Project Overview

This Power BI dashboard provides detailed insights into key sales and financial metrics, including Gross Profit (GP%), Year-to-Date (YTD) Sales, Prior Year-to-Date (PYTD) Sales, and Cost of Goods Sold (COGS). By leveraging these visualizations, businesses can analyze trends by product, account, and year, enabling data-driven decision-making.

Data Sources

The dashboard is built using structured datasets with the following key fields:

- **Product_id**: Unique identifier for products
- **Account_id**: Unique identifier for accounts
- **Sales_USD**: Total sales in USD
- **COGS_USD**: Cost of Goods Sold in USD
- **Price_USD**: Product price in USD
- **Quantity**: Number of units sold
- **GP%**: Gross Profit percentage
- **Latitude & Longitude**: Geographic data for location-based insights
- **Street_number, Master_id, First Postal_code**: Additional customer or location details
- **Year**: Temporal dimension for trend analysis
- **Inpast**: Boolean field indicating historical data

Dashboard Components

1. GP%, YTD Sales, PYTD Quantity, Sum of Sales & COGS by Product ID

- A combination of line and area charts visualizing financial indicators across different products.
- Helps identify sales performance trends and COGS fluctuations per product.

2. Minimum COGS (1.53K)

- Displays the minimum Cost of Goods Sold across the dataset.
- Useful for cost analysis and optimization.

3. Total COGS (18.11M)

- Represents the total Cost of Goods Sold over a defined period.
- Includes breakdowns by year and "Inpast" status.

4. PYTD Sales vs. YTD Sales by Account ID

- A line chart comparing Prior Year-to-Date (PYTD) Sales with Year-to-Date (YTD) Sales per account.
- Useful for evaluating customer retention and sales growth.

5. GP% & Sales Breakdown (Pie Chart)

- Illustrates the proportional contribution of GP%, PYTD Sales, YTD Sales, and other financial metrics.
- Aids in visualizing revenue distribution.

6. PYTD Gross Profit and Sales Comparison by Year

- A bar chart comparing PYTD Gross Profit and related metrics across different years.
- Highlights changes in sales and profitability trends over time.

Key Insights

- **Product Sales Performance**: Identifies best-selling products and their profitability.
- **Customer Trends**: Analyzes customer spending behavior over time.
- **Yearly Comparisons**: Tracks business growth and profitability across different years.
- **Cost Analysis**: Provides insights into cost variations and areas for optimization.

Recommendations

- **Refine Data Filters**: Introduce interactive filters for better drill-down analysis.
- **Add Forecasting Models**: Implement predictive analytics for future sales trends.
- **Enhance Geospatial Analysis**: Utilize latitude and longitude data for improved geographic insights.
- **Optimize Cost Analysis**: Further breakdown of COGS by category for better cost management strategies.

Conclusion

This Power BI dashboard offers a comprehensive view of sales, costs, and profitability metrics. Through intuitive visualizations, stakeholders can make informed, data-driven decisions to enhance business performance and strategic planning.
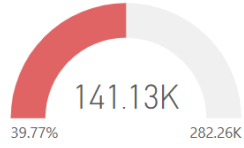
GP%, YTD_Sales, PYTD_Quantity, Sum of Sales_USD, Sum of quantity, Sum of Price_USD and Sum of COGS_USD by Product_id

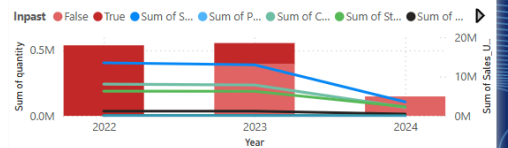Legend: ● GP% ● YTD_Sales ● PYTD_Quantity ● Sum of Sal... ● Sum of q... ▶

Y-axis: GP%, YTD_Sales, PYTD_Quan... (0M% to 30M%)
X-axis: Product_id (0K to 30K)
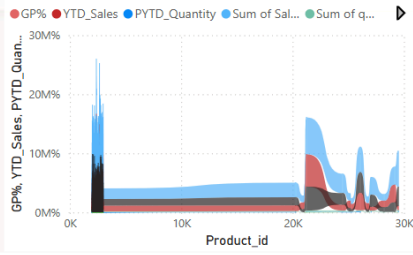
1.53K
Min of COGS_USD

Sum of Price_USD, GP%, Sum of Master_id, Sum of longitude, Sum of latitude and First Postal_code
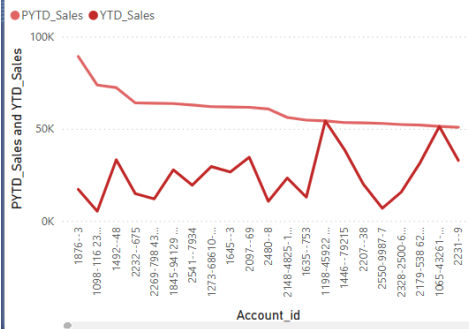
141.13K

39.77%   282.26K
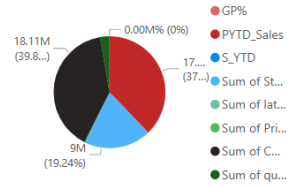
18.11M
Sum of COGS_USD

Sum of quantity, Sum of Sales_USD, Sum of Price_USD, Sum of COGS_USD, Sum of Street_number, Sum of Master_id, Sum of longitude and Sum of latitude by Year and Inpast

Inpast ● False ● True ● Sum of S... ● Sum of P... ● Sum of C... ● Sum of St... ● Sum of ... ▶

Y-axis (left): Sum of quantity (0.0M to 0.5M)
Y-axis (right): Sum of Sales_U... (0M to 20M)
X-axis: Year (2022, 2023, 2024)

PYTD_Sales and YTD_Sales by Account_id

Legend: ● PYTD_Sales ● YTD_Sales

Y-axis: PYTD_Sales and YTD_Sales (0K to 100K)
X-axis: Account_id
1876--3, 1098--116 23..., 1492--48, 2232--675, 2269--798 43..., 1845--94129..., 2541--7934, 1273--68610..., 1645--3, 2097--69, 2480--8, 2148-4825-1..., 1635--753, 1198-45922..., 1446--79215, 2207--38, 2550-9987-7, 2328-2500-6..., 2179-538 62..., 1065-43261..., 2231--9

GP%, PYTD_Sales, S_YTD, Sum of Street_number, Sum of latitude, Sum of Price_USD, Sum of COGS_USD and Sum ...

Legend: ● GP% ● PYTD_Sales ● S_YTD ● Sum of St... ● Sum of lat... ● Sum of Pri... ● Sum of C... ● Sum of qu...

18.11M
(39.8...)

0.00M% (0%)

17...
(37...)

9M
(19.24%)

PYTD_GrossProfit, Sum of Sales_USD, Sum of Price_USD, Sum of COGS_USD, Sum of Street_number, S_PYTD, S_YTD, YTD vs PYTD and Sum of quantity by Year

Legend: ● Increase ● Decrease ● Total

Y-axis: PYTD_GrossProfit (0M to 6M)
X-axis: Date Year (2023, 2024, Total)