Power BI Visualization Scenarios Guide

Purpose

This guide summarizes different scenarios for selecting suitable visualizations in Power BI, based on data types, business questions, and report requirements.

◇ **Scenario-Based Visualization Selection**

Scenario 1: Month-to-Month Sale

- **Recommended Visual**: Line Chart
- **Why?**: Ideal for showing trends over time when data includes a "month" column.
- **Note**: Ensure the dataset includes a column labeled Month.

Scenario 2: Category or Subcategory Analysis

- **Recommended Visual**: Bar Graph
- **Why?**: Suitable for comparing values across discrete categories.

Scenario 3: Year-over-Year Category Performance

- **Recommended Visual**: Waterfall Chart
- **Use Case**: Analyze category performance over years or sales changes.
- **Example**: Sales performance year-wise.

Scenario 4: Product Performance by Day/Year

- **Recommended Visual**: Ribbon Chart
- **Why?**: Useful to visualize changing performance across time for multiple products.

Scenario 5: Numerical Analysis

- **Recommended Visual**: Scatter Plot
- **Use Case**: Comparing numerical fields like discount vs. profit.
- **Example**: Analyze which subcategory had high discount and its impact on profit.

Scenario 6: Small Number of Values

- **Recommended Visual**: Pie Chart
- **Why?**: Pie charts work best when comparing a few parts of a whole.

Scenario 7: Geographic Data (City, Country, etc.)

- **Recommended Visual**: Map
- **Use Case**: Visualizing data with fields like country, city, or latitude-longitude.

- **Example**: Country-wise sales using a map chart.

Scenario 8: Category-Wise Summary

- **Recommended Visual**: Card

- **Why?**: To display summarized values (e.g., totals) for each category.

Scenario 9: KPI and Table

- **Recommended Visuals**: KPI + Table

- **Use Case**: Use KPIs to highlight total sales, profits, and discounts.

- **Example**: Total sale, total profit, total quantity.

Overall Mapping of Scenarios to Visuals

Scenario	Recommended Chart
1. Date-wise, month-wise	Line Chart
2. Category or subcategory	Bar Graph
3. Category performance over years	Waterfall Chart
4. Product performance day/year-wise	Ribbon Chart
5. Numerical comparisons	Scatter Plot
6. Small count of values	Pie Chart
7. Country, City	Map
8. Category-based summaries	Card
9. Sale, Profit, Discount, Quantity	KPI

Best Practices

- Always understand the context and nature of your data before choosing visuals.

- Use KPIs and cards for dashboards that need quick insights.

- Use map visuals only when geographical data (city, country, lat/long) is available.

- Avoid cluttered pie charts—use them only for limited categories.