

- Power BI Dashboard Layout
- **Main Dashboard Sections:**
 - 1. Sales Performance Overview
 - 2. Profitability & Discount Impact
 - 3. Customer Segmentation & Insights
 - 4. Regional Performance Analysis
 - 5. Inventory & Stock Management
- Dashboard Visuals & Design
- 1 . Sales Performance Overview
- KPIs (Card Visuals):
 - **Total Sales** (SUM of Sales Amount)
 - Total Profit (SUM of Profit)
 - Total Orders (COUNT of Order ID)
- ▼ Trend Analysis (Line Chart)
 - X-Axis: Order Date (Month-Year)
 - Y-Axis: Total Sales
 - Insights: Identify peak sales months, growth trends
- **✓** Category Contribution (Stacked Column Chart)
 - X-Axis: Product Category
 - Y-Axis: Total Sales
 - **Legend:** Profit Margin %
- 2. Profitability & Discount Impact
- ✓ Profit by Category (Bar Chart)
 - X-Axis: Profit Margin %
 - Y-Axis: Product Categories
- **☑** Discount vs Profit (Scatter Plot with Trendline)



- X-Axis: Discount %
- Y-Axis: Profit
- Insights: Find discount threshold beyond which profits drop
- ✓ Top 5 Most & Least Profitable Products (Table Visual)
- 3. Customer Segmentation & Insights
- **✓** Top 10 Customers by Total Purchase (Table with Conditional Formatting)
- Customer Retention & Purchase Frequency (Gauge Visual)
- Customer Segment Contribution (Pie Chart Business, Consumer, Home Office)
- Repeat Purchase Rate (KPI with DAX Measure)
- 4. Regional Performance Analysis
- Sales by Region (Map Visual with Color Gradient on Sales Volume)
- Average Order Value by Region (Bar Chart with AOV Metric)
- Regional Churn Rate (KPI with Customer Retention % by Region)
- 5. Inventory & Stock Management
- Low-Selling Products (Table with Conditional Formatting: Red = Slow-Moving, Green = High Demand)
- Stock Availability vs Sales Demand (Dual Axis Line Chart Stock vs Orders)
- Products Frequently Out of Stock (Clustered Column Chart with Stock-Out Frequency)
- **★ Power BI Dashboard Implementation**
- 📌 1. Data Preparation
- Load dataset into Power BI
- Create Date Table using:

DAX

DateTable = CALENDAR(MIN(SalesData[Order Date]), MAX(SalesData[Order Date]))

- Ensure correct data types & relationships
- 2. DAX Calculations for KPIs
- **✓** Total Sales:

DAX



Total Sales = SUM(SalesData[Sales Amount])

✓ Total Profit:

DAX

Total Profit = SUM(SalesData[Profit])

✓ Profit Margin %:

DAX

Profit Margin % = DIVIDE(SUM(SalesData[Profit]), SUM(SalesData[Sales Amount]), 0) * 100

Repeat Purchase Rate:

DAX

Repeat Purchase Rate = DIVIDE(COUNTROWS(SalesData), DISTINCTCOUNT(SalesData[Customer ID]))

✓ Low-Selling Products:

DAX

Low Selling Products = IF(SUM(SalesData[Quantity]) < 50, "Low-Selling", "High-Selling")

- **?** Power BI Dashboard Design Best Practices
- **✓** Use Consistent Colors:
 - Sales = Blue
 - Profit = Green
 - Discounts = Red
 - Minimalist Layout: KPIs on top, visuals below
 - Interactive Filters: Date, Region, Product Category, Customer Segment
 - Conditional Formatting: Highlight negative profit items in red