DESIGNING A CFO DASHBOARD IN POWER BI: FINANCIAL OVERVIEW, CASH FLOW, AND VARIANCE ANALYSIS

1. Project Background and Objective

A multi-division B2B services firm approached us to build a centralized Power BI dashboard tailored for its **Chief Financial Officer (CFO)** and finance team. The CFO needed a **clear, consolidated view** of financial performance across all business units with the ability to:

- Monitor budget vs. actuals

- Track profitability and cost centers

- Visualize cash flow movements

- Support monthly board reporting

Objective: Develop a dynamic CFO dashboard in Power BI that enables top-down financial insight, variance tracking, and strategic decision-making.

2. Data Sources and Preparation

- **Actuals Data:** Monthly transaction-level exports from the ERP system (SAP)

- **Budget Data:** Quarterly Excel templates from finance leads

- **Chart of Accounts (COA):** Maintained in Google Sheets

- **Business Unit Metadata:** Structure and ownership hierarchy in Excel

Power BI Data Prep (Power Query):

- Merged actuals and budget on Account Code + Business Unit + Month

- Standardized COA structure for consistent mapping across units

- Created a financial calendar and fiscal hierarchy (Year > Quarter > Month)

Fact Tables:

- Actuals

- Budget

- Cash Flow

Dimension Tables:

- Accounts

- Business Units

- Time

- Currency

3. Dashboard Design and Layout in Power BI

Page 1: Executive Financial Snapshot

- KPI Cards:

    o Total Revenue

    o Gross Profit

    o Net Income

    o Budget Variance %

- Visuals:

    o Line chart of revenue vs. budget over last 12 months

    o Waterfall chart: Net income components

    o Heatmap: Profitability by business unit

Page 2: Budget vs. Actual Variance Analysis

- Table visual: P\&L accounts with Actual, Budget, Variance, % Variance

- Conditional formatting: Red (Negative), Green (Positive)

- Bar chart: Budget variance by account group (e.g., SG\&A, COGS, Admin)

- Slicers for: Year, Quarter, Department

Page 3: Cash Flow Monitoring

- Area chart: Monthly cash inflow vs. outflow

- KPI Cards: Operating Cash Flow, Investing Cash Flow, Free Cash Flow

- Funnel chart: Cash flow stages (Receipts → Payments → Net Cash)

- Line and column chart combo: Days Sales Outstanding (DSO) over time

4. DAX Measures Implemented

Metric	DAX Logic
Net Income	[Total Revenue] - [Total Expenses]
Budget Variance %	DIVIDE([Actual] - [Budget], [Budget])
YTD Revenue	TOTALYTD([Revenue], 'Date'[Date])
Free Cash Flow	[Operating Cash Flow] - [Capital Expenditures]
Rolling 12M Revenue	CALCULATE([Revenue], DATESINPERIOD('Date'[Date], MAX('Date'[Date]), -12, MONTH))

5. Interactivity and UX Features

- **Drill-through:** From summary to department or account-level variance
- **Bookmarks:** Toggle views for Board vs. Operational views
- **Tooltips:** Show prior-year data and 3-month moving average on hover
- **Slicers:** Dynamic filters for BU, Time, COA group, and region
- **Role-Level Security (RLS):** CFO sees all, BU heads see only their data

6. Deliverables

- Power BI .pbix file and documentation on DAX logic and source models
- Power BI Service workspace setup with access control
- PDF version of the dashboard with board-ready print layout
- Recorded training session for CFO office and BU finance leads
- PowerPoint deck for board reporting auto-generated via PowerPoint export from Power BI

7. Key Outcomes and Impact

- Reduced month-end financial reporting turnaround time by 60%
- Identified a 4% overspend in one BU's operating expenses missed in static reports

- Enabled cash flow prediction planning through variance trend analysis

- Facilitated data-driven decision-making in QBRs and investor briefings

8. Relevance to Industry and Academia

- **Corporate Use:** High-value tool for CFOs, FP\&A teams, and controllers across industries (e.g., finance, manufacturing, SaaS)

- **Academic Use:** Can be used in finance or data analytics courses to teach budgeting, profitability metrics, and BI dashboard design principles