DV Project

Grains And Their Insights

1. Grain: Profit Heatmap: SKU × Region × Time × Category
   Insight: Identifies which SKUs generate the most profit in each region over specific time periods and within each category, highlighting top-performing products and geographic trends.

2. Grain: Customer Segmentation Matrix: Channel × Loyalty × Order Value × Frequency
   Insight: Clusters customers by sales channel and loyalty status to reveal high-value, frequent purchasers, enabling targeted marketing and retention strategies.

3. Grain: Inventory Movement Funnel: Supplier → Item → Branch → Inventory Status
   Insight: Tracks the flow of products from suppliers through branches to inventory status (in-stock, low, overstocked), exposing bottlenecks and potential stock-out or overstock risks.

4. Grain: Return Analysis Breakdown: Product × Return Reason × Quantity × Category
   Insight: Shows which products and categories have the highest return quantities and the primary reasons, pinpointing quality issues or mismatches in customer expectations.

5. Grain: Purchase Order Efficiency: Supplier × Product × Lead Time × Order Quantity
   Insight: Evaluates supplier performance by measuring average lead times and order volumes per product, identifying slow suppliers or unpredictable delivery patterns.

6. Grain: Country-Category-Subcategory-wise Gross Profit
   Insight: Compares gross profit across countries, broken down by category and subcategory, revealing geographic strengths and underperforming product lines.

7. Grain: Monthly Sales by Branch, Product, and Payment Method of the First Half of 2023
   Insight: Tracks month-to-month sales performance per branch and product for H1 2023, segmented by payment method, to identify seasonal spikes and preferred payment channels.

8. Grain: Supplier vs Product vs Region-wise Purchase Quantity & Cost
   Insight: Highlights which suppliers supply the largest quantities of each product to different regions and at what cost, uncovering cost-efficient sourcing opportunities or regional purchasing imbalances.

9. Grain: Category-SubCategory-Loyalty-GrossProfit
   Insight: Measures gross profit by category and subcategory for loyal versus non-loyal customers, identifying which product segments drive loyalty profitability.

10. Grain: Category-SubCategory-Channel-GrossProfit
    Insight: Compares gross profit for each category/subcategory across sales channels (online vs. in-store), revealing channel-specific strengths or weaknesses in product profitability.

11. Grain: Branch-Product-InventoryQuantity & Sales
    Insight: Correlates current inventory levels with actual sales volume per product at each branch, flagging branches with low stock despite high demand or overstock situations.

12. Grain: Supplier-Category-Product-InventoryStock
    Insight: Shows how many units each supplier has in stock for each product and category, helping identify potential supply chain issues or overstocked suppliers.

13. Grain: Category-SubCategory-Frequency & AvgSpend
    Insight: Reveals purchase frequency and average spend per customer for each category and subcategory, highlighting high-traffic product lines and spending patterns.

14. Grain: Category-SubCategory-Loyalty-ReturnStatus-Quantity
    Insight: Breaks down return quantities by category, subcategory, and customer loyalty status to see whether loyal customers return certain products more or less often.

15. Grain: Loyalty-Customer-GrossProfit (Top 10)
    Insight: Lists the top 10 individual customers (by gross profit) who are loyalty members, identifying the highest-value members for VIP programs or personalized outreach.

16. Grain: SubCategory-Monthly-Return % (Year 2023)
    Insight: Tracks the monthly percentage of returns for each subcategory throughout 2023, pinpointing seasonal or product-specific return spikes.

17. Grain: Branch-Category-SubCategory-Return (Due: Defective)
    Insight: Highlights the count of returns marked "Defective" by branch and product category/subcategory, revealing quality issues localized to certain locations or lines.

18. Grain: Country-Category-SubCategory-Discount Effect on Sales (First Half of 2023)
    Insight: Shows how varying discount levels in H1 2023 impacted sales volume for each country, category, and subcategory, identifying which segments are most price-sensitive.

19. Grain: Category-SubCategory-Product-Branchwise-Average Margin %
    Insight: Compares average profit margin percentages for each product within its category/subcategory across branches, uncovering which locations sell most profitably.

20. Grain: Country-Return Rate (2022, 2023)
    Insight: Compares overall return rates by country between 2022 and 2023, identifying markets where return trends are improving or deteriorating.

21. Grain: Category-SubCategory-Product-GrossProfit
    Insight: Ranks individual products by gross profit within each category and subcategory, spotlighting the highest-margin items.

22. Grain: Country-Category-SubCategory (GrossProfit, Revenue, Discount, CostPrice)
    Insight: Presents a multi-metric comparison (gross profit, revenue, discount levels, cost prices) for each country by category and subcategory to reveal profitability drivers.

23. Grain: Country (GrossProfit, Return %, Total Sales)
    Insight: Summarizes overall performance by country, showing gross profit, return percentage, and total sales to compare market health at a glance.

24. Grain: Category-SubCategory (Total, Return Quantity, Items, Profit, Total Values)
     Insight: Aggregates key metrics (total sales, return qty, units sold, profit, total value) by category/subcategory to provide a comprehensive segment overview.
25. Grain: Profit According to Various Discount Range
     Insight: Examines how different discount bands (e.g., 0–10%, 10–20%, etc.) affect total profit and sales volume, identifying the optimal discount levels for profitability.

Calculated Fields Used

1. Average Order Value: SUM([SalesAmount]) / COUNTD([SalesOrderID])
2. AvgSpend: SUM([SalesAmount]) / COUNTD([CustomerID])
3. CustomerCount: COUNTD([CustomerID])
4. Discount %: [Discount Amount] / ([Discount Amount] + [SalesAmount])
5. Frequency: COUNTD([SalesOrderID])
6. Gross Profit: SUM([SalesAmount]) - SUM([CostPrice] * [Quantity])
7. Items: SUM([Quantity])
8. Margin %: (SUM([SalesAmount]) - SUM([CostPrice] * [Quantity])) / SUM([SalesAmount]) * 100
9. Order Count: COUNTD([SalesOrderID])
10. Profit: SUM([SalesAmount]) - SUM([CostPrice] * [Quantity])
11. Purchase Frequency: COUNTD([PurchaseOrderID])
12. Return %: SUM([ReturnQuantity]) / SUM([Quantity]) * 100
13. Return Qty: SUM([ReturnQuantity])
14. ReturnRate: SUM([ReturnQuantity]) / SUM([Quantity])
15. SalesPerformance: SUM([Quantity])
16. Total Value: SUM([SalesAmount])