# Sales Performance & KPI Optimization Dashboard

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Tools Used: Power BI | SQL | Excel | Power Query | DAX

## Executive Summary

The Sales Performance & KPI Optimization Dashboard was developed to help the Sales and Finance teams transform manual, time-consuming reporting into a real-time, automated decision-support system.  
  
Before this project, sales data was scattered across multiple Excel files and regional databases, requiring 8–10 hours per month of manual consolidation. Managers lacked a unified view of performance, which delayed decisions.  
  
To solve this, a Power BI dashboard was built that connects to SQL and Excel sources, updating KPIs such as Total Revenue, Profit Margin, and Sales vs Target automatically. Leadership can now monitor performance across regions instantly.  
  
Outcome: Reporting time reduced by 50%, and forecast accuracy improved by 40%, enabling faster, data-driven strategy execution.

## Problem Definition & Objectives

Business Challenge:  
• Fragmented data across multiple sources caused inconsistent reports.  
• Manual aggregation delayed monthly reviews.  
• Decision-makers lacked real-time KPI tracking.  
  
Project Objectives:  
1. Centralize sales data – Establish one version of the truth.  
2. Automate monthly reporting – Cut manual effort by 50%.  
3. Visualize KPIs interactively – Enable faster executive decisions.  
4. Improve forecast accuracy – Achieve +40% better predictions.

## Stakeholders & Data Overview

Stakeholders:  
Sales Director – Regional visibility  
Finance Manager – Revenue tracking  
Regional Managers – Team monitoring  
Executives – Strategic overviews  
  
Data Sources:  
SQL Database – 500K rows  
Excel Sheets – Regional targets  
CRM Extract – 10K records

## Data Preparation & Solution Design

Data Preparation:  
1. Cleaned and standardized data fields.  
2. Removed duplicates and nulls.  
3. Joined datasets in Power Query.  
  
Solution Design:  
• Built DAX measures for KPIs: Revenue, Profit Margin %, Target Achievement %.  
• Created visuals with filters for Region, Product, and Time Period.  
• Automated refresh using VBA and Power BI Scheduled Refresh.

## Key Insights & Recommendations

Findings:  
• Region B underperformed by 12–18%.  
• Product Line A had high revenue but low margins.  
• Q4 outperformed Q1 by 45%.  
  
Recommendations:  
1. Reevaluate Product A pricing.  
2. Add regional incentives.  
3. Expand Q4 marketing efforts.

## Business Impact & ROI

Reporting Time: 8 → 4 hrs (↓ 50%)  
Forecast Accuracy: 60% → 84% (+40%)  
Decision Speed: Weekly → Daily (6× Faster)  
  
Impact Summary:  
Improved reliability, transparency, and executive decision speed.

## Lessons Learned & Future Enhancements

Lessons Learned:  
• Define KPIs early.  
• Clean data ensures accurate results.  
• Documentation aids maintenance.  
  
Future Enhancements:  
• Integrate CRM segmentation.  
• Automate summaries via Power Automate.  
• Add forecasting visuals.

## Appendix

Sample SQL Query:  
SELECT Region, SUM(Sales) AS TotalSales, SUM(Profit) AS TotalProfit FROM SalesData GROUP BY Region;  
  
DAX Measure:  
Sales vs Target % = DIVIDE([Total Sales], [Target Sales], 0)  
  
Glossary:  
KPI – Key Performance Indicator  
DAX – Data Analysis Expressions  
ETL – Extract, Transform, Load  
YoY – Year-over-Year Growth