

Product Profit and Performance Analysis

Power BI Dashboard Report

Project Overview

The Product Profit and Performance Analysis dashboard was developed using Microsoft Power BI to analyze product-level sales, profitability, and performance across regions and segments. The dashboard is based on the Sample - Superstore dataset and helps business stakeholders:

- Track sales, profit, and order trends
- Identify top-performing products and categories
- Detect loss-making products and take corrective action
- Analyze regional and segment-level profit distribution

Objectives

- Provide a holistic view of business performance through key KPIs
- Pinpoint high-margin and low-margin products
- Enable actionable decision-making through data interactivity
- Visualize patterns across categories, regions, and time periods

Dashboard Pages

1. Executive Summary

Purpose: Provide a high-level overview of the company's financial performance.

Key Visuals & Features:

- KPI Cards: Total Sales, Total Profit, Orders, Profit Margin
- Line Chart: Monthly trend of Sales and Profit
- Bar Chart: Profit by Product Category
- Slicers: Year, Category

Insight: The company shows steady sales growth with an overall profit margin of 12%. The Technology category consistently performs best in terms of profit.

2. Product Performance

Purpose: Evaluate individual product-level contributions to sales and profitability.

Key Visuals & Features:

- Scatter Plot: Sales vs. Profit (by product)
- Bar Chart: Top 5 products by Profit Margin
- Table: Top 10 products by Total Profit
- Button: Toggle to view Loss-Making Products

Insight: Some products generate high sales but minimal or negative profit. Top-performing products (e.g., Copiers, Phones) deliver strong margins, while others should be reconsidered.

3. Region and Segment Insights

Purpose: Analyze how different regions and customer segments affect profitability.

Key Visuals & Features:

- Map: Profit by City
- Line Chart: Monthly Profit by Region
- Stacked Bar Chart: Segment vs. Category Profit
- Slicers: Region, Segment, Category

Insight: West and East regions contribute the highest profit. Consumer and Corporate segments dominate in profitable product categories like Technology and Office Supplies.

4. Loss-Making Products

Purpose: Isolate products with negative profit margins.

Key Visuals & Features:

- Bar Chart: Products with negative margins
- Dynamic Filtering: Profit < 0

Insight: At least 8–10 products consistently show losses. Some may require discount adjustments, cost optimization, or removal from the product line.

Key Metrics and DAX Measures

$\text{ProfitMargin} = \text{DIVIDE}(\text{SUM}(\text{Profit}), \text{SUM}(\text{Sales}))$

Business Insights Summary

- Technology leads in both profit and margin.



- Copiers and Phones are the most profitable products.



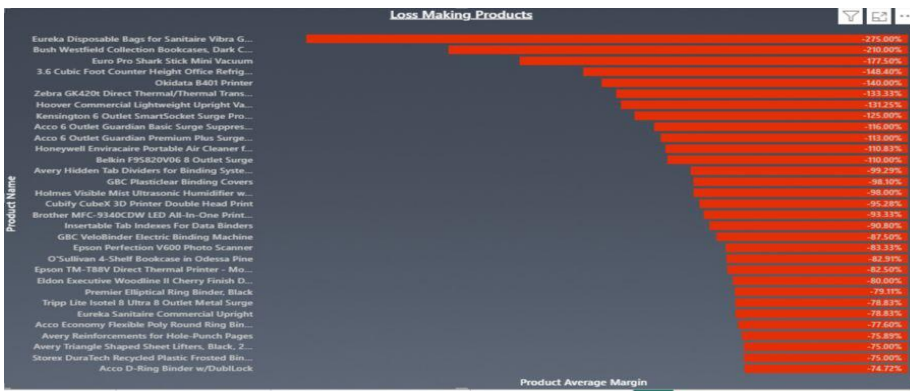
- Several high-discount products are causing losses despite high sales.



- New York, Los Angeles, and Seattle are top cities by profit.



- Need for action on underperforming products in Central and South regions.



Strategic Recommendations

1. Review pricing strategies for loss-making products.
2. Focus marketing efforts on Technology and profitable segments.
3. Discontinue or modify SKUs with consistent negative margins.
4. Expand presence in top-performing cities and regions.
5. Use segment-level data to launch targeted promotions.

Tools & Technologies Used

- Power BI Desktop
- Power Query Editor
- DAX for calculated measures
- Custom visuals, buttons, bookmarks, slicers

Conclusion

This dashboard empowers decision-makers with a comprehensive and interactive view of business performance. It facilitates proactive decisions that can improve profitability, streamline product offerings, and uncover untapped growth opportunities.