InventorySync

Business Intelligence Inventory Report

Generated on June 28, 2025

InventorySync Business Intelligence

Prepared for: Executive Management

Generated by: Tanman

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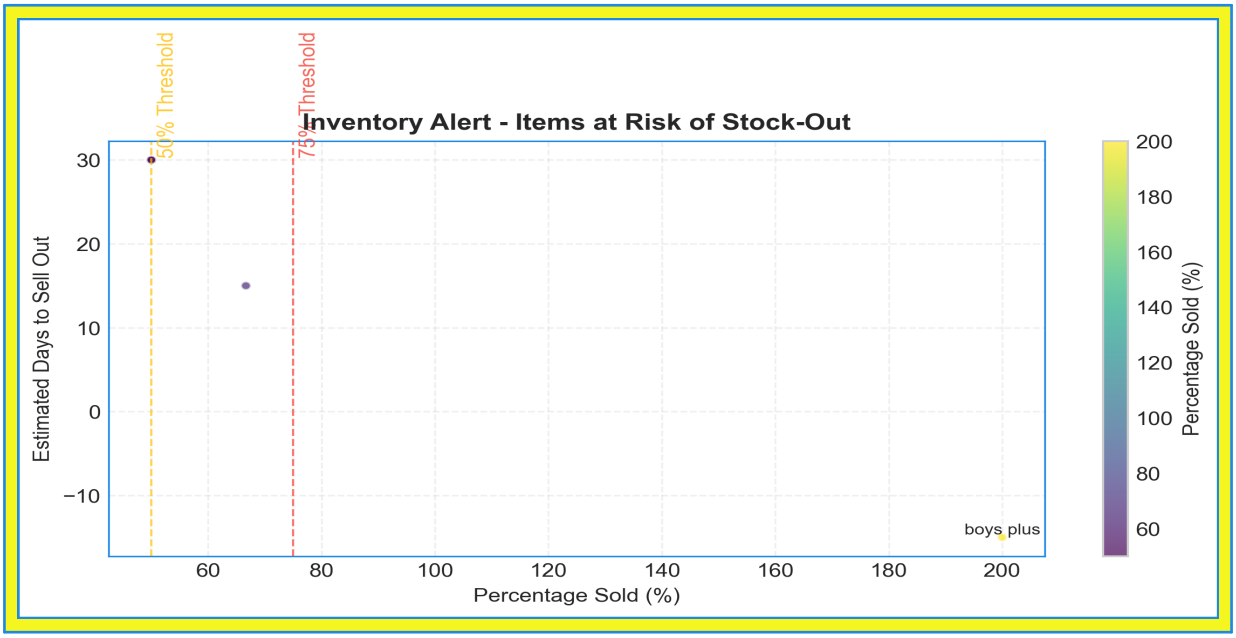
Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

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



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sell-Out Notifications

Executive Summary

The provided data reveals inventory levels and projected sell-out times. We need to prioritize monitoring and potential restocking for items nearing 75% and 50% sold thresholds, especially those with short estimated sell-out times.

Key Insights

- **Sell-Through Percentage:** Items like the "boys plus" kurta pajama already show a **200% sold** percentage (likely due to purchase returns exceeding current inventory), indicating an immediate need for investigation and potential reordering.
- **Estimated Sell-Out Time:** The "deo" lower-jogger-hosiery is at **66.67% sold** with an **estimated sell-out time of 15 days**, suggesting relatively high demand and a potential need for proactive inventory management. Items at **50% sold** are good to keep an eye on, with estimated sell-out times of **30 days**.

• **Purchase Quantity Discrepancy:** The difference between "PurchaseQty" and "SalesQty" is crucial. Large disparities, like that of the "boys plus" kurta pajama, need immediate attention.

Business Implications

• **Lost Sales Risk:** Products selling quickly may lead to stockouts and lost revenue. The data highlights brands needing timely replenishment to meet customer demand.

• **Inventory Optimization:** Accurate monitoring of sell-through rates and projected sell-out times can optimize inventory levels, reducing holding costs and minimizing the risk of obsolescence.

• **Customer Satisfaction:** Maintaining sufficient stock of popular items can improve customer satisfaction and loyalty.

Actionable Recommendations

• **Implement Real-Time Inventory Alerts:** Set up automated notifications when items reach 75% and 50% sold thresholds, prioritized by shortest "est_days_to_sellout." (Immediate implementation)

• **Investigate Negative Sell-Out Times:** Analyze the data discrepancies causing percentages over 100%, and negative sell-out times. Correct data entry errors and adjust reordering strategies accordingly. (Within 1 week)

• **Review Reordering Policies:** Adjust reordering quantities and lead times for high-demand items to prevent stockouts, particularly for products like the "deo" lower-jogger-hosiery. (Within 2 weeks)

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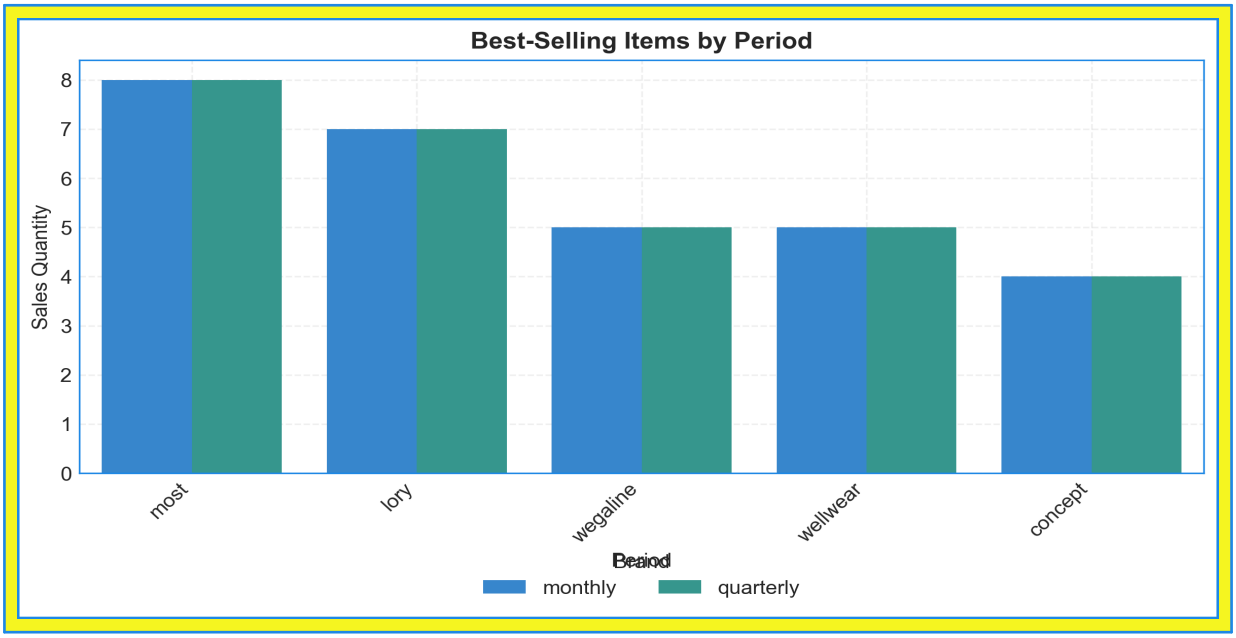
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
0	49	N/A



Analysis & Recommendations

Business Intelligence Analysis: Best-Selling Items

Executive Summary

The data indicates that **"cardigan"** is a popular category, particularly from the **"most"** brand, but further clarification on time-period specifics (weekly, monthly, quarterly) is needed for definitive best-seller identification. Data quality issues, primarily in category naming (e.g., "cardigan<"), should be addressed for accurate analysis.

Key Insights

- **Dominant Category:** "Cardigan" appears frequently (e.g., "most" brand with sales of 8 monthly), suggesting high demand within this category.
- **Brand Popularity:** The "most" brand appears multiple times, indicating a strong presence in the market, especially for "cardigan" items.
- **Data Quality Issues:** The presence of inconsistencies in category names (e.g., "cardigan<", "cardigan<>") and unknown values for some fields could skew results.

Business Implications

• **Opportunity:** Focus on maximizing sales of popular cardigan items from the "most" brand.

• **Risk:** The unclear time periods (weekly, monthly, quarterly) make it difficult to pinpoint true best-sellers across different timelines, leading to potential inventory mismatches.

• **Data Improvement:** Inconsistent data entry creates challenges. Cleaning data is critical to get insights and make decisions.

Actionable Recommendations

• **Data Cleansing (Immediate):** Implement data validation rules to standardize category naming and other fields to ensure accurate reporting. This will improve the reliability of future analyses.

• **Time Period Specific Analysis (Within 1 Week):** Re-analyze the data with clear distinctions between weekly, monthly, and quarterly sales figures to identify true best-selling items for each period. This will enable targeted inventory management and marketing efforts.

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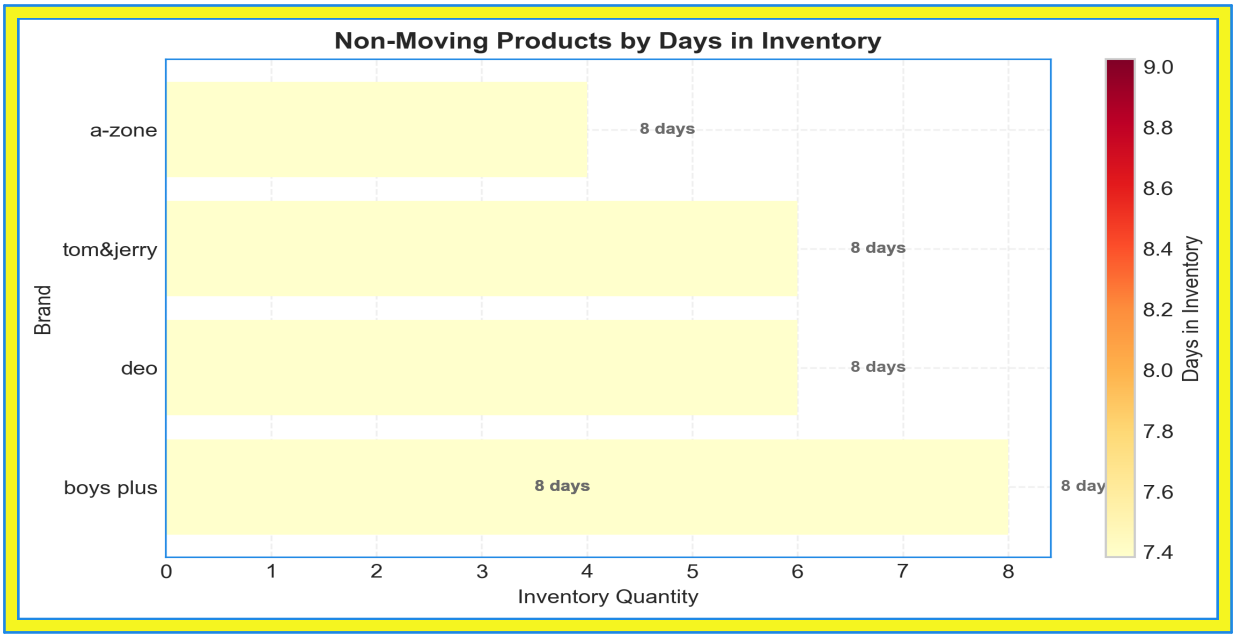
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Inventory

Executive Summary

The provided data sample indicates a significant issue with non-moving inventory, as a selection of products have a **0% sales rate** and **approximately 8 days in inventory**. This suggests potential problems with product selection, pricing, or marketing.

Key Insights

- **Zero Sales:** All listed items have a **SalesQty of 0**, representing **0% percent_sold**. This indicates no customer demand for these specific products in the observed period.
- **Short Inventory Age:** Although all items are non-moving, their "**days_in_inventory**" is approximately **8.2 days**. Analyzing a larger dataset with a longer timeframe is crucial for a more accurate picture of truly stagnant inventory.
- **Brand Concentration:** The "boys plus" brand appears frequently among non-moving items, especially in the "kurta pajama" categories.

Business Implications

- **Capital Tie-Up:** Non-moving inventory ties up capital that could be used for faster-selling items.
- **Potential for Obsolescence:** If this trend continues, the products might become obsolete or require significant markdowns to clear.
- **Inventory Management Inefficiency:** The inability to sell these items points to inefficiencies in inventory planning and purchasing.

Actionable Recommendations

• **Investigate 'boys plus' performance (Immediate):** Analyze sales data across all products and timeframes to identify the scope of the issue. If the issue is widespread, a promotion to help drive sales could be considered.

• **Review Pricing and Marketing (Within 2 Weeks):** Evaluate the pricing strategy and marketing efforts for these non-moving items. Consider price adjustments or targeted promotions to stimulate demand.

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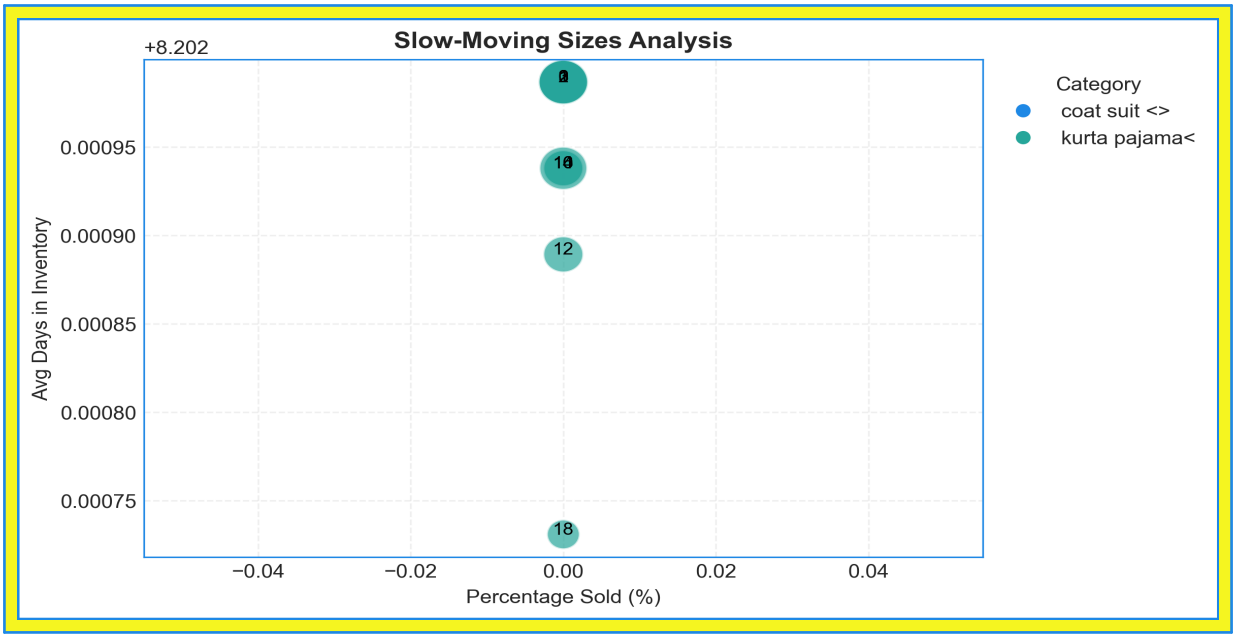
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The provided data reveals significant inventory issues across multiple categories, specifically concerning unsold items, indicating a potential overstocking problem. The **kurta pajama<** category is particularly concerning as various sizes have not been sold at all.

Key Insights

- **Zero Sales:** Across both categories (coat suit <> and kurta pajama<), multiple sizes (0, 1, 10, 12, 14, 16, 18, 2, 3) have a **percent_sold of 0.0**, despite available inventory (total_purchased > 0).
- **Low Inventory Turnover:** The **avg_days_in_inventory is consistently around 8.2 days** even for items with zero sales, suggesting a possible disconnect between demand forecasting and purchasing decisions. This also hints at the limited time range the data reflects.
- **Size Discrepancies:** The size_count varies for sizes within the same category, indicating inconsistent stocking levels. For example, in kurta pajama<, sizes like "1" and "2" have a size count of 11, while "18" has only 4.

Business Implications

- **Capital Tied Up:** Unsolds goods in sizes are tying up capital. Without sales, these items depreciate in value.

• **Storage Costs:** Storing unsold inventory incurs costs, especially as the inventory ages.

• **Lost Revenue:** Missed sales opportunities due to potentially incorrect size assortment could lead to customer dissatisfaction.

Actionable Recommendations

• **Immediate Promotion (1 week):** Launch targeted promotions for sizes with zero sales in both categories. Discounting slow-moving sizes of kurta pajama< to clear inventory and generate cash flow can be beneficial.

• **Review Inventory Management (2 weeks):** Analyze historical sales data for a longer period, focusing on size-specific demand, to adjust future purchasing. Reduce purchasing of the sizes (0, 1, 10, 12, 14, 16, 18, 2, 3) until the current overstock is cleared.

• **Improve Demand Forecasting (Ongoing):** Implement a more robust demand forecasting model that accounts for size variations within each category. Leverage customer data and market trends for more accurate predictions.

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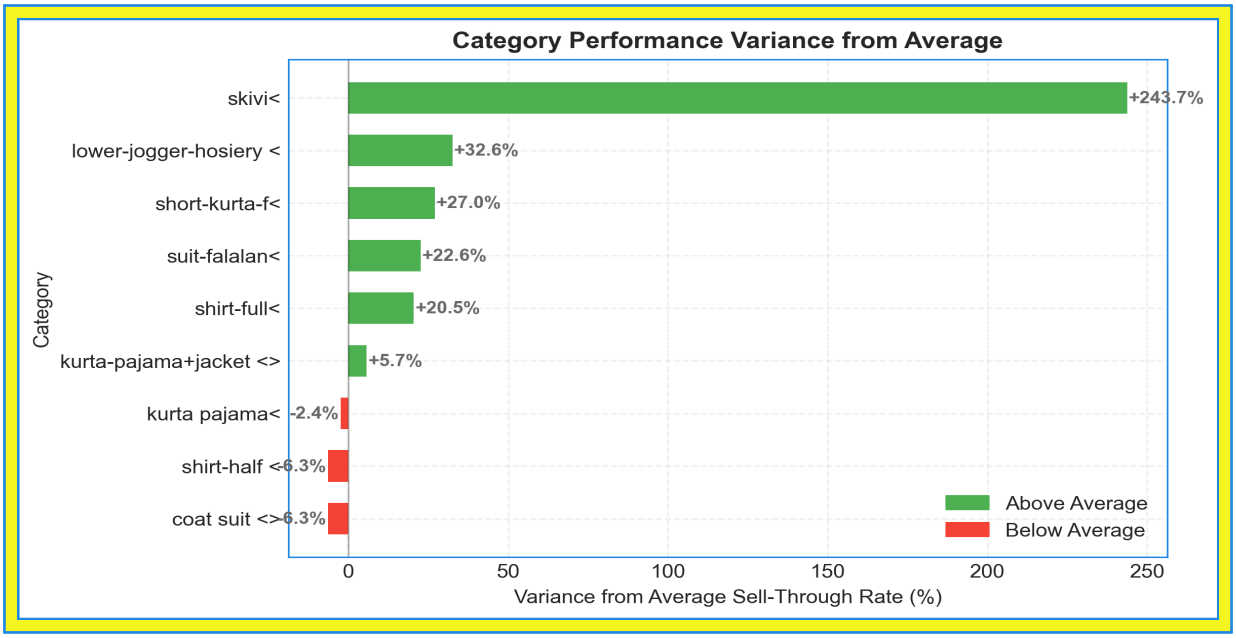
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

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# Business Intelligence Analysis: Retail Inventory and Sales Data

## Executive Summary

The data reveals significant variances in sell-through rates across different product categories, indicating potential inventory management issues and missed sales opportunities. Categories like "coat suit <>" and "shirt-half <" have **0% sell-through**, while "skivi<" has a significantly high rate of **250%**, suggesting overstocking in some areas and understocking in others.

## Key Insights

- **Sell-Through Rate Variance:** The wide range in sell-through rates, from 0% to 250%, highlights a major imbalance between supply and demand for various product categories.
- **Negative Variance from Average:** Categories with negative variance, like "coat suit <>" (-6.3), are significantly underperforming compared to the average sell-through rate. This is a concern for profitability.
- **High Brand Count, Low Sell-Through:** Some categories with a high "brand_count" (e.g., "shirt-half <" with 21 brands) still show 0% sell-through, indicating potential brand performance issues or over-saturation.

## Business Implications
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These variances suggest inefficient inventory management, leading to potential losses from unsold inventory and missed revenue from stockouts. Focusing on optimizing inventory levels and potentially re-evaluating brand selections is crucial. The high sell-through rate of "skivi<" while impressive may indicate lost opportunity.

Actionable Recommendations

- **Inventory Optimization (Immediate):** Conduct a detailed analysis of categories with low sell-through rates (e.g., "coat suit <>", "shirt-half <") to identify the root cause (poor demand, pricing issues, quality problems). Reduce purchasing volume or implement promotional strategies.
- **Demand Forecasting and Replenishment (Within 1 Month):** Implement a more accurate demand forecasting system to better align purchasing decisions with customer demand. Prioritize categories with high sell-through rates, ensuring sufficient stock levels to prevent lost sales. Consider increasing the brand choice for the skivi category to ensure supply.
- **Brand Performance Evaluation (Within 2 Months):** Analyze the performance of brands within each category to identify underperforming brands. Consider reducing the number of brands offered in saturated categories to improve sell-through rates. ```

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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

The initial data suggests prioritizing products with a high sell-through rate and manageable stock levels. Products from the "deo" brand in the "lower-jogger-hosiery" category show promise.

Key Insights

- **Sell-Through Rate & Stock Value:** "deo" lower-jogger-hosiery has a **66.67%** sell-through rate, indicating strong demand, while its stock value is a relatively low **790.0**, suggesting lower risk. "grab" suit-falalan has a 50% sell-through rate and a significantly higher stock value of 2385.0.
- **Category Performance:** The sample shows performance varies by category. Lower-jogger-hosiery appears to have a higher sell-through in this limited dataset than suit-falalan and shirt-full.
- **Purchase vs. Sales Quantity:** All three products sold less than their purchase quantity, resulting in remaining stock, which is expected but needs monitoring to prevent overstocking.

Business Implications

- **Untapped Online Potential:** Products with good sell-through rates but low online presence could benefit from increased online visibility.

• **Inventory Optimization:** Monitoring sell-through rates helps optimize inventory levels, reducing storage costs and minimizing the risk of unsold stock.

• **Category Focus:** Initial data implies concentrating on the lower-jogger-hosiery category as it has a higher sell-through rate than other categories.

Actionable Recommendations

• **Prioritize "deo" lower-jogger-hosiery Online:** Increase online marketing and visibility for this product to capitalize on its high sell-through rate (Immediate).

• **Monitor "grab" suit-falalan Performance:** Track online sales of this product closely for the next month to assess if adjustments to pricing or marketing are needed due to its higher stock value.

• **Expand Data Analysis:** Gather more data points (more rows) across a wider range of products to validate category performance and identify additional opportunities (Ongoing).

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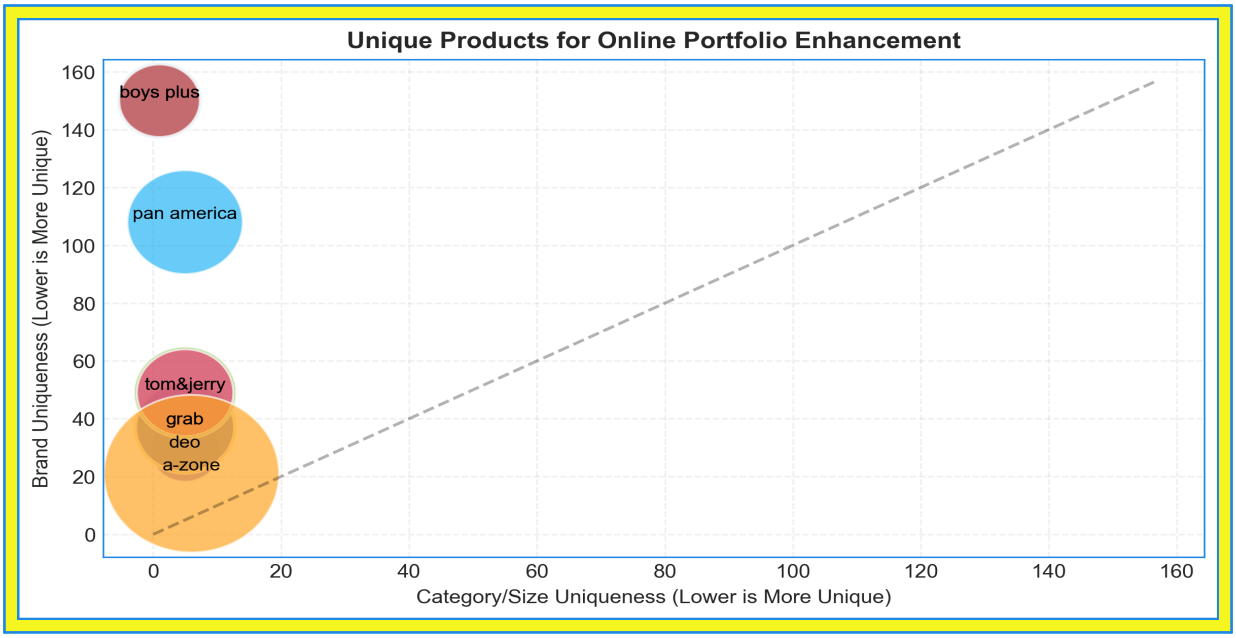
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

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The data shows 10 records with columns: Brand, Category, Size, Color, MRP, SalesQty, PurchaseQty, available_stock, category_size_count, brand_count.

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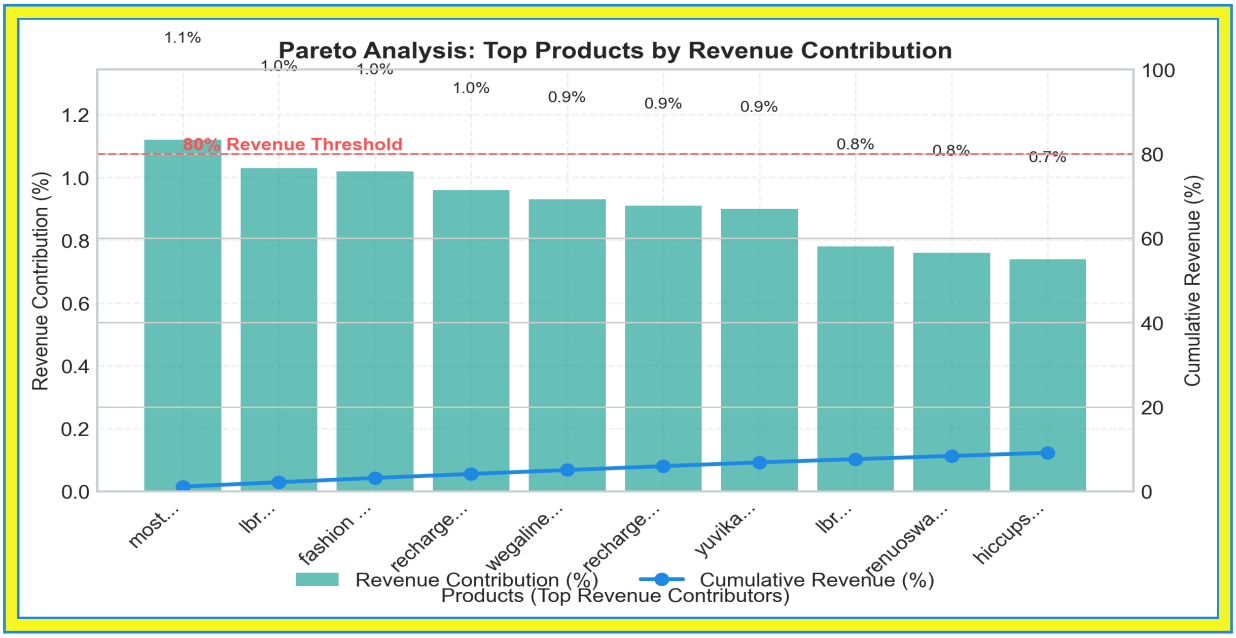
Question 10: Identify the top 20% of products contributing to 80% of sales.

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



Analysis & Recommendations

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The data shows 10 records with columns: Brand, Category, Size, Color, SalesQty, MRP, revenue, percent_of_total, cumulative_percent.

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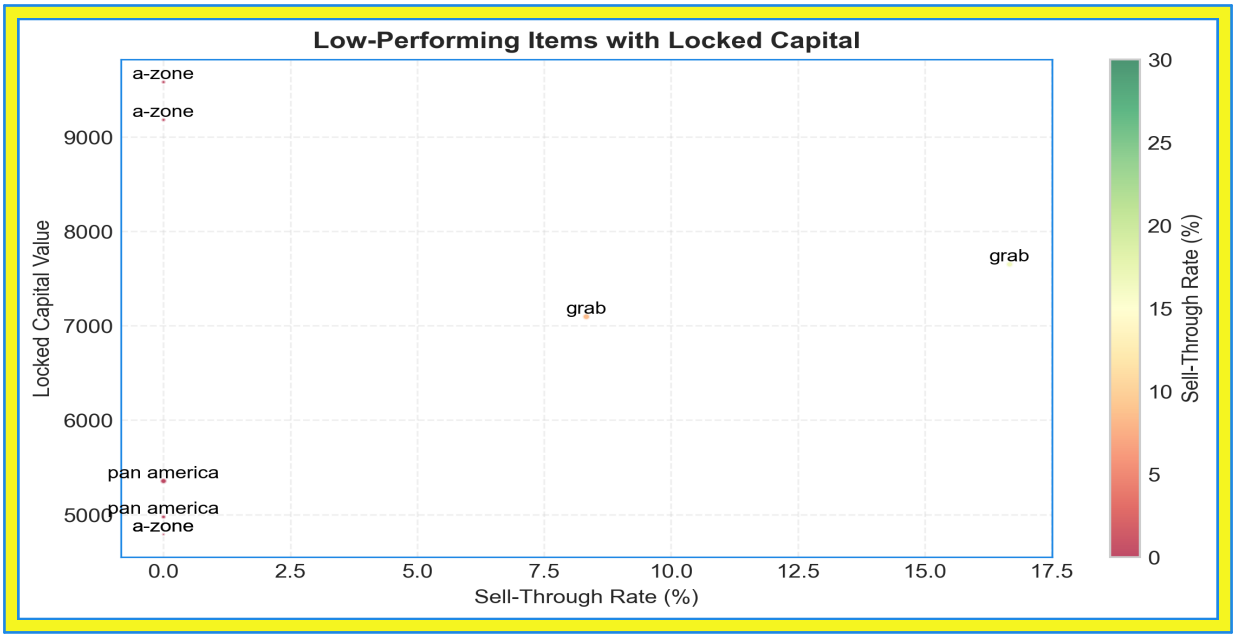
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

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The data shows 10 records with columns: Brand, Category, Size, Color, MRP, SalesQty, PurchaseQty, excess_inventory, sell_through_rate, locked_capital, days_in_inventory.

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Executive Summary

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Please review the individual analyses for insights.