### **■** Sankey Chart

A Sankey Chart is a flow diagram used to visualize movement or relationships between categories (e.g., from source to destination) based on volume or weight.

# **Use Cases:**

- Customer journey (e.g., landing page → product page → checkout)
- Financial flows (e.g., budget allocation, cost breakdown)
- Sales pipeline stages
- Data conversion processes

# Now to Create a Sankey Chart in Power BI:

#### 1. Enable Sankey Chart Visual

Go to Visualizations pane → Click on ... (Get more visuals)
Search for "Sankey" → Add Sankey Chart by Microsoft or Deneb (for advanced customizations).

#### 2. Required Fields

To configure the Sankey chart:

Field	Meaning	
Source Starting category (e.g., "Region")		
Destination/Target	Ending category (e.g., "Product Category")	
Weight/Value	Flow quantity (e.g., "Sales")	

#### 3. Example Dataset

Region	Category	Sales	
East	Electronics	1000	
East	Furniture	500	
West	Electronics	1500	

South	Clothing	700

#### Мар:

• Source: Region

• **Destination**: Category

• Weight: Sales

#### 4. Tips for Better Sankey Charts

- Limit nodes to 2–4 levels for readability.
- Ensure data is clean and well-aggregated.
- Use **distinct pairs** of source-destination for accurate flows.
- Sankey works best when the number of distinct values is small per level.

## Advanced: Multi-Level Sankey

- Some custom visuals allow more than 2 steps (e.g., Source → Intermediate → Target).
- You may need to unpivot or reshape your data in Power Query.

### Infographic

- An infographic in Power BI is a visually enhanced report or chart that combines icons, images, shapes, and rich formatting to communicate insights more engagingly than standard visuals.
- It focuses on **storytelling with data**.

### **a** Common Infographic Visuals:

Visual Type	Description	
Infographic Designer	Custom visual that allows icons, shapes, bars	
KPI Cards	Highlight KPIs with dynamic coloring	
Custom Icons in Table	Use Unicode, SVGs, or conditional images	
Image-based Bar Charts	Use pictures to represent value instead of bars	

#### 📥 How to Use Infographic Visual:

- 1. Click on "... More visuals" → Search for "Infographic Designer".
- 2. Import it to your Power BI report.
- 3. Drag and drop fields (category, value).
- 4. Customize:
  - Icon types
  - Icon size per value
  - Bar shapes and fills
  - Color rules
  - o Data labels

### 📏 Features of Infographic Designer:

- Use multiple icons per data unit
- Icons scale based on value
- Conditional color formatting
- Add titles, callouts, labels
- Layout types: Bar, Column, Pictograph, Table

#### **Q** Use Cases:

- Show sales using product icons
- Represent population with person symbols
- Visualize energy use with lightbulb icons
- Storytelling dashboards for executives

# **1** Considerations:

- Don't overload with icons—balance clarity and visuals
- Icons are not ideal for **precise comparisons**
- Performance may decrease with too many data points/icons

# **X** Alternatives:

- Deneb (custom Vega-lite infographics)
- Charticulator (layout-based custom visuals)
- Combine shapes + images + cards manually in a report



# A Sunburst Chart is a multi-level, circular chart used to visualize hierarchical data.

Each ring represents a level in the hierarchy, and each segment shows its proportion within the parent segment.

Think of it as a multi-level pie chart — great for visualizing data with drill-downs.

# Structure:

- **Center** = Root/Top-level category
- Outer Rings = Child categories (sub-levels)
- Size of segment = Proportional to value (e.g., Sales)

# how to Add a Sunburst Chart in Power BI:

- 1. Go to **Visualizations pane** → Click on ... (Get more visuals)
- 2. Search for: "Sunburst"
- 3. Add Sunburst Chart by Microsoft or other custom visuals
- 4. Drag into report canvas

# **k** Fields Required:

Field	Description	
Group/Category	Hierarchical categories (e.g., Region → City)	
Values Metric to measure (e.g., Sales, Count)		

# Example:

Region	Country	City	Sales
Asia	India	Delhi	1000
Asia	India	Mumbai	800
Europe	Germany	Berlin	1200

 $\textbf{Hierarchy} : \mathsf{Region} \to \mathsf{Country} \to \mathsf{City}$ 

Value: Sales

Sunburst displays inner ring as Region, then outer ring splits by Country and then

City.

#### Histogram

A Histogram is a chart that displays the distribution of a continuous numeric variable by grouping data into bins (ranges) and showing the frequency (count) of data points in each bin.



Now to Create a Histogram in Power Bl:

#### 1. Using Built-in Visuals

Power BI does not have a native histogram visual but you can create one by:

- Using a custom visual
  - $\circ$  Go to Visualizations pane  $\rightarrow$  ... (Get more visuals)
  - Search for Histogram (e.g., "Histogram by MAQ Software")
  - o Import and use it like a normal visual

#### 2. Manual Histogram with Bins

• Create **bins** in Power Query or using DAX:

#### In Power Query:

- Add a custom column that groups data into ranges
- o Example: if [Value] < 10 then "0-9" else if [Value] <</pre> 20 then "10-19" ...
- Using DAX:
  - Create a calculated column like:

```
Bin = FLOOR('Table'[Value], 10)
```

• Use the **bin column** on X-axis and **Count of records** on Y-axis in a bar chart.

#### 3. Example:

Suppose you have sales amounts:

SalesAmount	
5	
12	

18		
27		
34		

DAX bin formula (bins of 10):

```
SalesBin = FLOOR('Sales'[SalesAmount], 10)
```

Use SalesBin on X-axis, count of rows on Y-axis.

# When to Use Histogram:

- Understand distribution of data (e.g., sales, age, test scores)
- Identify data skewness or outliers
- Visualize data grouped into intervals