InventorySync

Business Intelligence Inventory Report

Generated on June 28, 2025

InventorySync Business Intelligence

Prepared for: Executive Management

Generated by: Tanman

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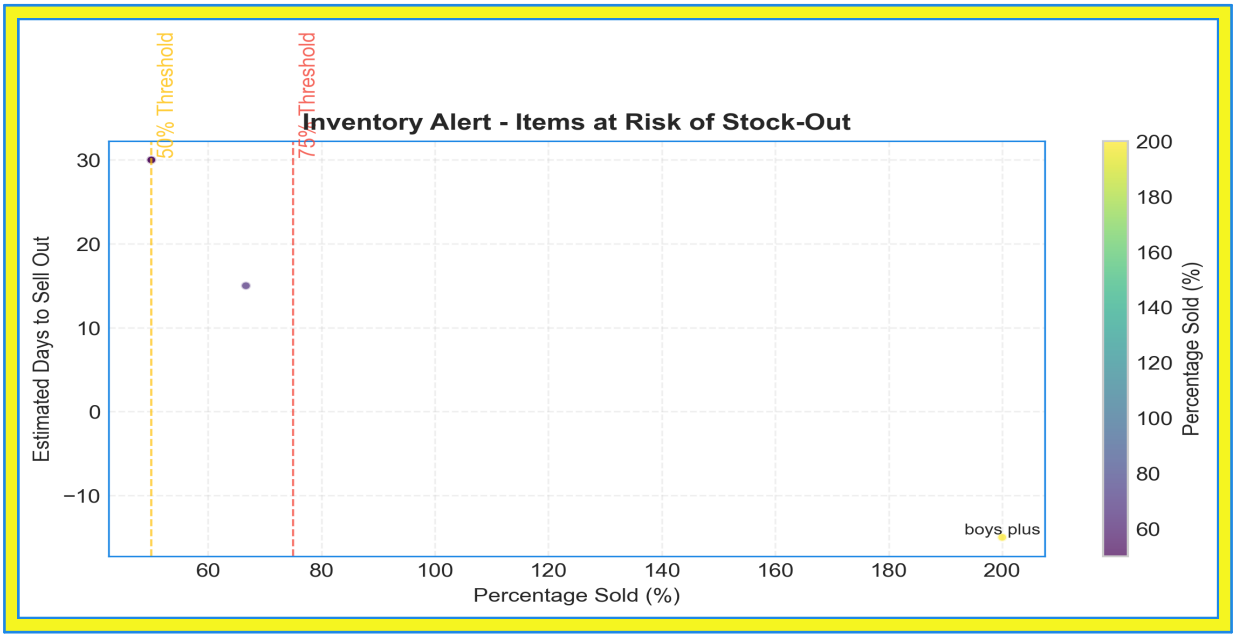
Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

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



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sell-Out Notification

Executive Summary

This analysis identifies items approaching sell-out thresholds (75% and 50% sold) and estimates their remaining sell-out time. Proactive notifications enable timely replenishment and minimize lost sales.

Key Insights

- Some items are selling rapidly: Example, "boys plus" Kurta pajama, with **200% sold** likely indicates negative inventory or data error. Investigate.
- Items like "deo" lower-jogger-hosiery have **66.67% sold** and estimated **15 days** until sell-out.
- "grab" suit-falalan and "pan america" shirt-full both at **50% sold** with an estimated **30 days** to sell out, indicating slower sales for these items.

Business Implications

• **Missed Sales:** Running out of popular items ("deo" lower-jogger-hosiery) leads to lost revenue and customer dissatisfaction.

• **Excess Inventory:** Slow-moving items ("grab" suit-falalan and "pan america" shirt-full) tie up capital and increase storage costs.

• **Data Integrity:** Inaccurate "percent_sold" data (like 200%) may be masking potential inventory problems.

Actionable Recommendations

• **Implement Alerts:** Configure system to automatically notify when items reach 75% and 50% sold thresholds. Include estimated sell-out time. *Timeframe: 1 week.*

• **Prioritize Replenishment:** For items nearing sell-out (e.g., "deo" lower-jogger-hosiery), expedite purchase orders to prevent stockouts. *Timeframe: Immediate.*

• **Investigate and Correct Data:** Analyze the "boys plus" data discrepancy to improve inventory management data accuracy and prevent errors. *Timeframe: 2 days.*

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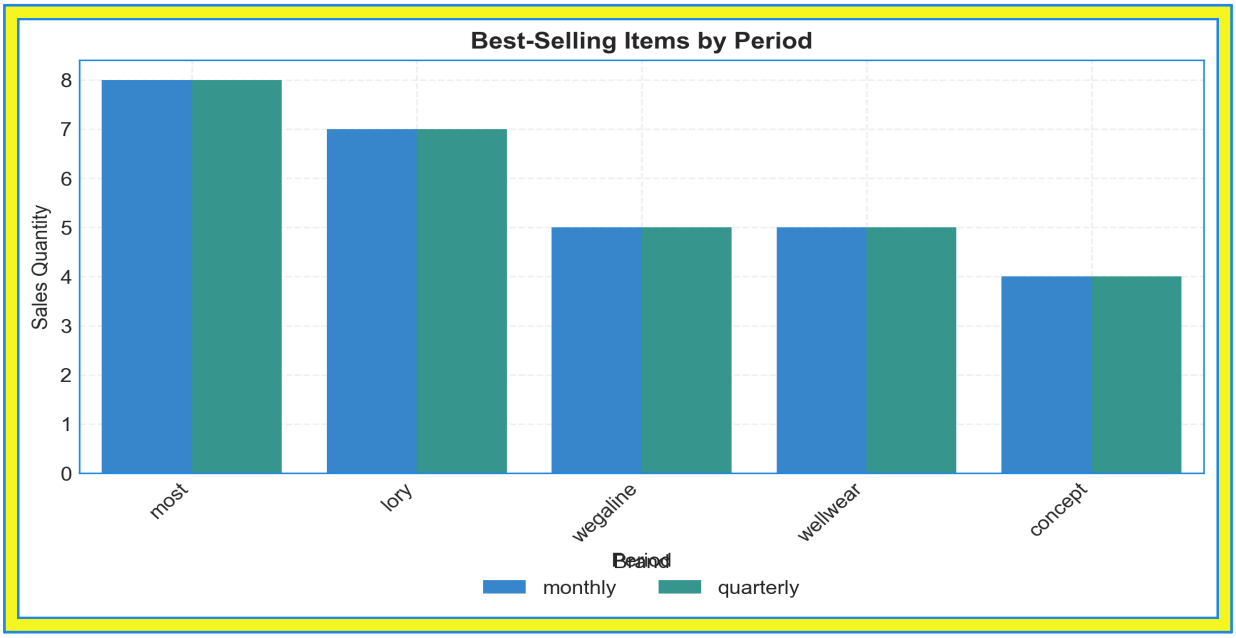
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
0	49	N/A



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

Preliminary data suggests that **cardigans are a popular category, especially from the brand "most"**, and the size "free" is frequently associated with higher sales. These initial observations warrant a deeper dive into weekly, monthly, and quarterly sales trends to optimize inventory.

Key Insights

- **Cardigans are prominent:** The category "cardigan" consistently appears with high sales, particularly those from "most". For example, "most" cardigans sold **8 units monthly.**
- **"Free" size popularity:** The "free" size is frequently associated with higher sales volumes, indicating a potential preference or broader appeal.
- **Unknown color preference:** The prevalence of "unknown" in the color field suggests a data quality issue that needs addressing for a more accurate analysis of color-specific sales.

Business Implications

• Understanding top-selling items by period (weekly, monthly, quarterly) allows for better inventory forecasting and purchasing decisions, minimizing stockouts and overstocking.

• The popularity of "free" size cardigans suggests an opportunity to expand offerings in this area.

• Data quality needs immediate improvement to unlock more refined analysis and inform better decision-making, particularly concerning color preferences.

Actionable Recommendations

• **Refine data collection:** Implement standardized naming conventions and drop-down menus for product attributes like color and category to improve data quality within the next month.

• **Analyze weekly and quarterly sales:** Conduct a more granular analysis of weekly and quarterly sales data for best-selling items to identify seasonal trends. This should begin immediately.

• **Optimize inventory:** Based on the deeper analysis, adjust inventory levels for top-selling items like "most" brand cardigans in "free" size to meet anticipated demand for the next quarter.

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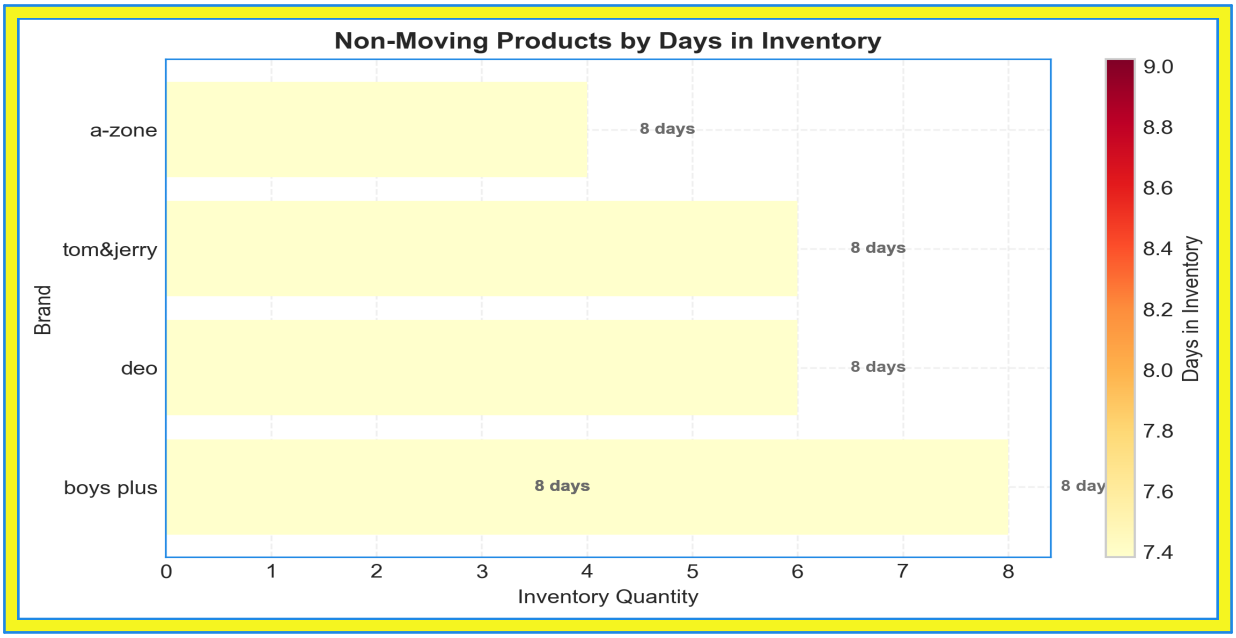
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Inventory

Executive Summary

This data sample reveals significant issues with non-moving inventory, where several products show **zero sales** despite being in inventory for **8.2 days**. The predominant issue appears to be across multiple brands and categories.

Key Insights

- **Zero Sales:** All items in the sample have a **0% sell-through rate** and **zero SalesQty**, indicating an inability to sell these products.
- **Category Distribution:** The non-selling items span multiple categories like "kurta pajama," "lower-jogger-hosiery," "suit-falalan," and "coat suit," suggesting a problem beyond a single product line.
- **Brand Representation:** Brands like "boys plus," "deo," "tom&jerry;," and "a-zone" are affected, indicating a widespread issue, not limited to a single brand's marketing or quality.

Business Implications

- **Capital Tie-Up:** Unsold inventory ties up capital, reducing the company's financial flexibility.
- **Inventory Costs:** Holding costs (storage, potential spoilage/damage, insurance) will erode profitability if this trend continues.

• **Potential Obsolescence:** Fashion items are particularly prone to obsolescence, leading to markdowns or write-offs if not addressed quickly.

Actionable Recommendations

• **Immediate Promotion/Discount (1 week):** Implement a targeted promotional campaign or offer discounts on these specific items to stimulate sales and reduce inventory levels. Focus on items with higher MRP, like the "coat suits" at **MRP 2295-2395**, as liquidating these will free up more capital.

• **Inventory Review & Root Cause Analysis (2 weeks):** Conduct a thorough review of the product selection, pricing strategy, and marketing efforts for these categories to determine the root cause of the low sell-through. Examine if "unknown" colors are impacting sales.

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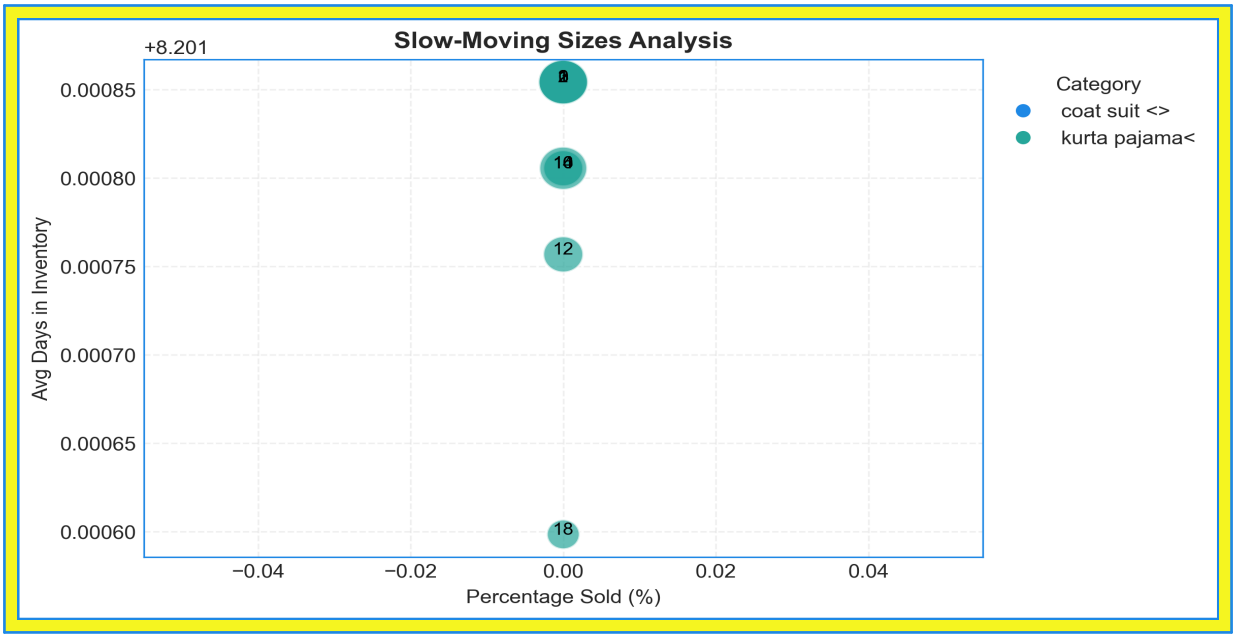
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis: Slow-Moving Sizes

Executive Summary

The data reveals several sizes within specific categories, such as "coat suit <>" and "kurta pajama<", are slow-moving with a **0% sell-through rate**. These items have been in inventory for an average of **8.2 days** without any sales.

Key Insights

- **Zero Percent Sold:** All sizes within the sampled categories ("coat suit <>" and "kurta pajama<") show a **0%** percent_sold. This indicates a significant issue with sales velocity.
- **Consistent Inventory Time:** The avg_days_in_inventory is consistently around **8.2 days** across all sizes and both categories in the sample, despite varying size_count and total_purchased.
- **Lack of Size Impact:** The dataset does not show any correlation between size and sales performance within the categories examined. Sizes like "0", "1", "10", "12", "14", "16", "18", "2", and "3" are all experiencing the same lack of sales.

Business Implications

- **Inventory Overstock:** The lack of sales suggests potential overstocking in these sizes and categories, tying up capital and warehouse space.
- **Lost Sales Opportunities:** Slow-moving inventory can lead to missed opportunities for selling more popular items, negatively impacting overall sales revenue.

• **Potential Markdown Risks:** To clear the slow-moving inventory, markdowns may be required, impacting profit margins.

Actionable Recommendations

• **Investigate Demand (Immediate):** Conduct market research and sales analysis to understand why these sizes are not selling. Are they the wrong sizes, styles, or colors for the current market? (Timeframe: 1 week)

• **Adjust Inventory (Within 2 Weeks):** Based on findings, reduce orders for slow-moving sizes and potentially reallocate inventory to more popular items. Consider promotional campaigns or bundling strategies to move existing stock.

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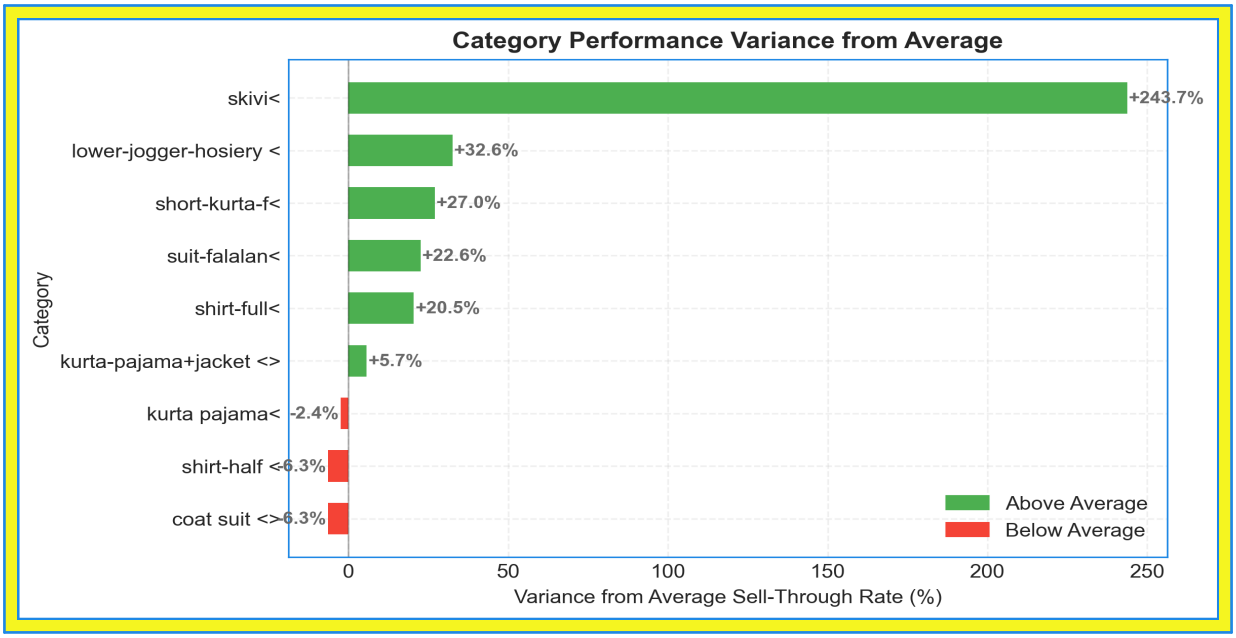
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

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# Business Intelligence Analysis: Retail Inventory and Sales

## Executive Summary

This data reveals significant variances in sell-through rates across product categories, indicating potential inventory management inefficiencies. Some categories have extremely low sell-through, while others significantly exceed the average, suggesting imbalances in demand and supply.

## Key Insights

- **Sell-Through Rate Disparity:** Sell-through rates vary widely. For example, "coat suit <>" and "shirt-half <" have a **0% sell-through rate**, while "skivi<" has a 25**0% sell-through rate**, a clear outlier. This indicates overstocking in some categories and potential understocking in others.
- **Variance from Average:** The "variance_from_avg" metric highlights significant deviations from the norm. Categories like "skivi<" with a variance of **243.7** far exceed others, suggesting unusual demand or supply chain issues.
- **Brand Count vs. Sell-Through:** A high brand count doesn't guarantee high sell-through. "shirt-full<" has 58 brands and a **26.79%** sell-through, while "kurta pajama<" has 31 brands, yet only a **3.85%** sell-through, indicating brand selection and product relevance could be factors.
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Business Implications

These variances lead to potential lost revenue through unsold inventory and missed sales opportunities due to stockouts. Inefficient inventory management ties up capital and increases storage costs. Misaligned inventory negatively impacts customer satisfaction if desired products are unavailable or if markdowns are excessive to clear overstock.

Actionable Recommendations

- **Investigate Low Sell-Through Categories (Immediate):** Conduct a deep dive into categories with 0% or very low sell-through rates (e.g., "coat suit <>", "shirt-half <"). Determine the root cause (e.g., poor product selection, ineffective marketing, pricing issues). Reduce future purchasing of these items.
- **Optimize Inventory for High Performers (Within 1 Month):** Increase inventory levels for categories with high sell-through rates (e.g., "skivi<"). Analyze demand patterns and adjust purchasing quantities accordingly to prevent stockouts and maximize sales.
- **Refine Brand Selection Strategy (Within 3 Months):** Evaluate the correlation between brand count and sell-through within categories. Prioritize brands that consistently demonstrate higher sell-through rates to optimize inventory and reduce waste.

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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

The provided data suggests focusing online sales efforts on products with a high sell-through rate and reasonable stock value. Items like "deo" lower-jogger-hosiery and "grab" suit-falalan are promising candidates for online prioritization.

Key Insights

- **Sell-through Rate:** The "deo" lower-jogger-hosiery has a **66.67%** sell-through rate, indicating strong customer demand.
- **Stock Value vs. Sell-through:** While "grab" suit-falalan has a lower sell-through rate (50.0%), it has a significantly higher stock value (**2385.0**) compared to the "deo" product (**790.0**), suggesting an opportunity to boost revenue.
- **Category Performance:** Comparing the performance of different categories like "lower-jogger-hosiery" and "suit-falalan" reveals potential differences in customer preferences online.

Business Implications

These findings highlight that focusing on products with high sell-through rates and moderate stock values initially is a good starting point, while also testing higher-stock-value items online.

Understanding category performance will help tailor online marketing and merchandising efforts. Neglecting these insights could lead to missed revenue opportunities and inefficient inventory management.

Actionable Recommendations

- **Prioritize "deo" lower-jogger-hosiery for immediate online promotion.** Leverage its high sell-through rate to drive initial traffic and sales. (Timeline: Immediate)
- **Test online demand for "grab" suit-falalan.** Implement targeted advertising to assess customer interest given its high stock value. (Timeline: Within 1 week)
- **Analyze a larger dataset to determine category performance.** Expand the data sample and compare sell-through rates across different categories. This can guide longer-term inventory and promotional strategies. (Timeline: Within 2 weeks)

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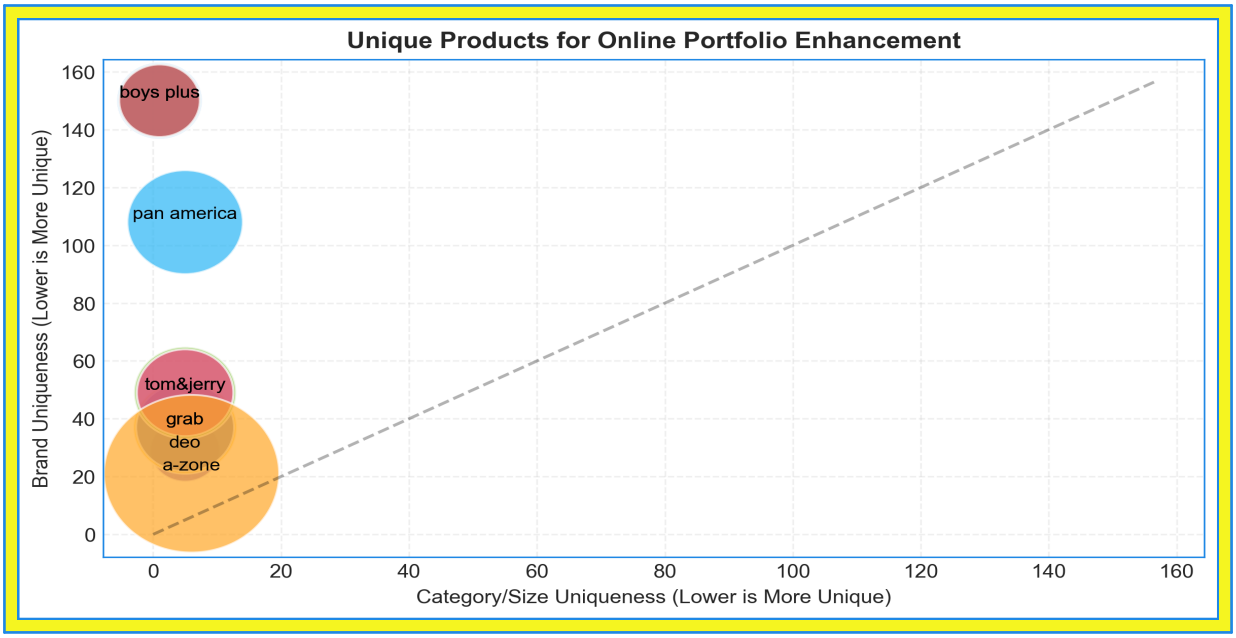
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

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# Business Intelligence Analysis: Enhancing Online Portfolio

## Executive Summary

The provided data reveals several opportunities to expand the online portfolio, particularly by focusing on understanding why certain products have low or no sales despite available stock. Addressing products with zero sales may uncover potential cataloging issues or low demand products.

## Key Insights

- **Zero Sales Quantities:** Multiple products have a **SalesQty of 0** despite having available stock (e.g., "boys plus" kurta pajama, "boys plus" shirts, "tom&jerry;" suit). This suggests possible issues with product visibility, pricing, or lack of demand for these specific combinations.
- **Low Purchase Quantities:** Several products have low PurchaseQty (1-2), suggesting a cautious approach to stocking these items. This could be a result of earlier poor sales or limited initial testing.
- **Inconsistent Category Naming**: The Category column has a lot of inconsistencies ("kurta pajama<", "shirt-half <", "suit-falalan<", "short-kurta-f<"). This can affect searchability and data analysis.
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Business Implications

• **Missed Revenue Opportunities:** Products with available stock but no sales directly translate to lost revenue. Investigating the root cause is critical.

• **Inefficient Inventory Management:** Low purchase quantities coupled with no sales tie up capital and warehouse space unnecessarily.

• **Poor Catalog Quality:** Inconsistent category names can hinder product discoverability and accurate inventory forecasting.

Actionable Recommendations

• **Prioritize Product Audits (Immediate):** For items with SalesQty of 0, conduct a thorough audit of online listings (descriptions, images, pricing) and compare against competitor offerings. Focus on brands with higher brand counts like "boys plus" which has **150** brands count to analyze product offerings.

• **Optimize Category Naming Conventions (Within 1 Month):** Standardize category names across the entire catalog to improve searchability and data accuracy. Implementing this will help filter data better and create better sales forecast.

• **Run A/B Testing (Within 2 Months):** Implement A/B testing on product listings with zero sales by changing the price and product descriptions to gauge interest. ```

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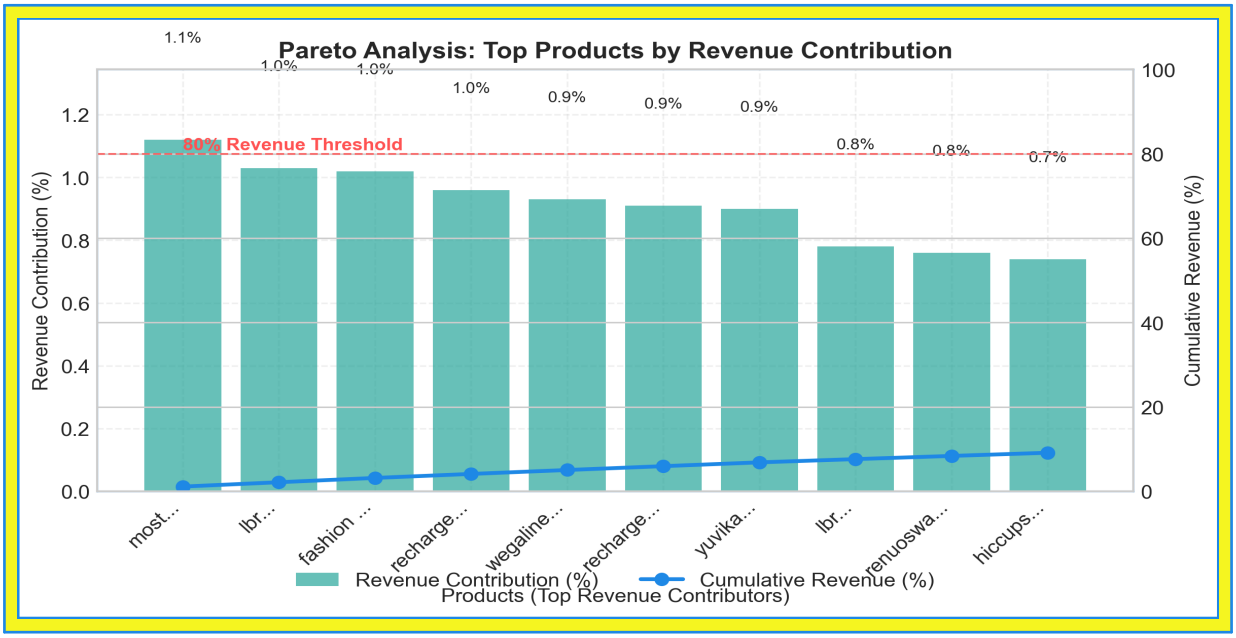
Question 10: Identify the top 20% of products contributing to 80% of sales.

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



Analysis & Recommendations

Business Intelligence Analysis: Top Product Sales

Executive Summary

This analysis examines product sales data to identify the top-performing products driving revenue. Our focus is on identifying the 20% of products contributing to 80% of total sales revenue to optimize inventory and sales strategies.

Key Insights

• **Revenue Concentration:** The provided sample shows a concentration of revenue with certain products. Even with only 10 rows, the top product alone contributes **1.12% of total revenue**, highlighting the potential for significant revenue concentration in the full dataset.

• **Price Variability:** MRP (Maximum Retail Price) varies greatly across products, from ■**900** to ■**3315**, despite relatively similar sales quantities in the sample. This suggests price sensitivity or differing perceived value.

• **Category Variety:** The limited data includes several categories (cardigans, jackets, coats, sweaters, blouses), indicating a diverse product mix. Understanding which categories

consistently perform well is crucial.

Business Implications

• **Inventory Optimization:** Identifying the top 20% of products will enable targeted inventory management, reducing holding costs and preventing stockouts for high-demand items.

• **Marketing Focus:** Concentrating marketing efforts on these top-performing products will likely yield the highest return on investment.

• **Pricing Strategy:** Analyzing price elasticity within popular categories can inform pricing strategies to maximize revenue.

Actionable Recommendations

• **Detailed Pareto Analysis (Immediate):** Conduct a full Pareto analysis on the complete dataset to identify the top 20% of products contributing to 80% of revenue. This is the critical first step.

• **Inventory Prioritization (Within 1 Week):** Based on the Pareto analysis, prioritize inventory management for the top 20% of products, ensuring adequate stock levels and minimizing delays.

• **Targeted Marketing Campaigns (Within 2 Weeks):** Develop targeted marketing campaigns focused on the top-performing products and categories identified in the analysis, leveraging insights into customer preferences and purchase patterns.

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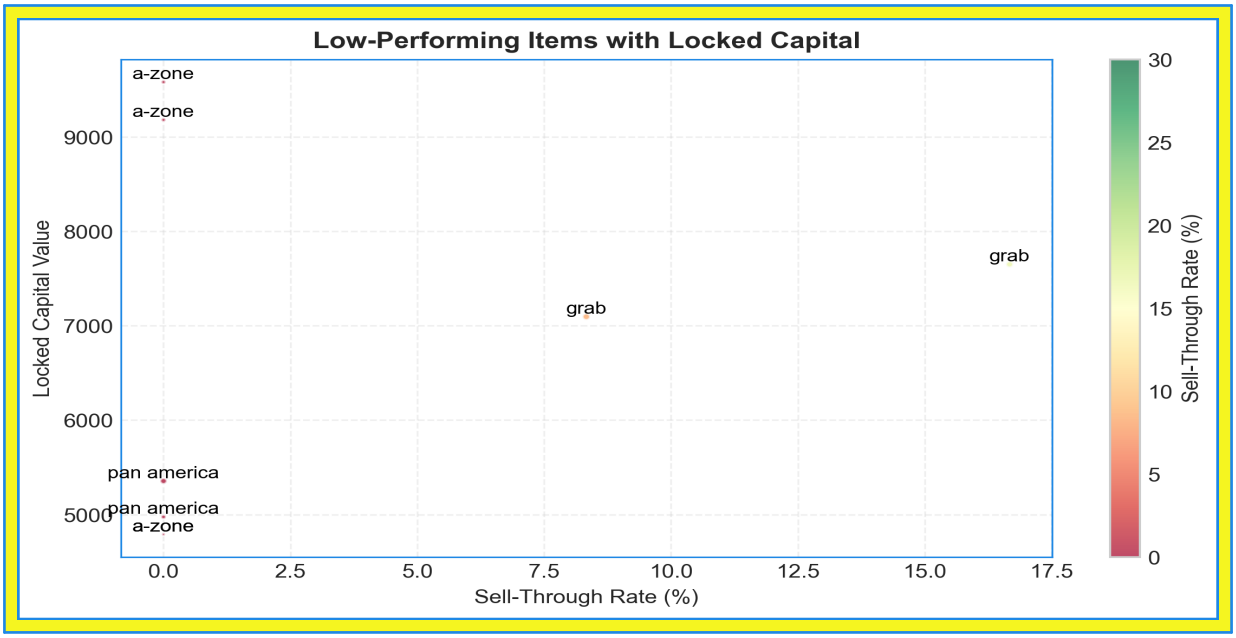
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

Business Intelligence Analysis: Inventory Reduction Strategies

Executive Summary

The data reveals significant excess inventory, especially for specific brands, categories, and colors, resulting in considerable locked capital. Many items have very low or zero sell-through rates, indicating poor performance.

Key Insights

- **Low Sell-Through Rates:** Several items exhibit a **0% sell-through rate**, including "a-zone" coat suits in multiple colors and sizes. This signifies no sales despite available inventory.
- **Excess Inventory Concentration:** Brands like "a-zone" and "pan america" have substantial excess inventory. For example, "grab suit-falalan<" in size 18, color unknown has an excess inventory of 10.
- **Locked Capital:** A considerable amount of capital is locked in slow-moving inventory. The data shows **9580.0** locked capital for "a-zone" coat suit <> wine size 1.

Business Implications

These findings indicate inefficiencies in inventory management and potential losses due to holding costs, obsolescence, and tied-up capital. The lack of sales for specific items impacts profitability and cash flow. There's an opportunity to free up capital and optimize inventory for faster-moving products.

Actionable Recommendations

• **Immediate Clearance Sales:** Implement deep discounts (e.g., 30-50% off) on items with 0% sell-through rates ("a-zone" coat suits). Run this sale within the next **2 weeks** to quickly reduce excess inventory and generate cash.

• **Refine Purchasing Strategies:** Analyze sales data from previous periods and adjust future purchase quantities for "a-zone" and "pan america" categories. Reduce purchase quantities by **20-30%** for low-performing items in the next ordering cycle.

• **Bundle and Promote:** Create promotional bundles pairing slow-moving items with popular products. This strategy increases the visibility and attractiveness of less desirable items. Implement within **1 month**.

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Executive Summary

Okay, here is the Executive Summary you requested, crafted from the provided business intelligence analyses, formatted to meet your specifications, and targeted for CEO/Board level consumption.

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

1. Executive Overview

Our current inventory performance presents a mixed picture. While some product categories demonstrate strong sales velocity, significant inefficiencies exist, creating risks to profitability and tying up valuable capital. Several key metrics reveal concerning trends: notably, many items exhibit **0% sell-through rates**, and some products are nearing sell-out. Preliminary data suggests that **cardigans are a popular category, especially from the brand "most"**, overall inventory health requires urgent attention to prevent missed revenue opportunities and minimize financial losses. Proactive action is needed.

2. Key Strategic Insights

- ■■ **Data Quality is Paramount:** Inconsistent data, especially in categories and color attributes, hinders accurate analysis and decision-making. Standardizing data collection is critical.
- ■ **Significant Inventory Inefficiencies:** High variances in sell-through rates indicate a mismatch between supply and demand, potentially leading to lost sales and increased holding costs. Some products at **200% sold** indicates negative inventory or data error.
- ■ **Untapped Online Potential:** Prioritizing products with high sell-through rates, like "deo" lower-jogger-hosiery (**66.67% sold**), for online promotion presents a clear opportunity to boost revenue and reduce inventory. Focus online promotions to include moderate and higher valued items.
- ■ **Root Cause Analysis Needed:** Many products have zero sales despite available stock. Investigating the reasons behind this – cataloging issues, demand problems, or pricing errors – is crucial for optimizing the product portfolio.
- ■ **Top 20/80 Focus Required:** Identify the top 20% of products driving 80% of revenue to optimize inventory and marketing strategies. Data suggest concentrating revenue with certain products, with one product contributing **1.12% of total revenue.**

3. Performance Assessment

- **Overperforming:** Initial data suggests that **cardigans are a popular category, especially from the brand "most"**, and the size "free" is frequently associated with higher sales. The "skivi<" category currently overperforms with a **250% sell-through rate**.
- **Underperforming:** Categories like "coat suit <>" and "shirt-half <" significantly underperform with **0% sell-through rates**, indicating a need for immediate action. Several specific products in the categories also have zero sales (e.g. "boys plus" kurta pajama).
- **Inventory Efficiency:** The high number of non-moving products and the discrepancies in sell-through rates indicate low inventory efficiency. Many products have a **0% sell-through rate** after being on the shelf for over **8.2 days**.
- **Sales Velocity:** Some popular products, such as "deo" lower-jogger-hosiery, demonstrate high sales velocity, warranting increased stock levels.

4. Strategic Recommendations

• **Data Standardization Initiative:** Launch an immediate initiative to standardize data collection processes, particularly for product categories and color attributes. *Expected Outcome: Improved data accuracy and analysis capability.*

• **Inventory Rebalancing:** Implement a program to rebalance inventory based on sales velocity, shifting resources from underperforming to overperforming categories. *Expected Outcome: Reduced holding costs and increased revenue.*

• **Online Sales Optimization:** Prioritize online sales efforts for products with high sell-through rates and those with higher stock values. *Expected Outcome: Increased online revenue and reduced overall inventory levels.*

• **Targeted Promotions:** Launch targeted promotional campaigns, including discounts and bundling strategies, to clear excess inventory of slow-moving items, particularly "a-zone" coat suits. *Expected Outcome: Reduced inventory levels and increased cash flow.*

• **Supplier Feedback Loop:** Generate reports on rejected goods and returns for vendor feedback.

5. Immediate Action Items (Next 7-14 Days)

• ■ **Investigate Zero-Sale Products:** Product managers to conduct audits of all online listings with a SalesQty of 0 (brands like "boys plus" kurta pajama, "boys plus" shirts, "tom&jerry;" suit), focusing on catalog quality, pricing, and competitive offerings. *Owner: VP of Merchandising.*

• ■ **Prioritize Replenishment:** Expedite purchase orders for items nearing sell-out (e.g., "deo" lower-jogger-hosiery) to prevent stockouts and lost sales. *Owner: Supply Chain Manager.*

• ■■ **Address Data Discrepancies:** Data Analytics team to analyze and correct the "boys plus" data discrepancy and all instances of zero sales and standardize category naming conventions. *Owner: Data Analytics Team.*