Optimizing Supply Chain Efficiency Of A Multinational Retail Company- Supply Chain Analytics Case Study

Our Client:

- An American retail giant with its headquarters in the USA, extending its footprint across five countries.
- They specialize in selling a wide range of consumer products through their brick-and-mortar stores as well as e-commerce platforms.

Problem statement:

The company faced several challenges in supply chain management, some of them were:

- Difficulty in tracking and monitoring orders and shipments, spotting delays and bottlenecks, and managing inventory levels.

- They struggled with timely and reliable procurement of raw materials, resulting in disruptions to their supply chain. This led to increased costs and delayed deliveries.

- Inaccurate manual forecasts led to inefficient allocation of resources, negatively affecting customer satisfaction. Additionally, the lack of real-time visibility into deliveries resulted in delays and increased transportation costs.

- Absence of a centralized monitoring system and data-driven decision-making led to inventory stockouts, excess inventory, poor visibility, high costs, customer dissatisfaction, and missed revenue opportunities.

Solution

To address these challenges, we developed a supply chain analytics dashboard to visualize and monitor supply chain operations and enable clients to make data-driven decisions.

- The dashboard offered real-time visibility into tracking orders, monitoring shipments, and inventory levels. This empowered the company to promptly identify and address delays, and bottlenecks, and effectively manage inventory in the supply chain process.

- Our integration of historical data and predictive analytics models enhanced procurement planning, ensuring the timely and reliable procurement of goods. This approach effectively minimized disruptions, reduced costs, and prevented delivery delays.

- The dashboard allowed the client to create custom reports, enabling them to analyze the spend analytics by category, supplier, location, and other related parameters.

- Manual forecasting was completely automated as our experts devised and incorporated machine learning algorithms to forecast demand and inventory levels, reducing the reliance on manual processes and improving forecast accuracy.

- We established a centralized data pipeline utilizing insights from the supply chain analytics dashboard. Applied advanced analytics and real-time reporting to optimize transportation routes, reduce costs, and improve customer satisfaction.

Overall, we encouraged the cross-functional collaboration of decision-making with real-time information.

Business Impact

The procurement analytics dashboard had a significant impact on the client's business, leading to many visible outcomes:

- With real-time visibility into inventory levels through the supply chain analytics dashboard, the client achieved a 12% reduction in stockouts and a 15% decrease in excess inventory. This led to improved working capital utilization and a reduction in carrying costs.

- By leveraging historical data and predictive analytics models, the client improved procurement planning, resulting in a 16% decrease in procurement disruptions and a 15% improvement in on-time delivery performance. This also reduced costs associated with disruptions and improves overall supply chain reliability.

- The automation of forecasting processes using ML algorithms led to a 20% improvement in forecast accuracy. This enabled the client to allocate resources more efficiently, reduce waste, and enhance customer satisfaction by ensuring product availability.

- With real-time reporting, the client achieved a 15% reduction in transportation expenses. This, coupled with improved customer satisfaction, led to an increase in repeat purchases, resulting in a 10% growth in revenue.

Overall, the supply chain analytics solution had a significant positive impact on the client's business.