Summary

While serving as a Senior Data Analyst for Musician's Friend, I managed all inventory and merchandising reporting. One major initiative was to modernize the legacy Excel-based reports — many of which were manually emailed each morning — by migrating them to scheduled SSRS reports with automated delivery and parameterized self-service functionality.

The rebuild of one such report, the Customer Backorder Report, triggered an immediate, high-level response directly from an EVP's office.

Note: Due to corporate restrictions, no screenshots or original code are included.

Background

The original report was built from a flat-file export of a legacy ERP system and manually assembled in Excel. It had been in use for over 20 years and was deeply embedded in the company's decision-making process — its accuracy had simply never been questioned.

During the company's ERP migration to Microsoft Dynamics AX, I developed a new version using T-SQL and SSRS. Instead of relying on exports, my version queried the database directly, delivered automated daily emails, and supported interactive filtering by department, class, subclass, and category.

DefCon 1

The very first run of my report revealed backorder values that were 30% higher than what leadership had been seeing — roughly $4 million in discrepancy.

I was on the phone with the EVP of Inventory Planning within the hour and pulled into a meeting with her and multiple directors. I stood by the accuracy of my report — but of course, I did the work to prove it.

My Investigation

Step 1: I validated my report's accuracy against real-time data in Dynamics AX and confirmed a 100% match at the line level.

Step 2: I then investigated the legacy report and found that it matched its flat-file export, but the export was flawed.

The root issue: The legacy ERP was assigning the sale price and cost from the first instance of each item to all subsequent orders, regardless of what customers had actually paid.

I cross-referenced this behavior using both the Oracle-based legacy data store (which mirrored the export) and SQL Server (which hosted the live AX data).

To support my findings, I created an ad-hoc comparative report with line-level and rolled-up summaries from both systems, including pricing, quantities, and timestamps. I also wrote a non-technical summary explaining the issue clearly for stakeholders.

Business Response

Once my findings were verified, leadership mobilized fast:

Inventory Planning, Merchandising, and Contact Center teams were redirected to prioritize urgent backorder resolution.

I was tasked with creating a Customer Outreach Report for the Contact Center, which included:

- Contact information
- Available alternative items (which I added to the data store once supplied by Inventory Planning and Merchandising)
- Discount recommendations
- Order modification status

Customers were contacted directly and offered substitutes. If they opted to wait, the order was flagged with notes for future handling.

Takeaways

While I was already known for meticulous validation before releasing any reports, this event solidified executive trust in my work — not just for accuracy, but for clarity, strategic value, and my ability to communicate findings across both technical and non-technical audiences.

Within weeks, backorders dropped by half — to the lowest levels in years — and multiple departments pivoted their priorities based on the insights uncovered. What began as a routine modernization of a legacy report became a company-wide course correction with satisfied customers and measurable financial impact.

It also reinforced one of my core principles: when something doesn't look right, trust the data and dig deeper. Data rarely lies, but legacy systems, assumptions, and unchecked workflows often do. Knowing how to question those respectfully, and how to prove the truth with precision and empathy, is what transforms a report into a decision-making tool.