Executive Summary

Project Name: Inventory Management Dashboard
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Project Overview

The **Inventory Management Dashboard** was developed using **Power BI** to analyze stock levels, demand patterns, and order requirements. The dashboard provides valuable insights into annual revenue, stock distribution, and inventory turnover, helping businesses optimize their supply chain operations.

Key Metrics & Insights

1. **ABC Analysis:**
   - Categorizes inventory into **A (High-Value), B (Medium-Value), and C (Low-Value)** based on annual revenue and cumulative share.
   - Follows the **Pareto Principle (80/20 Rule)** for effective stock management.
2. **XYZ Analysis:**
   - Classifies SKUs into **X (Uniform Demand), Y (Variable Demand), and Z (Uncertain Demand)** using **Coefficient of Variation (CV)**.
   - Helps predict demand patterns and maintain optimal inventory levels.
3. **Stock & Revenue Analysis:**
   - Displays **annual revenue distribution** across different demand categories.
   - **Current stock distribution** segmented by demand type to track stock value in the warehouse.
4. **Inventory Turnover & Stock Replenishment:**
   - Calculates **Inventory Turnover Ratio (ITR)** to assess warehouse efficiency.
   - Identifies **SKU Re-order points** and alerts for low-stock items.
5. **Advanced Analytics Using DAX & ETL:**
   - Data transformation and **calculated columns** for key metrics like **Revenue Share %, Peak Weekly Demand, Safety Stock, and Re-order Points**.
   - Implemented **DAX formulas** for dynamic data calculations and real-time insights.

Business Impact

- Enables **data-driven decision-making** for inventory managers.
- Reduces stockouts and overstocking by **optimizing re-order points**.
- Improves **supply chain efficiency** by forecasting demand trends.

Conclusion

This **Power BI dashboard** enhances inventory control, optimizes warehouse storage, and streamlines the ordering process, ensuring **cost-effective and efficient inventory management**.