

## Problem-Solving Case Study:

### ✓ **Identifying Factors Causing Fluctuations in Inventory Levels**

- Seasonal Demand: Adjust inventory for anticipated seasonal changes.
- Market Trends: Monitor industry trends to predict demand shifts.

(Quarter 2 – Black Friday)

- Supplier Reliability: Track supplier performance to anticipate delays.

(Helping in Customer Satisfaction)

### ✓ **Data-Driven Strategies for Optimizing Restocking Processes**

- Demand Forecasting: Use historical sales data to predict future needs.

(Heavy demand in (Quarter 2 – Black Friday)

- Automated Reordering: Implement systems for auto-triggered restocking based on set thresholds.
- Vendor-Managed Inventory: Collaborate with suppliers for direct restocking based on real-time data.

(to avoid delays)

### ✓ **Methods to Reduce Aging and Overstocked Products**

- Discounting: Implement strategic discounting to move aging stock.
- Product Bundling: Combine slow-moving items with popular ones.
- Inventory Audits: Regularly review stock to identify overstocked items.
- Reverse Logistics: Establish a process for returns and unsold goods.

(Lookup at Sold items for Each Product & Category)

### ✓ **Analyzing the Impact on Sales and Customer Satisfaction**

- Sales Metrics: Track changes in sales volume post-implementation.
- Customer Feedback: Gather customer opinions on product availability and variety.

### ✓ **Implementing these strategies should lead to a more efficient inventory system, improved sales, and enhanced customer satisfaction.**

## **Data Analysis Exercise:**

- **Ecommerce makes more money not by selling a few products a lot, but by selling a lot of different products.**
- **Overall revenue had a consistent rise throughout the years but peaked in 2018(especially during second quarter, week 18)**
- **Also peaked in 2017(especially during the Black Friday period, last 2 weeks in November)**

### **✓ Based on the number of orders made**

- **Bed Bath Table is the most popular product category based on the number of orders made.**

#### **TOP 5**

- 1. bed bath**
- 2. health beauty**
- 3. sports**
- 4. computers**
- 5. watch gifts**

### **✓ Based on total sales**

#### **TOP 5**

- 1. health**
- 2. watches**
- 3. bed**
- 4. sports**
- 5. computers**

- ✓ **While the bed\_bath\_table category had the highest no of products purchased, it didn't translate into a better revenue. This means customers purchased more bed\_bath\_table items but spent more money on average on expensive items like health beauty**