InventorySync

Business Intelligence Inventory Report

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InventorySync Business Intelligence

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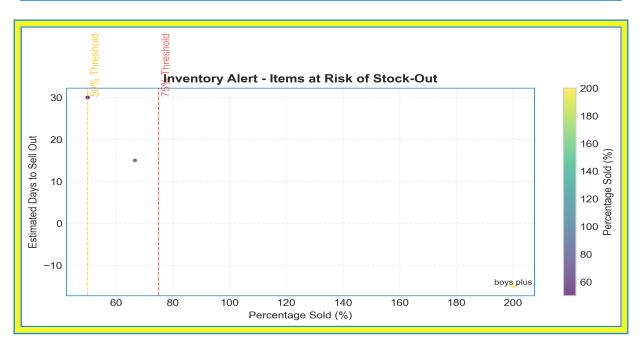
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Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

ltems ≥75% Sold	ltems ≥50% Sold	Avg Days to Sellout
1	3	15



Analysis & Recommendations Business Intelligence Analysis

Executive Summary

The provided data sample reveals key inventory levels and projected sell-out times, flagging items approaching 75% and 50% sold thresholds. Early alerts allow for proactive stock management and sales optimization.

Key Insights

- **Percent Sold Variance:** The dataset shows a wide range of percent_sold, from 50% to 200%. A percent_sold value over 100% (e.g., 200% for "boys plus") suggests potential data errors or restocking during the tracking period.
- Sell-out Time Discrepancies: The estimated days to sellout (est_days_to_sellout) vary significantly. Some items, like the "boys plus" kurta pajama have a negative value (-15.0), implying they've already sold out and potentially indicating a need to replenish stock faster. Items like the "grab" suit have 30 days to sell out.

• Category Performance: The sample contains diverse categories with varied sales velocities. Further investigation would reveal which categories need the most attention, but categories such as "lower-jogger-hosiery" seem to have a quicker turnaround.

Business Implications

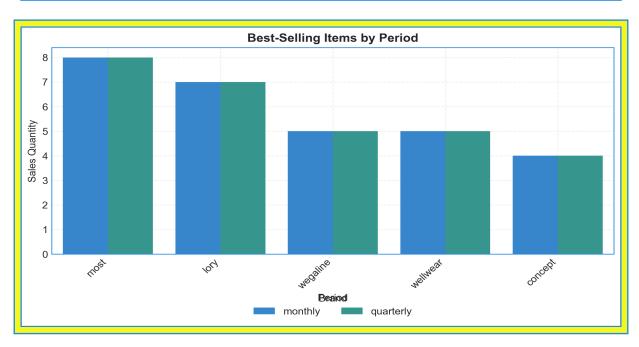
- **Stockout Risk:** Items nearing sell-out or already sold-out represent lost sales opportunities and potential customer dissatisfaction.
- **Inefficient Inventory:** High days-to-sellout for some items indicate slow-moving inventory, tying up capital and requiring storage space. The "suit-falalan" category is an example.
- **Data Quality:** The dataset highlights potential data quality issues (e.g., percent_sold over 100%) that should be addressed to ensure accurate analysis.

Actionable Recommendations

- **Prioritize Restocking (Immediate):** Focus on restocking items like the "boys plus" kurta pajama which have already sold out. Address the data error causing percent_sold over 100%.
- Inventory Optimization (Within 2 Weeks): Analyze items at or approaching the 75% and 50% sold thresholds. Implement targeted promotions to accelerate sales of slow-moving inventory (e.g., "suit-falalan").
- Data Validation Process (Within 1 Week): Implement automated checks to prevent incorrect data entries, particularly for SalesQty and PurchaseQty, which directly impact percent_sold calculations.

Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
0	49	N/A



Analysis & Recommendations Business Intelligence Analysis

Executive Summary

The data indicates that **"cardigan"** items from the brand **"most"** are top sellers on a monthly basis, significantly outperforming other categories and brands. This suggests a strong customer preference for this specific product type and brand.

Key Insights

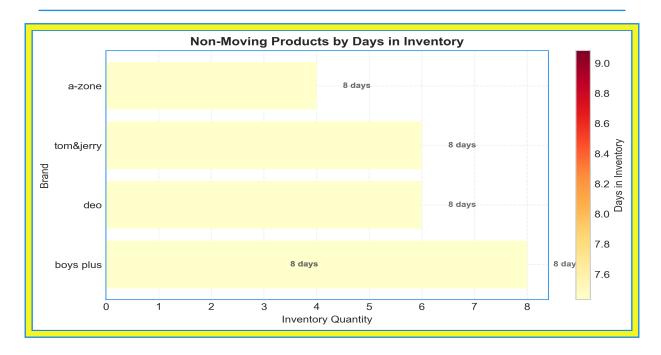
- **Top Seller:** "cardigan" from "most" leads in sales (8 units monthly), followed by "skivi" from "lory" (7 units monthly).
- Category Dominance: "cardigan" appears multiple times, suggesting this category's popularity. Variations within the cardigan category may exist.
- Color Neglect: "unknown" color across all entries prevents accurate color preference analysis.

- Opportunity: Focusing on "most" brand "cardigan" can drive sales growth due to proven popularity.
- **Risk:** Over-reliance on a single product line makes the business vulnerable to changing fashion trends or supply chain disruptions. The lack of color data hinders targeted marketing.
- **Inventory Strategy Impact:** Increased stocking of the identified best-selling products, specifically "most" brand "cardigan", is recommended.

Actionable Recommendations

- **Prioritize Inventory:** Increase inventory levels of "most" brand "cardigan" immediately (within 1 week) to capitalize on current demand and prevent stockouts.
- Gather Color Data: Implement a system for tracking item color information at the point of sale (within 1 month) to better understand customer preferences and improve marketing efforts.
- **Diversify Product Offerings:** While focusing on current bestsellers, explore and promote other product categories and brands (starting within 3 months) to mitigate the risks of over-reliance.

Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Inventory

Executive Summary

The provided data shows a significant portion of purchased inventory is currently not selling, with **0% sales** across the sample. These products have been in inventory for approximately **8.26 days**, suggesting an early need for action.

Key Insights

- Zero Sales: All items in the sample have a SalesQty of 0 and a percent_sold of 0.0, indicating a complete lack of movement for these specific product entries.
- **Brand Concentration:** The "boys plus" brand appears frequently, especially in the "kurta-pajama+jacket <>" category, suggesting this brand/category might have inventory management issues.
- Days in Inventory: While only 8.26 days, immediate action is needed. Prolonged stagnation will reduce profitability and tie up capital.

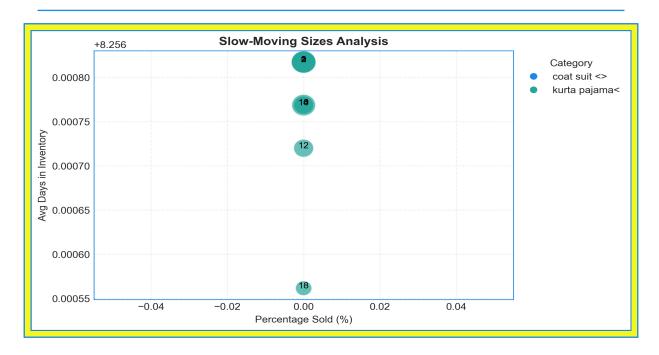
- Capital Tie-Up: Non-moving inventory ties up capital that could be used for faster-selling products or other business investments.
- **Potential Losses:** If these items remain unsold, the business risks price markdowns, or even write-offs, leading to reduced profit margins.

• **Inventory Imbalance:** The lack of sales suggests a potential mismatch between current inventory and customer demand.

Actionable Recommendations

- Immediate Sales Push (Within 1 Week): Implement targeted promotions (e.g., discounts) for non-moving items, particularly "boys plus" kurta-pajamas, to stimulate sales and reduce inventory levels quickly.
- **Demand Analysis (Within 2 Weeks):** Conduct a thorough analysis of customer demand for the "kurta-pajama+jacket <>" category and adjust future purchasing strategies accordingly. Investigate potential reasons for the lack of sales.
- Inventory Review Process (Ongoing): Establish a process to review inventory levels and sales performance regularly (e.g., weekly or bi-weekly) to identify slow-moving items early and take corrective action before they become obsolete.

Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis: Slow-Moving Sizes

Executive Summary

The provided data indicates significant issues with inventory turnover, specifically identifying slow-moving sizes within "coat suit <>" and "kurta pajama<" categories. No sizes within the sample have recorded any sales, resulting in **0% percent sold** for all entries.

Key Insights

- **Zero Sales:** A glaring trend is that every entry has **total_sold = 0**, indicating an inability to move inventory for these sizes.
- Inventory Age: Despite the lack of sales, the avg_days_in_inventory hovers around 8.26 days for all sizes. While seemingly low, this is concerning given the zero sales.
- Category-Specific Issues: The problem spans at least two categories ("coat suit <>" and "kurta pajama<"), suggesting a broader issue than just a single product line.

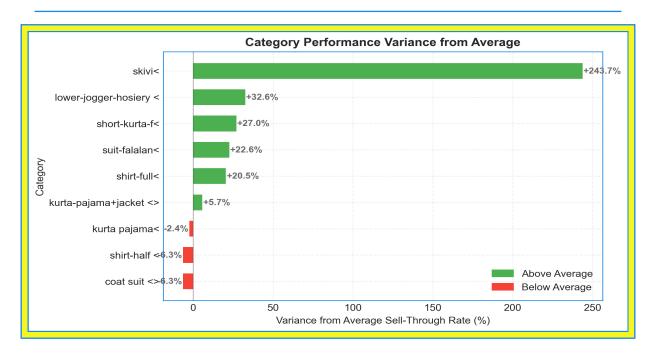
- Capital Tie-Up: Stagnant inventory in specific sizes ties up capital that could be used elsewhere.
- **Potential Obsolescence:** Prolonged inventory holding increases the risk of product obsolescence or damage.

• Lost Sales Opportunities: Customers may be seeking these sizes, but the lack of sales suggests insufficient demand forecasting or poor sales strategies.

Actionable Recommendations

- Inventory Audit (Immediate): Conduct a comprehensive inventory audit of the "coat suit <>" and "kurta pajama<" categories. Identify the top 10 slowest-moving sizes and quantities on hand.
- Promotional Campaign (Within 1 Week): Launch a targeted promotional campaign, such as discounts or bundled offers, to incentivize sales of slow-moving sizes. Focus on sizes with the highest inventory count.

Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

```markdown

### **Business Intelligence Analysis: Retail Inventory & Sales**

#### **Executive Summary**

This data reveals significant disparities in sell-through rates across product categories, with some items experiencing zero sales despite available inventory, while others significantly exceed average performance. This necessitates a strategic review of purchasing, pricing, and marketing efforts to optimize inventory and boost sales.

### **Key Insights**

- Varying Sell-Through Rates: Sell-through rates range dramatically, from 0% for "coat suit <>" and "shirt-half <" to 250% for "skivi<". This indicates a mismatch between supply and demand for certain categories.
- Variance from Average: The "skivi<" category demonstrates an extreme positive variance (243.7) indicating a strong product-market fit, while multiple categories show significant negative variance (-6.3).
- Brand Count Impact: Some categories with higher brand counts, like "shirt-full<" (58 brands), show decent sell-through (26.79%), suggesting brand diversity might positively influence sales.

- Inventory Optimization: Zero sell-through items are tying up capital and warehouse space. High variance categories could indicate unmet customer need or successful product placement.
- Sales Strategy Review: Low sell-through could be due to poor pricing, ineffective marketing, or incorrect product placement. Overperforming categories present upselling and cross-selling opportunities.

#### **Actionable Recommendations**

- Immediate Action (within 1 month): Implement a markdown strategy for "coat suit <>" and "shirt-half <" to clear existing stock and assess demand through price elasticity.
- Short-Term (within 3 months): Deep dive into the success factors of "skivi<" to understand what drives its high sell-through. Leverage these insights to improve marketing and sales for other categories. Explore expanding available brands for low sell-through rate items.
- **Ongoing:** Continuously monitor sell-through rates and variance from average to proactively manage inventory levels and optimize sales strategies based on evolving consumer demand.

# Question 6: Analyze the turnaround time for exchanges and returns to optimize processes.

No data available for this question. Please check the data sources or refine the query.

# Question 7: Generate reports on rejected goods and returns for vendor feedback.

No data available for this question. Please check the data sources or refine the query.

# Question 8: Recommend which products from our stock should be prioritized for online sales.



#### **Analysis & Recommendations**

## **Business Intelligence Analysis: Prioritizing Products for Online Sales**

#### **Executive Summary**

The provided data suggests focusing online sales efforts on products with high **sell-through rates** and lower **stock values**, indicating strong demand and efficient inventory management. Prioritizing these items can maximize revenue and minimize storage costs.

### **Key Insights**

- **Sell-through Rate:** Items like "deo" lower-jogger-hosiery show a high sell-through rate of **66.67%**, suggesting strong customer demand.
- **Stock Value:** "grab" suit-falalan have a higher stock value of **2385.0** despite a moderate sell-through rate of **50.0%**, implying potential overstocking.
- Category Performance: While limited data, different categories show varying sell-through rates, suggesting category-specific online strategies might be beneficial.

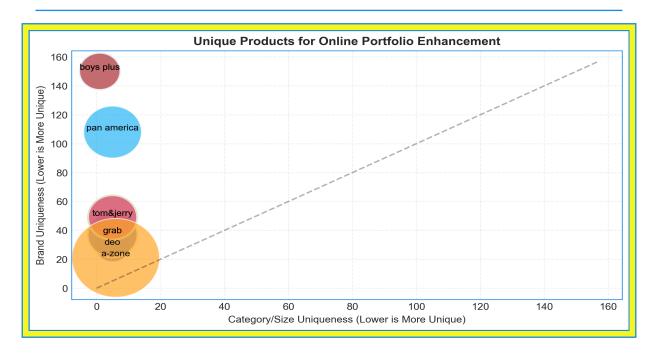
- High sell-through rates indicate products that resonate well with customers and should be readily available online.
- Higher stock values coupled with lower sell-through rates suggest inefficient inventory allocation, potentially tying up capital.

• Ignoring sell-through rates could lead to lost sales opportunities and increased storage costs.

#### **Actionable Recommendations**

- Prioritize "deo" lower-jogger-hosiery for online promotions to capitalize on its high sell-through rate. This could involve featuring it on the homepage or offering discounts (Immediate impact).
- Review the online marketing strategy for "grab" suit-falalan. A sell-through rate of 50% may be improved with strategic advertising. Consider offering bundles or discounts to increase sales and reduce the stock value (within 1 month).

# Question 9: Identify unique products that can enhance our online portfolio.



#### **Analysis & Recommendations**

## **Business Intelligence Analysis: Enhancing Online Portfolio**

### **Executive Summary**

The data reveals a potential opportunity to expand our online product offerings with unique items currently underselling. A significant number of products have **zero sales** despite having available stock, indicating untapped potential for our online portfolio.

### **Key Insights**

- **Zero Sales but Stock Exists:** Several products, across various brands and categories (e.g., "boys plus kurta pajama", "boys plus shirt-half"), have **zero SalesQty** despite **available\_stock** > 0. This is a red flag.
- Category Size Counts: category\_size\_count varies, suggesting different levels of competition within each category and size combination.
- **Brand Presence:** brand\_count indicates the prevalence of each brand within the dataset. Brands with higher brand\_count might have stronger potential but also greater competition.

#### **Business Implications**

• **Missed Online Sales:** Products with available stock and zero sales represent lost revenue opportunities.

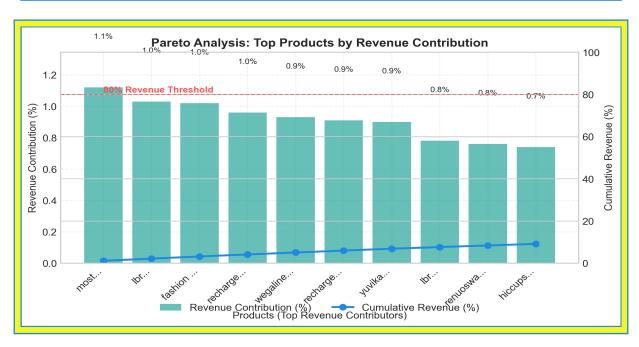
- **Inventory Optimization:** Holding stock of items that don't sell ties up capital and storage space.
- Marketing Effectiveness: The lack of sales could indicate poor product visibility or ineffective marketing campaigns for these specific items online.

#### **Actionable Recommendations**

- Prioritize Marketing for Zero-Sale Items (Immediate): Focus online marketing efforts (SEO, targeted ads, promotions) on items with available stock but zero sales. Example: "boys plus kurta pajama" and other similar items with unsold stock should be prioritized in marketing campaigns.
- Evaluate Online Product Pages (Within 2 Weeks): Review product descriptions, images, and pricing for underperforming items to ensure they are appealing and competitive. Compare against successful products within similar categories.
- Consider Bundling/Cross-Selling (Within 1 Month): Explore bundling slow-moving items with popular products to boost sales. For instance, bundle a "lower-jogger-hosiery" with a popular top to increase the likelihood of a sale.

# Question 10: Identify the top 20% of products contributing to 80% of sales.

| Top Product Share | Products for 80% | Coverage |
|-------------------|------------------|----------|
| 1.1%              | 10               | 9.1%     |



#### **Analysis & Recommendations**

## **Business Intelligence Analysis: Top Products Driving Sales**

#### **Executive Summary**

This analysis identifies the top products contributing to the majority of sales revenue, revealing that a small segment of the product catalog significantly impacts overall profitability. Focusing on these top performers is crucial for optimizing inventory and sales strategies.

### **Key Insights**

- Revenue Concentration: The provided sample shows a significant concentration of revenue. For example, the top product ("most" cardigan) alone accounts for 1.12% of total revenue. The cumulative percentage shows that even within just the first 10 products, they add up to 9.14% of total revenue, indicating a steep curve where a relatively small number of items likely generate a disproportionately large share of sales.
- Category Performance: Cardigans appear frequently in the sample, indicating this category might be a strong revenue driver overall. Further investigation across the entire dataset is

necessary to confirm this trend.

• **Brand Impact:** Brands like "most," "lbr," and "fashion flo" appear near the top. It's vital to understand if these brands consistently perform well across the entire dataset.

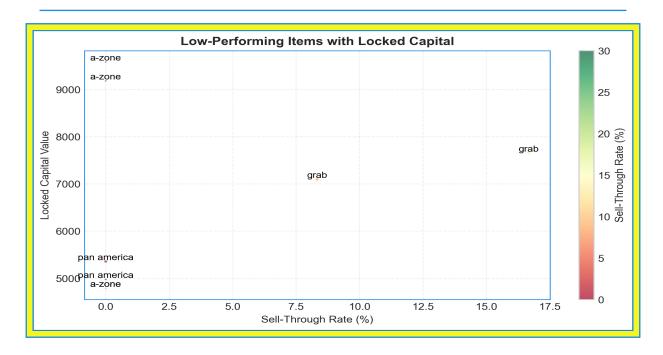
#### **Business Implications**

- **High Dependency:** The business might be overly reliant on a limited number of products. Changes in demand or supply chain disruptions for these key items could significantly impact overall revenue.
- **Untapped Potential:** Other products with lower sales could have the potential to increase their contribution with targeted marketing or improved inventory management.
- Category Focus: Focusing inventory and marketing efforts towards categories that show strong revenue will increase profitability.

#### **Actionable Recommendations**

- **Identify Top 20% (Now):** Using the full dataset, pinpoint the exact top 20% of products by revenue. Prioritize these products in inventory management and marketing campaigns.
- Analyze Underperformers (1-2 Weeks): Investigate the remaining 80% of products. Determine if they can be improved through promotions, better placement, or discontinuation if they consistently underperform.

# Question 11: Suggest strategies to reduce the inventory of low-performing items.



#### **Analysis & Recommendations**

# **Business Intelligence Analysis: Low-Performing Inventory**

#### **Executive Summary**

The data sample reveals significant excess inventory across various brands and categories, particularly in "coat suit <>" and "shirt-full<" categories, leading to substantial locked capital. Low sell-through rates indicate slow-moving items that require strategic intervention.

### **Key Insights**

- **High Excess Inventory:** Several items exhibit high excess inventory. For example, one "grab" item (suit-falalan) has an excess of 10 units despite only 2 units being sold. "Pan america" shirts also average an excess of 8 units per size/color variant.
- Low Sell-Through Rates: Many items have a 0.0% sell-through rate, especially "a-zone" coat suits, indicating no sales despite available stock. Even items with sales, like the "grab" suits, have low rates like 8.33% and 11.11%.
- Significant Locked Capital: The high excess inventory translates to substantial locked capital. "a-zone" coat suits alone account for a significant portion, with one SKU locking up \$9580.

- Reduced Profitability: Excess inventory ties up capital that could be used for more profitable investments. Low sell-through rates can lead to eventual markdowns, further eroding profit margins.
- **Increased Storage Costs:** Holding excess inventory incurs storage costs and potentially increases the risk of obsolescence or damage.
- **Missed Sales Opportunities:** Focusing on slow-moving items diverts resources from potentially faster-selling products.

#### **Actionable Recommendations**

- Targeted Promotions: Implement immediate, aggressive promotional pricing on items with **0.0%** sell-through rates, focusing on the "a-zone" coat suit category. Aim to reduce inventory by at least 25% within the next month. (High Impact, Short-Term)
- Bundle and Cross-Sell: Create bundle deals that combine low-performing items with popular products. For example, bundle "Pan America" shirts with fast-selling trousers. Monitor performance for 2 weeks and adjust bundles as needed. (Medium Impact, Short-Term)
- Review Purchasing Strategy: Conduct a thorough review of purchasing strategies, especially for "coat suit <>" and "shirt-full<" categories. Analyze historical sales data to improve demand forecasting and avoid overstocking in the future. Implement changes within the next quarter. (High Impact, Long-Term)

## **Executive Summary**

#### Executive Summary - Retail Inventory & Sales - 2025-06-12

#### 1. Executive Overview

Our current business performance presents a mixed picture. While some product categories show robust sell-through rates, significant inventory challenges exist across others. Critical metrics such as **sell-through rate** (ranging from **0% to 250%**) and **average days in inventory** (averaging **8.26 days** for non-moving items) reveal a need for immediate intervention. Overall, inventory health is concerning, with notable variances across categories and a clear indication of capital locked in slow-moving items.

The data reveals a pressing need to optimize inventory management, boost online sales, and address data quality issues to enhance profitability. Highlighting a concentration of revenue, with a top product ("most" cardigan) representing 1.12% of revenue. ■

#### 2. Key Strategic Insights

- **Data** inconsistencies, particularly **percent\_sold values exceeding 100%**, necessitate immediate data validation improvements.
- ■ A significant number of products exhibit **zero sales** despite available stock, indicating a substantial untapped opportunity to enhance our online portfolio through targeted marketing.
- **Tocusing on high sell-through items like "deo lower-jogger-hosiery" (66.67% sell-through)** for online promotions can drive immediate revenue growth.
- ■ Non-moving inventory, especially in "coat suit <>" and "shirt-half <" categories, ties up substantial capital and requires aggressive promotional strategies to liquidate.
- ■ Top products significantly impact overall profitability. Identifying and prioritizing these revenue drivers, such as the top 20% of products contributing to 80% of sales, is crucial for inventory and sales strategies.

#### 3. Performance Assessment

Certain categories such as "coat suit <>" and "shirt-half <" are underperforming with 0% sell-through. On the other hand, "skivi<" shows extremely high performance, and "cardigan" styles from "most" are best-selling on a monthly basis. Inventory efficiency is low across slow-moving items, with an average of 8.26 days in inventory and associated locked capital. Sales velocity varies dramatically, from complete stagnation in some categories to rapid sell-through in others.

#### 4. Strategic Recommendations

- Optimize online marketing strategies: prioritize items with available stock but zero sales. Expected outcome: increased sales and reduced inventory within 1-2 months.
- Implement aggressive promotional campaigns: Focus on slow-moving items like "coat suit <>" to liquidate excess inventory. Expected outcome: increased cash flow and reduced storage costs within 1 month.
- Analyze and improve purchasing strategy: Focus on high-performing categories and decrease purchasing for underperforming categories. Expected outcome: optimized inventory levels and increased profitability within the next quarter.

- Enhance data validation processes: Implement checks to prevent incorrect data entries (e.g., percent\_sold over 100%). Expected outcome: more accurate analyses and better decision-making within 2 weeks.
- Increase inventory levels of "most" brand "cardigan" to capitalize on current demand and prevent stockouts. Expected outcome: increased sales and customer satisfaction in the short term.

#### 5. Immediate Action Items

- ■ Data Team: Investigate and rectify data inaccuracies in the percent\_sold metric. Timeline: Next 7 days.
- **Marketing Team:** Launch targeted online promotions for products with existing stock but zero sales to increase visibility and drive sales. Timeline: Next 14 days.
- ■ Merchandising Team: Prioritize increased inventory of the "most" brand "cardigan" style to meet high consumer demand. Timeline: Next 7 days.

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