation halts and flags the issue.

Business Impact

This system enables leadership teams to identify revenue risks earlier, understand growth drivers, and make faster pricing or operational decisions without relying on manual analysis or dashboards.

Outcome

The final solution is a scalable, repeatable revenue intelligence product suitable for SMEs and data-driven teams. It is designed to run automatically and deliver value with minimal operational overhead.

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