

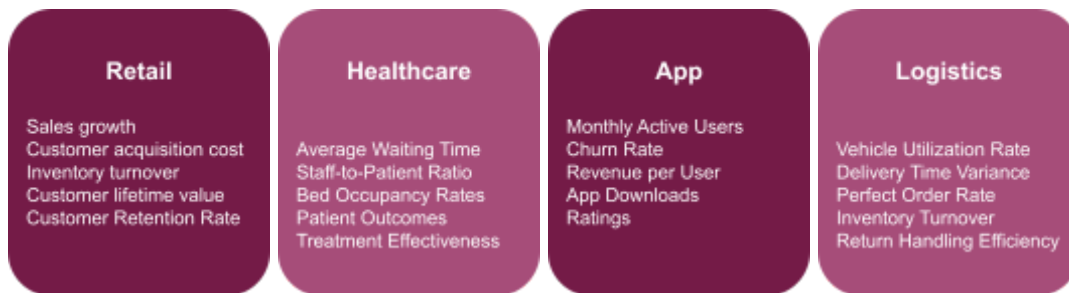
Title: Laying the Groundwork: Why Context is Key in Data Visualization

Understanding the Context

Before creating a dashboard, it's essential to grasp the context behind the data. Skipping this step and jumping straight into visualization can result in good graphs but fail to guide decision-making effectively. A well-designed dashboard isn't just a collection of visuals—it's a strategic tool to uncover insights that inform better decisions.

1. Understand the Domain

Each industry has critical metrics that define success. Understanding these domain-specific metrics ensures your dashboard aligns with the right goals.



Knowing your domain helps you focus on relevant data that adds value to your dashboard.

2. Define Your Audience

The audience's needs directly shape your dashboard's design. Ask yourself:

- Are you presenting high-level trends to **executives**?
- Are you providing granular details to **operational teams**?

Tailor your visuals accordingly by:

Highlighting **key metrics** for executives.

Including **drill-down details** for operational decision-makers.

Offering **interactive options** for analysts who require flexibility.

Framing key questions like, “Which region is outperforming in sales?” or “What factors are driving customer churn?” ensures your visualizations remain purposeful and relevant.

3. Enrich the Data with Context

Critical insights come when data is placed in context. To achieve this:

- Compare metrics across **timeframes** (e.g., month-over-month growth).
- Benchmark against **industry standards** or past performance.
- Add **dimensions** like demographics, regions, or product categories for deeper insights.

Context enriches the quality of insights, enabling informed decision-making.

4. Create a Metric Spreadsheet

A **Metric Spreadsheet** is your blueprint for consistent and clear dashboards. Use it to:

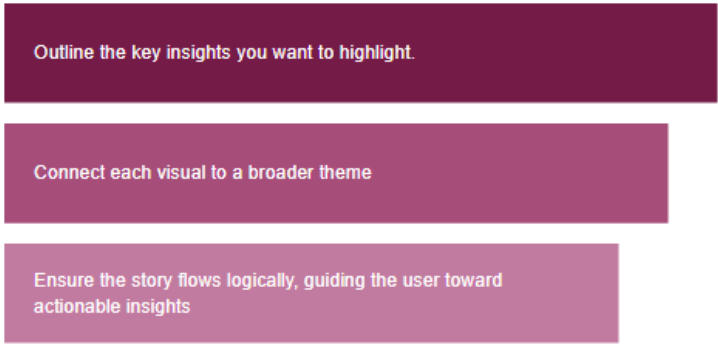
- Define each metric (e.g., $\text{Lifetime Value} = \text{Average Revenue} \div \text{Customer Churn Rate}$).
- Document calculation methods, filters, and grouping criteria (e.g., by region, product category).
- Specify the **filters** your dashboard should include (e.g., timeframe, location, user type).

This step ensures all team members have a shared understanding of metrics and prevents inconsistencies.

Metric Name	Formula	Aggregation	Grouping	Filter	Example Calculation
Customer Lifetime Value (LTV)	Average Revenue per Customer / Customer Churn Rate	AVG	Customer Type (e.g., new vs. returning)	Timeframe (monthly, quarterly)	If avg. revenue = \$200, churn rate = 5%, then LTV = $\$200 / 0.05 = \4000
Average Order Value (AOV)	Total Revenue / Total Number of Orders	AVG	Product Category, Region	Date Range (e.g., last 30 days)	If revenue = \$10,000, orders = 250, AOV = $\$10,000 / 250 = \40
Churn Rate	(Lost Customers / Total Customers at Start of Period) * 100	SUM	Customer Segment, Subscription Type	Specific Region (e.g., North America)	If 50 lost customers out of 1000, churn rate = $(50 / 1000) * 100 = 5\%$

5. Build a Storyboard

A great dashboard tells a story. To craft a compelling narrative:



Your storyboard acts as a framework, keeping your design focused and your message clear. While exploring data, your story might evolve—that’s okay. A structured start ensures coherence throughout.

Context is the cornerstone of impactful data visualization. By understanding your data’s domain, defining your audience’s needs, and structuring a cohesive story, you create dashboards that don’t just present data but drive informed decisions.