FROM MANUAL TO AUTOMATED: A SUPPLY CHAIN (OPTIMIZATION) SUCCESS STORY

How Kenway Consulting helped a retail client take on a large-scale digital transformation of their supply chain with a sophisticated data strategy.

THE SITUATION

A Fortune 500 technology retailer provides multi-brand technology solutions to primarily government, education and healthcare customers. One of the offerings the technology retailer provides to customers is the option to store customer-owned inventory at the retailer's warehouse until shipment is requested.

"Implement systematic processing mechanisms and reengineer its operating processes to increase revenue"

This offering, called buy-and-hold, is a significant competitive advantage for the company because it gives customers the ability to move away from owning real estate space to store inventory while still allowing them to access inventory quickly without concerns about supply chain distributions. This was an especially impactful offering at the time because pandemic related supply chain disruptions on warehouse capacity as well as transportation lead times and costs have increased the risk of inventory being unavailable to companies, boosting demand for buy-and-hold services exponentially.

Despite this value add, the company was rapidly losing its competitive edge and being forced to turn away millions of dollars in business due to their reliance on inefficient buy-and-hold processing. In order to keep up with the market demand, the company needed to implement systematic processing mechanisms and reengineer its operating processes.

CLIENT PROFILE

Industry: B2B/Logistics
Client: Technology retailer
Solution: Technology solution delivery

THE PROBLEM

Despite generating over $200M of revenue annually, the **buy-and-hold process** was done entirely **manually**. The process circumvented both the traditional warehouse management system (WMS) and order management system (OMS) resulting in all orders, warehouse processing, and shipments being captured on multiple spreadsheets. This manual process led to inventory **data inaccuracies**, creating risk for both the business and their customers.

The **lack of systematic** access to data and **operational inefficiencies** had several downstream impacts, the most prominent being:

> Delays in the order fulfillment process

> Lack of omnichannel accessibility

> No visibility into real-time data

> Inability to quickly and accurately address customer requests

This created an environment that not only **prevented** the company from accepting **new business**, but also resulted in **losing existing customers** to competitors. Further, the company was experiencing **employee turnover** as operational teams and sellers were frustrated by the inefficient and **manually intensive** nature of the buy-and-hold process.

Customers expected the ability to view, transact on, and order from their own inventory, and the current system was **not meeting customer expectations**. For example, if a customer had an inquiry about their inventory, the sales team would undertake a time-consuming process of contacting the warehouse team for an answer and **manually updating** the spreadsheets accordingly. The company needed to modernize to deliver on the experience customers wanted and demanded.

THE SOLUTION

In order to move the organization from a manual process to an automated one Kenway:

- Developed a sequenced **cross-functional strategic roadmap** that orchestrated the digital transformation of the company's people, processes, and technologies.

- The goal was to bring data housed on spreadsheets into a system, **optimize the inefficient** processes, and equip all tangential buy-and-hold teams with the right data and insights to adequately address customer inventory inquiries.

- After understanding the needs of the company and its overall objectives, Kenway provided the following **deliverables** to help the company remain competitive and achieve success

Data Strategy

Extract Transform Load

Business Implementation and Change Management

Key Solutions

Customer Interaction with Data

Data Aggregation and Data Modeling

Data Profiling and Data Cleansing

Multiple Source Data Capture for Reporting

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Data Strategy

Kenway analyzed the company's existing data sources to inform a gap assessment. The objective of the gap assessment was to understand what inventory data could realistically be systematically acquired and what data was critical to sunset the manual processes. The gap assessment informed the strategic roadmap that set the company on their digital transformation journey.

Extract, Transform, Load (ETL)

Kenway designed a User Interface (UI) to systematically capture key data points identified in the gap analysis. This data was brought in through an extract, transform, load (ETL) process and consolidated into a data mart that enabled Kenway to aggregate data across disparate data sources and provide the company visibility into inventory data that was otherwise inaccessible.

Multiple Source Data Capture for Reporting

By aggregating the disparate data sources and building a reporting capability, the company was able to provide customer/seller visibility into product storage location and inventory movement. Kenway built technical architecture diagrams to inform the design of a data model within Power BI by leveraging the data received through the UI capture. Further, the use of a Business Intelligence (BI) tool provided the company with access to real-time data for data-driven decision-making and proactive risk mitigation.

Business Implementation and Change Management

To deliver real-world business value to the company, Kenway ensured that the cross-functional leaders and teams had ownership, accountability, and data literacy of the buy and hold processes end to end. Kenway developed a plan that included a vision for a future state operating model, a governance structure with a high-accountability approach around report ownership and data quality and change management initiatives.

Data Aggregation and Data Modeling

Kenway built a Power BI dataset with a star-schema model that met the current state architecture's needs while being flexible and scalable. This ensures that as organizational needs transform over time, the data model can ingest more data sources with varying structures and storage mechanisms since it does not have hardcoded values.

Data Profiling and Data Cleansing

To improve data quality, Kenway profiled the data by defining data rules, identifying distributions, foreign-key candidates, functional dependencies, embedded value dependencies, and performing inter-table analysis. Kenway analyzed the values for completeness, uniqueness, and relationships to other tables to understand which data may need to be merged or appended.

Kenway profiled the data to solve for structural heterogeneity and to define how data should be joined based on unique identifiers. As a result of the data profiling and analysis, Kenway was able to slice the data based on attributes defined by the business to increase the performance of the queries and create unique, concatenated keys within the Power BI data model.

These steps were critical because poor data quality leads to poor decision making, inaccurate insights, and a lack of user adoption. In order to fully harness the power of a Business Intelligence tool, it is imperative to have clean, trustworthy data which Kenway created thorough data quality and cleansing processes to ensure that incorrect data and data anomalies were identified and audited before end-user consumption and analysis.

Customer Interaction with Data

The new capabilities that Kenway built, including an extensible data model, a reporting capability, sustainable data cleansing procedures, and an auditing dashboard, will be used to create an interface for customers to interact with their inventory data – without intervention by the seller.

WHAT WE DELIVERED

The Results of Supply Chain Optimization

- As the buy-and-hold **revenue** continues to **increase** at a rate of **40% year-over-year**, the company now has the operational processes, bandwidth, systems, and data to meet demand.
- Kenway **eliminated** the **bottlenecks** related to order processing and the reliance on manual spreadsheets by implementing a systematic way of capturing and reporting on data.
- This **increased customer satisfaction**, retention, enabled the organization to accept new contracts, and freed up sellers' time for more revenue-generating activities.

FINAL RESULTS

Save **50** hours per month of **non-value add time** in manual processing/administration.

Utilize **14** Power BI reports from one aggregated dataset to service various business areas that will now enable **customer and operational team visibility**.

Automate **3** completely manual processes that were previously performed, stored and delivered out of cumbersome spreadsheets.

Achieve a **40%** improvement in inventory and customer **data quality** throughout the process.

Contact us today to get the most out of your data!

info@kenwayconsulting.com   999.953.6929   kenwayconsulting.com

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