NEW
RESOURCES
CONSULTING

USE CASE

Modernizing Manufacturing Analytics with Cloud Data and Real-Time Reporting

Challenge

An international manufacturer and distributor of cookware and kitchenware was struggling with fragmented reporting and limited visibility into its operational data. Leadership teams responsible for manufacturing, sales, and distribution decisions often relied on outdated spreadsheets and disconnected reports rather than a single, trusted data source.

Critical data lived across multiple systems. Manufacturing and production data resided in an ERP system, while sales activity, distributor performance, and demand data were stored in separate CRM and distributor platforms. Because these systems were not effectively integrated, assembling a complete view of the business required extensive manual effort.

The fragmented approach created significant operational challenges:

- **Slow, error-prone reporting:** Dedicated technical staff spent large portions of their time manually refreshing spreadsheets and reconciling data across systems.
- **Outdated information:** Data was often stale by the time leadership reviewed it, Limiting effective decision-making.
- **Limited operational visibility:** Teams lacked near-real-time insights needed for timely production and inventory decisions.

Recognizing the inefficiencies, newly appointed IT leadership prioritized building a modern analytics foundation. The organization's goal was to reduce manual reporting effort while establishing a unified, reliable source of business data accessible to both technical and non-technical users.

Approach

New Resources Consulting (NRC) was engaged to assess the organization's analytics environment, define a roadmap for modernization, and implement a scalable reporting solution. Working closely with IT leadership and business stakeholders, NRC identified priority reporting needs across finance, operations, and sales.

Key steps in the approach included:

- Identifying the most important business questions leadership needed to answer.
- Defining success metrics such as data freshness, system performance, and adoption across teams.
- Mapping report consumers including executives, analysts, and operational users.
- Evaluating the existing reporting environment and identifying performance bottlenecks.

During the early stages of the engagement, NRC uncovered two critical issues: persistent data refresh failures in the client's existing Power BI proof-of-concept datasets and performance challenges caused by oversized report files. These issues were addressed in the first phase by implementing core Power BI standards and best practices, improving reliability and performance while laying the groundwork for a more scalable analytics platform.

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Solution

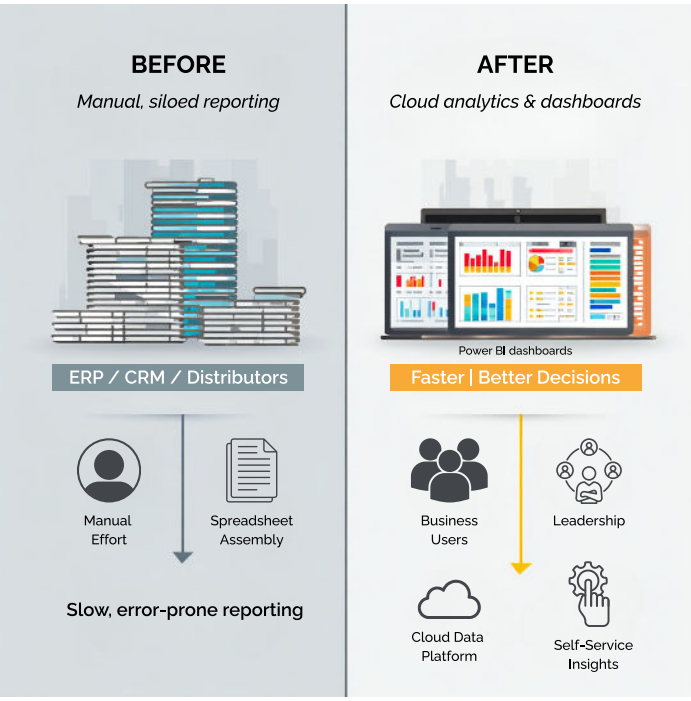
NRC designed and implemented a modern cloud-based analytics architecture using Microsoft Fabric and Azure technologies. The solution established a structured data pipeline that integrated previously siloed information from the manufacturing ERP, sales CRM, and distributor platforms into a unified, cloud-based data environment.

The new architecture enabled:

- Automated data integration and refresh
- Centralized data management accessible across departments
- Interactive Power BI dashboards for business users

The platform was designed using industry-standard data engineering principles to ensure scalability, performance, and long-term maintainability.

The organization moved from fragmented reporting processes to a centralized analytics environment where data refreshes frequently and business users across departments can access insights directly. Instead of relying on technical staff to prepare reports, business users now access dashboards and explore information themselves, dramatically improving operational visibility.



Results

The new analytics platform delivered immediate operational improvements. One of the most significant improvements was the reduction in manual reporting work: previously, a dedicated data engineer spent a large portion of their time maintaining and assembling reports. With automated data pipelines in place, the organization reduced manual reporting effort by approximately 20 to 30 hours per week for a previously dedicated data engineer.

Data availability also improved dramatically. Reporting that previously refreshed once per day now updates hourly, providing leadership teams with far more current information when making operational decisions.

The impact of this improved visibility was particularly evident in inventory management. Prior to the project, the organization struggled to accurately estimate inventory levels across its distributor network due to broken or incomplete data feeds from the sales CRM. Once the systems were integrated and data flows were restored, leadership gained reliable daily visibility into distributor inventory levels, enabling better forecasting and reducing the risk of shortages or excess stock.

Additional benefits included:

- Near-real-time visibility into production and operations
- Self-service data access for business users
- Faster, more reliable leadership reporting
- Improved supply chain and inventory oversight

After the initial data warehouse and reporting environment were implemented, the client's internal team assumed ownership of the platform and continued expanding reporting capabilities independently, demonstrating the sustainability and long-term value of the solution.