InventorySync

Business Intelligence Inventory Report

Generated on June 27, 2025

InventorySync Business Intelligence

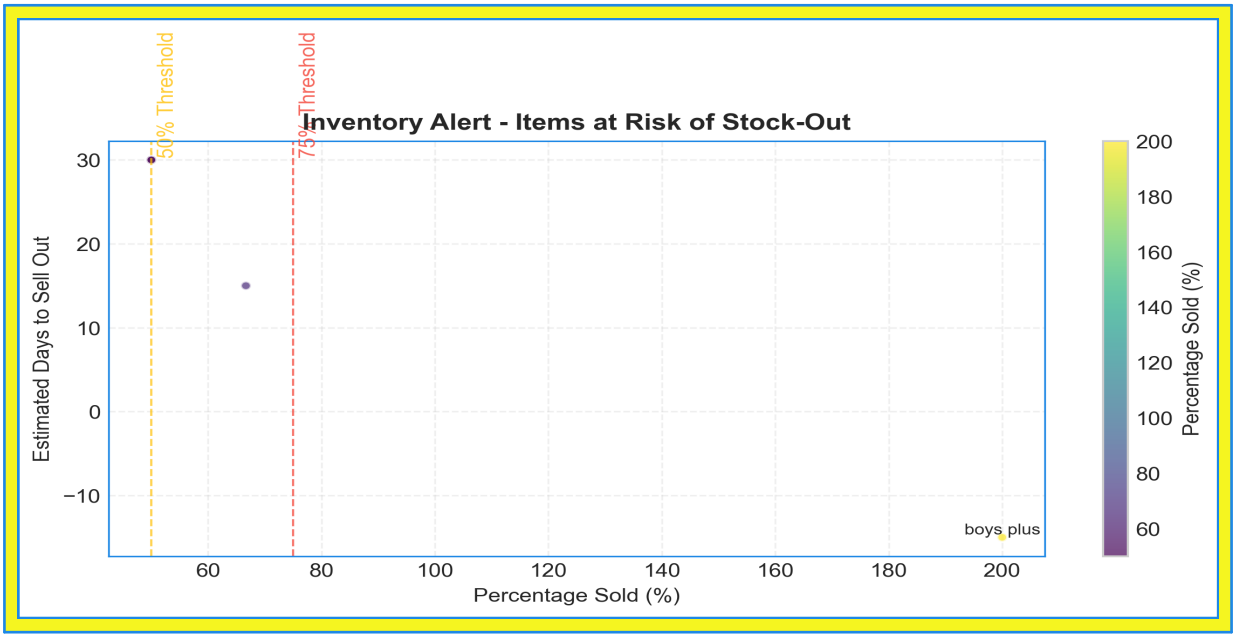
Prepared for: Executive Management

Generated by: Tanman

Table of Contents

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

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



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sell-Out Notification

Executive Summary

This analysis identifies items approaching critical sell-out thresholds (75% and 50% sold) and estimates remaining sales days. Addressing these thresholds proactively optimizes inventory and prevents lost sales.

Key Insights

• **Sell-Through Rate:** The provided data highlights items at varying stages of sell-through. For example, "deo lower-jogger-hosiery" is **66.67%** sold with an estimated **15 days** to sell out, while "grab suit-falalan" and "pan america shirt-full" are both **50%** sold, but the latter is estimated to last **30 days.**

• **Negative Sell-Out Estimate:** The "boys plus kurta pajama" shows **200%** sold and **-15 days** to sell out. This suggests an error in either Sales Quantity, Purchase Quantity, or the calculation of these fields. This needs immediate attention.

• **Inconsistent Sell-Out Speed:** Items with similar percentage sold values have radically different estimated days to sell out. This might indicate variations in demand based on brand, category or incorrect sales forecasting.

Business Implications

• **Lost Sales & Overstocking:** Failing to address fast-selling items can lead to stockouts and lost revenue. Conversely, slow-moving inventory ties up capital.

• **Supply Chain Issues:** Inaccurate "estimated days to sell out" makes it difficult to reorder strategically.

• **Customer Satisfaction:** Stockouts harm customer experience and brand loyalty.

Actionable Recommendations

• **Investigate and correct data anomalies** (Immediately): Determine the reason for the **200%** sell-through and negative sell-out estimate on "boys plus kurta pajama". This will help establish data integrity.

• **Prioritize reordering for items nearing 75% sold** (Within 1 week): Closely monitor fast-selling items like the "deo lower-jogger-hosiery" and "grab suit-falalan" to avoid stockouts. Improve the demand forecasting model for items that have similar percentages sold values but radically different timeframes until expected sell-out.

• **Implement automated alerts for 75% and 50% sold thresholds** (Within 1 month): This will provide proactive notifications, enabling timely inventory management and reordering.

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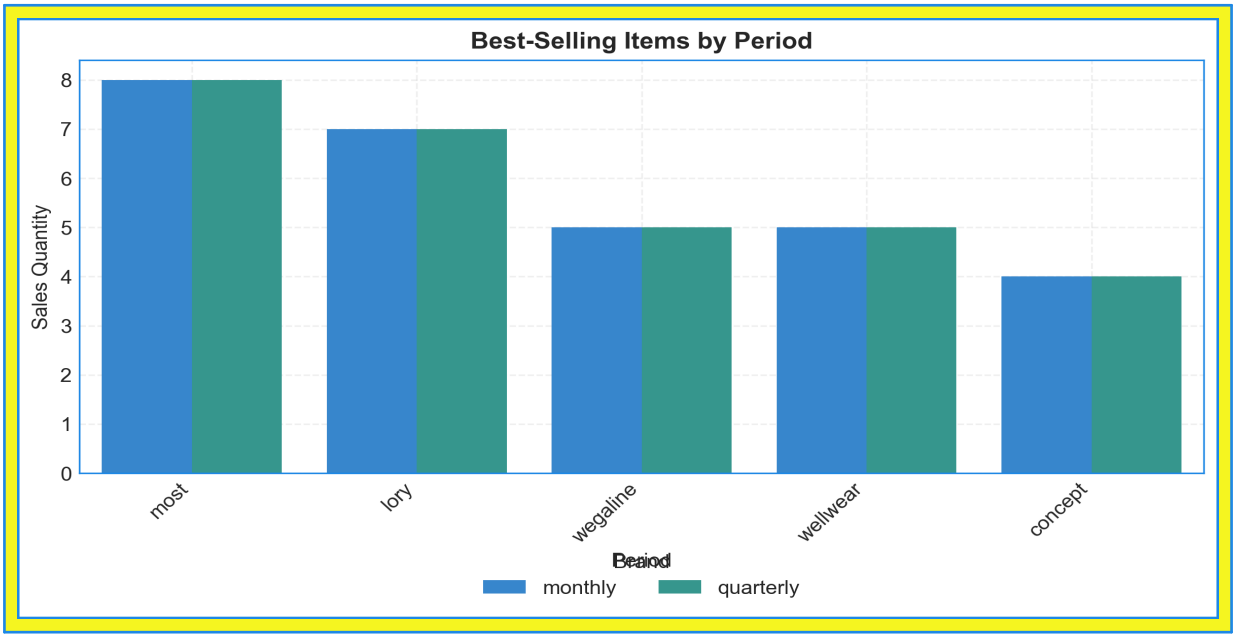
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
0	49	N/A



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The provided data sample highlights "cardigan" as a strong-selling category monthly with brands like "most" and "wegaline" leading in sales. Further analysis of full data is needed to establish definitive weekly, monthly and quarterly bestsellers.

Key Insights

- **Category Focus:** "Cardigan" consistently appears with significant sales figures (e.g., "most" at 8, "wegaline" at 5). This suggests a strong customer demand for cardigans.
- **Brand Performance:** Brand "most" consistently shows up in sales data, indicating relative success.
- **Color & Size Inconsistencies:** "unknown" for color across data hinders useful inference.

Business Implications

- **Inventory Management:** High cardigan sales suggest prioritizing cardigan stock. Understanding size requirements can improve stock distribution.

- **Marketing Opportunities:** Focus marketing efforts on popular categories to boost sales.
- **Data Quality:** The high frequency of "unknown" color creates blind spots and hinders analysis.

Actionable Recommendations

- **Inventory Optimization (Immediate):** Prioritize inventory for "cardigan" category, especially from brand "most".
- **Data Quality Improvement (Within 1 Week):** Implement mandatory color selection during data entry to ensure accuracy. This will improve future analyses.
- **Sales & Trend Analysis (Ongoing):** Collect more sales data across weekly, monthly and quarterly periods. This would provide the accurate trend of the bestselling items.

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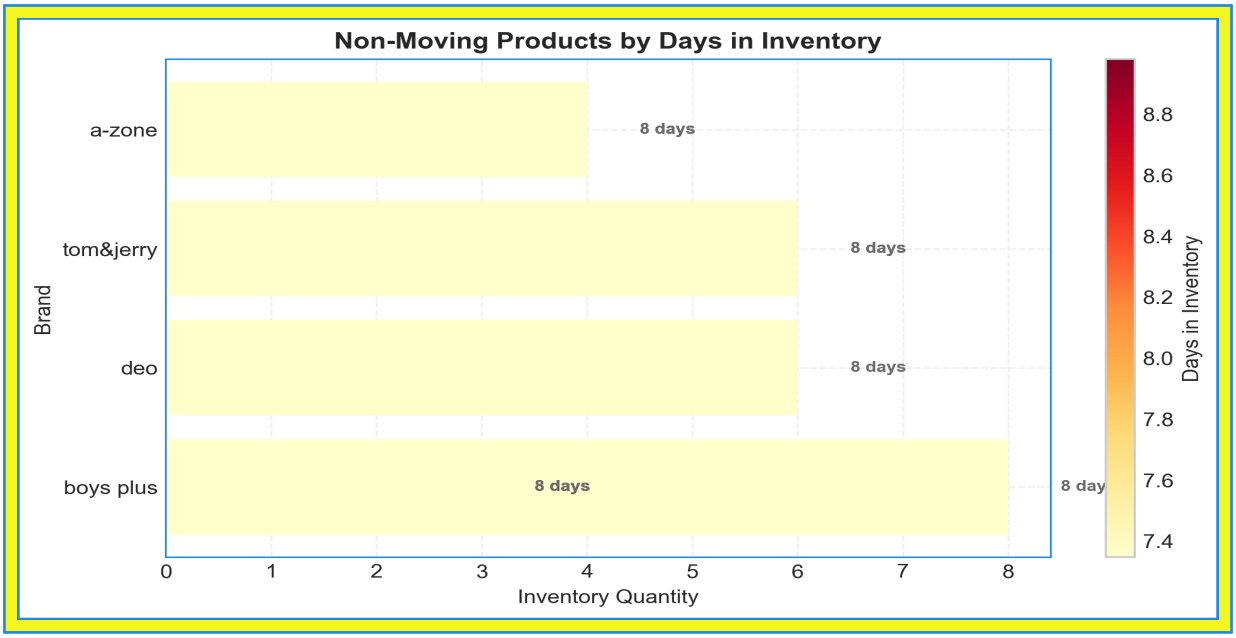
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Inventory

Executive Summary

The provided data sample reveals a significant issue with non-moving inventory, as **all items listed have a sales quantity of zero**. These items have been in inventory for approximately **8 days** based on the days_in_inventory metric.

Key Insights

- **Zero Sales:** SalesQty is consistently 0 across all rows, indicating a complete lack of sales for these specific product variations. The percent_sold is also 0.
- **Inventory Age:** The days_in_inventory is roughly the same for all items (~8 days), which, while not long, warrants concern given the zero sales.
- **Category Diversity:** Non-moving products span various categories like "kurta pajama," "lower-jogger-hosiery," and "coat suit," suggesting a widespread issue, not limited to a single product line.

Business Implications

- **Capital Tie-up:** Unsold inventory ties up capital that could be used for faster-moving products.
- **Potential for Obsolescence:** Delay in sales increases the risk of the product becoming outdated.

• **Inventory Management Issues:** The lack of sales might indicate a problem with inventory strategy.

Actionable Recommendations

• **Immediate Promotion (High Impact, 1-week timeframe):** Implement flash sales or discounts on these non-moving items to stimulate demand and clear inventory. Focus marketing efforts on these categories to drive customer awareness.

• **Re-evaluate Product Placement (Medium Impact, Ongoing):** Assess if product placement is optimized. Consider moving these items to higher traffic areas in the store or improving their visibility online. Analyze if the products are appropriately represented in online search results.

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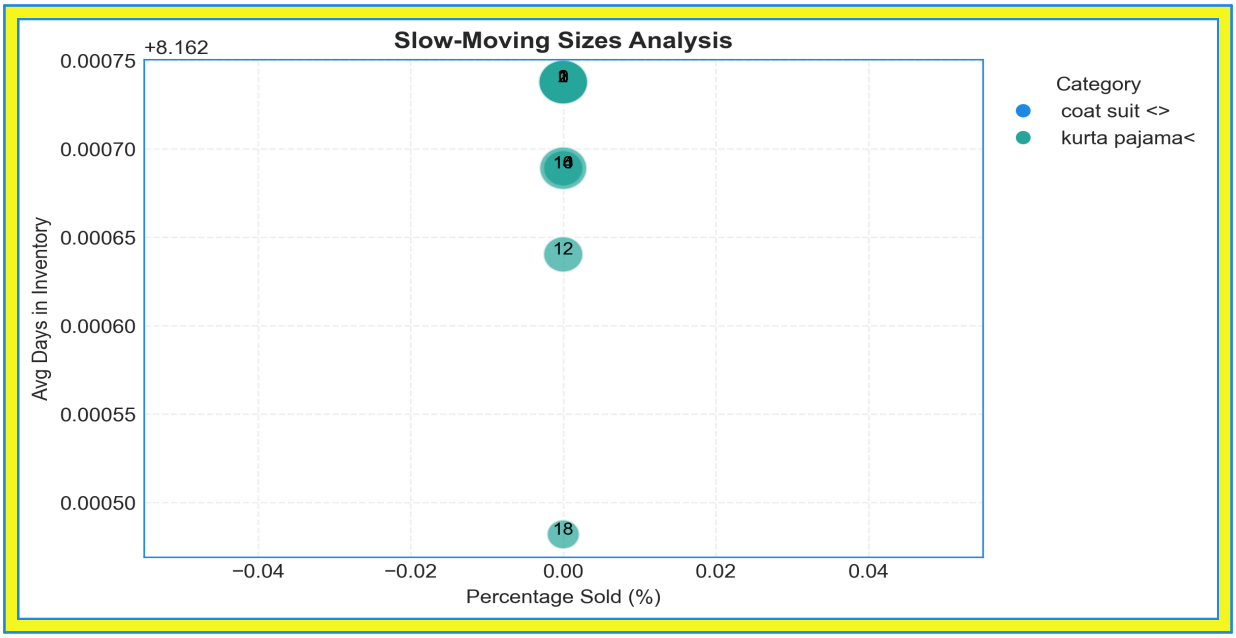
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis: Slow-Moving Sizes

Executive Summary

The provided data indicates significant issues with inventory management, as **no items have been sold** across the specified categories and sizes. This suggests a mismatch between inventory and customer demand, leading to potentially tied-up capital and storage costs.

Key Insights

- **Zero Sales:** The most striking insight is that the **percent_sold is 0.0 for all entries**, implying no items have been sold across these sizes and categories.
- **Inventory Accumulation:** High size_count and total_purchased values (e.g., kurta pajama< size "1" has a size_count of 11 and total_purchased of 13) combined with zero sales suggest overstocking of these specific sizes.
- **Consistent Average Inventory Days:** The avg_days_in_inventory hovers around **8.16 days**, despite zero sales. This highlights that the issue is not new stock specifically but rather an overall lack of sales traction in these categories and sizes.

Business Implications

- **Capital Tie-Up:** The unsold inventory represents a significant capital investment that is not generating revenue.
- **Storage Costs:** Holding unsold inventory incurs storage costs, further impacting profitability.

• **Potential Obsolescence:** The longer inventory remains unsold, the higher the risk of it becoming obsolete or unsellable due to changing fashion trends or product damage.

Actionable Recommendations

• **Inventory Audit and Markdown (Immediate):** Conduct a thorough audit of the identified slow-moving sizes within the "coat suit" and "kurta pajama" categories. Implement targeted markdowns (e.g., **20-30% discount**) to stimulate sales and reduce inventory levels within the next **2 weeks**.

• **Demand Forecasting Refinement (Within 1 Month):** Revise demand forecasting models to better predict size-specific demand. Incorporate historical sales data, market trends, and customer feedback to optimize future purchasing decisions. Prioritize categories with current inventory concerns.

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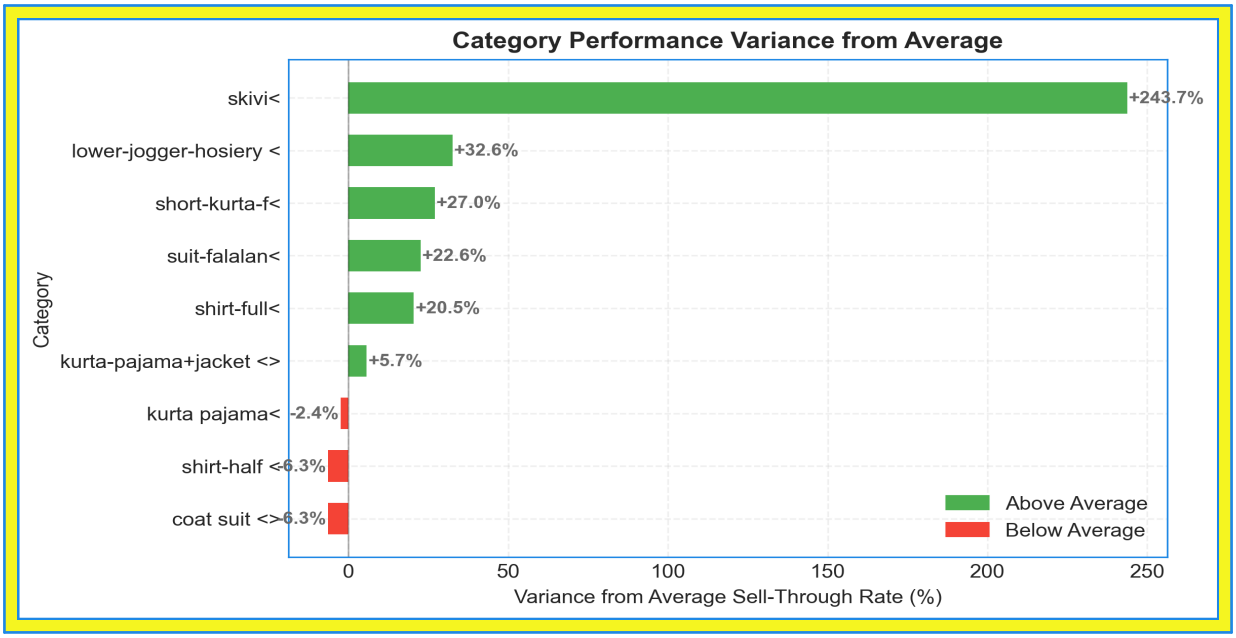
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

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# Business Intelligence Analysis

## Executive Summary

The data reveals significant variance in sell-through rates across product categories, indicating potential inventory management issues. Some categories have zero sales despite purchases, while others vastly outperform the average.

## Key Insights

- **Sell-Through Rate Discrepancies:** A significant range exists, from **0%** for "coat suit <>" and "shirt-half <" to 25**0%** for "skivi<". This suggests overstocking in some areas and potential stockouts or high demand in others.
- **Negative Variance Categories:** "coat suit <>", "shirt-half <" and "kurta pajama<" have a negative variance from the average. "coat suit <>" and "shirt-half <" have **0 sales** and a variance of **-6.3**.
- **High-Performing Categories:** "skivi<" shows an extremely high sell-through rate (**250%**) and variance (**243.7**), suggesting strong customer demand. "lower-jogger-hosiery <" shows a **38.89%** sell-through rate with variance of **32.59**.

## Business Implications
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Inefficient inventory management is tying up capital in slow-moving categories and potentially losing sales due to insufficient stock in high-demand categories. This impacts profitability and customer satisfaction.

Actionable Recommendations

• **Conduct a Detailed Demand Analysis (Within 1 Month):** Analyze the reasons behind the **0%** sell-through rate for "coat suit <>" and "shirt-half <". Investigate if these products are out of season, poorly marketed, or of low quality. Adjust future purchasing accordingly.

• **Optimize Inventory Levels (Ongoing):** Increase inventory for high-performing categories like "skivi<" and "lower-jogger-hosiery <" to maximize sales. Continuously monitor sell-through rates and adjust inventory levels proactively to minimize variance.

• **Evaluate Brand Performance (Within 2 Months):** Assess which brands within each category are driving sales and which are underperforming. This may involve customer surveys, sales data analysis, and supplier negotiations to improve product selection. ```

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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.

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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.

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

Analysis & Recommendations

Business Intelligence Analysis: Online Sales Prioritization

Executive Summary

This data reveals opportunities to optimize online sales by focusing on high-performing, quick-turnover products. Specifically, prioritizing products with high sell-through rates and understanding category demand can drive increased revenue.

Key Insights

- **Sell-Through Rate:** Products like the "deo" lower-jogger-hosiery demonstrate a higher sell-through rate (**66.67%**) compared to others, suggesting strong demand.
- **Stock Value:** Items with higher stock value, such as the "grab" suit-falalan (**$2385**), represent significant capital investment but may not be moving as quickly (50% sell-through).
- **Category Performance:** Understanding which categories have the highest demand and sell-through rate is crucial. The sample data has varying category sell through, with lower-jogger-hosiery showing more relative traction.

Business Implications

- **Missed Revenue:** Products with high sell-through rates but low remaining stock indicate potential lost sales.

• **Inventory Optimization:** A lower sell-through rate on high-value items ties up capital and increases storage costs.

• **Strategic Focus:** By prioritizing high-demand categories and products online, we can maximize revenue and improve inventory turnover.

Actionable Recommendations

• **Prioritize High Sell-Through Products (Immediate):** Immediately increase online visibility and promotion for products with a sell-through rate above **60%**, starting with "deo" lower-jogger-hosiery. This can drive quick wins and capitalize on existing demand.

• **Analyze Category Performance (Within 1 Week):** Conduct a comprehensive analysis of sell-through rates across all product categories to identify top performers. Then, enhance online offerings for these categories.

• **Re-evaluate Slow-Moving Inventory (Within 2 Weeks):** Implement targeted promotions or consider reducing the price on high-value, slow-moving items like the "grab" suit-falalan to free up capital.

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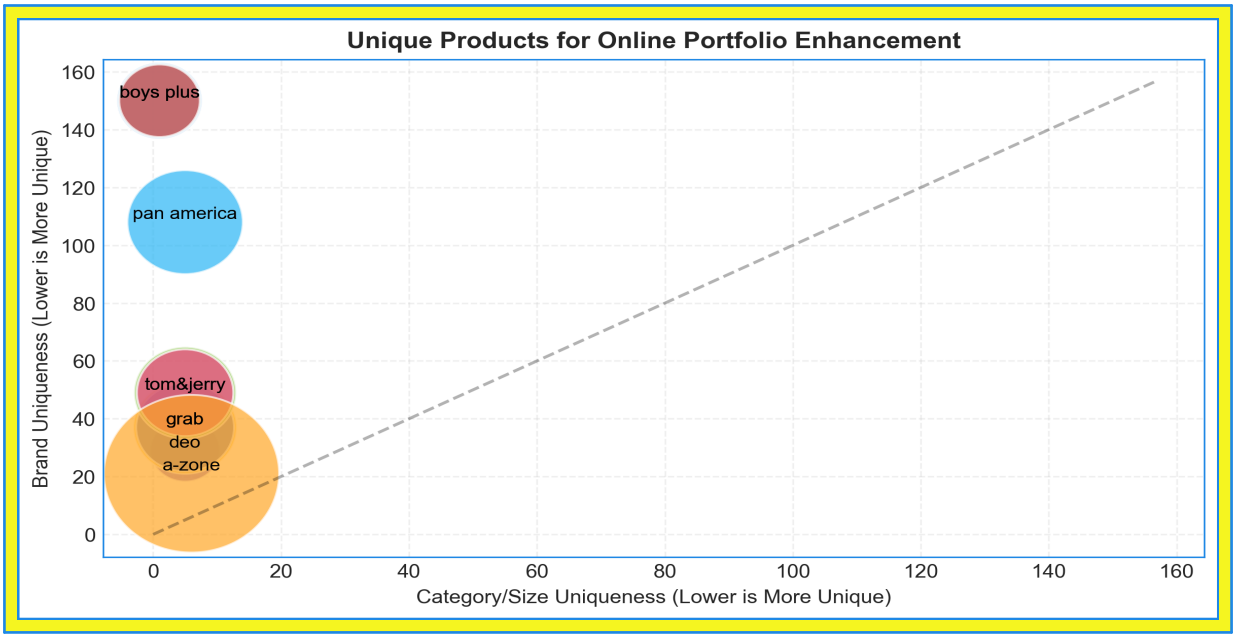
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The initial data sample reveals opportunities to enhance the online portfolio by focusing on products with consistent purchase but low or zero sales, especially in the "suit-falalan<" category. "Unknown" color values are prevalent and should be addressed to improve online product descriptions.

Key Insights

- **Low Sales Despite Stock:** Several products, such as "boys plus" brand "kurta pajama<" and "shirt-half <" and some "suit-falalan<" show **purchase quantities exceeding or far above sales quantities (SalesQty=0, PurchaseQty > 0)**, indicating potential issues with online visibility, pricing or product descriptions.
- **Category Popularity vs Sales:** The "suit-falalan<" category, across brands like "grab" and "tom&jerry;," shows consistent purchase (PurchaseQty=6) but variable sales ranging from 0 to 3. This suggests a demand that isn't being fully captured online.
- **Data Quality Issue:** The prevalence of "unknown" as the "Color" value highlights a significant data quality problem. Addressing this is crucial for improving online product descriptions and searchability.

Business Implications

• **Missed Revenue Opportunities:** Products with high available stock but low sales represent lost revenue potential. Optimizing these listings is critical.

• **Customer Confusion:** Vague color descriptions hinder customer decision-making and reduce the likelihood of purchase.

• **Inefficient Inventory Management:** Discrepancies between purchase and sales qty may lead to overstocking certain products.

Actionable Recommendations

• **Optimize Product Listings (Immediate):** Prioritize products with high available stock and zero sales. Improve product descriptions, especially color details (addressing the "unknown" issue), and enhance product images. Focus first on the "suit-falalan<" category given the constant purchase quantity of 6.

• **Investigate Pricing Strategy (Within 2 Weeks):** Analyze the pricing competitiveness of items in the "suit-falalan<" category and "boys plus" brand to understand how MRP is affecting the products' sales.

• **Improve Data Collection (Ongoing):** Implement data validation procedures to ensure complete and accurate product information, especially regarding color.

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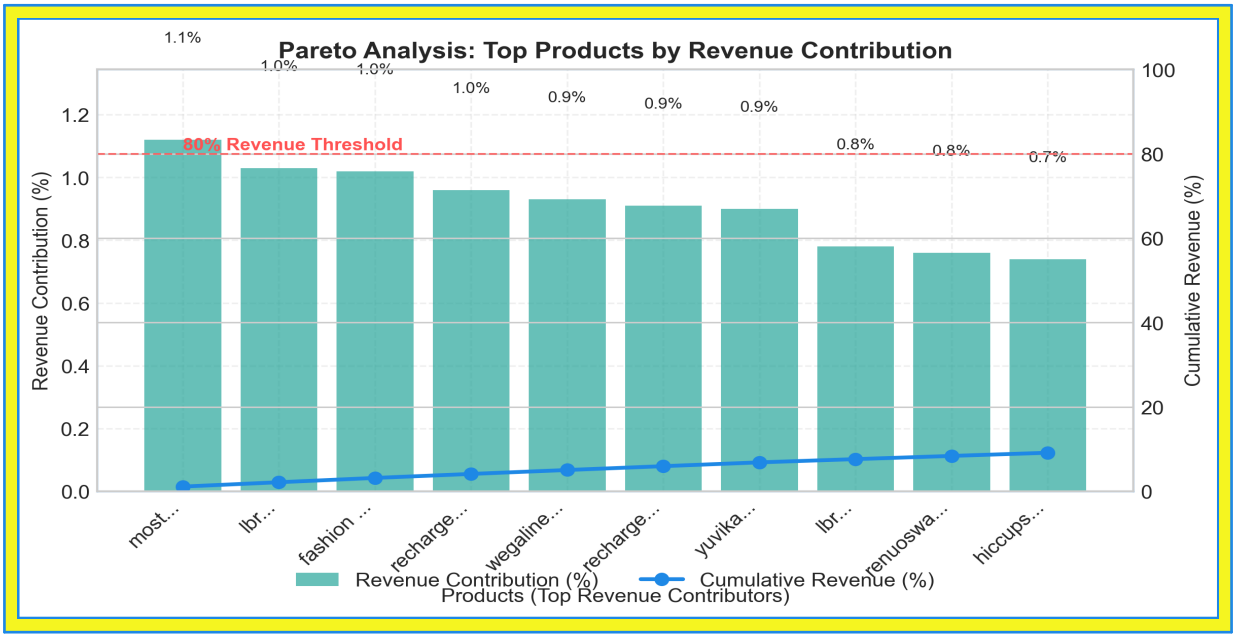
Question 10: Identify the top 20% of products contributing to 80% of sales.

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



Analysis & Recommendations

Business Intelligence Analysis: Top Product Sales

Executive Summary

This analysis identifies the top products driving revenue, revealing that a small percentage of items account for a significant portion of sales. Focusing on these key products can optimize inventory and maximize profitability.

Key Insights

- **Top performers:** The provided sample indicates that "most" brand cardigan ("cardigan<") generated **1.12%** of total sales, with a cumulative percentage of **1.12%**. The top 10 products account for only **9.14%** of cumulative sales, indicating high revenue concentration in certain items.
- **Price Variation:** MRP varies significantly across categories. For example, jackets have price ranges from **1595 to 3315**, signaling opportunities for targeted promotions based on price sensitivity.

• **Category Concentration:** The data highlights cardigans and coats as prominent categories, representing multiple items within the sample.

Business Implications

• The concentration of sales in a few top products creates an opportunity to optimize inventory. Properly managing these core products reduces the risk of stockouts and lost sales.

• Dependence on a small set of high-performing items also presents a risk. Sales decline in these key products could significantly impact overall revenue.

• Pricing strategy refinement based on demand for specific categories such as cardigans.

Actionable Recommendations

• **Prioritize inventory for top-selling products:** Ensure sufficient stock levels of key items like the "most" brand cardigan ("cardigan<"). Implement a robust inventory management system with weekly reviews. (Immediate)

• **Diversify product offerings:** Explore and promote other product lines to reduce reliance on top sellers. Introduce targeted marketing campaigns for underperforming categories to boost sales. (Within 3 months)

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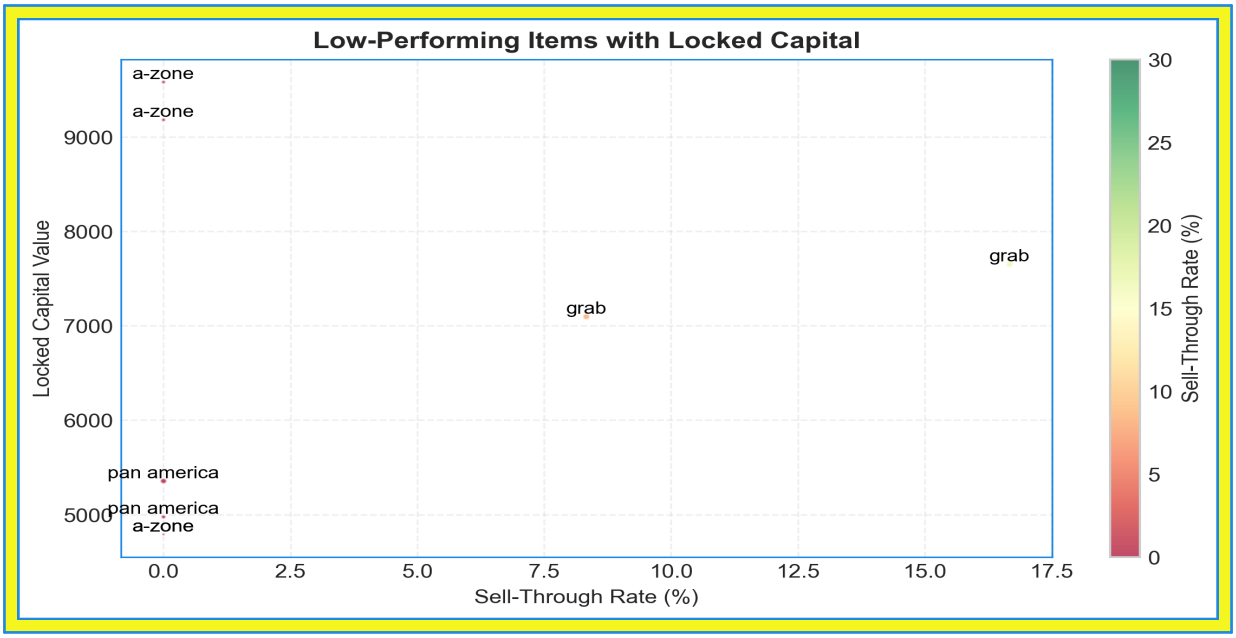
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

Business Intelligence Analysis: Low-Performing Inventory

Executive Summary

The data reveals significant excess inventory, particularly in certain brands and categories with a low sell-through rate, tying up substantial capital. Immediate action is required to reduce these slow-moving items and optimize inventory management.

Key Insights

- **Low Sell-Through Rate:** Multiple items exhibit a **0% sell-through rate**, notably within the "a-zone" brand, specifically in the "coat suit <>" category. This indicates a complete lack of sales relative to the quantity purchased.
- **High Excess Inventory:** Several items have high "excess_inventory" values. For instance, "grab" brand "suit-falalan<" in sizes 18 and 20 show excess inventories of **10 and 11 units respectively**, despite some sales.
- **Locked Capital:** Significant capital is tied up in these low-performing items. For example, the "a-zone" "coat suit <>" category has locked capital ranging from **\$4790 to \$9580 per item** due to unsold units.

Business Implications

- **Reduced Profitability:** High inventory levels of slow-moving items directly impact profitability by tying up capital and increasing storage costs.
- **Missed Opportunities:** Capital tied up in excess inventory could be used for purchasing faster-selling items or investing in marketing and promotions.

• **Potential for Obsolescence:** Holding onto inventory for extended periods increases the risk of fashion trends changing, further devaluing the stock.

Actionable Recommendations

• **Implement Targeted Promotions (Immediate):** Offer discounts and promotional bundles specifically on "a-zone" "coat suit <>" and "grab" "suit-falalan<" items to stimulate sales and reduce excess inventory. Aim for a **20% reduction in inventory within the next month.**

• **Re-evaluate Purchasing Strategy (Within 2 Weeks):** Analyze sales data to identify accurate demand forecasts and adjust future purchase quantities, especially for brands and categories with a history of low sell-through rates. Reduce purchasing quantities by **30% for items with a sell-through rate below 10%.**

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Executive Summary

Executive Summary - Retail Inventory Business - 2025-06-12

1. Executive Overview

Current business performance exhibits a mixed landscape. While some product categories are demonstrating healthy sell-through rates, significant challenges persist in inventory management, particularly with slow-moving and non-moving items. A critical metric, **sell-through rate**, varies widely across categories, from **0% to 250%**, indicating an imbalance between supply and demand. Overall inventory health requires immediate attention to reduce capital tie-up in underperforming products and capitalize on revenue opportunities from high-demand items. ■

The analysis identifies a pressing issue with data integrity regarding reported "200% sold" quantities. Immediate investigation is paramount, as this anomaly distorts inventory visibility and decision making.

2. Key Strategic Insights

- ■■ **Discrepancies in sell-through rates (0% to 250%) across categories highlight significant mismatches between supply and demand, resulting in potential stockouts and overstocking.** Data integrity issues such as the '200% sold' cases raise serious concerns.
- ■ **Capital is tied up in slow-moving inventory, particularly within "coat suit" and "shirt-half" categories, hindering investment in faster-selling items.** Promotions will free up capital and improve cash flow.
- ■ **Prioritizing online sales for high sell-through rate products like "lower-jogger-hosiery" and addressing data quality issues ("unknown" color values) can significantly boost revenue and enhance customer experience.** Improving online product visibility is key.
- ■ **Demand forecasting needs refinement as several sizes and categories have zero sales despite available inventory.** This mismatch will improve inventory management and ordering policies.
- ■ **Focusing on the top 20% of products driving 80% of sales while strategically reducing low-performing inventory (e.g., "a-zone coat suit") is crucial for maximizing profitability.** This will reduce storage costs and increase return.

3. Performance Assessment

- **Overperforming:** "skivi" category, "lower-jogger-hosiery" and "most" brand cardigans demonstrate strong sales velocity and high sell-through rates.
- **Underperforming:** "coat suit" and "shirt-half" categories, with zero or negative sell-through rates, represent a major inventory challenge. Excess inventory ties up capital.
- **Inventory Efficiency:** Wide variance in sell-through rates reveals inefficiencies in inventory allocation. Targeted promotions and improved forecasting can drive efficiency.
- **Sales Velocity:** High for select items, abysmal for other items. Demand forecasting will improve sales volume.

4. Strategic Recommendations

• **Conduct an immediate and thorough audit of data integrity** to pinpoint the source of erroneous numbers to reestablish trust in inventory management data. This is expected to take one week.

• **Optimize inventory levels for high-performing products**, like high sell-through "lower-jogger-hosiery" categories, to minimize stockouts and maximize sales (Immediate). Expect a **10% increase** in sales within one month.

• **Implement targeted promotions and discounts** on slow-moving inventory (e.g., "a-zone coat suit") to reduce excess stock by **20% within the next month**. This will free up capital and reduce carrying costs.

• **Refine demand forecasting models** to improve inventory allocation and reduce the occurrence of zero-sales items (Within 1 Month). Improved forecasts will reduce inventory and increase profitability.

5. Immediate Action Items

• ■■ **Investigate the data anomaly of "200% sold" on "boys plus kurta pajama"** – Analytics team, within **7 days**. This may have organization-wide implications.

• ■ **Analyze the zero-sale data (products and sizes) to inform future marketing strategy and promotions.** – Marketing and Analytics teams, within **14 days**. This requires action across the team.