

Power BI Case Study PDF

Title: Financial Performance Dashboard

Role: Data Analyst | Power BI Developer

Duration: 4–5 Days

Domain: Finance

Type: Personal Portfolio Project

Tools: Power BI, Power Query, DAX, Excel

◆ 1. Project Summary

A fictional multi-department company needed an analytical tool to monitor its **financial performance** across various departments. The goal was to create an interactive dashboard using Power BI that helps visualize:

- Revenue and cost trends
- Profitability insights
- Monthly and yearly performance changes
- Department-level comparisons

This project simulates a **freelance client request** and is designed as part of a professional Power BI portfolio.

◆ 2. Business Problem

“We want to quickly identify which departments are most profitable, where we’re overspending, and how our revenue and profit are trending over time.”

◆ 3. Objective

Build a dashboard that answers:

- What’s the **total revenue, cost, and profit**?
 - Which departments are performing best/worst?
 - What’s the **monthly growth trend**?
 - How are **profit margins** evolving?
 - Can we drill down by **month/year/department**?
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◆ 4. Dataset Used

Source: Mock raw financial dataset (CSV)

Columns:

- Date
 - Department
 - Revenue
 - Cost
 - Manually created: Month column
 - Created supporting tables:
 - Dim_Department (manual)
 - Dim_Date (DAX-generated)
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◆ 5. Data Cleaning (Power Query)

Task	Description
Remove Nulls	Removed rows with missing department/revenue data
Fix Data Types	Ensured dates, text, and numbers were correct
Calculated Profit	$\text{Profit} = \text{Revenue} - \text{Cost}$
Trimmed/Formatted Text	Removed leading/trailing spaces
Removed Duplicates	Ensured clean, unique entries

◆ 6. Data Model (Star Schema)

- **Fact Table:** Financial transactions
 - **Dimension Tables:** Department, Date
 - One-to-many relationships
 - Clean, scalable model used for dynamic filtering
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◆ 7. DAX Measures

Measure	Description
Total Revenue	$\text{SUM}(\text{Financials}[\text{Revenue}])$
Total Cost	$\text{SUM}(\text{Financials}[\text{Cost}])$
Total Profit	$\text{Revenue} - \text{Cost}$
Profit Margin (%)	$(\text{Profit} / \text{Revenue}) * 100$
MoM Growth %	Revenue Month-over-Month change
YoY Growth %	Revenue Year-over-Year change

These measures power KPI Cards, Line Charts, and Department Comparisons.

◆ 8. Visuals & Features

Visual	Purpose
KPI Cards	Show top-level financial metrics
Line Charts	Show monthly trend over time
Bar Charts	Compare departments
Matrix	Tabular view of all KPIs
Slicers (Date/Department)	Enable interactive filtering


◆ 9. Insights Derived

- Easily spot most and least profitable departments
 - Monitor growth or decline over time
 - Use slicers to customize view by month or department
 - Track progress using MoM & YoY performance
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◆ 10. Outcome

- ✓ Created a professional, clean, fully-interactive dashboard
 - ✓ Demonstrated business storytelling with data
 - ✓ Strengthened Power BI, DAX, and data modeling skills
 - ✓ Ready to showcase to clients as a **freelance sample**
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◆ 11. Final Dashboard Preview

 Insert 2–3 full-width screenshots here (KPI section, Trend chart, Department comparison)

◆ 12. About Me

Name: Noman Mahmood

Role: Data Analyst & Power BI Developer

Focus: Finance domain | Freelance projects | Business dashboards

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Attachments

- .pbix file
 - Cleaned .csv file
 - Screenshots (PNG)
 - Case Study PDF (this file)
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