InventorySync

Business Intelligence Inventory Report

Generated on June 28, 2025

InventorySync Business Intelligence

Prepared for: Executive Management

Generated by: Tanman

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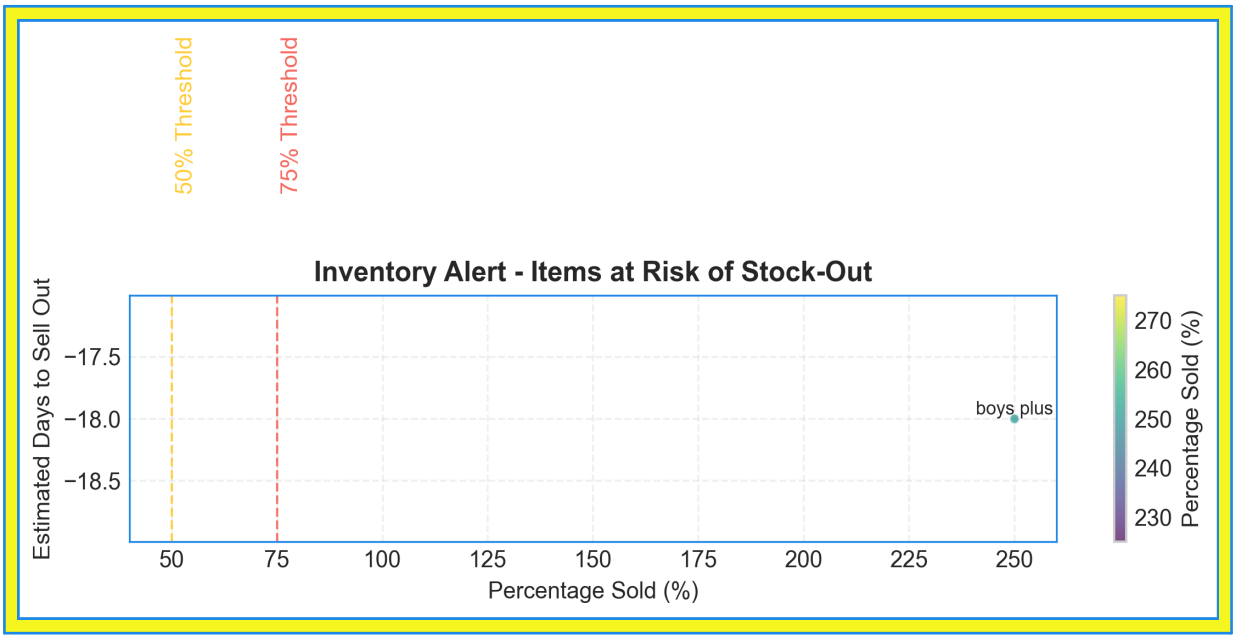
Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

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



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sell-Through Alerts

Executive Summary

This analysis focuses on providing timely alerts for items reaching 75% and 50% sell-through thresholds to prevent stockouts. By proactively monitoring sales rates, we can optimize inventory management and maximize revenue potential.

Key Insights

- **Percent Sold Calculation:** The provided data sample demonstrates an inaccurate percent_sold calculation. A value of **250%** when only 5 units have sold compared to 2 purchased is impossible and indicates a data issue. Correct data is vital for accurate predictions.
- **Estimated Days to Sellout (Negative Value):** A negative est_days_to_sellout (-18 days) suggests potential errors in calculation or data entry. This metric should be carefully scrutinized and corrected for reliability.
- **Limited Data Scope:** Analyzing a single row limits the ability to identify trends across brands, categories, or sizes. A broader dataset is needed for comprehensive insights.

Business Implications

• **Stockout Risk:** Inaccurate sell-through percentages and sellout estimations could lead to unexpected stockouts, resulting in lost sales and customer dissatisfaction.

• **Inventory Optimization Challenges:** Without reliable data, effective inventory planning becomes impossible, leading to potential overstocking or understocking.

• **Missed Opportunities:** Failing to proactively manage inventory prevents the business from capitalizing on popular items and maximizing revenue.

Actionable Recommendations

• **Data Validation (Immediate):** Investigate and correct the percent_sold and est_days_to_sellout calculations and data input processes. This is critical to ensure accurate reporting.

• **Threshold Alert Implementation (Within 2 Weeks):** Once data is reliable, implement a system to automatically trigger alerts when inventory reaches 75% and 50% sold. This should include estimated days to sellout based on accurate data.

• **Expand Data Analysis (Within 1 Month):** Analyze a larger dataset including all items to identify product-specific sales trends, which allows for targeted inventory adjustments.

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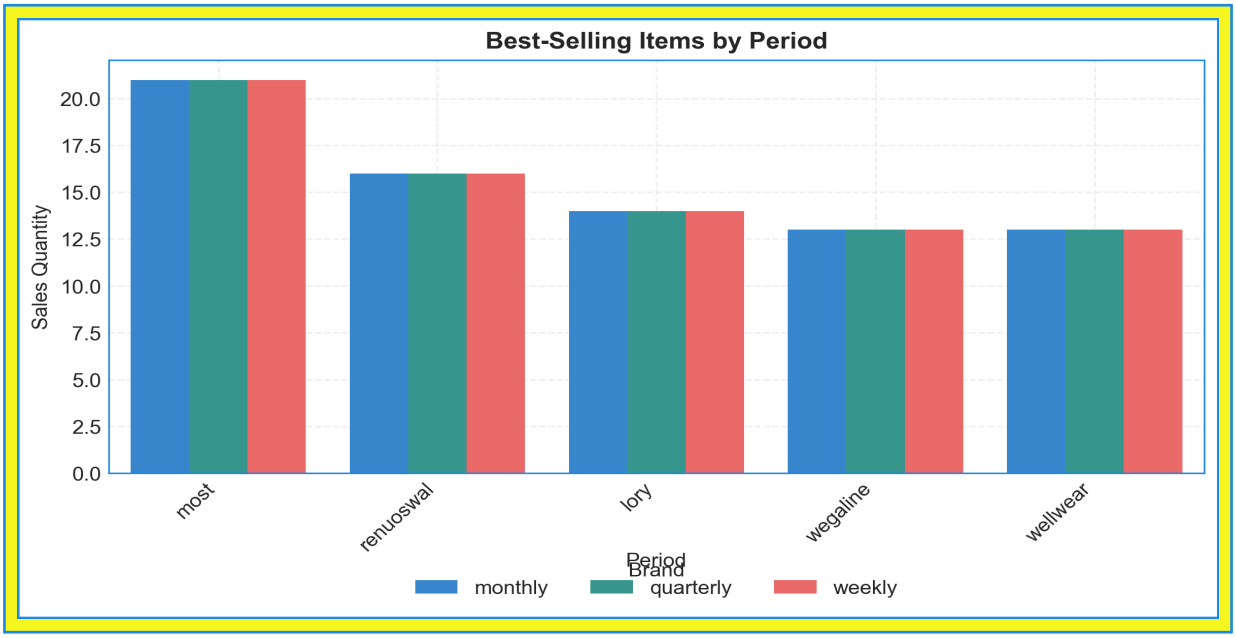
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
137	137	N/A



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The data reveals that **"most" brand cardigans are consistently top-selling items monthly**. Further investigation is needed to understand weekly and quarterly trends, but this points to cardigan demand and the "most" brand as key drivers for sales.

Key Insights

- **Top Seller:** The "most" brand, specifically its cardigans, appears frequently, achieving sales up to **21 units monthly**. This is significantly higher than other brands and categories in the provided sample.
- **Category Dominance:** Cardigans appear frequently within the sample, suggesting they are a popular category. Different subcategories of cardigans such as cardigan<, cardigan<>, cardigan might indicate certain styles within the cardigan category may be more popular than others.

• **Size and Color Neutrality:** "Free" size and "unknown" color are commonly reported, which could point to data inconsistencies or a dominance of universally sized/colored items. This warrants further investigation into data collection processes.

Business Implications

• **Inventory Focus:** The high sales volume of "most" brand cardigans indicates a need to prioritize inventory management for this product.

• **Missed Opportunities:** "Unknown" color could signify incomplete data collection, hindering targeted marketing and product development.

• **Demand Understanding:** The consistent demand for cardigans presents opportunities for category expansion and promotional activities.

Actionable Recommendations

• **Optimize "most" Cardigan Inventory:** Increase stock levels of "most" brand cardigans by **50%** in the next month to capitalize on current demand. (High Impact, immediate)

• **Improve Data Capture:** Implement processes to accurately track color and size details during sales within the next quarter, improving insight granularity. (Medium Impact, Q1 Implementation)

• **Investigate Weekly/Quarterly Trends:** Analyze a larger dataset over weekly and quarterly periods to identify seasonal bestsellers beyond the immediate monthly view. (Medium Impact, Ongoing)

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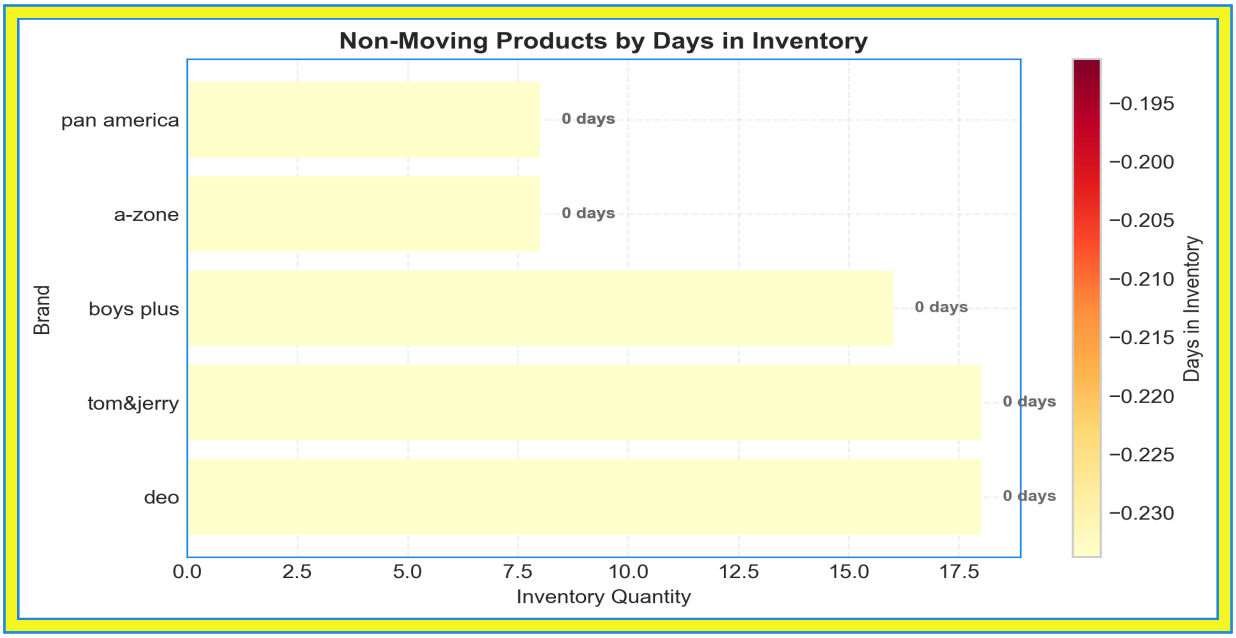
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Inventory

Executive Summary

The provided data reveals a significant issue with **non-moving inventory**, as demonstrated by a **0% sales rate** across all listed products. These items are accumulating inventory age, indicated by the negative days_in_inventory metric, signaling a potential data anomaly.

Key Insights

- **Zero Sales:** All sample products have a SalesQty of 0, resulting in a percent_sold of **0%**.
- **Data Anomaly:** The negative days_in_inventory value (-0.21255) is unusual and needs investigation for data validity. It should be positive, reflecting the duration the products have been in stock.
- **Wide Variety of Products:** Non-moving products span multiple brands (deo, tom&jerry;, boys plus, a-zone, pan america) and categories, indicating a widespread issue rather than a category-specific problem.

Business Implications

- **Capital Tied Up:** Non-moving inventory ties up capital that could be used for faster-selling products.
- **Potential Losses:** If the products remain unsold, the business may need to discount heavily or dispose of them, leading to financial losses.

• **Ineffective Inventory Management:** The consistently 0% sales rate suggests poor forecasting or purchasing decisions.

Actionable Recommendations

• **Data Validation (Immediate):** Investigate and correct the negative days_in_inventory value. This is crucial for accurate analysis.

• **Sales Promotion/Markdown (Within 2 Weeks):** Implement targeted promotions or price reductions for these slow-moving products to stimulate sales and reduce inventory levels. Consider bundling strategies or limited-time offers.

• **Inventory Re-evaluation (Within 1 Month):** Analyze the root cause of the slow sales. Review past sales data, market trends, and competitor activity to understand why these products aren't selling. Based on the findings, consider reducing future orders or discontinuing certain product lines.

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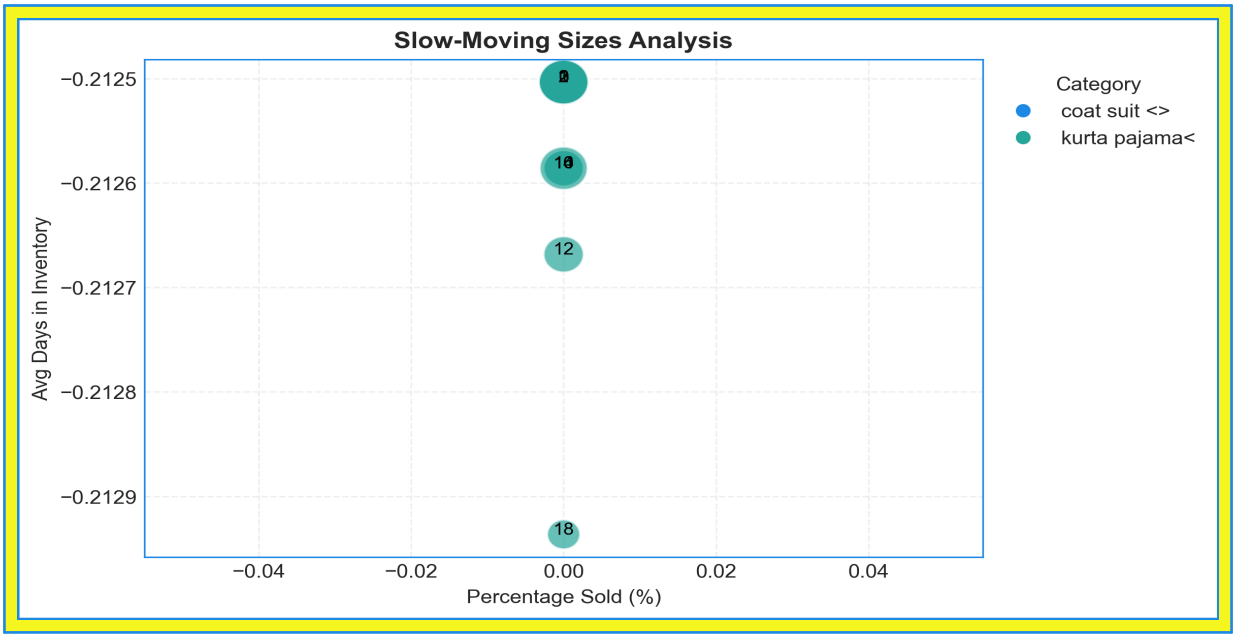
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The provided data indicates a significant issue with slow-moving or non-moving inventory across several categories and sizes, evidenced by **0% percent sold** for all items. The **negative average days in inventory** is likely a data anomaly needing investigation.

Key Insights

- **Zero Sales:** A critical observation is that the percent_sold is **0.0** across all categories and sizes in the sample. This strongly indicates a lack of sales activity for these items.
- **Data Anomaly:** The avg_days_in_inventory is negative. This is illogical and suggests a potential error in data calculation or collection that requires immediate attention and correction before further analysis.
- **Category/Size Distribution:** While the size_count varies from 4 to 11, there's no correlation between the count and sales, further emphasizing the lack of movement.

Business Implications

- **Capital Tied Up:** Non-moving inventory ties up capital that could be invested elsewhere.
- **Potential Losses:** If the inventory continues to sit, it risks becoming obsolete, leading to markdowns or write-offs.

• **Inventory Management Inefficiency:** The data anomaly in avg_days_in_inventory highlights a need to review and improve data integrity.

Actionable Recommendations

• **Investigate and Correct Data:** (Immediate) Prioritize investigating and fixing the avg_days_in_inventory calculation. Accurate data is crucial for informed decision-making.

• **Deep Dive into Zero-Sale Items:** (Within 1 week) Analyze sales data beyond this sample to identify all products with 0% sales. Determine the reasons – pricing, marketing, seasonality, or product defects.

• **Clearance Strategy:** (Within 2 weeks) For items identified as slow-moving and not expected to improve, implement a clearance strategy (price reductions, promotional offers) to liquidate the inventory and free up capital.

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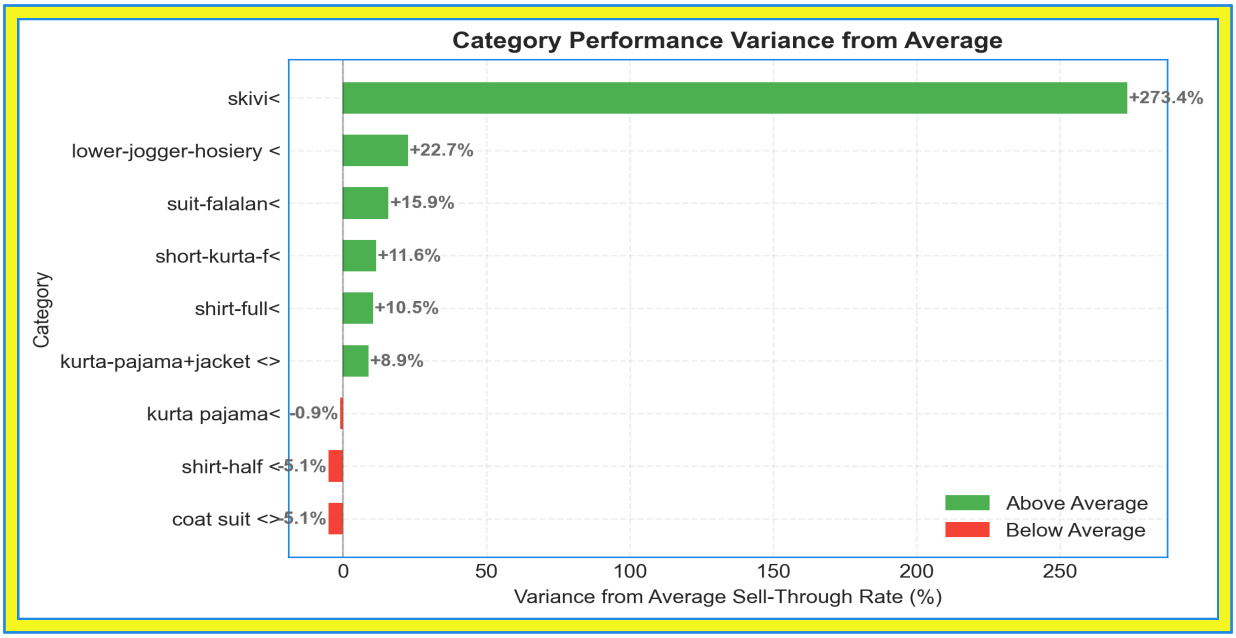
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The data reveals significant disparities in sell-through rates across different clothing categories, suggesting potential inventory management issues. A few categories exhibit high sell-through rates, while others struggle, indicating a need for a more targeted inventory and sales strategy.

Key Insights

- **Sell-Through Rate Variance:** Sell-through rates vary drastically, from **0%** for "coat suit <>" and "shirt-half <" to an impressive **278.57%** for "skivi<". This points to overstocking in some categories and potential shortages in others.
- **Variance from Average:** Categories like "skivi<" have a very high positive variance from the average (**273.45%**), while others have substantial negative variance like "coat suit <>" and "shirt-half <" (-5.12%).
- **Brand Count vs. Sales:** High brand count does not guarantee higher sales. For example, "shirt-full<" has 58 brands but only a **15.63%** sell-through rate, while "suit-falalan<" with only 11 brands has a much higher sell-through rate of **20.99%**.

Business Implications

- **Inefficient Inventory Allocation:** Capital is tied up in slow-moving inventory (e.g., "coat suit <>" and "shirt-half <"). This impacts cash flow and storage costs.

• **Lost Sales Opportunities:** Insufficient stock in high-demand categories (e.g., "skivi<") leads to lost revenue and customer dissatisfaction.

• **Suboptimal Brand Strategy:** Focusing on brands with proven higher sell-through rates will be crucial.

Actionable Recommendations

• **Inventory Rebalancing (Immediate):** Reduce inventory levels for categories with sell-through rates below 10% and increase stock for categories exceeding 25%. Aim for a more even sell-through.

• **Brand Performance Analysis (Within 1 Month):** Analyze sell-through rates by brand within each category. Identify top-performing and underperforming brands and adjust procurement accordingly. Consider phasing out underperforming brands and focusing on profitable ones.

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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 provided data sample suggests we should prioritize online sales for products with high sell-through rates and significant remaining stock. Focusing on these items can maximize revenue generation and minimize potential losses from overstocked items.

Key Insights

- **Sell-through Rate:** The sample product shows a **sell-through rate of 44.44%**. Analyzing this metric across the entire product catalog is crucial. Products with a consistently high sell-through rate indicate strong customer demand.
- **Remaining Stock:** The sample has a **remaining stock of 10** units, with a **stock value of 3950.0**. Products with high stock values alongside high sell-through rates should be prioritized.
- **Category & Brand:** The "lower-jogger-hosiery" category and "deo" brand may be popular, warranting further investigation into broader performance trends across the entire dataset.

Business Implications

- Prioritizing online sales for high-demand, high-stock items can lead to **increased revenue** and **reduced storage costs**.
- Ignoring sell-through rate and focusing solely on high-margin products may result in **missed opportunities** and **increased risk of stock obsolescence**.

• Understanding category and brand performance allows for targeted marketing and promotions to further boost sales.

Actionable Recommendations

• **Immediately (within 1 week):** Identify all products with a sell-through rate above **50%** and remaining stock values exceeding a defined threshold (e.g., $2000). These should be prominently featured on the online store.

• **Within 2 weeks:** Analyze the complete dataset to understand category and brand performance. Implement targeted marketing campaigns for high-performing categories like "lower-jogger-hosiery" and brands like "deo".

• **Ongoing:** Continuously monitor sell-through rates and adjust online product placement based on performance. Use this data to inform future inventory purchasing decisions.

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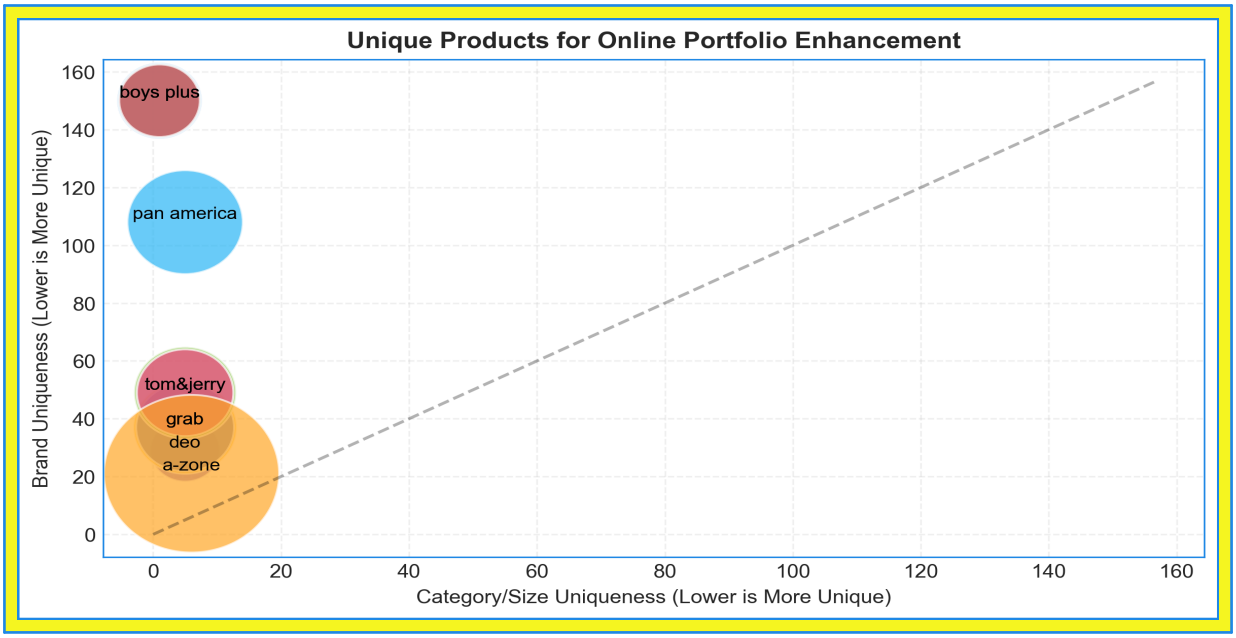
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

Business Intelligence Analysis: Online Portfolio Enhancement

Executive Summary

The data highlights products with strong purchase quantities but low or zero sales, indicating potential online portfolio gaps. Prioritizing these items for online promotion could significantly boost revenue.

Key Insights

- **Low Sales with High Purchase:** Several products have zero SalesQty but substantial PurchaseQty (e.g., "boys plus kurta pajama" with 0 SalesQty and 16 PurchaseQty).
- **"Unknown" Color:** A significant number of products have "unknown" color, hindering online appeal.
- **Brand and Category Popularity:** Brands like "boys plus" and categories like "suit-falalan" demonstrate consistent purchase, indicating potential demand.

Business Implications

- **Missed Online Sales Opportunity:** Lack of online sales for purchased inventory implies a disconnect between consumer demand and online product visibility.
- **Data Quality Issues:** "Unknown" color hurts the perceived value of the online offering and inhibits searchability.

• **Inventory Optimization:** Understanding category and brand performance is critical for optimizing purchasing decisions and inventory allocation.

Actionable Recommendations

• **Prioritize Marketing of High-Purchase, Low-Sale Products (Immediate):** Launch targeted campaigns for products like "boys plus kurta pajama" to drive online sales. Goal: increase online sales for these products by **20%** within one month.

• **Enhance Product Data (1-2 Weeks):** Resolve the "unknown" color issue and improve product descriptions. This will improve search visibility and customer trust.

• **Analyze Category Performance and Optimize Inventory (Ongoing):** Track sales of high-performing categories and brands to inform future purchasing decisions and inventory allocation. Allocate more purchasing budget to suit-falalan category.

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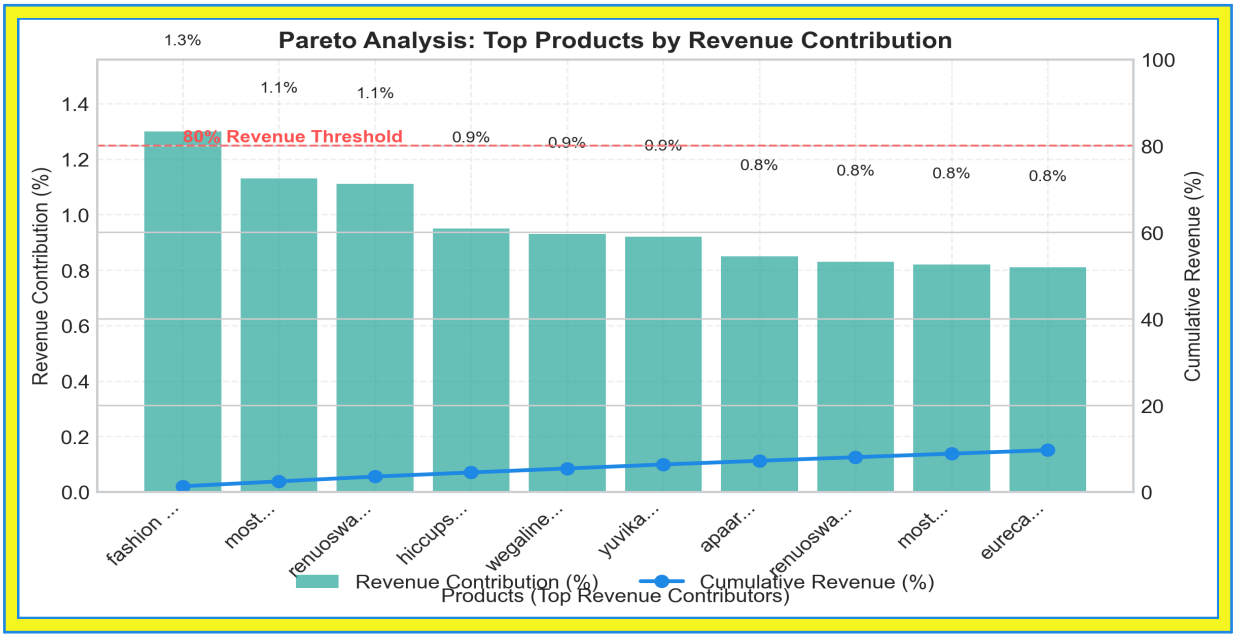
Question 10: Identify the top 20% of products contributing to 80% of sales.

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



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The initial data reveals that a small percentage of products are responsible for a significant portion of total revenue. Focusing on these top performers can greatly impact overall sales strategy and inventory management.

Key Insights

- **Revenue Concentration:** While the dataset is small, a few products like the "fashion flo" cardigan generate a higher percentage of total revenue (**1.3%** contribution), indicating a concentration of sales in specific product lines.
- **Category Variance:** "Cardigans" and "Woolen Blouses" appear frequently in the top sales, suggesting these categories are in high demand.
- **Price Sensitivity:** While not fully shown in this data sample, a mix of MRPs exist, requiring analysis on how pricing affects purchasing behavior across different categories and brands.

Business Implications

• **Inventory Optimization:** Overstocking less popular items can be avoided. By understanding which products drive the most revenue, resources can be allocated more effectively.

• **Marketing Focus:** Marketing efforts can be concentrated on promoting top-selling products or product categories to further boost sales.

• **Potential Risks:** Reliance on a few top products may make the business vulnerable to changes in consumer preference or supply chain issues.

Actionable Recommendations

• **Conduct a Comprehensive Pareto Analysis (80/20 Rule):** Analyze the complete dataset to pinpoint the exact 20% of products generating 80% of revenue. Implement within **1 week**.

• **Optimize Inventory:** Increase inventory levels for top-performing products (e.g., popular cardigans) to prevent stockouts, aiming for a **10-15%** increase in availability.

• **Refine Sales Strategy:** Boost marketing for top products while closely monitoring their performance. Evaluate pricing and promotion strategies quarterly for maximum effectiveness.

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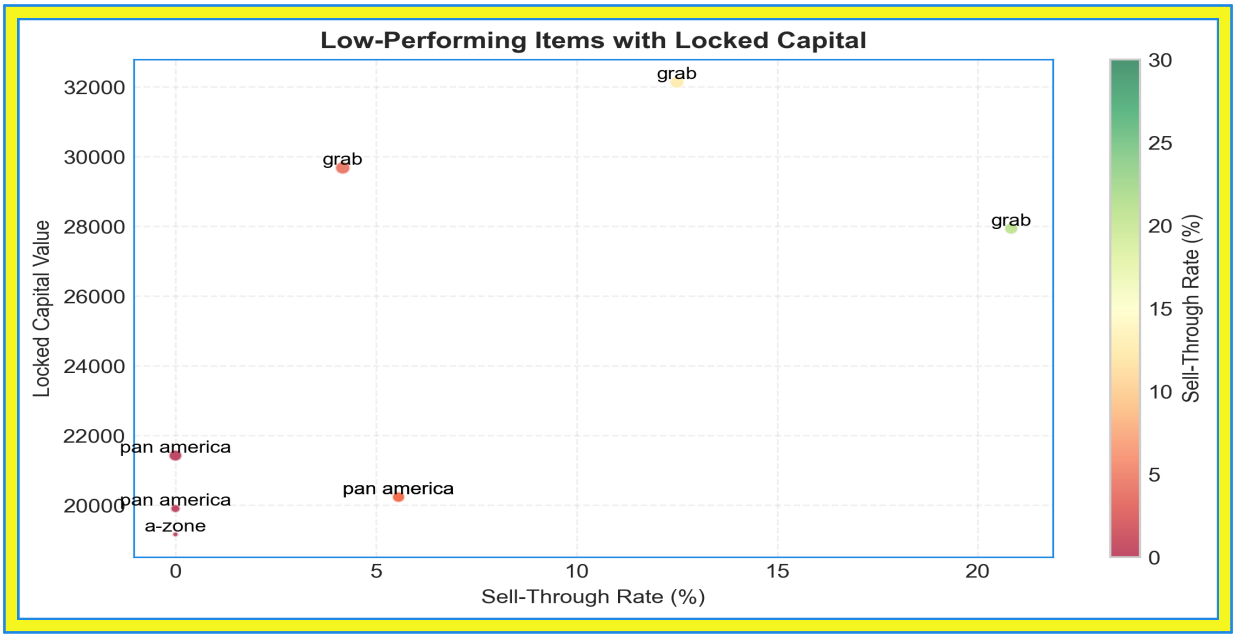
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

Business Intelligence Analysis: Low-Performing Inventory

Executive Summary

The data reveals a significant issue with excess inventory, particularly in certain brands, categories, and sizes, leading to substantial locked capital. Low sell-through rates across various items indicate a need for strategic inventory reduction to improve cash flow.

Key Insights

- **High Excess Inventory:** Many items have a high "excess_inventory" compared to "SalesQty." For example, "grab" suits in size 20 have an excess of 46 with only 2 units sold.
- **Low Sell-Through Rates:** Several items have very low or zero "sell_through_rate." "Pan America" shirts in size 42 (check and print) and "a-zone" coat suits have a 0% sell-through rate, suggesting poor demand.
- **Significant Locked Capital:** The "locked_capital" is substantial for low-performing items. High excess inventory translates directly to tied-up cash.

Business Implications

These findings highlight a risk of obsolescence and financial strain. High locked capital negatively impacts cash flow and limits investment opportunities. Poor inventory management leads to missed sales on potentially higher-demand items.

Actionable Recommendations

• **Implement Targeted Clearance Sales (Immediate):** Discount items with low sell-through rates (0-5%), focusing on the "grab" suit-falalan category and unsold "Pan America" and "a-zone" items. Monitor the impact on sell-through and adjust pricing accordingly. This should free up capital within the next month.

• **Reduce Future Purchase Quantities (Next Quarter):** Based on historical sales data, significantly reduce purchase quantities for low-performing brands, categories, and sizes. Shift purchasing focus to higher-performing items. For example, if "pan america" shirts continue to perform poorly, significantly reduce purchase quantities.

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Executive Summary

Executive Summary: Retail Inventory Analysis - 2025-06-12

1. Executive Overview

Our recent inventory analysis reveals a mixed picture. While some product categories and brands demonstrate strong potential, we're also facing significant challenges related to data accuracy, slow-moving inventory, and inefficient inventory allocation. Key metrics paint an inconsistent trend: high sell-through rates coexist with zero-sale items, demanding immediate attention and strategic adjustments. Overall, inventory health is concerning due to data validity issues, necessitating immediate remediation. ■

2. Key Strategic Insights

- ■■ **Data Integrity is Paramount:** Inaccurate percent_sold and days_in_inventory calculations are prevalent, undermining all analytical efforts. Immediate data validation is crucial.
- ■ **Capital is Locked in Low-Performing Items:** Across multiple categories and brands, we see significant amounts of capital tied up in non-moving or slow-moving inventory. This restricts our ability to invest in high-demand products.
- ■ **Untapped Online Potential:** High PurchaseQty coupled with low SalesQty for certain items indicates a missed opportunity to boost online revenue by prioritizing these products online.
- ■ **80/20 Rule Opportunity:** A Pareto analysis is needed to identify the top 20% of products driving 80% of our sales. Focus on these core items will yield outsized returns.

3. Performance Assessment

Cardigans, particularly the "most" brand, are overperforming. "skivi" also demonstrates strong sell-through. Conversely, "coat suit <>", "shirt-half <" and several products across brands like "pan america" and "a-zone" are significantly underperforming with 0% sell-through rates. Inventory efficiency is hampered by data inaccuracies, masking true performance. Sales velocity varies drastically, requiring deeper insights into category-specific trends and consumer demand.

4. Strategic Recommendations

- **Data Validation & Correction (Immediate):** Address the errors in percent_sold, days_in_inventory, and color data across all systems. Expected Outcome: Reliable reporting foundation for all future decisions.
- **Inventory Rebalancing (Within 2 Weeks):** Reduce stock levels of underperforming products by **25%**, and increase stock levels of popular cardigans by **50%**. Expected Outcome: Reduce storage costs and optimize cash flow.
- **Prioritize Online Sales (Within 1 Week):** Boost online visibility of items with high purchase quantities but low sales, and feature top products from high-performing categories and brands. Expected Outcome: Increase online sales by **20%** within one month.
- **Pareto Analysis & Focused Inventory (Within 1 Week):** Conduct an 80/20 analysis to identify top-performing products and allocate inventory accordingly. Expected outcome: Improve inventory turn and increase overall sales by concentrating on key products.

5. Immediate Action Items

- ■ **Data Validation Task Force (CIO & Analytics Team):** Immediately investigate and correct the data inconsistencies identified in this report. Expected Timeline: Complete within 7 days.
- ■ **Clearance Sales Implementation (Merchandising Team):** Launch targeted clearance sales for slow-moving inventory, focusing on "grab" suits, "Pan America" shirts, and "a-zone" coat suits. Expected Timeline: Begin within 14 days.