Business Insights

**Inventory Optimization**

**1️. Demand Forecasting**

* My model helps forecast future sales based on historical data.
* **Actionable Strategy**: Stock up on high-demand items for peak seasons and reduce inventory for low-performing products.
* **Example**: If **"BRAND X, SIZE 10, in Winter"** has consistently high sales, ensure enough stock before winter.

**2️. Avoiding Overstock & Understock**

* **Overstock Issue**: High inventory leads to increased storage costs and unsold products.
* **Understock Issue**: Lost sales due to insufficient stock.
* **Solution**: Use **NET\_VALUE predictions** per season/month to set stock levels.
* **Example**: If sales drop after discounts, reduce stock orders to avoid excess inventory.

**3️. Supplier & Replenishment Planning**

* Predict which products will **sell fast** and set up faster supply chains for them.
* Plan **bulk purchases** in advance for items with **high predicted sales** to negotiate better supplier deals.

**Pricing Strategies**

**1️. Discount Effectiveness Analysis**

* Your model includes **DISCOUNT %**, helping analyze its impact on revenue.
* **Key Insight**: If NET\_VALUE drops sharply after increasing DISCOUNT, it means discounts **aren’t driving volume** as expected.
* **Action**: Adjust discount levels based on elasticity.

**2️. Premium vs. Budget Pricing**

* If high-priced products have **strong NET\_VALUE**, **premium pricing** is sustainable.
* If low-priced products have high **sales volume but low NET\_VALUE**, consider bundling or upselling.

**3️. Seasonal Pricing Adjustments**

* If **WINTER sales are high**, increase prices before the season starts.
* If SUMMER items show slow movement, **offer early discounts** to clear inventory faster.

**Business Action Plan**

**Short-Term**

* Use predictions to **order stock efficiently** for the next season.
* Adjust discounts based on sales impact.

**Long-Term**

* Set **dynamic pricing models** based on forecasted demand.
* Optimize warehouse space by stocking high-demand products.
* Improve **supplier negotiation** based on projected bulk orders.