

Supply Chain Analysis Report

Projekt

Analytics.

About ProjektAnalytics.

ProjektAnalytics. is a Service based decision sciences company.

We transform chaotic data into simple, actionable insights so startups can make better decisions and scale faster —**no jargon, just results.**

Our mission is to be **India's first Decision Sciences company** which uses advanced analytical tools such as **CausalAI** and **ExplainableAI** to help startups make the right decisions and be the backbone of Indian Startups helping them scale.

How using Causal Inference helped Recover Lost Sales by 80% and Boost Revenue



Problem

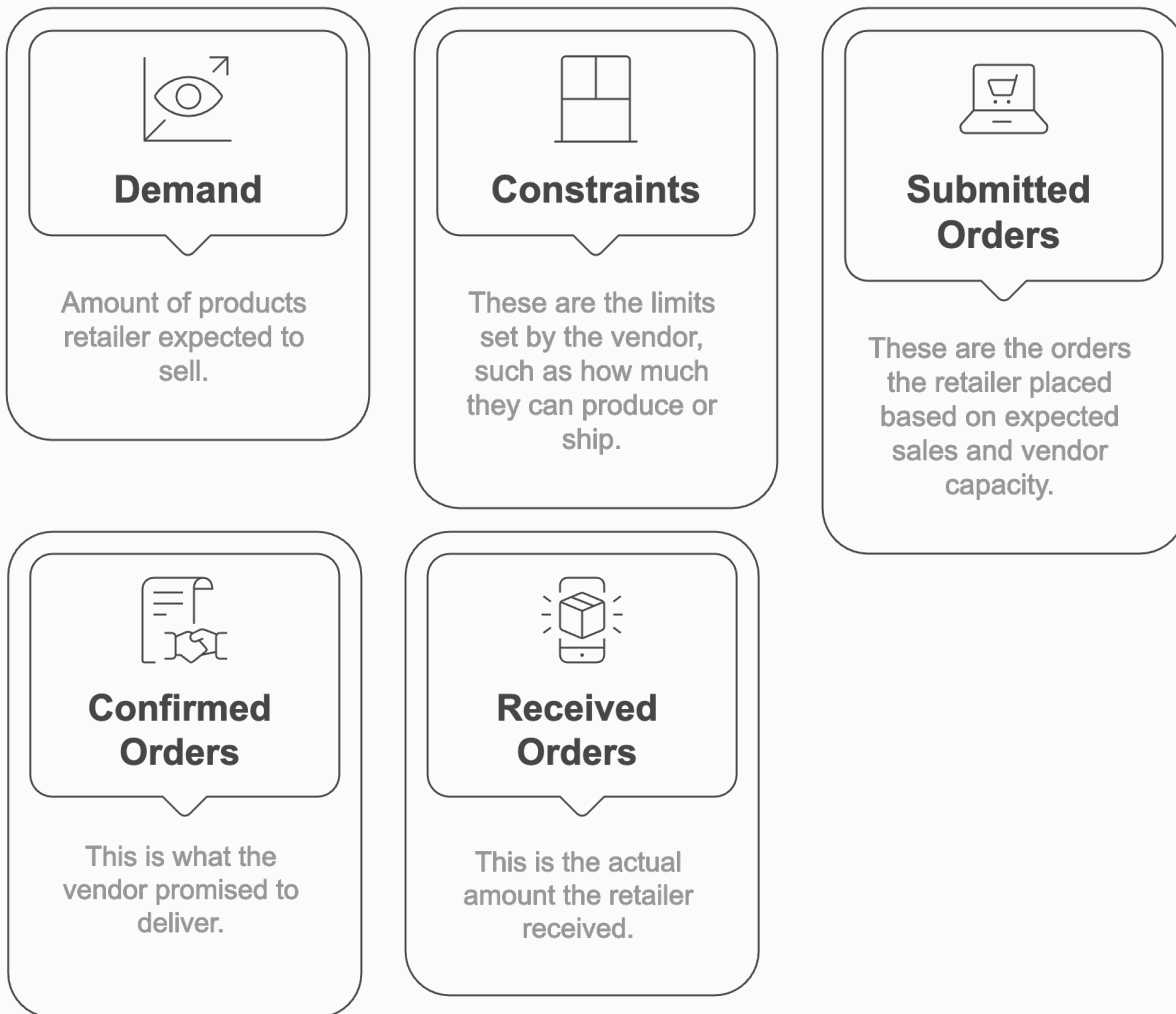
In the supply chain, there's often a disconnect between what customers want and what suppliers can fulfill. This causes either stockouts, where products are unavailable, or overstock, where there's too much inventory.

Both situations lead to **lost sales and unnecessary costs**, affecting profits and increasing inventory expenses. The issue is made worse by limitations on supply capacity, like vendor restrictions or logistics problems.

For example, over the past two weeks, we've lost **4,606 orders due to stockouts**, which means we've missed out on revenue. This loss equals 4,606 times the profit we make per unit sold (P).

Data we used

We looked at two weeks' worth of data from a retailer's order process. Here's what we used:



Over both Week 1 and Week 2, there was a big gap between what the retailer expected to receive and what they actually got, **leading to stockouts.**

How we used Causal Inference

We used Causal Inference to identify the drivers of discrepancies between demand, submitted orders, confirmed orders, and received orders. By modeling these relationships through a Directed Acyclic Graph (DAG), we identified that:

- Demand and confirmed orders are the primary factors influencing the quantity of received products.
- Changes in these factors between Week 1 and Week 2 caused a substantial shift in the average number of orders received.

This allowed us to quantify the exact impact of these factors and understand the root cause of changes in the supply chain, making it possible to act on the key drivers of stockouts and revenue loss.

Actionable Insights

1. Align Orders with Demand:

- Action: Use demand predictions each week and share them with suppliers to adjust what they promise to deliver.
- Benefit: This reduces stockouts and ensures you always have the right products to meet customer demand.

2. Fix Supply Chain Bottlenecks:

- Action: Identify and solve issues in the supply chain, like vendor capacity limits or shipping delays. Work with suppliers to increase their output or shorten delivery times.
- Benefit: This increases the amount of product you receive and helps avoid inventory build-up.

We have just highlighted the two most important out of many other actionable insights.

These actions will help streamline your supply chain, boost efficiency, and improve your bottom line.

Outcomes

Boosting Revenue: By better matching customer demand with confirmed orders, you could recover up to 80% of lost sales from stockouts.

Price Strategy: A small 5% price increase during high-demand periods could increase your profits by 10-15%, depending on how sensitive customers are to price changes.

**We can help you
do this and much
more at
ProjektAnalytics.**

Thank you.

