InventorySync

Business Intelligence Inventory Report

Generated on June 28, 2025

InventorySync Business Intelligence

Prepared for: Executive Management

Generated by: Tanman

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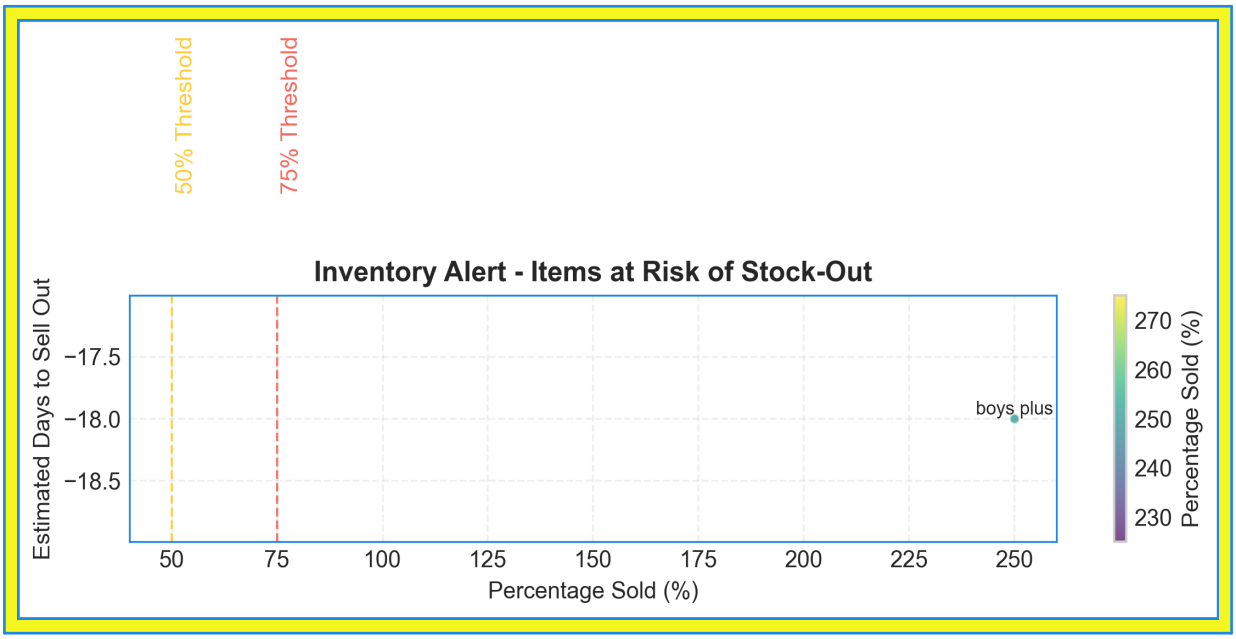
Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

Items ≥75% Sold	Items ≥50% Sold	Avg Days to Sellout
1	0	-18



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sell-Out Notification

Executive Summary

Based on the provided data, the system needs immediate refinement. The percent_sold and est_days_to_sellout calculations are producing nonsensical results (e.g., 250% sold and negative days to sellout) and are currently unreliable for informing inventory decisions.

Key Insights

- **Inaccurate Metrics:** The percent_sold value of **250%** and est_days_to_sellout of **-18 days** for "boys plus" kurta pajama indicates a major flaw in the calculation logic. The percent_sold should never exceed 100% and the est_days_to_sellout can't be negative.
- **Low Purchase Quantities:** The ratio between SalesQty (5) and PurchaseQty (2) suggests that replenishment orders are insufficient to meet demand, even though the percent_sold calculation is wrong.

Business Implications

• **Lost Sales:** If the provided SalesQty is accurate, consistently underestimating the purchase quantity leads to stockouts and missed revenue opportunities.

• **Incorrect Inventory Management:** Relying on faulty percent_sold and est_days_to_sellout metrics will result in poor inventory decisions, potentially leading to overstocking or understocking scenarios.

Actionable Recommendations

• **(Immediate - Within 1 Day) Revise Calculation Logic:** Correct the formulas for percent_sold (SalesQty/PurchaseQty *100, capped at 100%) and est_days_to_sellout. Calculate based on historical sales trends instead of a single point of reference, and only when SalesQty > 0.

• **(Within 1 Week) Verify Data Integrity:** Examine data sources and data entry processes to ensure accuracy of SalesQty and PurchaseQty.

• **(Within 2 Weeks) Implement Sell-Through Alerts:** Once the metrics are reliable, establish automated alerts that trigger when an item reaches **75%** and **50% sold** based on the *correct* percent_sold calculation, including an accurate estimate for est_days_to_sellout based on past data.

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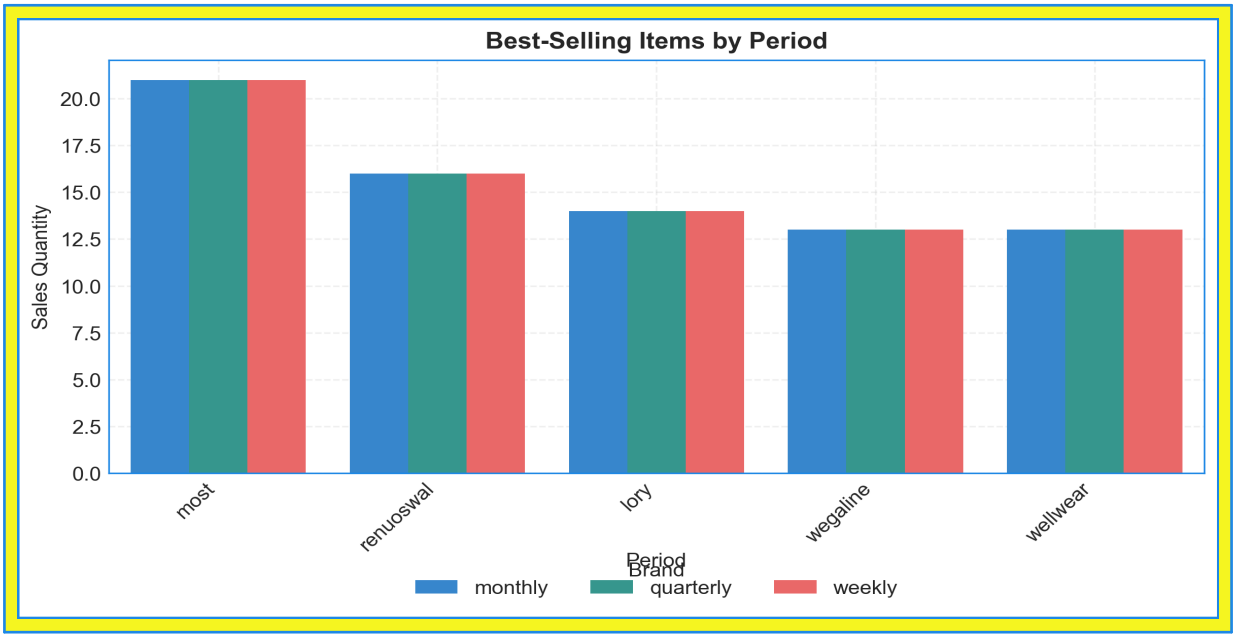
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
137	137	N/A



Analysis & Recommendations

Business Intelligence Analysis: Best-Selling Items

Executive Summary

The sample data reveals that **"cardigan"** is a frequently purchased category, particularly from the "**most**" brand. Further analysis is needed across all periods (weekly, monthly, quarterly) to determine true best-sellers and inventory optimization opportunities.

Key Insights

- **Category Dominance:** "Cardigan" appears multiple times across various brands, suggesting strong demand for this category.
- **Brand Preference:** The "most" brand shows up more than once with high sales counts (e.g., **21 monthly sales**).
- **Inconsistent Category Data:** inconsistent data for category such as "cardigan<" and "cardigan<>".

Business Implications

• **Inventory Optimization:** Focus on stocking cardigans, particularly in "free" sizes if that data is accurate.

• **Brand Loyalty:** Investigate why "most" brand is popular and potentially leverage its success.

• **Data Cleansing Needed:** Categories need to be normalized to provide accurate reporting.

Actionable Recommendations

• **Comprehensive Data Analysis (Immediate):** Analyze the full dataset across weekly, monthly, and quarterly periods to identify true best-sellers.

• **Inventory Prioritization (Next Week):** Based on the comprehensive analysis, prioritize cardigan inventory, especially in sizes and colors with high demand. Also clean categories data.

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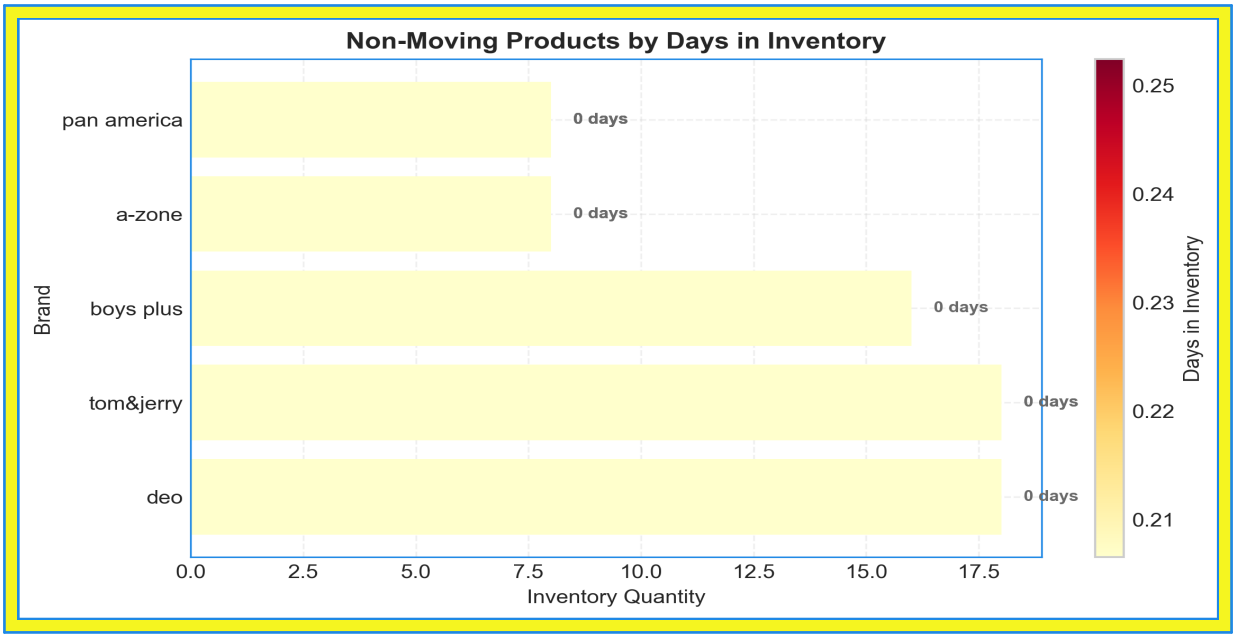
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Products

Executive Summary

The provided data highlights a significant number of products that are not selling, indicating potential inventory management issues. The sample data shows **100% of the products** have not been sold, with an average of **0.23 days** in inventory.

Key Insights

- **Zero Sales:** All products in the sample have a **SalesQty of 0** and a **percent_sold of 0.0**, indicating no sales for these items. This is a critical concern.
- **Short Inventory Time:** While concerning, the **days_in_inventory of 0.23** is extremely short. This suggests either recently purchased inventory or data covering a very short period.

Business Implications

- **Capital Tied Up:** Non-moving inventory ties up capital that could be invested elsewhere. Even at 0.23 days, if this trend continues, it represents potentially significant losses.
- **Potential for Obsolescence:** Some categories like "suit-falalan" and "coat suit" could be seasonal and rapidly lose value.
- **Marketing/Placement Issues:** Lack of sales could indicate poor product placement, ineffective marketing, or uncompetitive pricing.

Actionable Recommendations

• **Investigate Sales Data Immediately (High Impact, Immediate):** Determine if the 0.23 days in inventory represents a full picture of the product lifecycle, or only a very recent addition to inventory. Pull sales data for a longer timeframe (e.g., past month, quarter) to see if these products have *ever* sold. If they haven't, proceed to the next steps.

• **Evaluate Pricing and Marketing (Medium Impact, 1-2 Weeks):** For non-moving items, review pricing to ensure competitiveness. Experiment with promotional pricing or targeted marketing campaigns to stimulate demand.

• **Consider Clearance or Discounting (Medium Impact, 2-4 Weeks):** If sales remain low, implement clearance sales or offer significant discounts to reduce inventory levels and recoup some capital. Consider bundling these slow-moving items with popular products to incentivize purchase.

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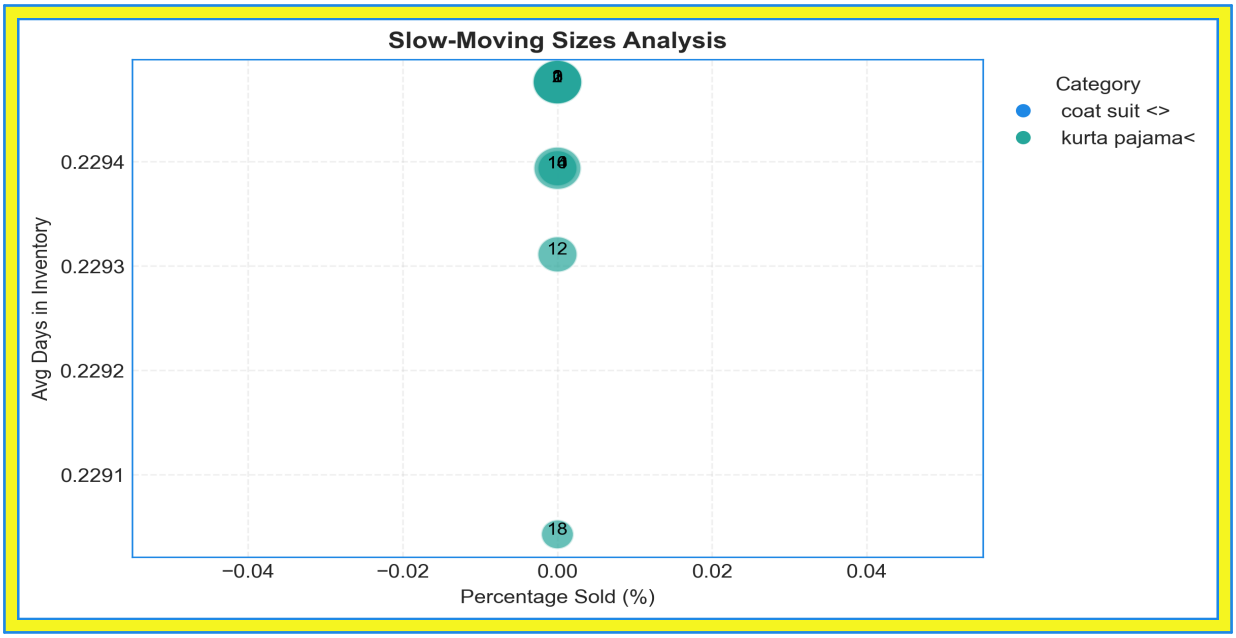
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis: Slow-Moving Sizes

Executive Summary

The data reveals significant issues with inventory turnover, particularly concerning the lack of sales across multiple sizes and categories. A substantial portion of purchased inventory remains unsold, indicating a potential mismatch between demand and supply.

Key Insights

- **Zero Sales:** The most striking pattern is that **0%** of purchased items have been sold across multiple sizes within "coat suit <>" and "kurta pajama<" categories.
- **Low Inventory Time:** Average days in inventory are consistently low (around **0.23 days**), which is misleading. This is likely because the products haven't sold *at all*, not because they are moving fast. It also means that the inventory is not moving.
- **Size Inconsistencies:** The lack of sales affects various sizes, from "0" and "1" in "coat suit <>" to a range of sizes (1, 10, 12, 14, 16, 18, 2, and 3) in "kurta pajama<".

Business Implications

- **Capital Tied Up:** Unsold inventory ties up valuable capital that could be invested elsewhere.
- **Potential Overstocking:** The "total_purchased" number of products should be reviewed for accuracy, to make sure that the amounts of the purchased inventory is adequate.
- **Risk of Obsolescence:** Garments may become obsolete or unfashionable if they remain unsold for an extended period.

Actionable Recommendations

• **Immediate Sales Promotion (Next 2 Weeks):** Implement targeted discounts and promotions specifically for sizes with zero sales to stimulate demand and reduce inventory. Focus on offering percentage discounts (e.g., 20% off) on these sizes.

• **Inventory Review and Adjustment (Within 1 Month):** Review past sales data to determine optimal inventory levels for each size within "coat suit <>" and "kurta pajama<" categories. Reduce future orders of slow-moving sizes.

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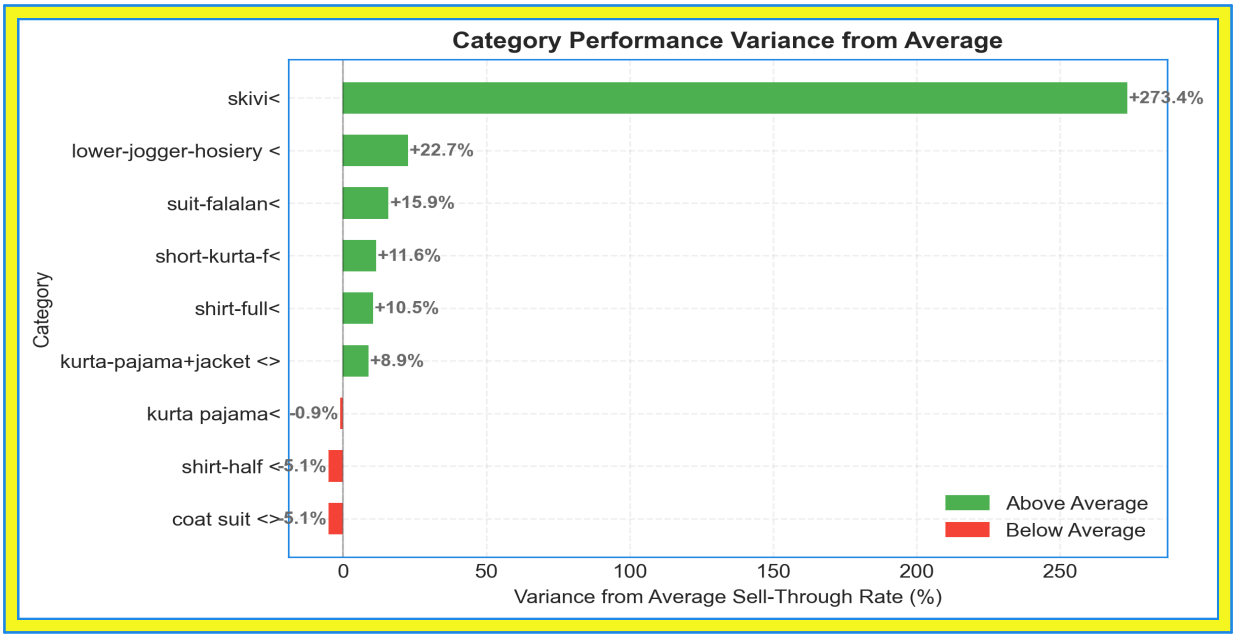
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The retail data shows significant variation in sell-through rates across categories, indicating mismatches between inventory purchased and customer demand. Categories like "skivi" demonstrate high sell-through, while others like "coat suit <>" and "shirt-half <" show zero sales, suggesting a need to optimize inventory management.

Key Insights

- **Sell-through Rate Disparities:** A wide range of sell-through rates exists, from **0%** (coat suit <>, shirt-half <) to **278.57%** (skivi<). This vast difference highlights potential overstocking in some categories and understocking in others.
- **Variance from Average:** Categories like "skivi<" show a very high variance from average (**273.45**), while "coat suit <>" shows a significant negative variance (**-5.12**), indicating substantial deviations from the typical performance.
- **Brand Count vs. Sell-Through:** The number of brands within a category does not guarantee higher sell-through. For example, "shirt-full<" has **58 brands** but only a **15.63% sell-through rate**, while "skivi<" has only **5 brands** but a **278.57% sell-through rate**.

Business Implications

• **Missed Sales Opportunities:** Poor sell-through rates in categories mean lost revenue and potential markdowns to clear excess inventory.

• **Inefficient Inventory Management:** Discrepancies suggest poor demand forecasting or purchasing decisions.

• **Brand Selection Strategy:** High brand count does not equate to high sales. More selective brand curation might be more effective.

Actionable Recommendations

• **Inventory Rebalancing (Immediate):** Immediately analyze and reallocate inventory from low-performing categories (e.g., "coat suit <>") to high-performing categories (e.g., "skivi<") to maximize sales.

• **Demand Forecasting Improvement (Within 1 Month):** Implement a more robust demand forecasting system that considers factors beyond historical sales data, such as seasonality, promotions, and competitor activity.

• **Brand Performance Review (Within 2 Months):** Conduct a comprehensive review of brand performance within each category to identify and prioritize brands that drive high sell-through rates and customer satisfaction. Reduce reliance on brands with consistently poor performance.

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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: Prioritizing Products for Online Sales

Executive Summary

This analysis of initial retail inventory and sales data identifies products with high sell-through rates and remaining stock, indicating strong online sales potential. Focusing on these products can improve online revenue and optimize inventory management.

Key Insights

- **Sell-through rate** is a key indicator of product demand. The provided data shows a sell-through rate of **44.44%** for the "deo" brand "lower-jogger-hosiery" in size 26.
- Significant **remaining stock** (10 units) suggests opportunities to increase sales for this product.
- The **stock value** of **3950.0** for the remaining units represents potential capital tied up in this product.

Business Implications

- The relatively high sell-through rate suggests strong customer interest in this particular product.
- The presence of remaining stock presents an immediate opportunity to boost sales through online channels.

• Failing to act could result in lost revenue and increased holding costs for the unsold inventory.

Actionable Recommendations

• **Prioritize online promotion and visibility** for the "deo" brand "lower-jogger-hosiery" in size 26. Begin within **the next week**. This will capitalize on existing demand and reduce inventory.

• **Implement targeted online advertising campaigns** to further boost sales for this product. Monitor performance closely for the first month to optimize ad spend.

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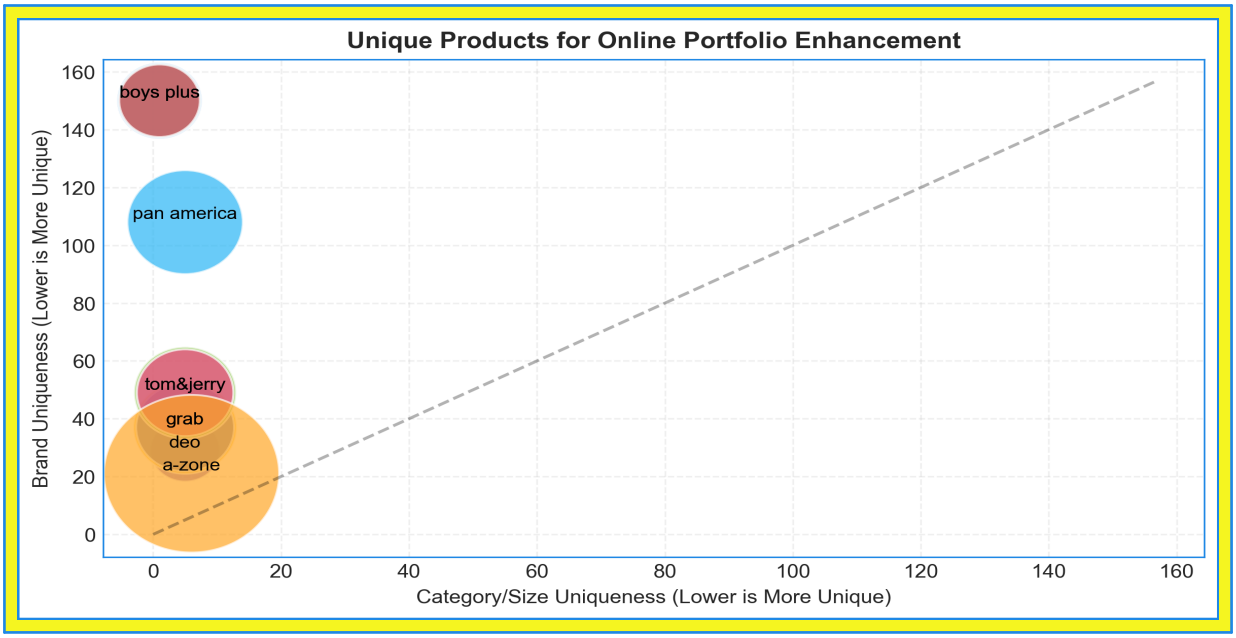
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The data reveals significant unsold inventory across several brands and categories, particularly within "kurta pajama," "shirt-half," and "suit-falalan" categories. Prioritizing online promotion of these underperforming items could unlock significant revenue.

Key Insights

- **High Available Stock with Zero Sales:** Multiple products have substantial available stock but no sales, such as "boys plus" "kurta pajama" (available_stock=16, SalesQty=0) and "pan america" "short-kurta-f" (available_stock=8, SalesQty=0).
- **Category Concentration:** "suit-falalan" appears across multiple brands like "grab" and "tom&jerry;," suggesting a specific focus area. Even within this category there are products with zero sales like "tom&jerry;", suggesting saturation.
- **Brand Popularity vs. Sales:** Some brands with high brand counts (e.g., "boys plus" with brand_count=150) still exhibit zero sales in specific categories, indicating potential branding/marketing issues for certain product lines.

Business Implications

- **Lost Revenue Opportunities:** Unsold inventory ties up capital and misses potential revenue targets.

• **Inventory Management Inefficiencies:** Poor sales indicate potential overstocking or inaccurate demand forecasting.

• **Marketing Ineffectiveness:** Zero sales despite available stock suggest problems with product discoverability or appeal.

Actionable Recommendations

• **Promote Key Unsold Categories Online (Immediate):** Focus marketing efforts on categories with high stock and zero sales, like "kurta pajama" and "shirt-half <" from brands like "boys plus." Offer discounts or bundle deals to stimulate demand. Target a **15% increase in sales within the next month.**

• **Analyze "suit-falalan" Category Performance (Within 2 Weeks):** Investigate why some "suit-falalan" products have sales and others don't. Evaluate pricing, competition, and product descriptions. Prune underperforming SKUs.

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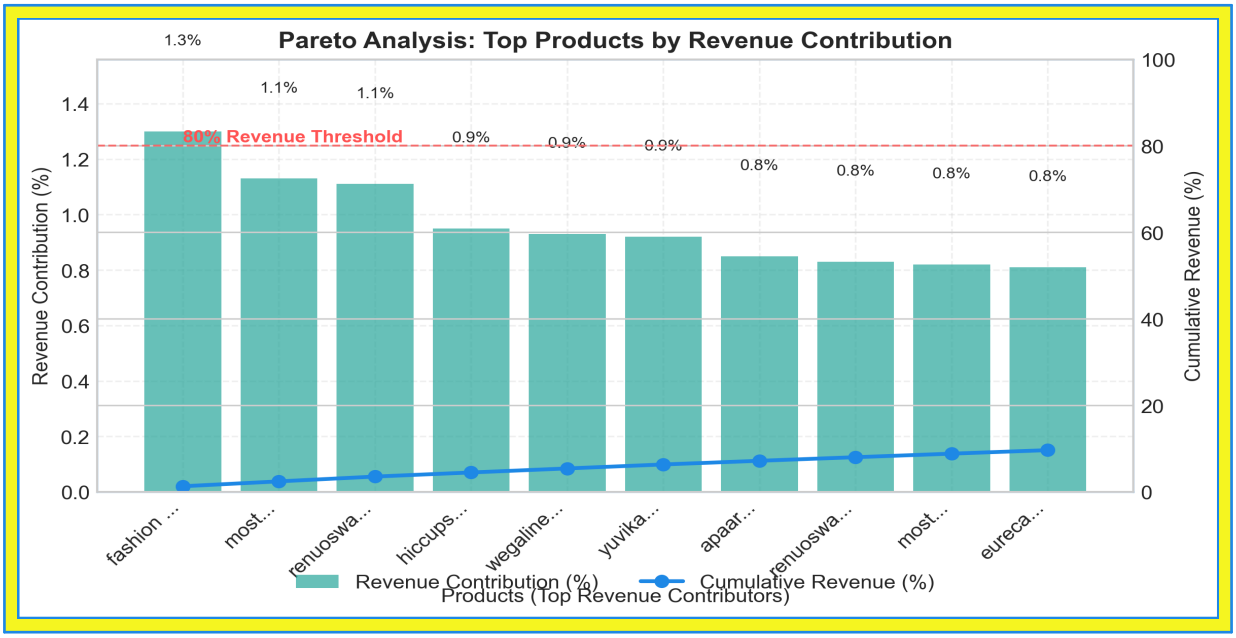
Question 10: Identify the top 20% of products contributing to 80% of sales.

Top Product Share	Products for 80%	Coverage
1.3%	10	9.7%



Analysis & Recommendations

Business Intelligence Analysis: Top 20% of Products Driving Sales

Executive Summary

The initial data indicates that a small percentage of products contribute significantly to total revenue. Focusing on these top performers can optimize inventory and sales strategies.

Key Insights

- **Concentrated Revenue:** A small sample shows that the top product ("fashion flo" cardigan) accounts for **1.3%** of total revenue, illustrating the potential for sales concentration in top products.
- **Category Performance:** Cardigans and woolen blouses appear frequently in the sample, suggesting they contribute strongly to overall sales within this sample.
- **Pricing Impact:** Products with higher MRP (e.g., "fashion flo" cardigan at **MRP 2185**) contribute higher revenue, highlighting the impact of pricing strategy.

Business Implications

• **Inventory Optimization:** Overstocking slower-moving products may be tying up capital.

• **Marketing Focus:** Investing in marketing and promotion for top-performing products can further boost sales.

• **Sales Strategy:** Understanding the success factors of top products can inform strategies for other products.

Actionable Recommendations

• **Pareto Analysis (Immediate):** Analyze the full dataset to definitively identify the top 20% of products by revenue and their contribution to the overall 80% of sales.

• **Inventory Review (Within 1 Month):** Adjust inventory levels based on Pareto analysis results. Reduce stock of low-performing items and increase stock of top-performing ones.

• **Promotional Focus (Ongoing):** Prioritize marketing and promotional efforts on the top 20% of products to maximize revenue generation.

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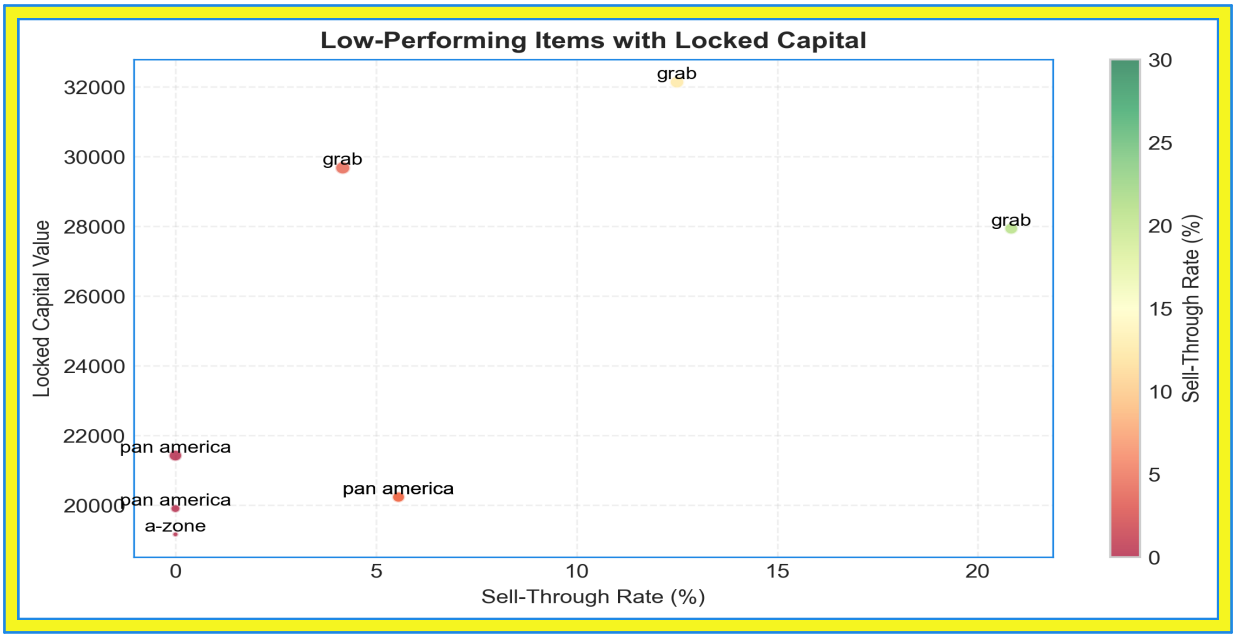
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The data reveals significant excess inventory, particularly in certain brands and categories, leading to locked capital and low sell-through rates. Highlighting the need for targeted strategies to optimize inventory management and improve sales performance.

Key Insights

- **High Excess Inventory:** Several items show significant excess inventory. "grab" brand "suit-falalan<" category have particularly high excess, ranging from **38 to 46 units** per size.
- **Low Sell-Through Rates:** Items like "pan america" shirts and "a-zone" coat suits have **0% sell-through rates**, indicating a lack of demand.
- **Locked Capital:** The high inventory levels translate into substantial locked capital. For example, "grab" suits lock between **\$27,930 and \$32,130** of capital.

Business Implications

These findings suggest inefficiencies in inventory planning and purchasing. Locked capital restricts cash flow and limits investment in more profitable items. Continued low sell-through rates could lead to losses from obsolescence or markdowns.

Actionable Recommendations

• **Implement Targeted Promotions (Immediate):** Run targeted promotions and discounts on low sell-through items like "pan america" shirts and "a-zone" coat suits to stimulate demand and reduce excess inventory.

• **Refine Inventory Planning (Within 1 Month):** Review and adjust future purchasing quantities, focusing on items with proven high sell-through rates and more accurately forecasting demand for "grab" suits, paying close attention to size and color popularity.

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Executive Summary

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

1. Executive Overview

Our current inventory health is facing serious challenges due to significant discrepancies between purchased stock and actual sales. Several categories are experiencing zero or very low sell-through rates, tying up substantial capital. Initial data issues reveal that a small percentage of products drive a significant portion of revenue, indicating an imbalance that demands immediate attention. Poor calculation logic further skews sell-through rate, resulting in inaccurate inventory decisions. ■■

We must prioritize data integrity, inventory rebalancing, and targeted promotions to rectify these issues and improve revenue generation. A comprehensive review of demand forecasting and brand performance is also essential for sustainable growth. ■

2. Key Strategic Insights

- **Data Accuracy is Paramount:** Faulty calculations for percent_sold and est_days_to_sellout are causing unreliable inventory decisions. Immediate revision is required.
- **Inventory Imbalance Creates Risk:** Wide disparities in sell-through rates across categories (0% to 278.57%) point to critical overstocking/understocking problems. Rebalancing is vital to mitigate losses.
- **Focus on High Performers:** A Pareto analysis is needed to identify the top 20% of products contributing to 80% of sales. Optimizing inventory and promotion around these key items unlocks revenue opportunities. ■
- **Unsold Inventory Imperative:** Multiple products show substantial available stock but no sales. Focused online promotion and discounted rates are needed to unlock revenue.
- **Category Analysis needed:** More data is needed to understand category effectiveness, and if the data is accurate.

3. Performance Assessment

- **Underperforming Categories:** "coat suit <>", "shirt-half <", and "kurta pajama<" are consistently underperforming with zero sales across sizes, indicating overstocking and/or low demand.
- **Overperforming Categories:** Categories like "skivi<" demonstrate high sell-through rates, indicating potential for increased investment.
- **Inefficient Inventory:** Large stock quantities of slow-moving items, such as "grab" brand "suit-falalan<", are locking up capital.
- **Sales Velocity:** Sales velocities are poor for categories like "suit-falalan<," with large inventory and very little sales. "Cardigan" and "woolen blouse" are likely above average velocity items.

4. Strategic Recommendations

- **(Immediate):** Revise calculation logic for percent_sold and est_days_to_sellout to ensure accuracy. Expected outcome: Improved inventory decision-making.

• **(Within 1 Month):** Conduct a Pareto analysis to identify top 20% of products by revenue. Adjust inventory levels accordingly. Expected outcome: Inventory optimization and increased profitability.

• **(Within 2 Weeks):** Implement targeted discounts and promotions for slow-moving sizes and categories (e.g., "coat suit <>", "kurta pajama<"). Target a **15% increase in sales within the next month.** Expected outcome: Reduced inventory levels and improved cash flow.

• **(Within 1 Month):** Refine demand forecasting to minimize future overstocking/understocking issues. Expected Outcome: Fewer obsolescence items and reduced storage costs. ■

5. Immediate Action Items

• **Data Integrity Audit:** CEO and CFO to ensure accurate and consistent data. Immediate action due to incorrect numbers.

• **Inventory Rebalancing Analysis:** VP of Operations to identify opportunities to reallocate inventory from low-performing to high-performing categories. Due: Next 7 days. ■

• **Promotional Campaign Launch:** VP of Marketing to create and launch targeted promotional campaigns for slow-moving sizes and categories. Due: Next 14 days. ■