

# Sales Performance Variance Analysis with Zebra BI Dashboard

## Project Overview

This project presents a detailed **Sales Performance Variance Analysis** for November 2023. The Excel workbook combines **Actual**, **Plan**, and **Prior Year (PY)** sales data to track performance across multiple store locations. Leveraging Excel's advanced features and the **Zebra BI add-in**, the project visualizes key variances, providing actionable insights for decision-making.

The focus lies on:

1. Comparing **Actual** vs. **Planned** sales.
2. Tracking **Year-over-Year (Y-O-Y)** changes with Prior Year sales data.
3. Visualizing performance variances using Zebra BI charts and dashboards.

## Purpose

The purpose of this project is to:

1. **Evaluate Performance:** Compare actual sales against planned targets and prior year results to identify underperforming and outperforming store locations.
2. **Highlight Key Variances:**
  - $\Delta$  PY %: Change compared to prior year.
  - $\Delta$  PL %: Deviation from planned sales.
3. **Enable Data-Driven Insights:**  
Interactive visualizations allow management to quickly spot trends, underperformance, and opportunities for improvement.

## Key Components of the Analysis

### 1. Sales Data Overview

- Sales performance is presented for **10 store locations**:
  - **Actual Sales:** Current performance for November 2023.
  - **Plan:** Predefined sales targets.
  - **PY (Prior Year):** Sales achieved in November 2022.

### 2. Variance Metrics

The project calculates and highlights:

- $\Delta$  PY %: Percentage change compared to prior year sales.
- $\Delta$  PL %: Percentage deviation from planned sales.

## Visualization Dashboard (Zebra BI)

Using the **Zebra BI add-in**, the project includes interactive and visually compelling dashboards to analyze sales variances:

### Zebra BI Dashboard Highlights:

1. **Sales Actual vs. Plan Chart:**
  - Black bars (Actual Sales) compared to grey bars (Planned Sales).
  - Quickly highlights performance gaps.
2. **Δ PY % and Δ PL % Bar Charts:**
  - Positive variances are shown in **green**, negative variances in **red**.
  - Visualizes changes relative to PY and Plan.
3. **Variance Breakdown Table:**
  - Combines Actual, Plan, and Prior Year sales with absolute and percentage variances.
  - Includes comments to explain specific variances (e.g., "New CEO," "Low Demand," "New Sales Force").
4. **Actual vs Plan Waterfall Chart:**
  - Highlights how actual performance deviates from the planned target for each location.

### Key Insights from the Analysis

- **Top Performer:**
  - **Brooklyn:** Achieved sales of **14.08M**, exceeding planned targets (+15%) and prior year sales (+15.2%) due to a "New CEO" initiative.
- **Underperformer:**
  - **New York City:** Sales fell by **-20%** compared to last year due to **Low Demand**.
- **Recovery Opportunity:**
  - **San Diego:** Performed well with a **13% increase** over the prior year and exceeded planned sales.

### Tools and Features Used

1. **Excel Features:**
  - Formulas for absolute and percentage variances.
  - Conditional formatting for variance highlighting.
2. **Zebra BI Add-in:**
  - Used for creating advanced charts, variance breakdowns, and interactive dashboards.
  - Allows clear and dynamic visualization of performance gaps.

## Conclusion

This project effectively demonstrates the power of **variance analysis** in sales performance tracking. The combination of calculated variances and **Zebra BI dashboards** provides a clear, data-driven view of actual performance against planned targets and prior year benchmarks. It enables businesses to identify strengths, address weaknesses, and take corrective action.