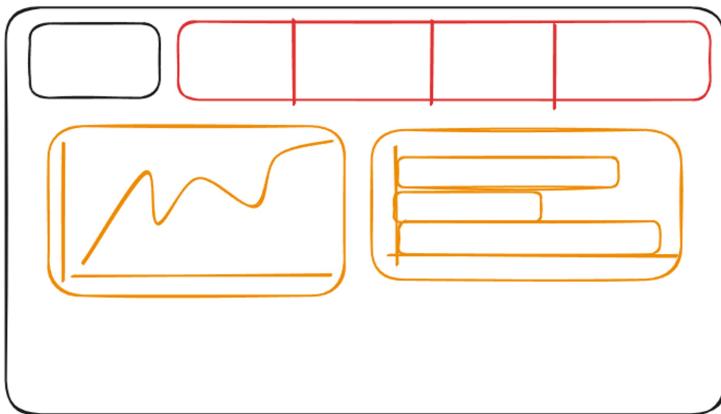


Power BI - Dashboard Making

KPI - Key Performing Indicators & Metrics



VISUALIZING DATA

In this section we'll build dynamic interactive reports, introduce visualization best practices, and explore features like bookmarks, drillthrough filters, parameters, tooltips, and more

TOPICS WE'LL COVER:

1. Data Viz Best Practices
2. Formatting & Filtering
3. Bookmarks
4. Report Interactions
5. User Roles
6. Parameters
7. Custom Tooltips.
8. Mobile Layouts.

GOALS FOR THIS SECTION:

- Review frameworks and best practices for visualizing data and designing effective reports and dashboards.
- Explore tools and techniques for inserting, formatting and filtering visuals in the Power BI Report view.
- Add interactivity using tools like bookmarks, slicer panels, parameters, tooltips, and report navigation.
- Learn how to configure row-level security with user roles.
- Optimize reports for mobile viewing using custom layouts.

THREE KEY QUESTIONS

1. What TYPE OF DATA are you working with?

- Geospatial? Time-series? Hierarchical? Financial?

2. What do you want to COMMUNICATE?

- Comparison? Composition? Relationship? Distribution?

3. Who is the END USER and what do they need?

- Analyst? Manager? Executive? General public?

What TYPE OF DATA are you working with?



Time-series



Financial



Geospatial



Textual



Categorical



Funnel



Hierarchical

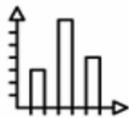


Survey

The type of data you're working with often determines which type of visual will best represent it; for example, using maps to represent geospatial data, line charts for time-series data, or tree maps for hierarchical data

What do you want to COMMUNICATE?

COMPARISON



Used to compare values over time or across categories

- Common visuals:
- Column/Bar Chart
 - Clustered Column/Bar
 - Data Table/Heat Map
 - Radar Chart
 - Line Chart (time series)
 - Area Chart (time series)

COMPOSITION



Used to break down the component parts of a whole

- Common visuals:
- Stacked Bar/Column Chart
 - Pie/Donut Chart
 - Stacked Area (time series)
 - Waterfall Chart (gains/losses)
 - Funnel Chart (stages)
 - Tree Map/sunburst (hierarchies)

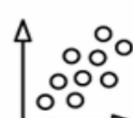
DISTRIBUTION



Used to show the frequency of values within a series

- Common visuals:
- Histogram
 - Density Plot
 - Box & Whisker
 - Scatter Plot
 - Data Table/Heat Map
 - Map/Choropleth(geospatial)

RELATIONSHIP



Used to show correlation between multiple variables

- Common visuals:
- Scatter Plot
 - Bubble Chart
 - Data Table/Heat Map
 - Correlation Matrix

Keep it simple! While there are hundreds of charts to choose from, basic options like bars and columns, line charts, histograms and scatterplots often tell the simplest and clearest story.

Who is the END USER and what do they need?

THE ANALYST



Likes to see details and understand exactly what's happening at a granular level

- Tables or combo charts
- Granular detail to support root cause analysis

THE EXECUTIVE



Needs high-level, crystal clear KPIs to track business health and topline performance.

- KPI cards or simple charts
- Minimal detail, unless it adds critical context to KPIs

THE MANAGER



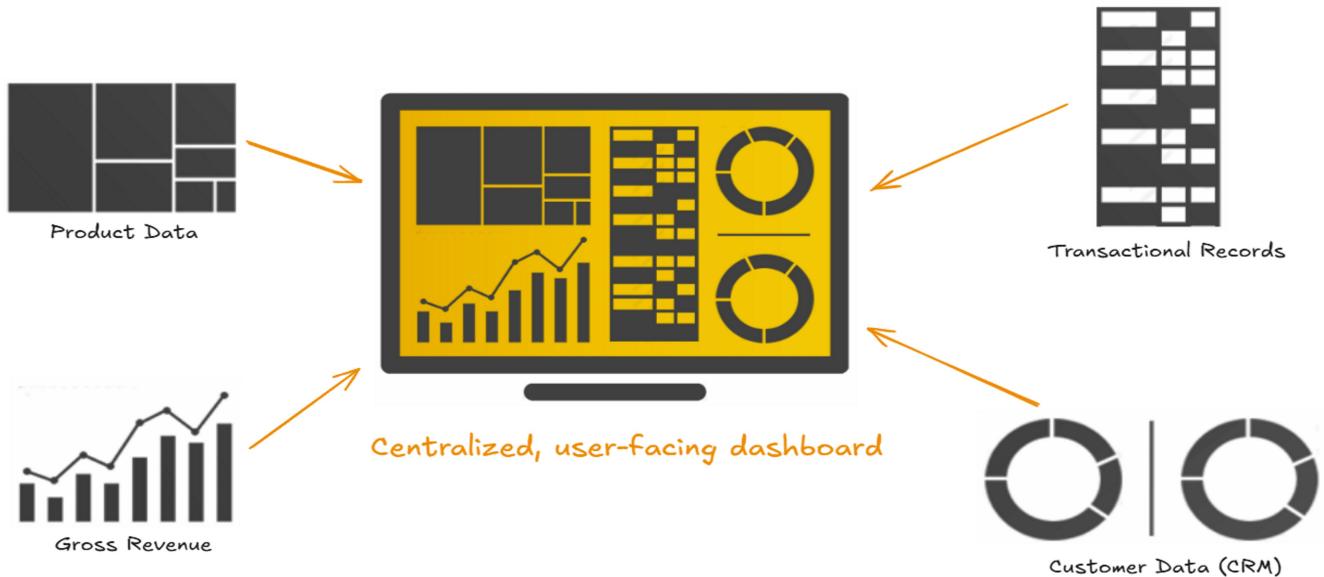
Wants summarized data with clear, actionable insights to help operate the business.

- Common charts & graphs
- Some detail, but only when it supports a specific insight

How you visualize and present your data is a function of who will be consuming it; a fellow analyst may want to see granular details, while managers and executives often prefer topline KPIs and clear, data-driven insights.

ANALYTICS DASHBOARDS

Dashboards are analytics tools designed to consolidate data from multiple sources, track key metrics at a glance, and facilitate data-driven storytelling and decision making.



DASHBOARD DESIGN FRAMEWORK

1. Define the purpose
2. Choose the right metrics
3. Present the data effectively
4. Eliminate clutter & noise
5. Use layout to focus attention
6. Tell a clear story

A well-designed dashboard should serve a distinct purpose for a distinct audience, use clear and effective metrics and visuals, and provide a simple, intuitive user experience.

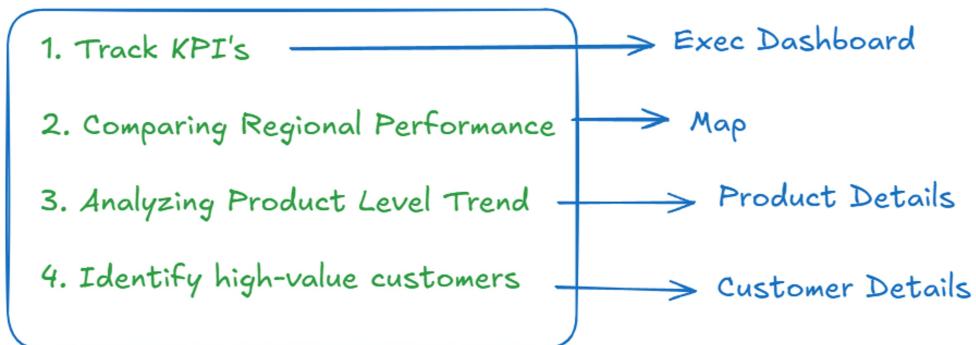
Key questions to consider:

- Who are the end-users of your dashboard?
- What are their key business goals and objectives?
- What are the most important questions they need answers to?
- How can I present information as clearly as possible?

"" Perfection is achieved not when there is nothing more to add, but when there is nothing left to take away ""

Sketching The Dashboard Layout....

Goals :



3 Key Questions :

1. Time Series , Geospatial , Hierarchical , Categorical.
2. Composition & Comparison
3. Manager.

1. What TYPE OF DATA are you working with?

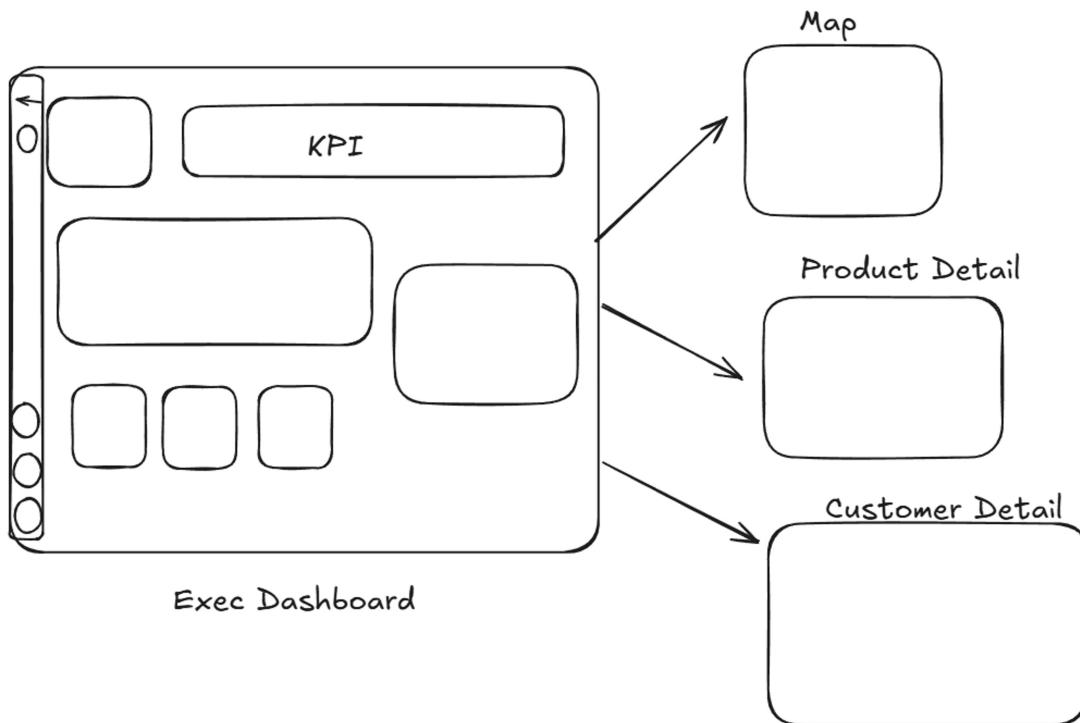
- Geospatial? Time-series? Hierarchical? Financial?

2. What do you want to COMMUNICATE?

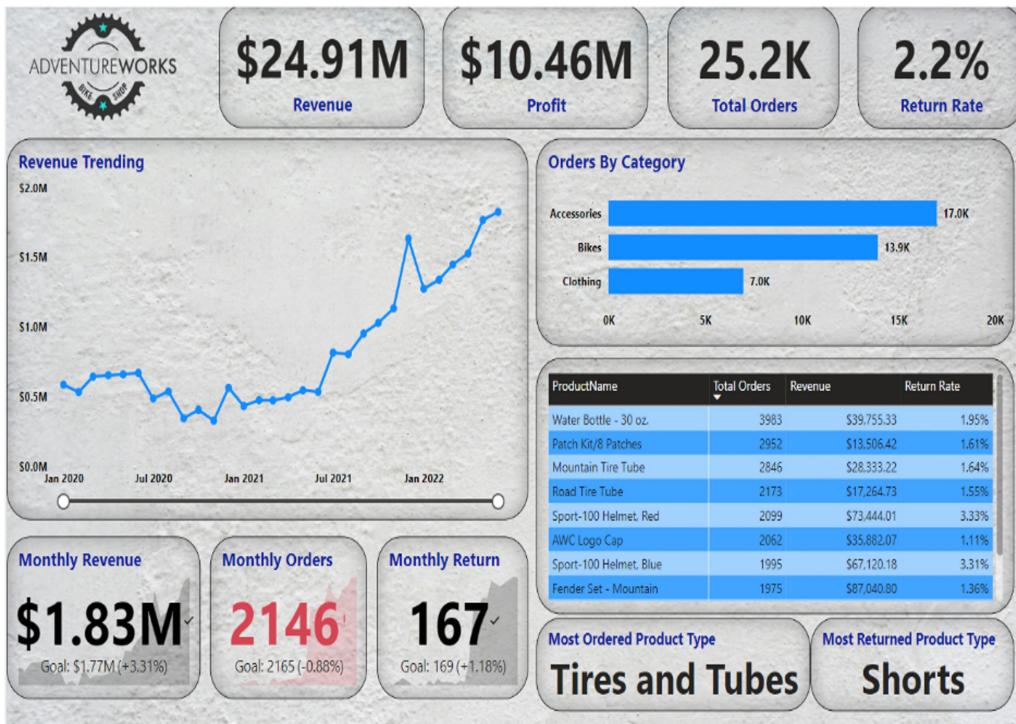
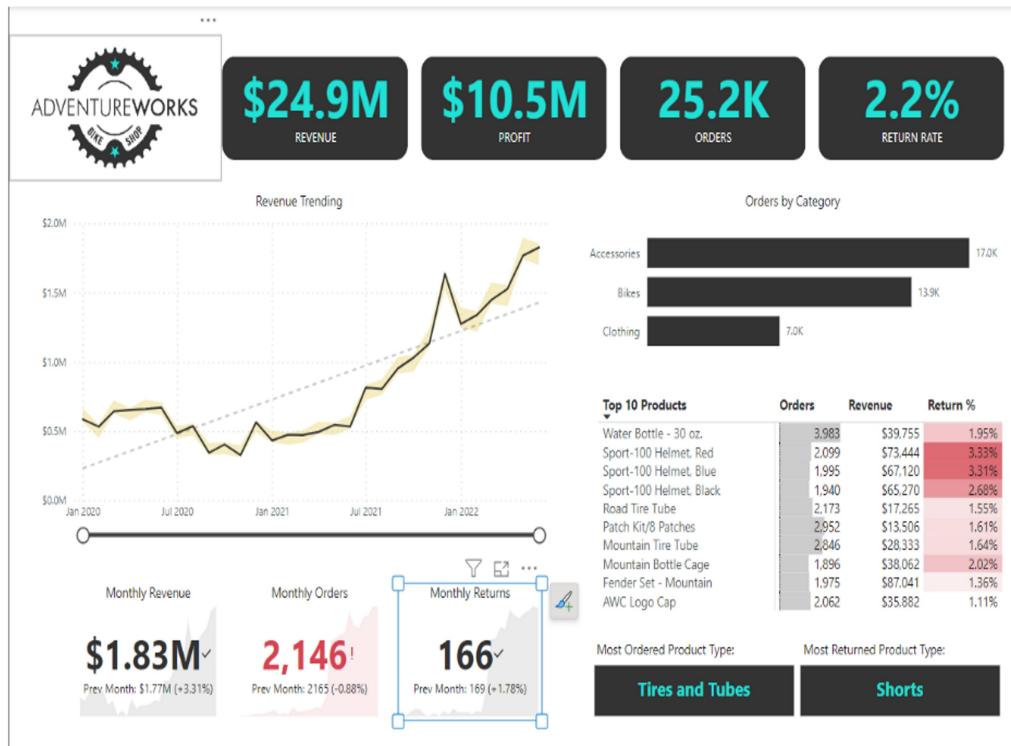
- Comparison? Composition? Relationship? Distribution?

3. Who is the END USER and what do they need?

- Analyst? Manager? Executive? General public?



Creating Executive Dashboard.





Filters on Continents

Europe

North America

Pacific

Global Record

