InventorySync

Business Intelligence Inventory Report

Generated on June 28, 2025

InventorySync Business Intelligence

Prepared for: Executive Management

Generated by: Tanman

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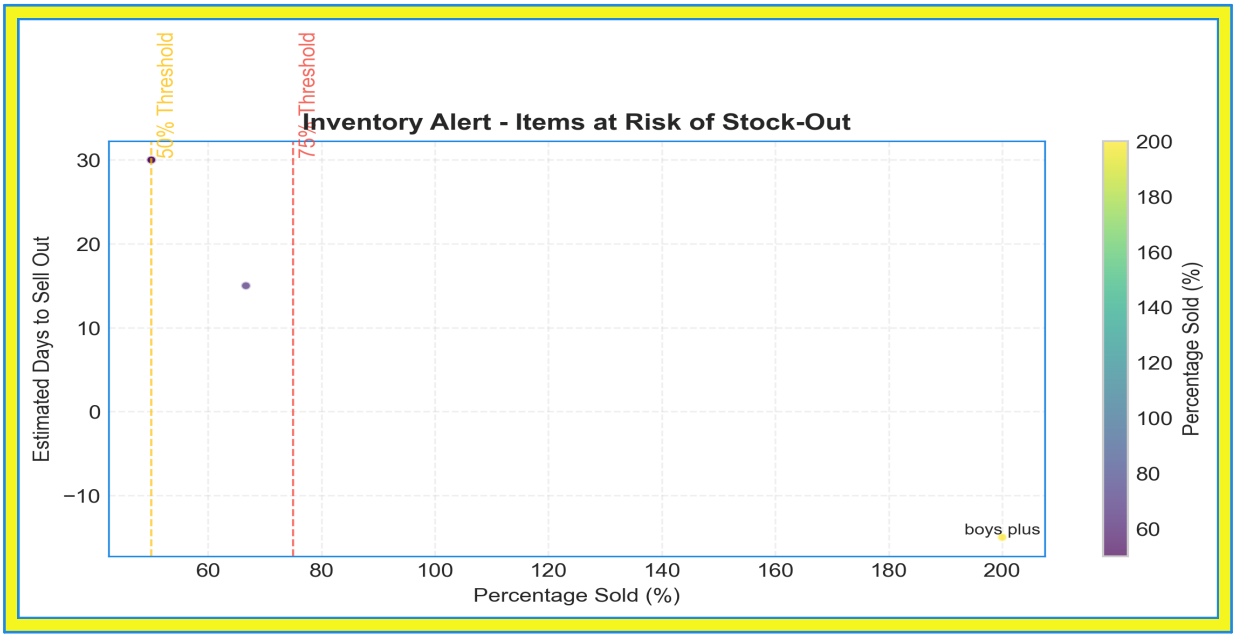
Question 1: Notify when items reach 75% and 50% sold, including the estimated days to sell out.

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



Analysis & Recommendations

Business Intelligence Analysis: Inventory Sold Percentage

Executive Summary

The retail data indicates some items are approaching critical stock levels. We need to monitor and potentially replenish items reaching 75% and 50% sold to avoid stockouts.

Key Insights

- **percent_sold ranges widely**: This metric exhibits substantial variance, from 50% to 200%, indicating varied sales performance across different items. A value of 200% for "boys plus" suggests either negative inventory or incorrect data.
- **est_days_to_sellout highly variable:** Ranging from -15 to 30 days, this demonstrates differing demand rates. A negative value suggests existing backorders or data inaccuracy.
- **Category and Brand variation:** The sampled data shows a range of brands ("boys plus", "deo", "grab", "pan america") and categories ("kurta pajama", "lower-jogger-hosiery", "suit-falalan", "shirt-full") with varying sales performance.

Business Implications

• **Potential Stockouts:** Items with lower est_days_to_sellout are at risk of stockouts, leading to lost sales and customer dissatisfaction.

• **Data Quality Concerns:** The 200% percent_sold and negative est_days_to_sellout require investigation, which can skew insights.

• **Inventory Management:** Effective monitoring of these metrics can improve inventory management and optimize stock levels.

Actionable Recommendations

• **Implement Automated Alerts:** (Within 1 week) Set up alerts to notify the inventory team when percent_sold reaches 75% and 50%. Prioritize items with the lowest est_days_to_sellout.

• **Investigate and Correct Data:** (Within 2 weeks) Audit data entry processes and reconcile inventory records to correct errors, particularly for items with percent_sold above 100% or negative est_days_to_sellout. The example for brand "boys plus" should be clarified.

• **Analyze Category Trends:** (Ongoing) Perform a deeper analysis of percent_sold and est_days_to_sellout by category and brand to identify high-demand items and inform future purchasing decisions.

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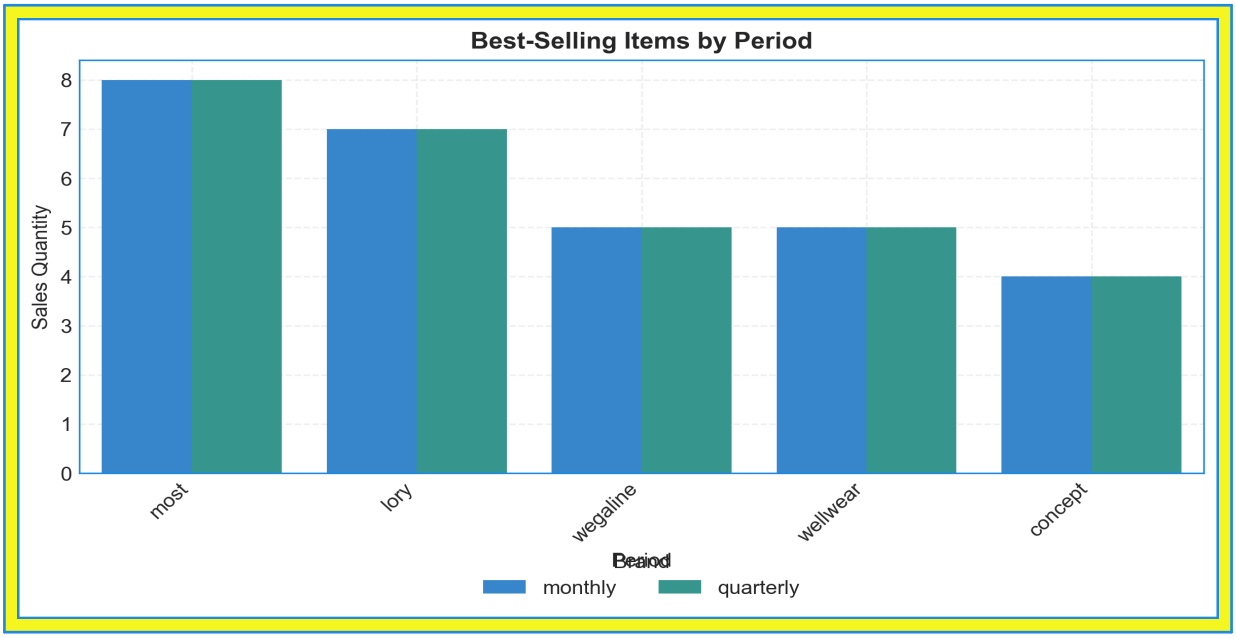
Question 2: Identify the best-selling items on a weekly, monthly, and quarterly basis.

Weekly Sales	Monthly Sales	Top Seller
0	49	N/A



Analysis & Recommendations

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# Business Intelligence Analysis: Best-Selling Items

## Executive Summary

The initial data suggests that **cardigans are a popular item**, particularly from the brand "most." Analyzing sales on a weekly, monthly, and quarterly basis will provide deeper insights into specific best-selling items and trends.

## Key Insights

- **Category Popularity:** The provided data shows "cardigan" as a frequently appearing category, suggesting strong demand.
- **Brand Recognition:** The brand "most" appears multiple times, hinting at potential brand loyalty or effective marketing.
- **Limited Data:** The data only provides monthly figures, and further analysis will require weekly and quarterly breakdowns. The data appears to need cleaning, especially in the Category field, which contains extraneous characters.
```

Business Implications

• **Inventory Optimization:** Focusing on popular categories like cardigans could lead to optimized inventory levels, reducing stockouts and maximizing sales.

• **Marketing Strategy:** Leveraging the brand recognition of "most" through targeted marketing campaigns may further boost sales.

• **Data Quality:** Immediate action needs to be taken to ensure data accuracy to avoid making inaccurate or suboptimal decisions.

Actionable Recommendations

• **Data Consolidation and Cleaning:** Consolidate all sales data (weekly, monthly, quarterly) and clean Category data by removing unwanted characters. *Timeline: Immediate*.

• **Inventory Deep Dive:** Conduct a comprehensive analysis of best-selling items within the cardigan category to identify specific product attributes (size, color) that drive demand. *Timeline: Within 2 weeks*.

• **Brand Promotion:** Investigate customer perception of the "most" brand and leverage these insights to develop targeted promotional campaigns. *Timeline: Within 1 month*. ```

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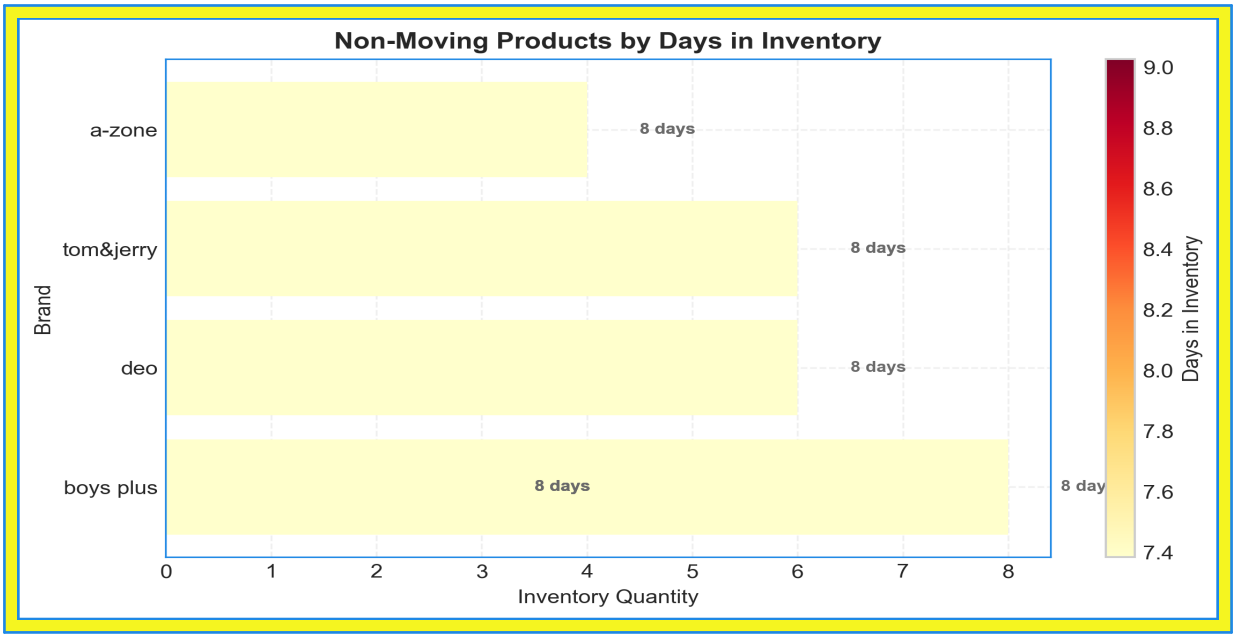
Question 3: Track non-moving products and their aging quantities.



Analysis & Recommendations

Business Intelligence Analysis: Non-Moving Products

Executive Summary

The provided data reveals a significant number of products with zero sales (**SalesQty = 0**) after being in inventory for over 8 days. This indicates potential issues with product selection, pricing, or marketing, leading to tied-up capital and storage costs.

Key Insights

- **Zero Sales:** All products in the sample have a **0% sold** rate and **SalesQty of 0**, meaning none have been sold during their time in inventory.
- **Inventory Age:** All items have been in inventory for approximately **8.2 days**. While this may not seem long, zero sales in that timeframe warrants investigation.
- **Category Variety:** The non-moving products span multiple categories (e.g., "kurta pajama," "lower-jogger-hosiery," "suit-falalan," "coat suit"), suggesting the problem isn't isolated to one product line.

Business Implications

- **Lost Revenue:** Unsold inventory represents unrealized revenue and decreased profitability.
- **Increased Costs:** Holding unsold inventory incurs storage costs and risks product obsolescence.

• **Ineffective Inventory Management:** The data suggests potential issues with demand forecasting or product lifecycle management.

Actionable Recommendations

• **Investigate Low-Performing Products (Immediate):** Analyze the reasons behind zero sales for each product category. This includes assessing pricing, marketing efforts, and product appeal.

• **Implement Targeted Promotions (Within 1 Week):** Offer discounts or run targeted promotions for slow-moving items to stimulate sales and clear inventory. This could include bundling offers.

• **Review Procurement Strategy (Within 2 Weeks):** Re-evaluate demand forecasting and procurement practices to avoid overstocking items that are not selling. Consider reducing order quantities for these product types.

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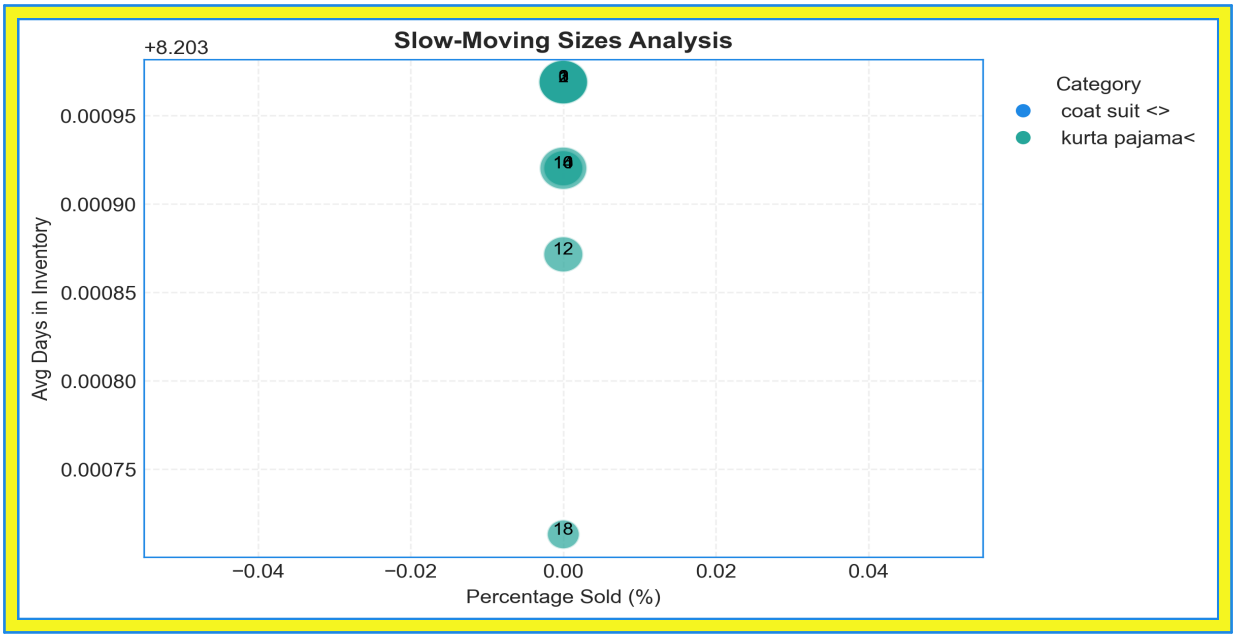
Question 4: Identify slow-moving sizes within specific categories.



Analysis & Recommendations

Business Intelligence Analysis: Slow-Moving Sizes

Executive Summary

The data reveals that a significant portion of inventory in the provided sample is slow-moving, with **zero percent sold** across all sizes for both "coat suit" and "kurta pajama" categories. The **average days in inventory** is consistently around **8.2 days** despite no sales, indicating a potential issue with demand or inventory management.

Key Insights

- **Zero Sales:** The most striking observation is that total_sold is zero for all listed sizes and categories, meaning no items were sold during the period represented by the data.
- **High Inventory Count:** size_count and total_purchased figures show that a substantial number of items are held in inventory despite the lack of sales. For example, "kurta pajama" size "1" has a size_count of 11 with total_purchased being 13.
- **Consistent Inventory Days:** The avg_days_in_inventory is relatively consistent across all categories and sizes at roughly 8.2 days, suggesting that inventory turnover is uniformly low.

Business Implications

These findings suggest a critical issue: inventory is accumulating without generating sales. This ties up capital, incurs storage costs, and increases the risk of obsolescence. The lack of sales may indicate inaccurate demand forecasting, ineffective marketing, or pricing issues.

Actionable Recommendations

• **Conduct a Demand Assessment (Immediate):** Analyze sales data from previous periods to understand historical demand for each size and category. Investigate potential market shifts or seasonal trends affecting sales.

• **Implement Targeted Promotions (Within 1 Week):** Launch promotional campaigns specifically targeting slow-moving sizes. Consider offering discounts or bundled deals to stimulate demand.

• **Refine Inventory Management (Ongoing):** Adjust purchasing strategies to better align with actual sales. Reduce order quantities for sizes with low sales and consider discontinuing sizes with consistently poor performance.

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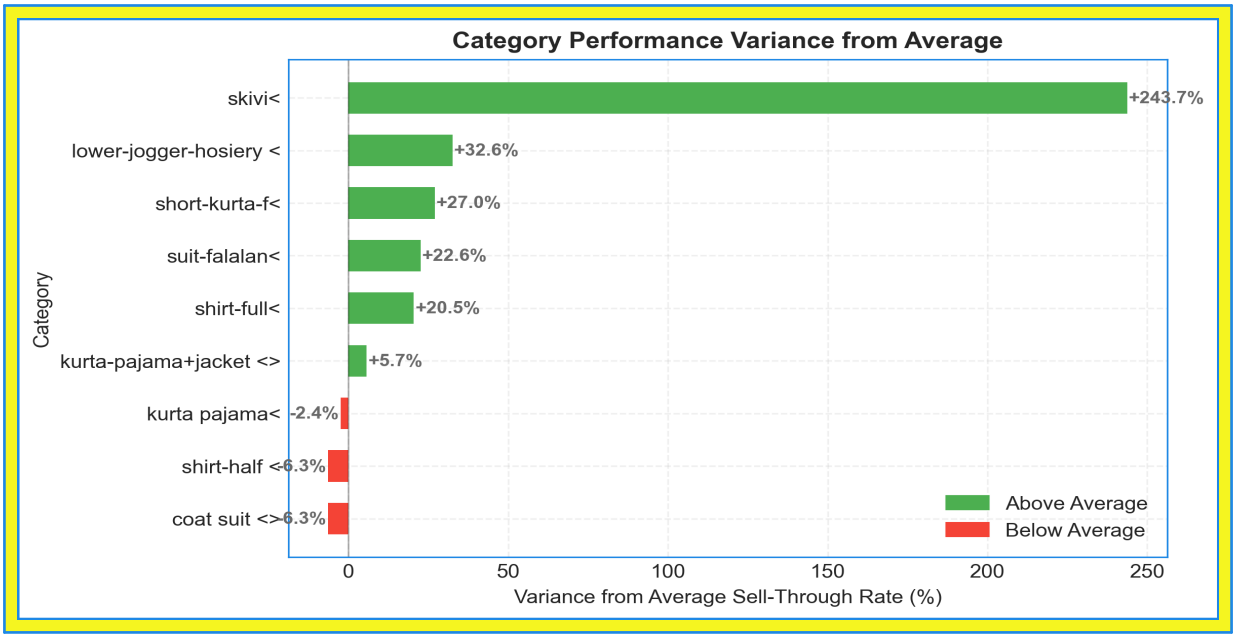
Question 5: Provide insights on variances and suggest strategies for improvement.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The data reveals significant variances in sell-through rates across different clothing categories, indicating inventory management inefficiencies. Some categories are severely underperforming, while others are significantly exceeding expectations, potentially leading to lost revenue and excess inventory costs.

Key Insights

- **Sell-Through Rate Variance:** A wide range exists, from **0%** for "coat suit <>" and "shirt-half <" to 25**0%** for "skivi<". This huge disparity indicates a mismatch between demand and supply.
- **Negative Variance:** Categories like "coat suit <>" and "shirt-half <" have a **-6.3** variance from average, suggesting overstocking or lack of demand. Conversely, "skivi<" shows a large positive variance (**243.7**), potentially indicating understocking.
- **Brand Count and Performance:** High brand counts don't necessarily translate to high sell-through. For example, "shirt-full<" has 58 brands but a sell-through rate of **26.79%**.

Business Implications

- **Lost Sales:** Categories with low sell-through rates are tying up capital and warehouse space.
- **Inventory Imbalance:** Overstocking and understocking lead to markdowns, lost sales, and dissatisfied customers.

• **Inefficient Purchasing:** Current purchasing strategies may not accurately reflect consumer demand across different product categories.

Actionable Recommendations

• **Inventory Optimization (Immediate):** Reduce purchasing of "coat suit <>" and "shirt-half <" by **at least 50%** for the next purchasing cycle. Simultaneously, increase the stock of "skivi<" to avoid stockouts.

• **Demand Forecasting Refinement (Within 1 Month):** Analyze sales data from similar retailers and conduct market research to improve demand forecasting, paying close attention to the categories with high variance from average. Use data to optimize the quantity purchased from each brand.

• **Category Performance Review (Within 2 Weeks):** Conduct a deeper dive into each category to understand factors influencing sell-through rates (e.g., pricing, marketing, seasonality). The categories with the greatest variance, both positive and negative, should be prioritized.

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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 limited data suggests that prioritizing online sales based solely on the provided metrics favors products with higher sell-through rates and manageable stock levels. Brands like "deo" demonstrate strong potential, while others may require a different online strategy.

Key Insights

- **Sell-through Rate:** "deo" lower-jogger-hosiery has a **66.67%** sell-through rate, indicating high demand.
- **Stock Value:** "grab" suit-falalan has a high stock value of **2385.0**, despite only a 50% sell-through rate, suggesting potential overstocking.
- **Brand Performance:** While limited data, the variance in sell-through rates across brands implies different online performance potentials.

Business Implications

These findings suggest that focusing on high sell-through rate products can improve online revenue and optimize inventory management. Products with high stock value and low sell-through may tie up capital and require price adjustments or targeted promotions. Ignoring sell-through rate can lead to overstocking issues.

Actionable Recommendations

• **Prioritize "deo" lower-jogger-hosiery for online sales:** Increase online visibility and availability of this product to capitalize on its high demand. *(Immediate Action, High Impact)*

• **Analyze "grab" suit-falalan sales:** Investigate the reasons behind the lower sell-through rate despite the high stock value. Consider targeted promotions or revised pricing strategies to reduce stock levels. *(Within 1 Month, Medium Impact)*

• **Expand Data Collection:** Gather more data on a wider range of products to get a holistic view and improve recommendation accuracy. Track online vs in-store sell through rates. *(Ongoing, High Impact)*

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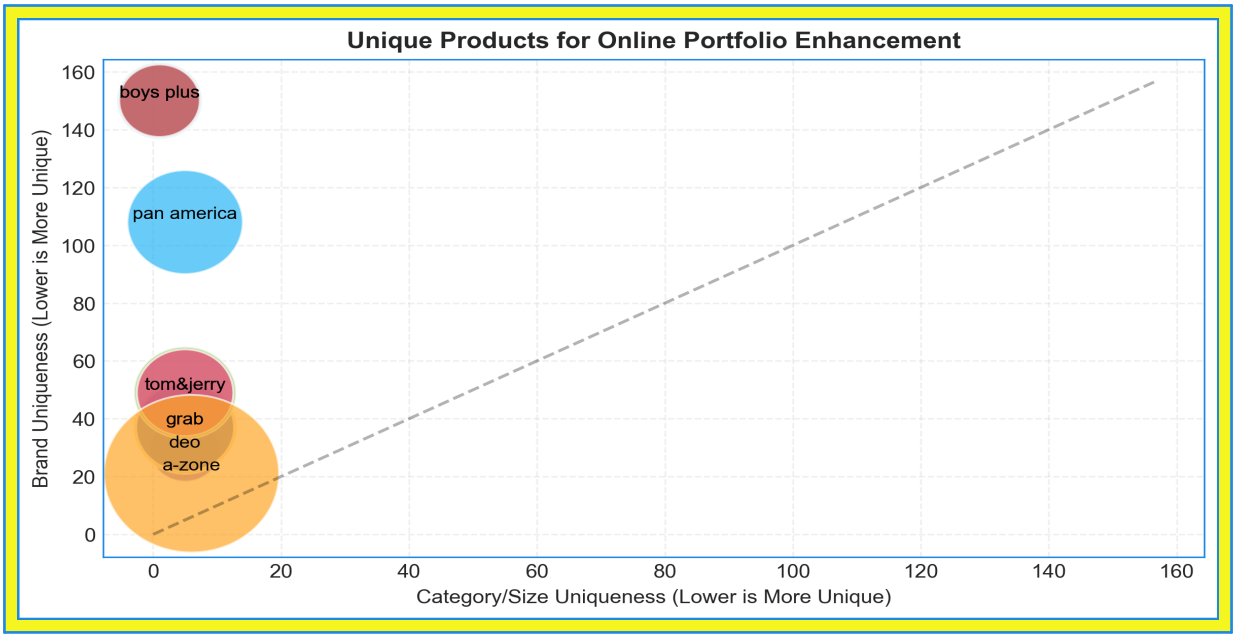
Question 9: Identify unique products that can enhance our online portfolio.



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

The provided data sample reveals some products with high purchase quantities but zero sales, indicating potential issues with online visibility or product appeal. Several categories have multiple sizes with available stock but no sales, suggesting a need for targeted marketing or price adjustments.

Key Insights

- **Zero Sales, Positive Stock:** Several items across brands like "boys plus" (kurta pajama, shirt-half) show **high available stock (up to 8) yet zero sales**. This suggests a disconnect between purchased inventory and customer demand or poor online discoverability.
- **Brand Count Variation:** The brand_count field shows varying brand representation. "boys plus" has a high count of 150, while others like "deo" have 29. This highlights potential brand performance differences and opportunities for cross-promotion.
- **Size-Related Sales Gaps:** Multiple sizes within the "suit-falalan" category have available stock with little to no sales. Size "26" for "grab" has **2 sales with 4 available**, while "tom&jerry;" has **0 sales and 6 available** in the same size. This may indicate pricing issues or varying brand perceptions for the same product type.

Business Implications

The lack of sales despite available stock presents a significant risk of inventory obsolescence and tied-up capital. Brand count variation suggests uneven brand performance within the online portfolio. Size and category performance discrepancies may highlight unmet demand or ineffective product positioning.

Actionable Recommendations

- **Prioritize Marketing for Stagnant Inventory (Immediate):** Launch targeted marketing campaigns focusing on products with zero sales and positive stock. This could involve promotions, improved product descriptions, or enhanced SEO. Focus on items like "boys plus" kurta pajama, and shirt-half.
- **Analyze Pricing Strategy (Within 2 Weeks):** Review the pricing strategy for the "suit-falalan" category, comparing different brands and sizes. Adjust prices to improve competitiveness and potentially drive sales for brands like "tom&jerry;" with no sales.
- **Inventory Optimization (Ongoing):** Implement a system to proactively monitor sales data and flag slow-moving inventory. This will help optimize future purchase quantities and reduce the risk of dead stock.

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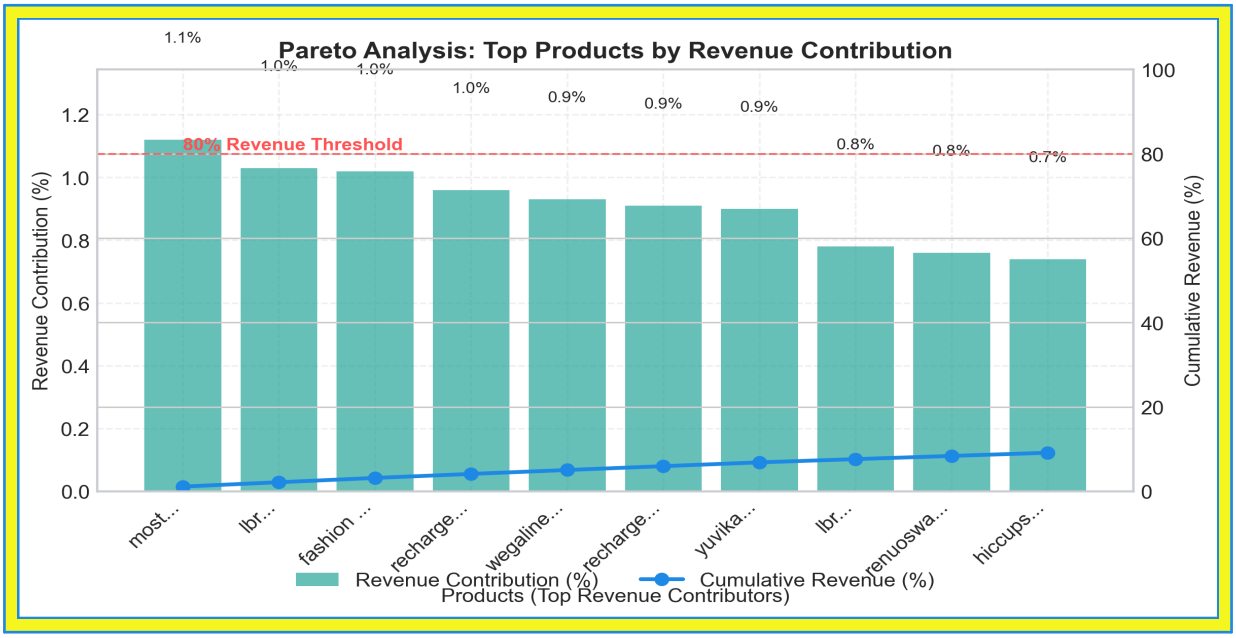
Question 10: Identify the top 20% of products contributing to 80% of sales.

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



Analysis & Recommendations

Business Intelligence Analysis

Executive Summary

This data sample highlights the revenue contribution of various products, revealing that a small percentage of products account for a significant portion of sales. The top products in this sample quickly contribute a substantial portion of the total cumulative percentage of revenue.

Key Insights

- **Revenue Concentration:** Products with higher MRP and SalesQty (like the "most" cardigan at **1.12%** of total revenue) contribute significantly. This suggests some products are higher-value and faster-moving.
- **Category Performance:** Cardigans appear frequently in the top revenue generators within the sample, indicating strong demand for this category.
- **Cumulative Revenue Growth:** The cumulative percentage increases rapidly, reaching **9.14%** with just 10 products, which hints at a long-tail distribution where the vast majority of products contribute very little.

Business Implications

• **Inventory Optimization:** Focusing on best-selling product categories and brands (like "most" cardigans) can optimize inventory levels.

• **Pricing Strategy:** Higher MRP products drive substantial revenue. Testing pricing elasticity on these items could increase profitability.

• **Potential Risks:** Over-reliance on a few key items exposes the business to supply chain vulnerabilities if those products become unavailable.

Actionable Recommendations

• **Prioritize Inventory:** Focus on maintaining adequate stock of top-performing products like cardigans and items from the "most" brand. *Timeframe: Immediate.*

• **Analyze Full Dataset:** Conduct a complete analysis of the entire product catalog to accurately identify the top 20% of products and confirm they generate 80% of sales. *Timeframe: Within 1 week.*

• **Develop Diversification Strategy:** Explore expanding the product range in high-demand categories (like cardigans) to mitigate risk. *Timeframe: Within 1 month.*

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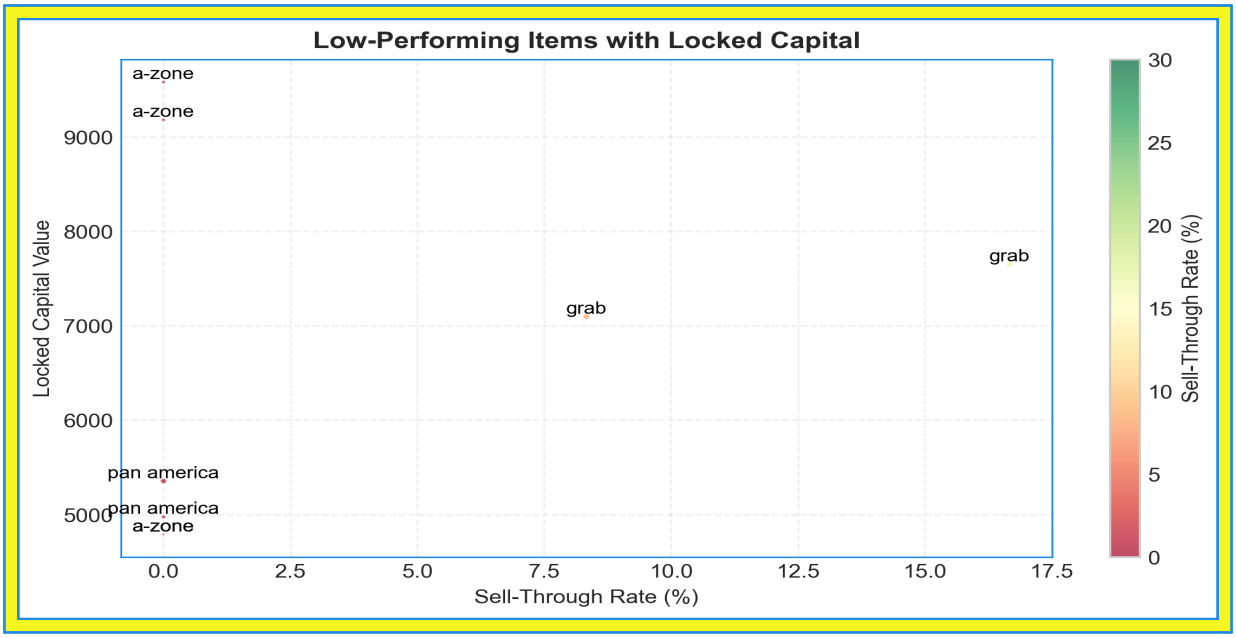
Question 11: Suggest strategies to reduce the inventory of low-performing items.



Analysis & Recommendations

Business Intelligence Analysis: Low-Performing Inventory

Executive Summary

The data reveals significant excess inventory across various brands and categories, particularly in "coat suit" and "shirt-full" items, leading to substantial locked capital. A high number of items have a **0.0% sell-through rate**, indicating severe performance issues.

Key Insights

- **High Excess Inventory:** Several items exhibit substantial excess inventory. For example, "grab" suit sizes 18 and 20 have excess inventory of 10 and 11 units respectively. This contributes to significant **locked capital**; for instance, "a-zone" coat suits contribute to high **locked capital** due to zero sales.
- **Low Sell-Through Rates:** A significant number of products have extremely low sell-through rates. "A-Zone" coat suits have a **0% sell-through rate**.
- **Category Performance Disparity:** "Coat suit" and "shirt-full" categories show consistently low sales, especially in specific colors and sizes. "A-Zone" brand coat suits and "pan america" shirts highlight this issue.

Business Implications

- **Capital Tie-Up:** Large amounts of capital are tied up in slow-moving or non-selling inventory, reducing the business's financial flexibility.
- **Storage Costs:** Excess inventory leads to increased storage costs and potential obsolescence, further impacting profitability.

• **Missed Opportunities:** Locked capital could be reinvested in faster-moving products or marketing initiatives.

Actionable Recommendations

• **Immediate Discounting/Promotions (Within 1 Week):** Implement aggressive discounting strategies (e.g., flash sales, BOGO offers) on items with **0% sell-through rates**, particularly "a-zone" coat suits, to clear excess stock.

• **Re-evaluate Purchasing Strategy (Within 1 Month):** Analyze sales trends to refine future purchasing decisions. Reduce order quantities for slow-moving sizes, colors, and categories like "coat suit". Explore alternative products or suppliers.

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Executive Summary

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

1. Executive Overview

Our preliminary inventory analysis reveals a mixed performance landscape. While there are clear revenue opportunities in specific product categories, significant risks exist regarding slow-moving inventory, data quality, and potential stockouts. Several product lines exhibit low sell-through rates and are tying up capital, while others are experiencing high demand, potentially leading to lost sales due to understocking. Action is required to address these imbalances, optimize inventory management, and improve data accuracy for better decision-making. ■

2. Key Strategic Insights

- **Demand Imbalance ■■:** Variances in sell-through rates, ranging from **0%** to 25**0%**, indicate a severe mismatch between demand and supply across different categories.
- **Data Integrity Risk ■:** Inaccurate data (e.g., **200%** sold, negative days to sellout) compromises the reliability of insights and necessitates immediate data cleansing.
- **Lost Revenue Opportunity ■:** High-performing categories like "cardigans" and brands like "deo" present immediate revenue growth opportunities if properly prioritized and stocked.
- **Capital Tie-Up:** Significant capital is locked in low-performing items, notably "coat suit" and "shirt-full," hindering reinvestment in faster-moving products.

3. Performance Assessment

The analysis highlights stark contrasts in category performance. "Coat suit" and "shirt-half" are significantly underperforming with **0%** sell-through in samples, while "skivi" shows exceptional performance (**250%**). "Cardigan" and items from "most" contribute heavily to sales. Inventory efficiency is hindered by an average of **8.2 days** in inventory for non-moving products. Sales velocity varies significantly, with some items selling out quickly and others not at all. ■

4. Strategic Recommendations

- **Optimize Inventory Levels:** Reduce purchasing of underperforming categories (e.g., "coat suit") by **at least 50%** in the next cycle and increase inventory of high-demand items (e.g., "skivi," "deo") to prevent stockouts. *Expected Outcome: Improved inventory turnover and reduced storage costs.*
- **Enhance Demand Forecasting:** Refine demand forecasting by analyzing historical sales data, market research, and competitor performance, focusing on categories with high variance. *Expected Outcome: More accurate purchasing decisions and reduced inventory imbalances.*
- **Improve Data Quality:** Conduct a thorough audit of data entry processes and reconcile inventory records to correct errors, particularly for items with illogical sell-through rates. *Expected Outcome: Increased accuracy of reports and improved decision-making.*
- **Implement Targeted Promotions:** Launch promotional campaigns focused on slow-moving items to stimulate sales and clear excess inventory. *Expected Outcome: Reduced inventory holding costs and increased cash flow.*

5. Immediate Action Items

• **Data Validation:** Inventory team to investigate and correct data errors for items with >100% sold or negative days to sellout. *Timeline: Within 7 days.*

• **Alert System Activation:** IT department to set up automated alerts for items reaching 75% and 50% sold, prioritizing those with low "est_days_to_sellout." *Timeline: Within 7 days.*

• **"Deo" Prioritization:** Merchandising team to ensure adequate online visibility and availability of "deo" lower-jogger-hosiery. *Timeline: Within 14 days.* ■