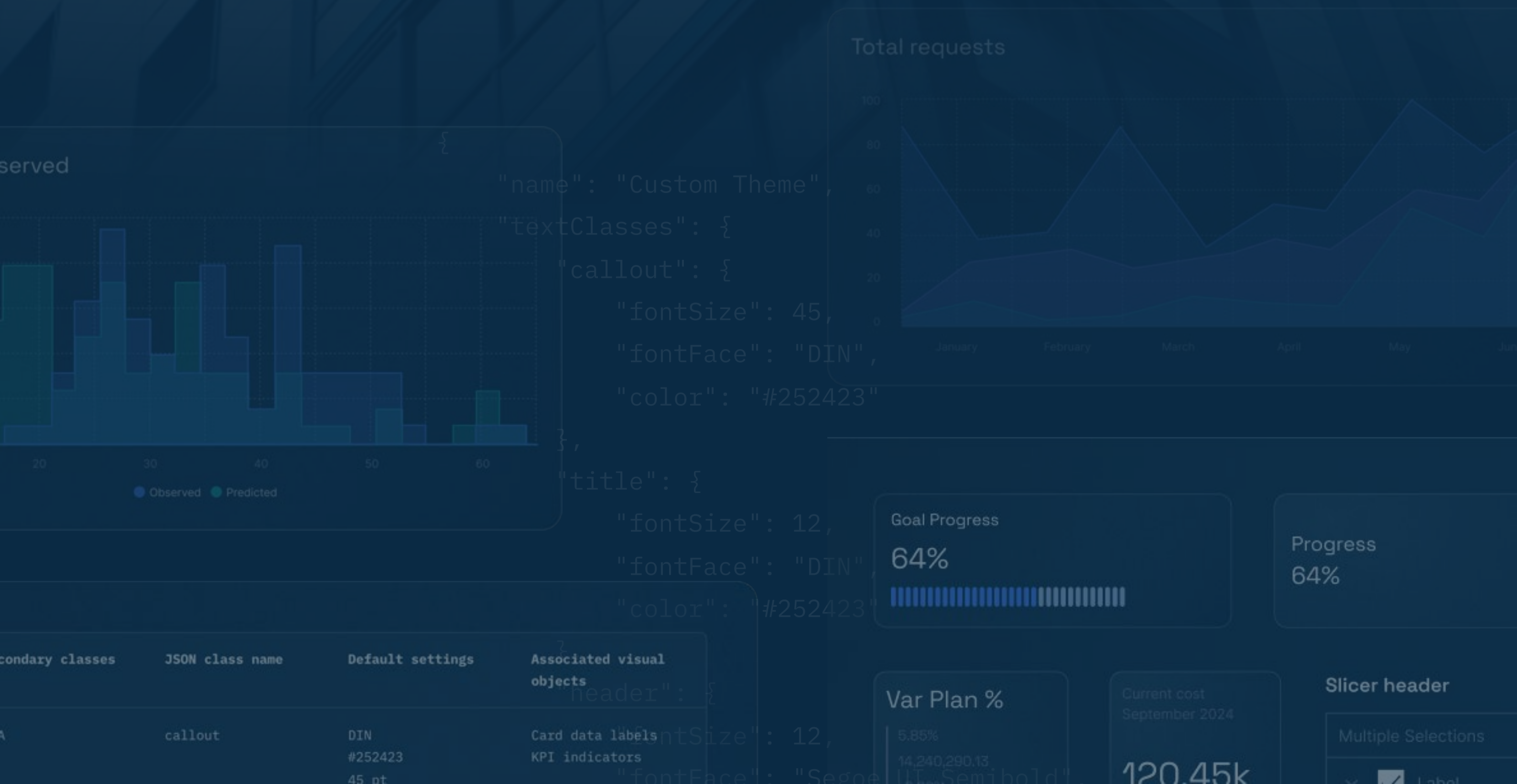


POWER BI DASHBOARD

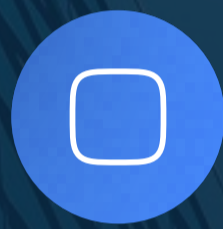
# Good Practices to Elevate Your Design



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# Keep it simple

The foundation of good design is simplicity.



## Avoid black background

Avoid excessive visual elements, such as unnecessary decorations or colors, which can distract from the main insights.

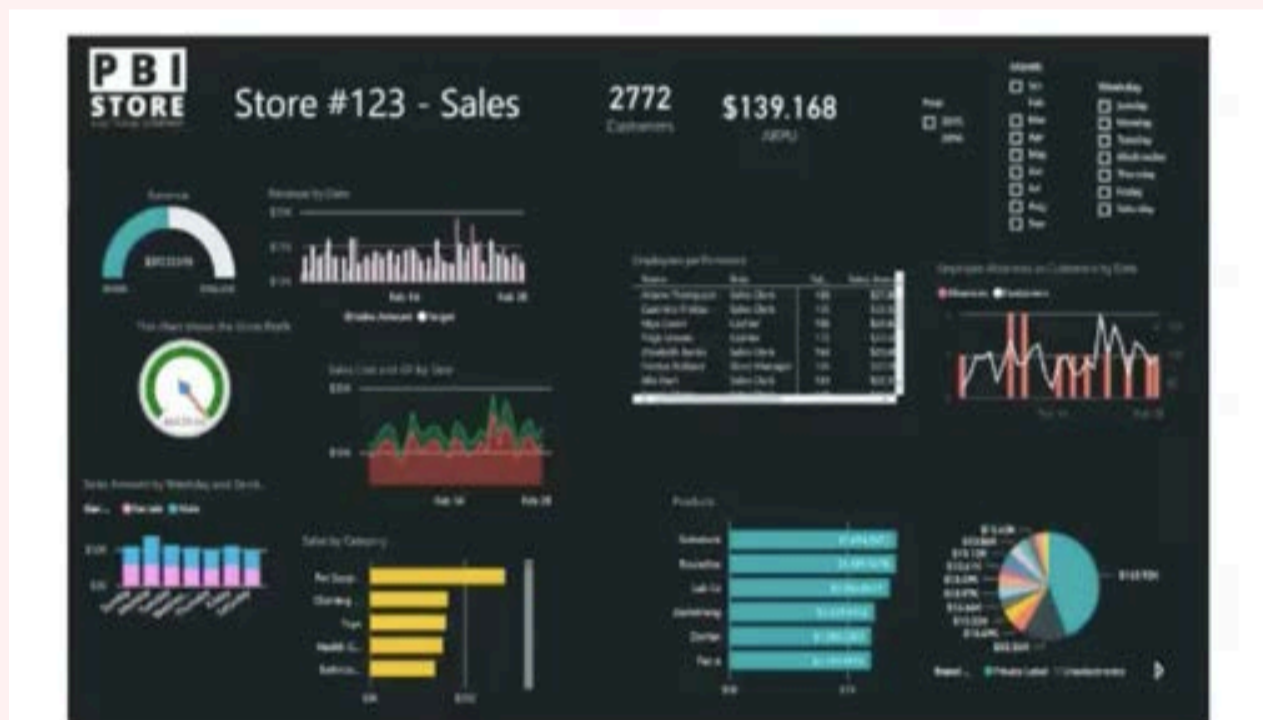
By reducing complexity and focusing on essential information, the dashboard becomes easier to interpret, facilitating quicker decision-making and enhancing the user experience.

You can achieve this by:

- using white or light background colours,
- avoiding using pictures as background,
- limiting the use of visual effects, unrelated to data e.g. borders, images, gridlines
- grouping objects by using the similarity and proximity design principles,
- avoiding using bold, italix and exaggerated typography

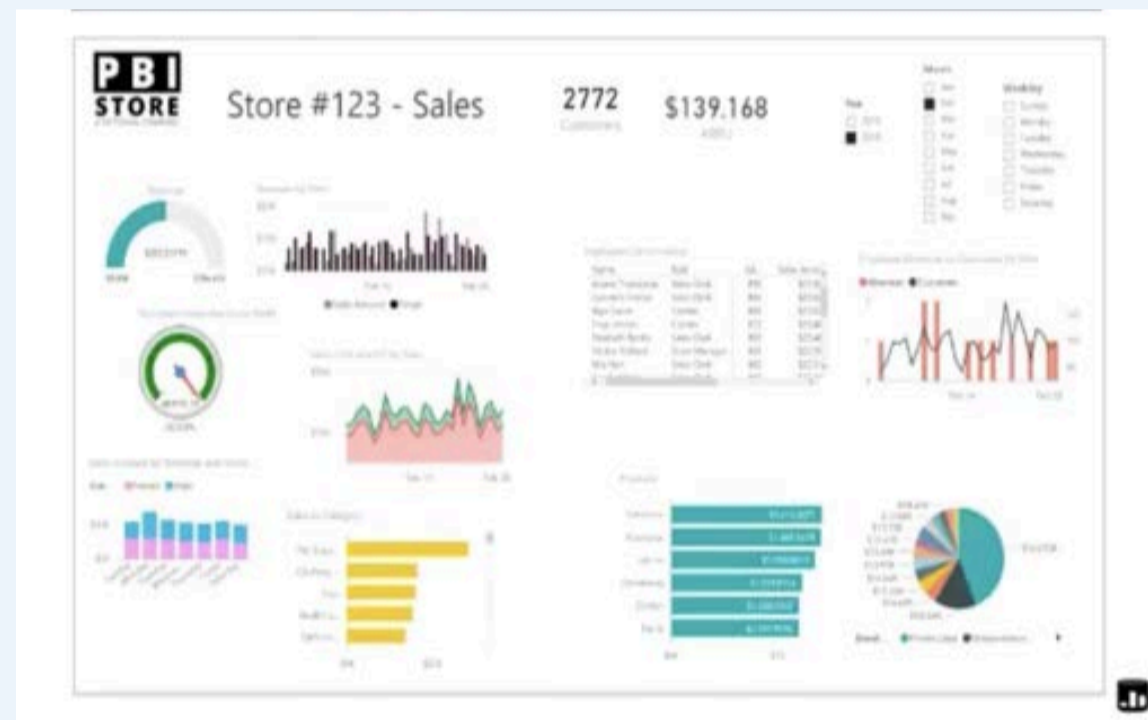
This approach helps ensure that each visual component serves a specific purpose and maintains consistency with the overall business goals of the dashboard. This rule is essential in creating dashboards that are user-friendly, clean, and effective for quick data analysis.

AVOID:



Source: *Power BI visualization best practices by Marco Russo*, [www.youtube.com/live/-tdkUYrzrzo](https://www.youtube.com/live/-tdkUYrzrzo)

DO:



Source: *Power BI visualization best practices by Marco Russo*, [www.youtube.com/live/-tdkUYrzrzo](https://www.youtube.com/live/-tdkUYrzrzo)





# Design for a target

You need to define the goal of the dashboard



## Meet the specific needs

Rather than creating one-size-fits-all dashboards, focus on the unique requirements and objectives of the target audience. This involves choosing relevant visualisations and structuring data in a way that aligns with user tasks, making the dashboard not only accessible but also effective in supporting decision-making.

1. Check how users interact with data daily and make sure that the displayed metrics directly address their primary questions.
2. Create a dashboard that helps users quickly find the insights they need without extra complexity.

This guidance helps avoid common design pitfalls and enhances usability, especially when combined with other best practices, such as keeping the dashboard clear and aligning elements logically.

### User's Needs Cover

- ✓ **User's groups**  
define who will be using the dashboard and map possible differences to divide them into separate groups (if needed).
- ✓ **User's goals**  
establish the ultimate tasks, visualizations, data, expectations that users needs from the dashboard.
- ✓ **User's pains**  
try to predict and prevent the potential blockers or problems that might prevent users from reaching their goals.
- ✓ **Users testing**  
consult with users to test and validate possible visualizations, charts, and information, ensuring the dashboard meets their needs and expectations.

## Prioritize data and information

We don't want to show all, only the most important information. Quick overview. Dashboard should prioritize providing a high-level overview with key metrics and insights rather than in-depth detail.

For dashboards to achieve this level of functionality you need to highlight the need for:

- intuitive visual hierarchy,
- minimal clutter,
- easy access to relevant summaries,

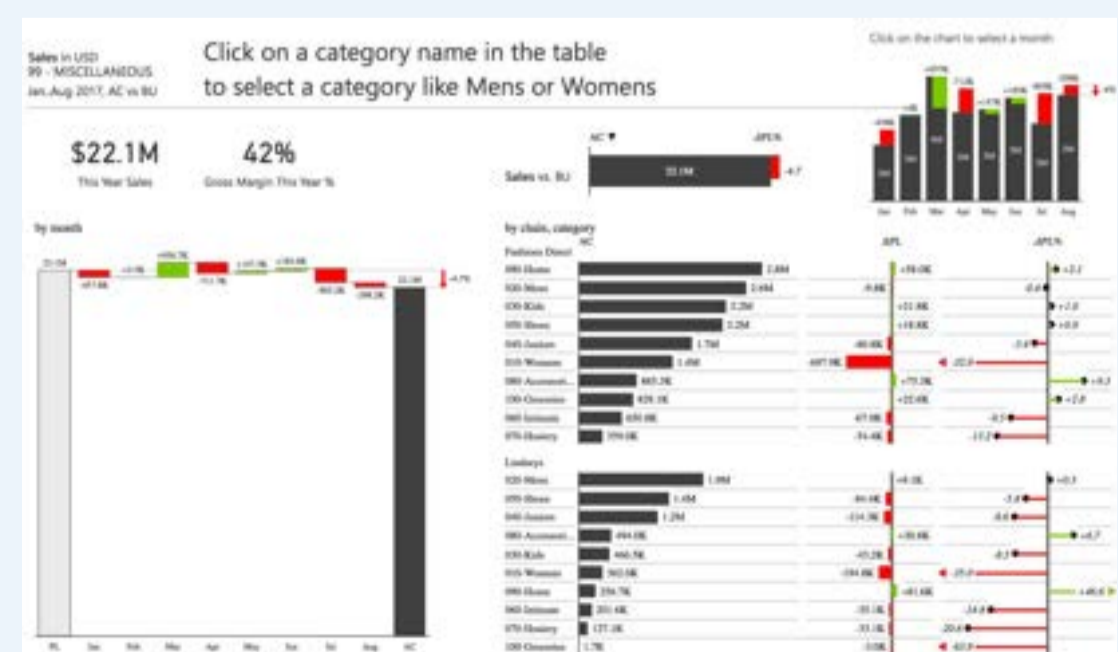
Unlike reports, which can be more data-heavy and granular, dashboards focus on presenting the most essential information in a way that allows users to quickly understand trends, track performance, and make decisions based on key metrics. This approach allows for efficient monitoring and encourages users to delve into specific reports if further detail is needed, ensuring dashboards remain streamlined and actionable.

AVOID:



Source: *Power BI for Business Analysts: The top tools you need in your toolbox*, <https://zebrabi.com/power-bi-for-business-analysts/>

DO:



Source: *Build Spectacular Power BI Dashboards using Zebra BI custom visuals*, <https://zebrabi.com/power-bi-dashboards/>





# Be consistent

If the chart is the right one use it and don't look for another one just to make dashbaord more "interessig"



## Uniform design elements

Consistency in dashboards means aligning:

- font styles,
- colors,
- layouts,
- formats across visualizations and elements.

This not only prevents user confusion but also makes the interface intuitive and easy to navigate. For example, keeping similar colors for related data categories or using the same alignment for all charts can guide users' attention efficiently, making information easier to locate and interpret.

This approach contributes to a polished, professional look, enhancing readability and user satisfaction by eliminating unnecessary distractions or inconsistencies.

## Align elements to cohesive and intuitive layout

This rule emphasizes not only aligning elements horizontally and vertically but also establishing a consistent and appropriate visual hierarchy.

Key metrics and critical insights should be placed prominently, typically in the top-left section of the dashboard, as this is the area users naturally focus on first. Ensuring that each component aligns within a defined grid structure helps to balance the layout, making it both visually appealing and functionally efficient. Proper alignment aids in visually grouping related information, which reduces cognitive load and allows users to navigate the dashboard seamlessly.

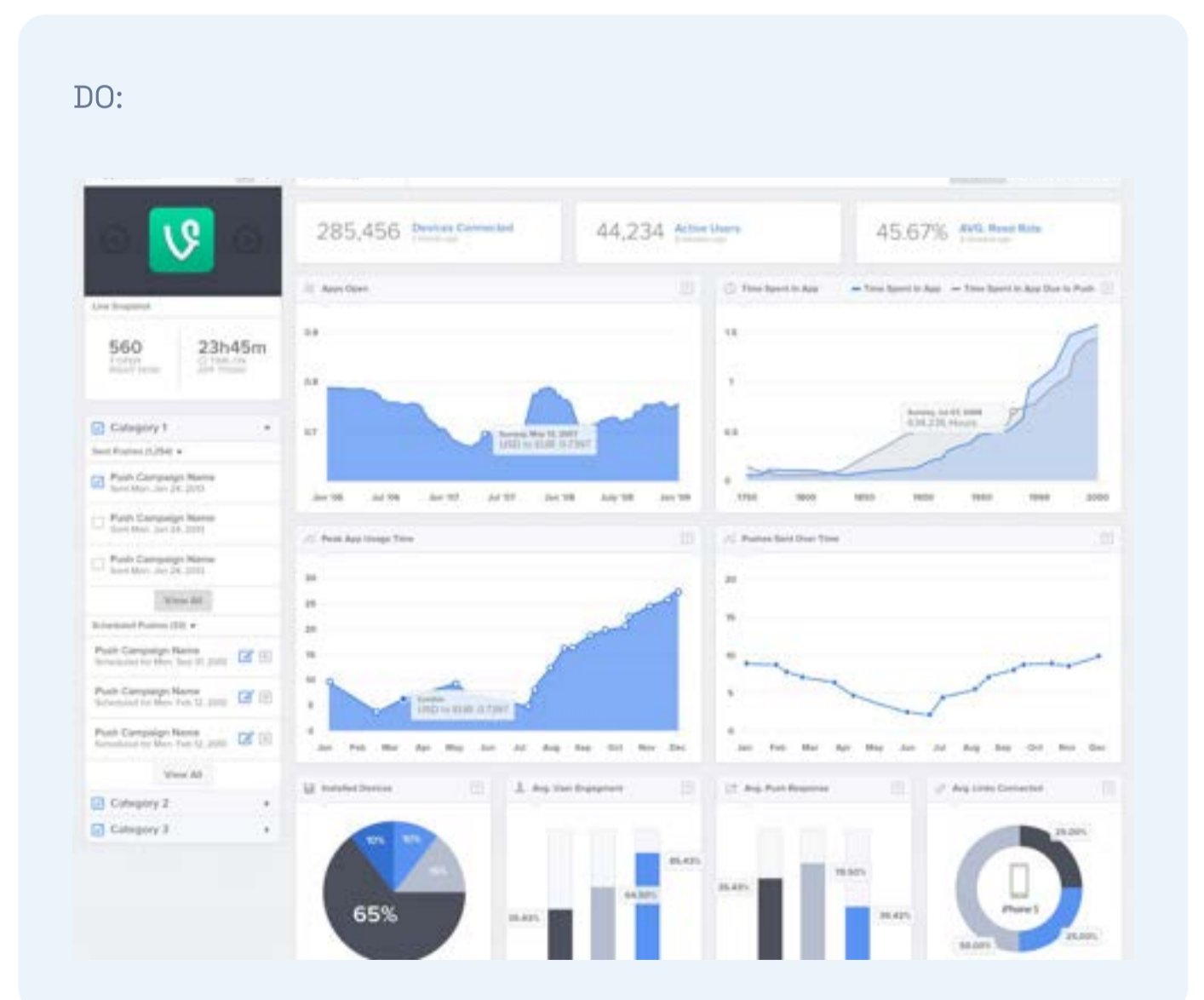
When elements are aligned consistently, the dashboard:

- minimizes distractions,
- enabling users to interpret data quickly and intuitively without unnecessary visual strain,
- subtly guides users' attention to priority data,
- enhances decision-making

This clean, organized approach also reinforces the dashboard's professionalism and boosts user engagement by making data access smoother and faster. Such design choices help maintain user focus, encouraging consistent use of the dashboard for real-time insights.



Source: *Dashboard examples: The good, the bad and the ugly*, [www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly](http://www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly)



Source: *Dashboard examples: The good, the bad and the ugly*, [www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly](http://www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly)





# Highlight what's important

Not all the numbers are the same.



## Visible what's important

Make the key insights stand out prominently so they can be easily spotted by the viewer.

This can be achieved by using:

- larger fonts,
- bold colors,
- prominent placement to draw attention to critical metrics or KPIs.

The idea is to reduce cognitive load, ensuring users can quickly identify and focus on the most relevant data, facilitating faster decision-making and improving overall dashboard usability.

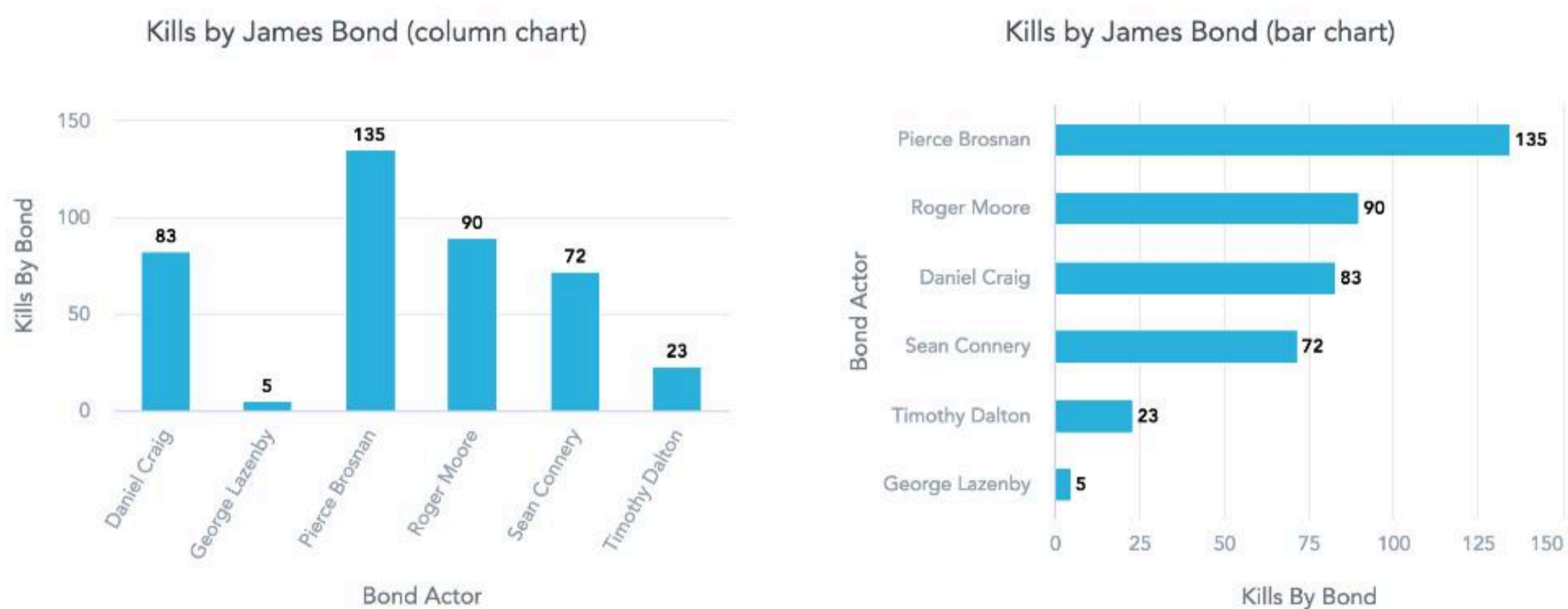
## Show the context - Keep the data relation

Add surrounding information that gives clarity to data visualizations.

This means including details that make it clear where the data stands in relation to previous metrics, industry standards, or targets. For example, adding historical comparison points, benchmarks, or goal indicators allows users to quickly interpret the significance of current data, such as understanding if a KPI has improved or declined over time.

This rule helps users make more informed decisions by providing a contextual foundation, preventing misinterpretation, and enhancing the strategic value of the dashboard. Properly implemented, context can be added through visual elements like annotations, reference lines, or labels that are strategically placed on charts to guide the viewer in understanding how current data relates to other relevant metrics.

DO:



Source: *7 Tips for Good Data Visualizations*, [www.gooddata.com/blog/7-tips-good-data-visualizations/](http://www.gooddata.com/blog/7-tips-good-data-visualizations/)

## Keep all critical information visible

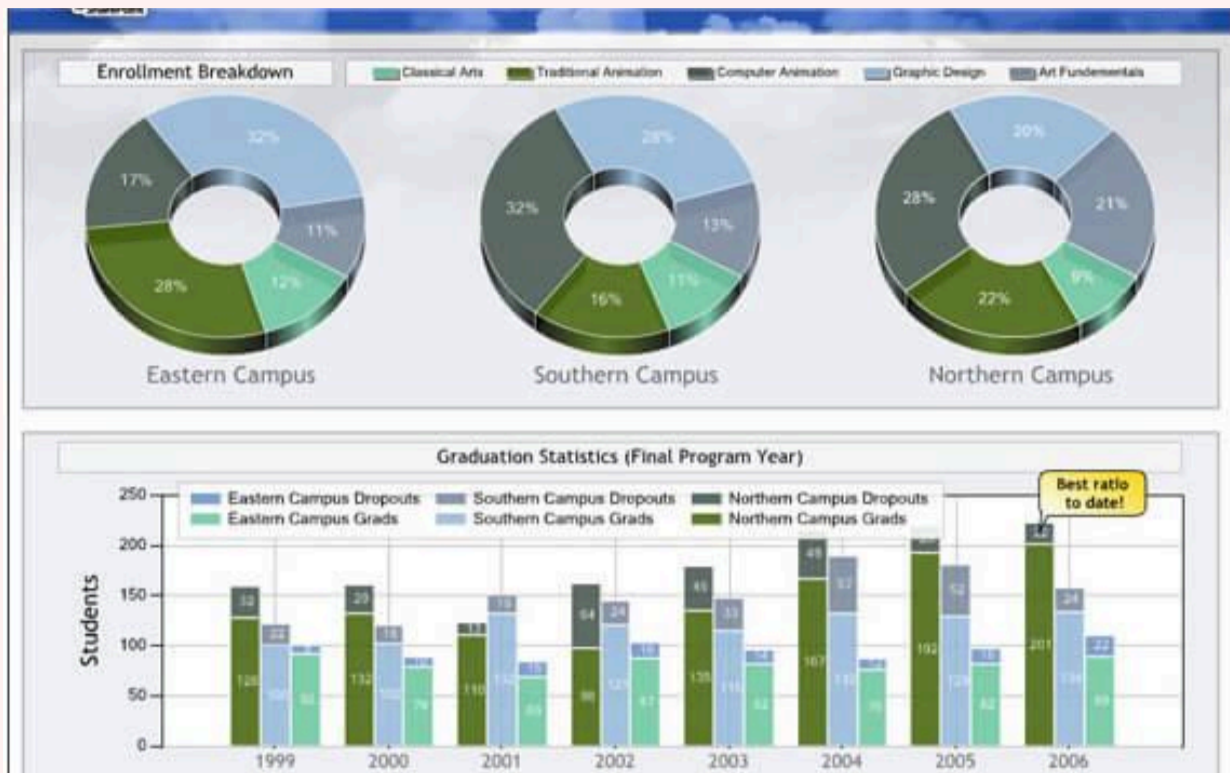
Focuses on ensuring all critical information is immediately visible to the user without the need to scroll or search through multiple layers.

This approach aligns with the primary purpose of dashboards: providing a concise, high-level view of key metrics that allow users to quickly assess data and make informed decisions.



Dashboards should avoid unnecessary details and instead aim for simplicity, using visual cues like font size and clear graphics to highlight essential metrics. This approach ensures a balance between an informative, uncluttered display and immediate data access, thus maximizing the dashboard's effectiveness and ease of use.

AVOID:



Source: *Dashboard examples: The good, the bad and the ugly*, [www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly](http://www.matillion.com/blog/dashboard-examples-the-good-the-bad-and-the-ugly)

DO:



Source: [www.numerro.io/use-cases/sales-template](http://www.numerro.io/use-cases/sales-template)





# Be clear

Add legend, explain what you're showing.



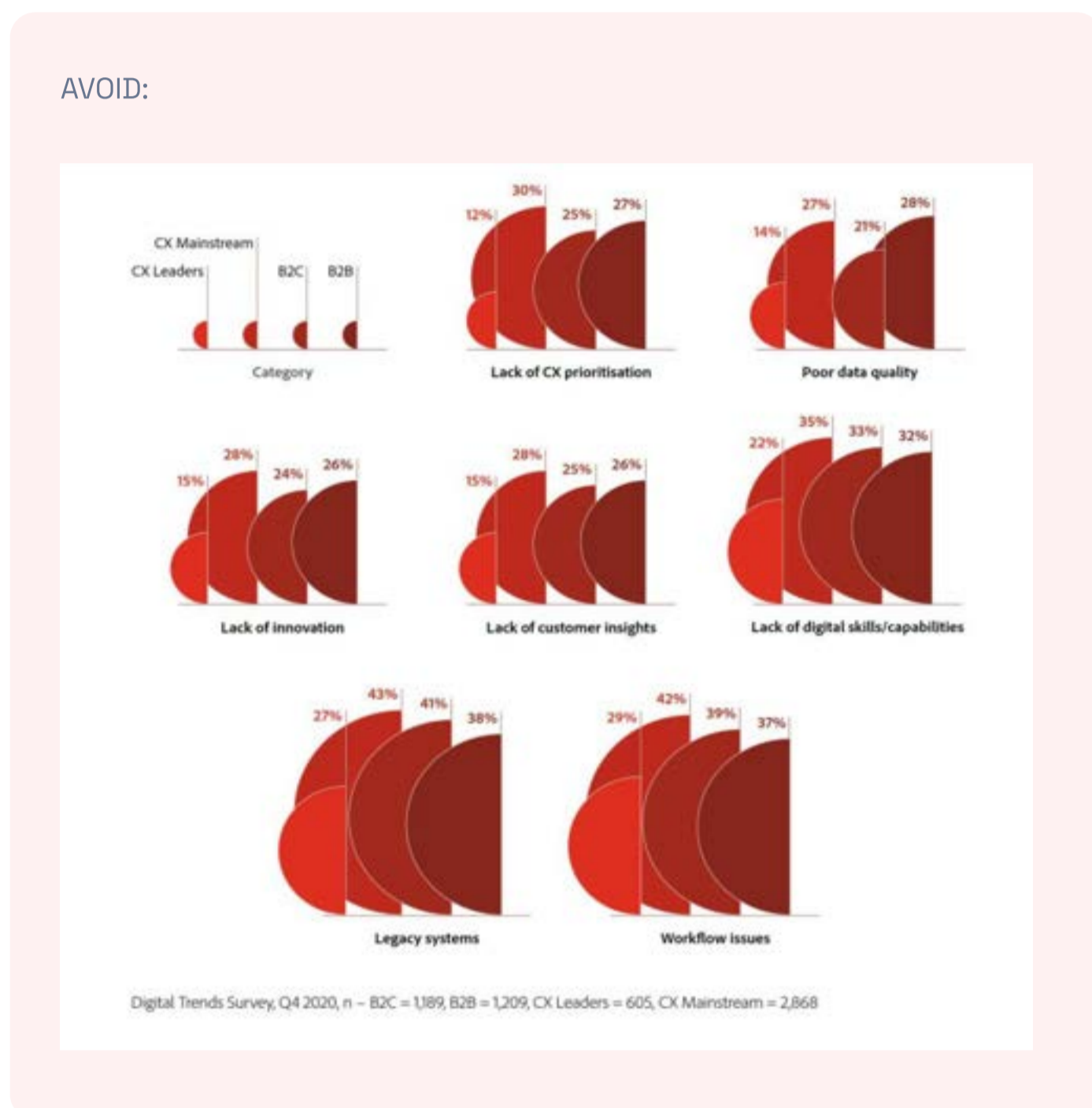
## Explain and guide

A clean, decluttered design helps viewers interpret information faster and reduces cognitive load, enhancing overall usability and impact. The goal is to make sure that the dashboard supports decision-making by delivering the most relevant information at a glance, without confusion or distraction.

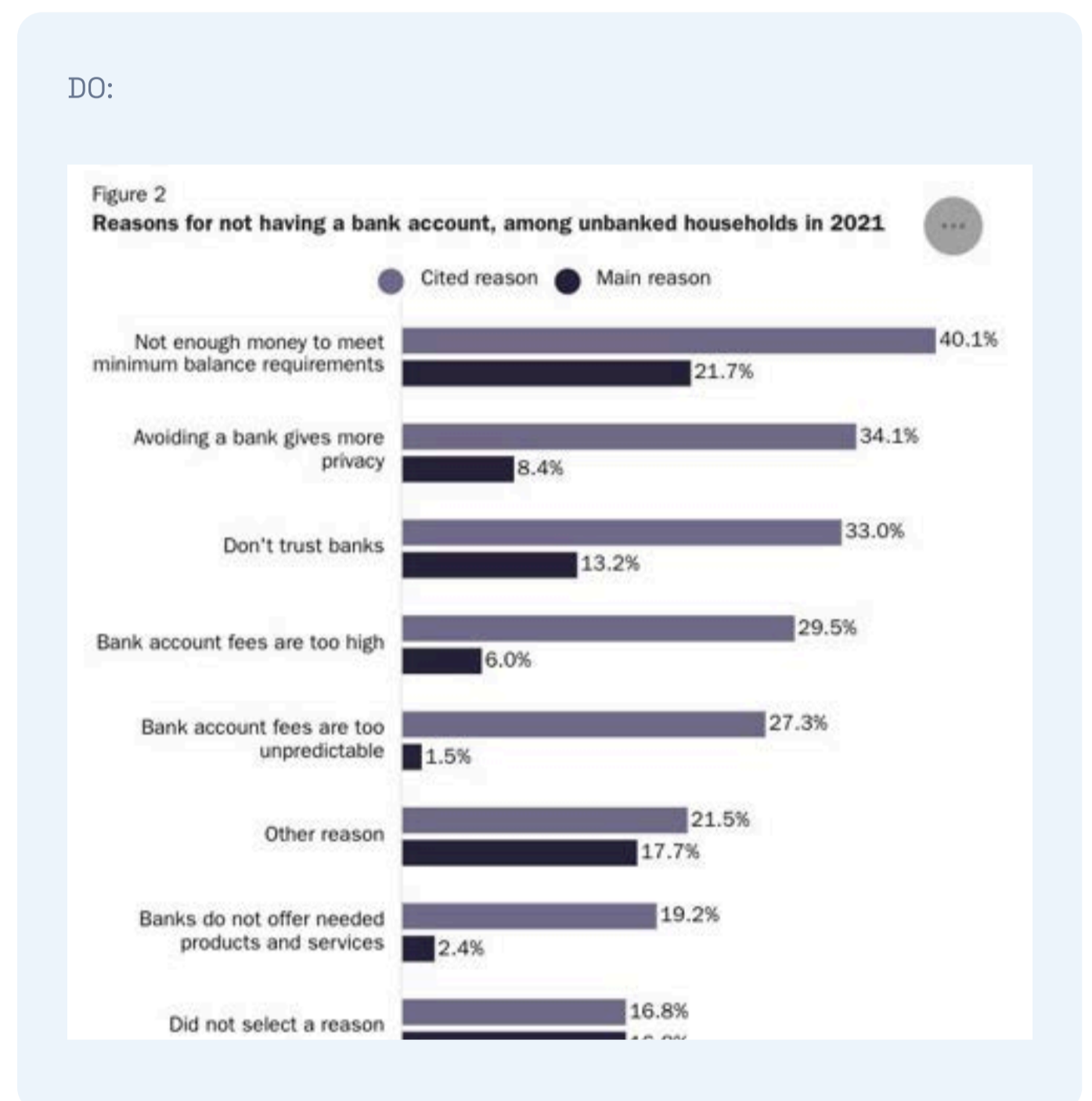
This can be achieved by:

- adding legends and clear labels to clarify the meanings of colors, symbols, and metrics within a chart.
- using specific colours for the specific metrics
- adding concise explanations or tooltips

This is particularly helpful for complex visualizations, where multiple data series, categories, or comparisons might make it hard for viewers to interpret the data accurately.



Source: [viz.wtf/post/644753104022159360/half-moon-half-empty-2021-digital-trends-report](https://viz.wtf/post/644753104022159360/half-moon-half-empty-2021-digital-trends-report)



Source: <https://infogram.com/figure-2-reasons-for-not-having-a-bank-account-among-unbanked-households-in-2021-percentages-1h0n25yrljywz6p>

## Start from zero

Value scale of a chart should start from zero.

To properly represent a comparison, the value scale of a chart (usually the y-axis in Cartesian charts) has to start from zero.

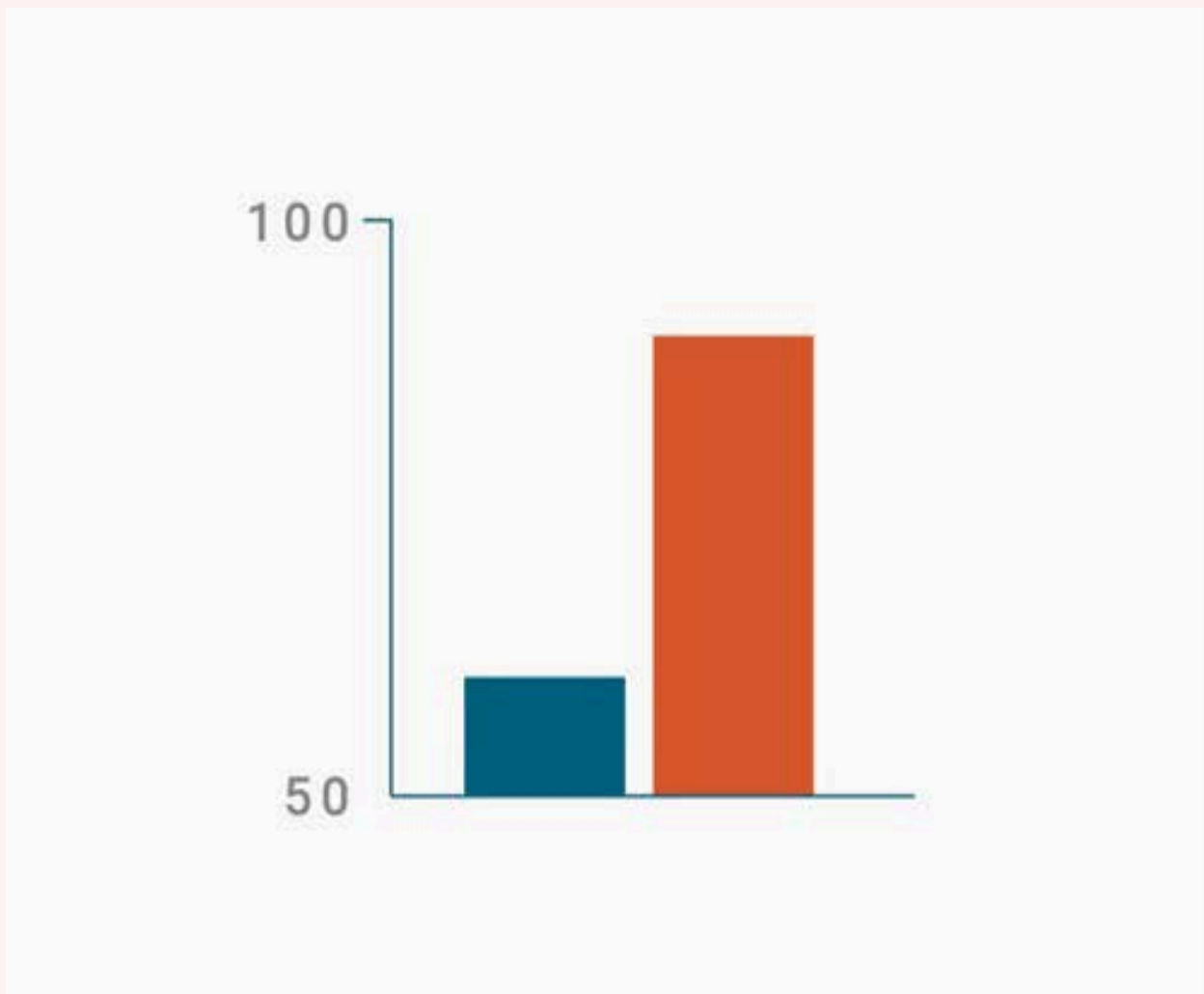
Despite this concept being absolutely right, there are some exceptions to remember. Ignore the rule when:

- You need to highlight a change (provided that the chart is not made of bars/columns).
- The chart is a Dot Plot.

The idea is to avoid creating a misleading picture which can lead to biased decisions.



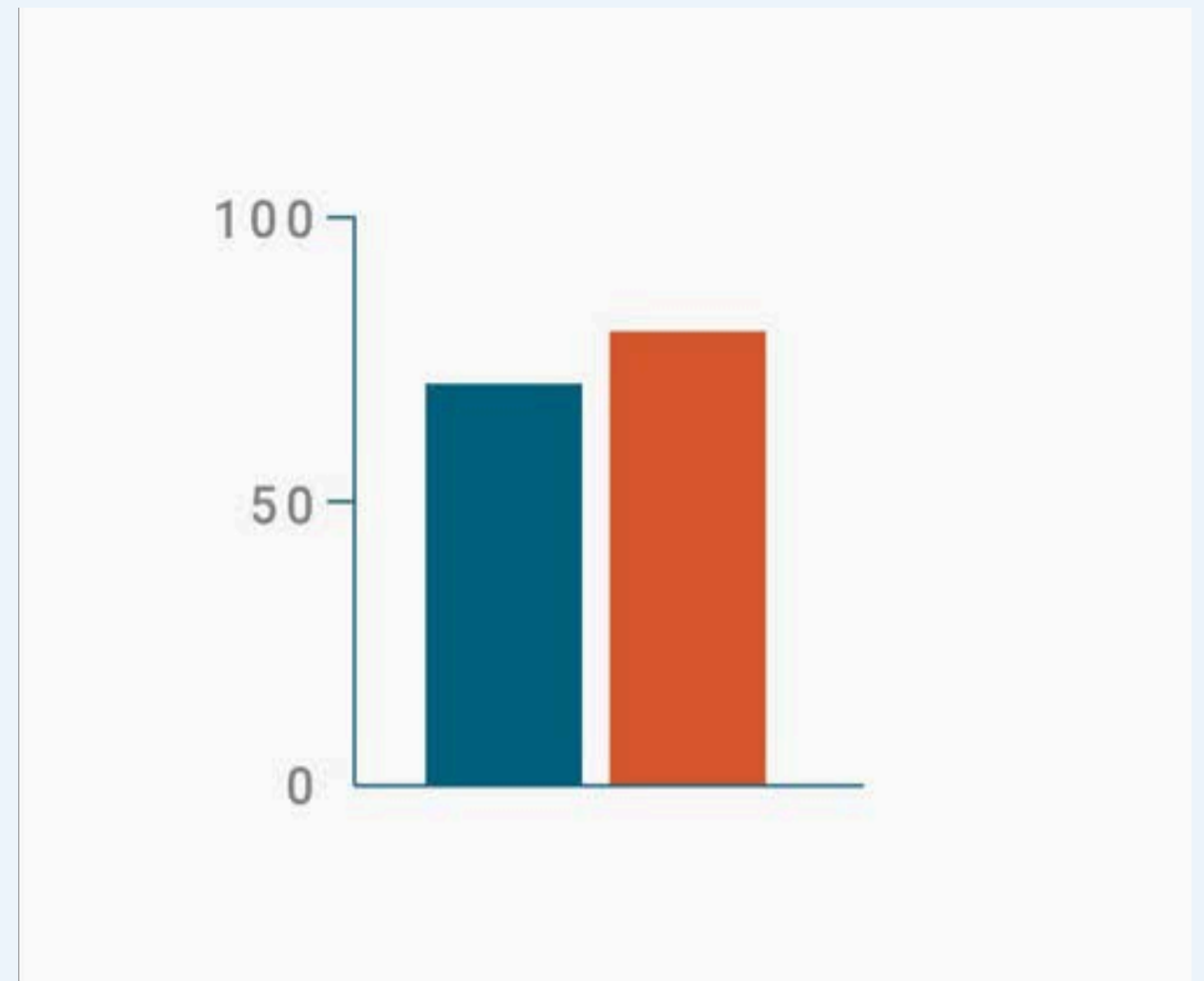
AVOID:



TRUNCATED Y-AXIS

Source: *Why our column and bar charts start at zero (or below)*, <https://academy.datawrapper.de/article/326-why-our-column-and-bar-charts-start-at-zero>

DO:



NOT TRUNCATED Y-AXIS

Source: *Why our column and bar charts start at zero (or below)*, <https://academy.datawrapper.de/article/326-why-our-column-and-bar-charts-start-at-zero>

## Shorten the numbers - 1.2M is better than 1,23,567

Present numbers in a simplified, rounded format to make data quickly digestible for users.

This approach is about avoiding unnecessary precision by reducing large figures to understandable shorthand, like thousands (K) or millions (M), which improves the user's ability to comprehend data at a glance. For example, instead of showing "1,234,567," displaying "1.2M" allows viewers to quickly grasp the scale without reading each digit, which helps streamline decision-making in a data-dense dashboard.

This rule is especially important in executive dashboards or any design focusing on high-level insights, as it ensures that the display is both visually clean and focused on the big picture. Simplifying numbers also contributes to a cleaner interface, aiding overall readability and reducing cognitive load

AVOID:

Quantum of Solace	Skyfall
\$591692078.00	\$1,108,561,108

Source: *7 Tips for Good Data Visualizations*, <https://www.gooddata.com/blog/7-tips-good-data-visualizations/>

DO:

Spectre
\$879.6 M

Source: *7 Tips for Good Data Visualizations*, <https://www.gooddata.com/blog/7-tips-good-data-visualizations/>





# Pick the right charts

Choose the right visualisation

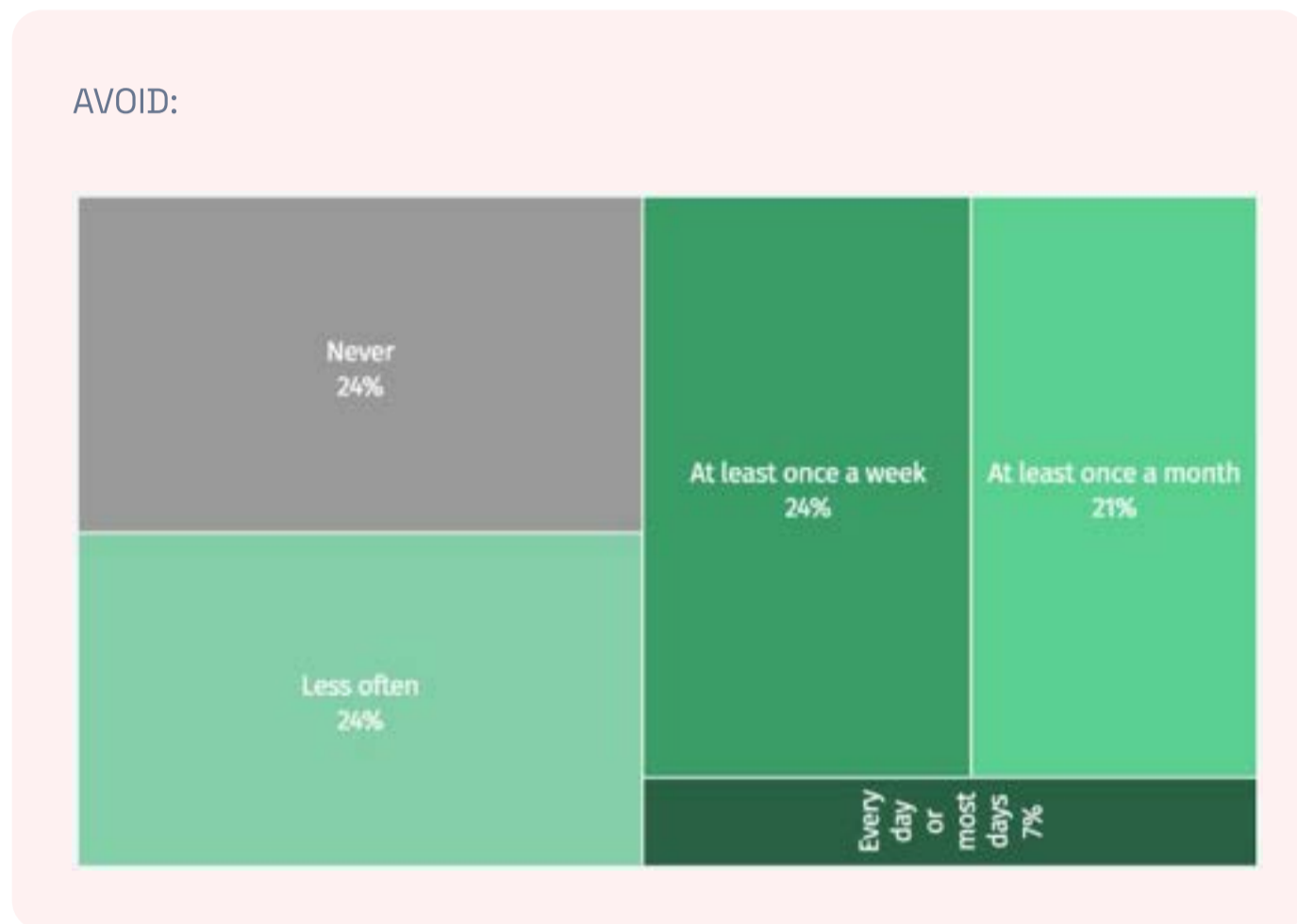


## Pick the right charts

Selecting the correct chart type is crucial for effectively communicating data insights.

Each chart type should match the specific data pattern or analysis objective you want to highlight. For example, line charts work well for showing trends over time, while bar charts excel at comparing discrete categories. Avoid overly complex or visually overwhelming charts that may confuse users, instead focus on clarity and ease of interpretation.

Ultimately, this rule encourages designers to choose chart types that enhance data readability and guide users in extracting the most relevant insights.



Source: *10 Good and Bad Examples of Data Visualization in 2024*, <https://www.polymersearch.com/blog/10-good-and-bad-examples-of-data-visualization>



Source: *10 Good and Bad Examples of Data Visualization in 2024*, <https://www.polymersearch.com/blog/10-good-and-bad-examples-of-data-visualization>

## Different perspectives

Display different perspectives on data to provide more context and insight for decision-making.

It can be achieved by using various visual representations, such as different chart types or timeframes, allowing users to compare trends, fluctuations, and categories effectively. For example, combining both year-over-year and month-over-month views can reveal seasonal patterns or anomalies that might be missed if only one view were presented.

This approach enriches the user's understanding by allowing them to interpret data in a way that aligns with their specific needs and objectives

## Focus on essential data and leave the noise off

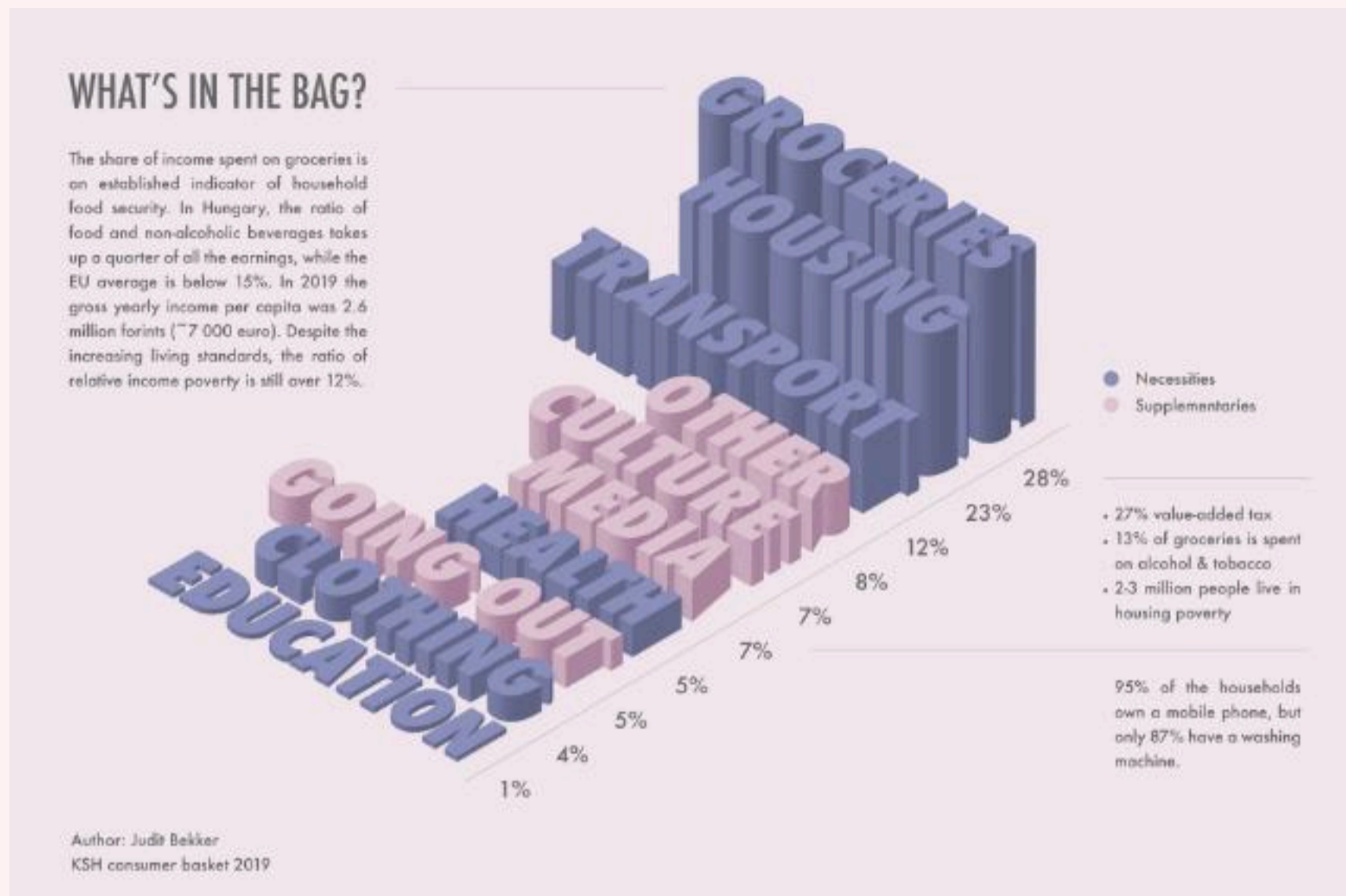
Avoid unnecessary visual clutter that can distract users. By excluding superfluous details, you can create dashboards that are cleaner and easier to interpret, allowing users to concentrate on key metrics and insights.

This rule advocates for clarity and minimalism, suggesting that elements should only be visually grouped only if they are logically connected. Placing unrelated items too closely can imply a relationship, which may confuse users and detract from the dashboard's effectiveness. Don't suggest relations that don't exist. Sometimes making something too close suggests that it should be process together.



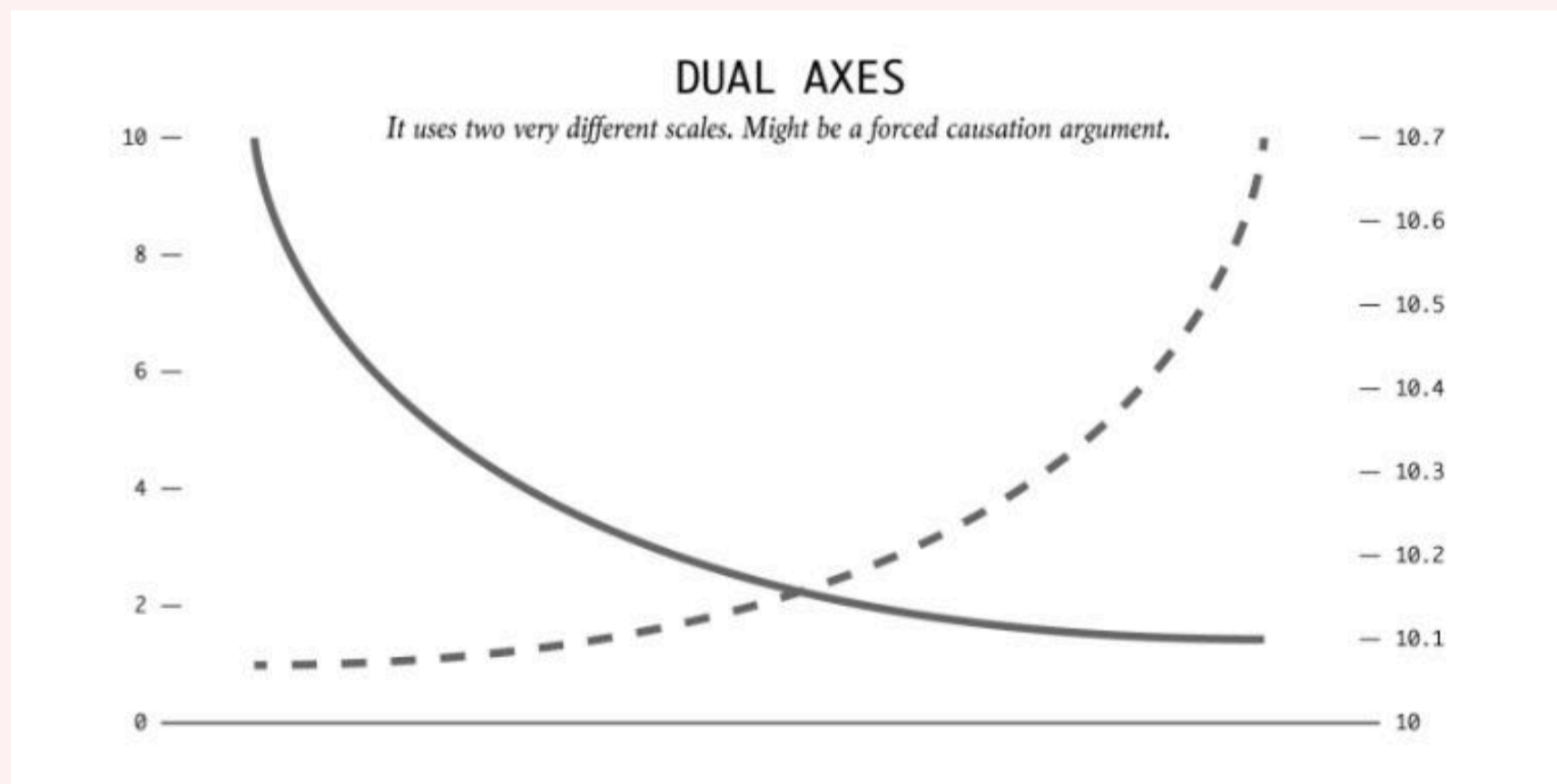
This approach not only enhances readability but also improves the overall user experience, helping users make quicker, more informed decisions based on the most relevant information available.

AVOID:



Source: Worst practice 3D bar chart, <https://datasorcery.wordpress.com/2021/03/16/worst-practice-3d-bar-chart/>

AVOID:



Source: When data visualization really isn't useful (and when it is), <https://www.tempio.io/blog/good-and-bad-data-visualization>





# Choose the right colors

We don't see colors in the same way.



## Choose the right colors

Color plays a crucial role in enhancing the clarity and aesthetic appeal of these visualizations. The strategic use of color can help highlight key insights, draw attention to particular data points, and differentiate between various data categories. Selecting the right color palette is essential for accurately conveying the intended message and ensuring that the visualization is accessible to all users, including those with color vision deficiencies.

Different types of data require different color palettes:

- **Categorical Data**

When displaying categorical data, which involves distinct groups or categories, it is important to use a qualitative color palette. These palettes consist of colors that are easily distinguishable from one another, ensuring that each category stands out clearly. A classic example is using a unique color for each country on a map.

- **Sequential Data**

For data that represents a range of values, such as temperatures or population density, a sequential color palette is ideal. Such palettes use varying shades of a single color or closely related colors to represent the continuum, typically with lighter shades indicating lower values and darker shades indicating higher values.

- **Diverging Data**

When dealing with data that has a central neutral value with positive and negative extremes, like financial gains and losses, a diverging color palette is effective. These palettes employ two contrasting colors that diverge from a central midpoint, helping to visually separate values above and below the reference point.

AVOID:



The same colours used for different metrics

Source: *Top 12 Power BI Dashboard & Reports Examples in 2024*, <https://cobit-solutions.com/en/4-osnovnyh-otcheta-dlja-biznesa-v-power-bi-2/>

DO:



Consistent colour usage

Source: *Przykład Analizy marketingu konkurencyjnego dla usługi Power BI: zapoznaj się z przewodnikiem*, <https://learn.microsoft.com/pl-pl/power-bi/create-reports/sample-competitive-marketing-analysis>



# Get in touch

Don't let your data insights get lost in the noise.  
Schedule a consultation and learn how we can support you.

[BUSINESS@STXNEXT.COM](mailto:BUSINESS@STXNEXT.COM)