





Module 4. Data visualization & trends




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Unit 4.1 How to visualize data effectively

4.1.1 Fundamentals of data visualization

In data visualization, it's essential to understand and apply several important principles:

- **Target audience:** it's crucial to know who your audience is. The message should be tailored to the audience's level of understanding. If the audience is knowledgeable, you can present more complex data; if their understanding is lower, more general information should be provided.
- **Highlight the key information:** with all the data you present, you must identify where you want the audience to focus. Highlighting the most relevant data makes it easier for the person viewing the dashboard to interpret the information.
- **Data should be presented in a creative way:** the more visual the data, the more it stands out in the dashboard. Consider the best way to present your data, as more visual content is often better.

For instance, charts are usually more effective than tables. Additionally, you need to choose the right type of chart, as not all charts are appropriate for every data type.

- **Less is more:** this is one of the most important principles, as overwhelming the audience with too much data can lead to confusion. Always remember the purpose of your dashboard and focus on presenting only the most relevant data in a straightforward way.
- **Interactive dashboards:** when possible, allow the audience to interact with the data you present. This is not required for all reports but can be beneficial when interaction helps the audience better understand the data.

These are some of the most important principles, and by following them, your reports will be more engaging for the audience.

4.1-2. Power BI

At the club, we use the Power BI platform to create dashboards that are shared with different departments. These dashboards will be covered in more detail in sections 2 and 3 of this module.

Let's start with Microsoft's definition of Power BI from March 22, 2014: "Power BI is a suite of software services, apps, and connectors that work together to transform unrelated data sources into coherent, interactive, and visually compelling information." Your data could be an Excel spreadsheet or a mix of on-premises and cloud-based hybrid data warehouses. Power BI enables easy connection to data sources, allowing you to visualize, discover key insights, and share them with anyone you choose (<https://shre.ink/8Czf>).

As Microsoft explains, Power BI's purpose is to transform unrelated data sources into cohesive, visually compelling information. This ability is what makes tools like Power BI so useful for creating reports. Different teams are looking to receive information, and the more visual and interactive it is, the more it captures the viewer's attention.

To generate various reports, we have access to a wide range of data sources that can be used to create dashboards. The most important thing about these databases is that they are well-organized, allowing the application to read the data correctly. While we can edit data sources within the application, making changes at the original document source is more effective for future use.

Figure 1: Power BI

4.1-3. Introduction to data storytelling

To begin, it's helpful to define what storytelling is. According to U-tad's definition, "storytelling is about telling stories, as its name suggests. It is a technique used to convey a message through the narration of events, aiming to provoke a specific reaction in the audience (e.g., sadness, anger, joy, worry), helping them connect emotionally. Storytelling is used across various fields, such as marketing, advertising, politics, literature, journalism, and even in live-action and animated films (<https://shre.ink/8CRw>)."

Now that we understand storytelling as the art of telling stories, we will focus on the story's origin that we want to share. We start with a raw database, which we use to convey specific insights to the person receiving the final report. The following three points are essential to our storytelling:

- **Data:** this refers to the database that serves as the foundation of our work and is the source of everything we aim to convey. It is raw data that shows what we want to present but still needs to be structured.

- **Visualization:** this refers to how we choose to present the information to the person receiving the report. Essentially, it's the dashboard we create to display the insights we have generated.
- **Narrative:** this isn't about how we present the data, but rather what message we want to communicate through it. This final point is crucial in determining what story we want to tell with our data.

The ultimate goal of storytelling is to create a meaningful change, and to do so, we need to consider these three concepts in our narrative:

- **Explain:** we need to tell a story using all of our data.
- **Illuminate:** we should provide insights, either to confirm something known or to reveal something that wasn't previously on the radar.
- **Engage:** storytelling is not just about explaining data; it also needs to be engaging to ensure the audience is captivated by the information.

Unit 4.2 Partnerships

4.2.1 Commercial proposal reports

The key to producing effective commercial reports is delivering a clear and compelling message. Often, we make the mistake of including too much information in too little space, or not considering the time the recipient will allocate to reviewing the report. Therefore, it's important to evaluate which data is most relevant to the sports entity and base the reports on that.

Depending on the sports property, certain factors may be more or less significant. For example, sports properties in the United States are not interested in reports about potential clients outside their state, as competition rules prevent them from seeking partners beyond their state's borders.

At the Club, we have two main reporting information centers, which we refer to as the Partnerships HUB. Within these hubs, our commercial team can find all types of information related to both the

sales process and day-to-day asset management. Each report has a specific purpose and is designed to address different tasks for various situations. The value of business intelligence lies in how we transform daily information into actionable, real-time reports.

Figure 3: Reports



Source: Screenshot of KORE x FCB Internal Commercial Dashboard.

Figure 4: Reports



BI PARTNERSHIPS HUB

Access to all the information provided by the Business Intelligence team to the Partnerships department regarding Platforms, Reports, and more.



ASSET INVENTORY

Club asset information and proposal templates. Availability and Stock of the most critical partnership assets, including Espai Barça.

BENCHMARK ANALYSIS

Benchmarking analysis, and reports related to Partners, both internal and external.



COMMERCIAL PERFORMANCE

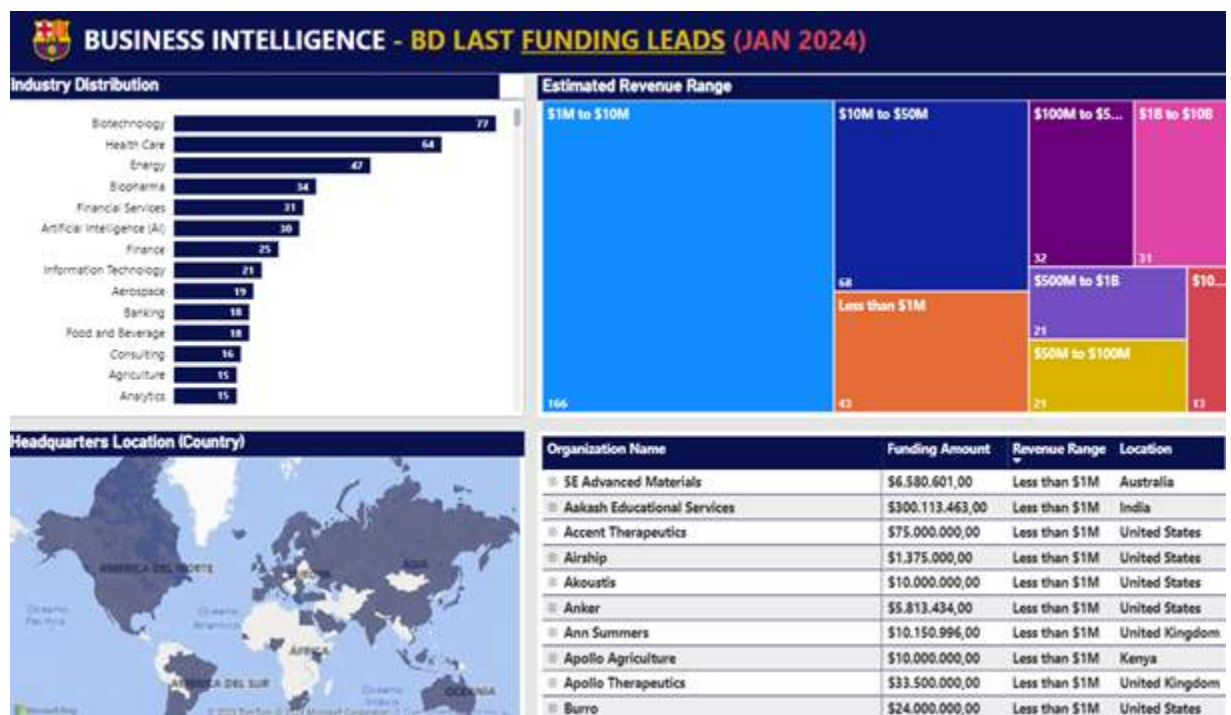
Commercial Overview including team performance and reports related to Partners, both internal and external.

Source: Screenshot of FCB Internal Partnership HUB Repository.

When creating commercial reporting visualizations, we can focus on two main groups:

- Lead generation
 - Generate an informative report about potential clients of interest to the sports entity.

Figure 5: Example:





Source: Screenshot of FCB Internal Dashboard.

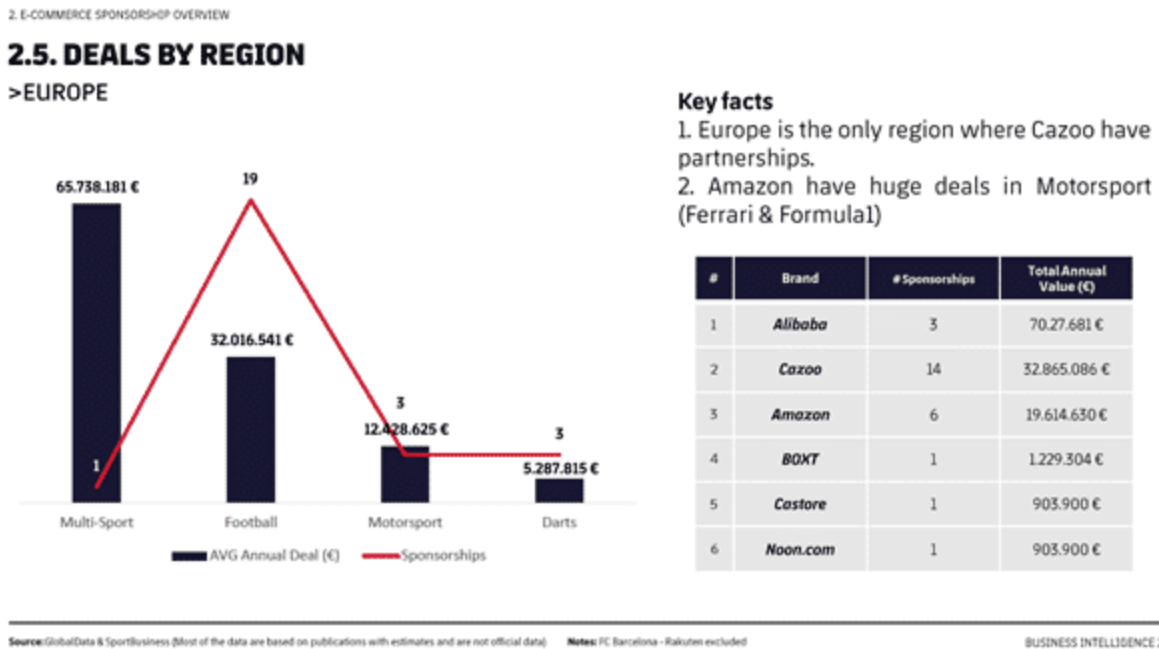
The above examples are dashboards displaying different types of investments in companies and sponsorship agreements over a specific time period worldwide. The goal is to provide visibility for our commercial team and help identify categories and companies that could be of interest globally.

Following this report, we delve into more specific information to gain a better understanding of the market and move towards turning leads into potential conversations with clients by fully understanding the target market.

Here is an example of a slide from an analysis of the E-commerce category in 2022. This category was previously identified as an area of

interest, and we later focused on understanding its scope and dimensions.

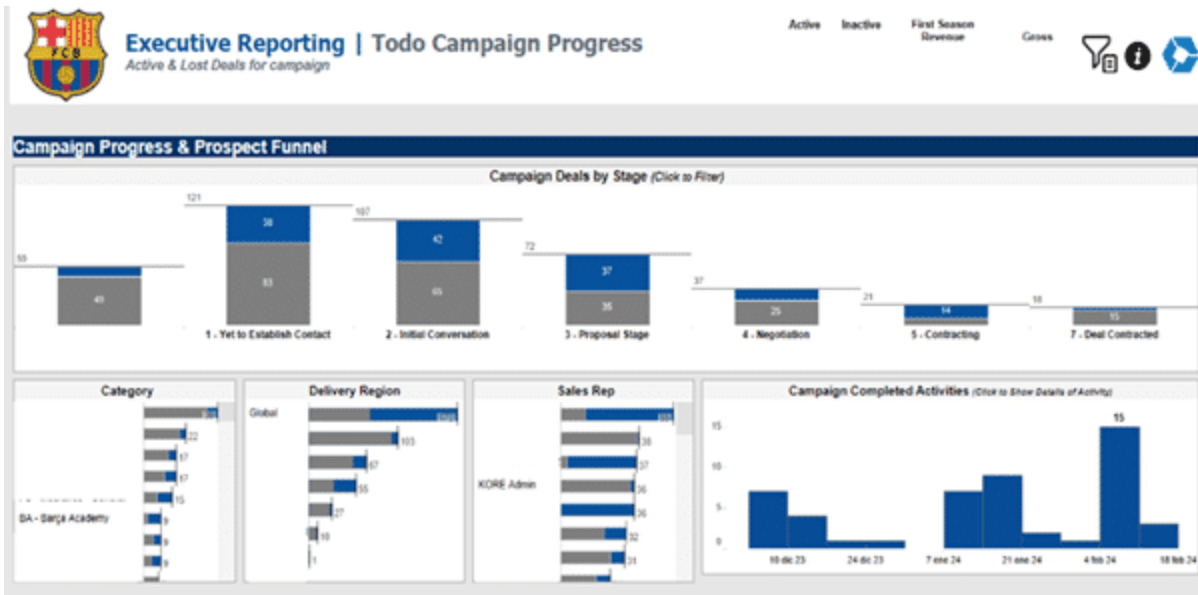
Figure 6: Deals by region



Source: Screenshot of FCB Internal Research E-commerce.

- *Commercial development*
 - Create reports that show the development status of the sales process.

Figure 7: Example:



Source: Screenshot of FCB Internal Dashboard.

In the previous example, we can see how our sales process is developing and identify potential opportunities for the Club. This view gives us clarity on the sales funnel and how the BI team can support the conversion to business. As mentioned in previous chapters, each sports entity has a different context and must tailor visibility to its needs. In the case of FC Barcelona, there is a global approach, so it's important to have a clear understanding of the entire process.

1. Asset inventory visualization

Any sponsorship asset inventory can be turned into a visible report. The complexity will come from the depth of the inventory, how much information has been accumulated over time, and the number of

assets. The crucial part of the reports is to show the most important information and avoid overwhelming with unnecessary details. Ultimately, these reports should allow us to take real-time action and save time in keeping ourselves informed.

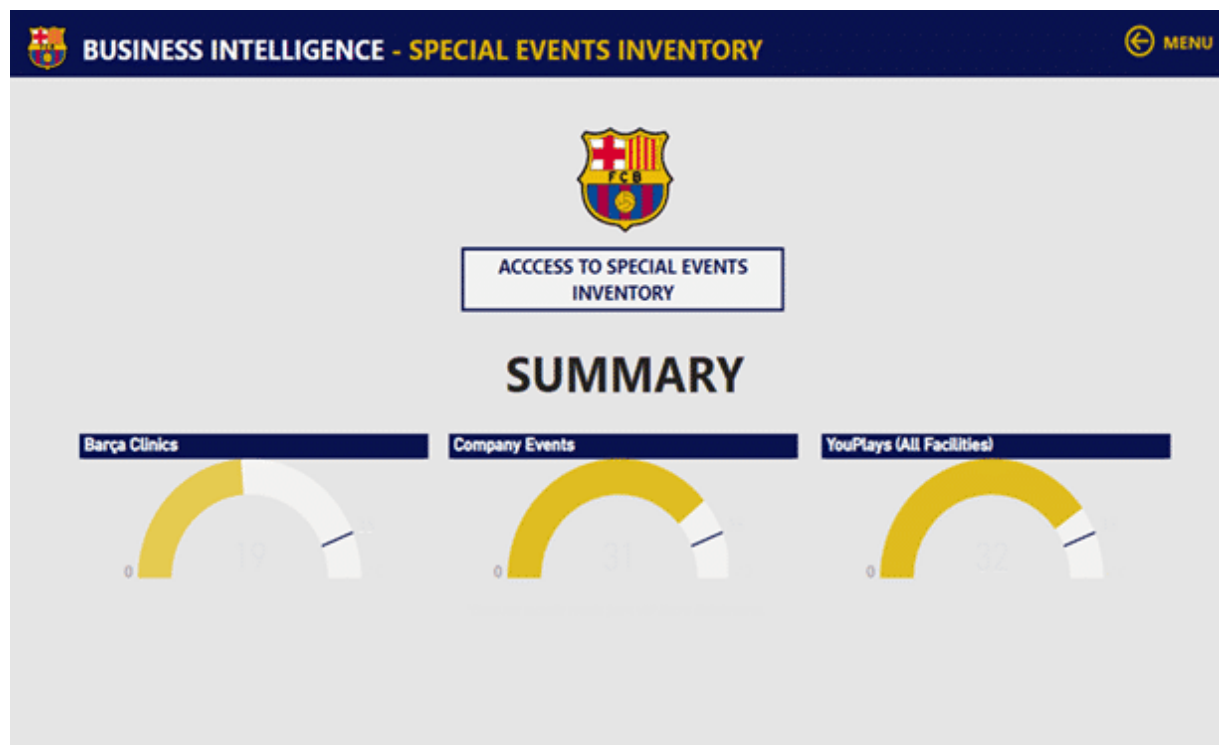
Structuring reports will depend heavily on how assets are categorized, and we should maintain the same fluidity when creating the inventory visualization. At the Club, we prioritize reporting on the most sensitive assets with the greatest impact on activations and commercial proposals. This allows the entire team to have visibility on the current status of our products, enabling us to prioritize them in various proposals.

Below, we share examples of the Club's asset inventory reports while ensuring the confidentiality of the information.

- Asset Inventory Dashboard
 - LED inventory

Figure 8: LED inventory

Figure 9: Special events



Source: Screenshot of FCB Internal Dashboard.

The previous example refers to specific events that Club partners can organize, hence the term "special events." As you can see, the inventory visualization here differs from the LED inventory, as we show a gauge indicating the percentage of consumed stock.

For confidentiality reasons, the numbers are hidden. This view provides real-time clarity on this asset category, helping us know what's available to offer in the main subcategories and guiding commercial conversations. Further details can be accessed later,

including attribution to different current sponsors. This also allows the activation team to know what's covered under contract and activate sponsorships accordingly.

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Unit 4.3 Emerging technologies: Artificial intelligence

In previous sections, we've explored how the business intelligence team aims to present data to achieve optimal, interactive, and real-time visualizations for all Club users. This was made possible through tools like Power BI and integration into internal platforms like the BI Center and the BI Partnerships HUB.

At the same time, we're increasingly looking at how other relevant actors in the sports industry collect, process, and present data, and this is where **artificial intelligence** (AI) comes into play. Like in many other sectors, AI is becoming increasingly essential, with forecasts showing that AI in the sports industry will reach a value of \$19.2 billion by 2030 (Peranzo, February 20, 2024, <https://shre.ink/8CRT>).

In the purely sporting realm (on the pitch), AI can be used to analyze large amounts of data to identify patterns and trends. This information can be leveraged to improve player performance, make strategic decisions, and better understand the game. AI can also be used to create virtual reality environments that help train and develop players. For example, the National Football League (NFL) uses

this technology to analyze game footage and improve player performance, while Major League Baseball (MLB) uses AI to help teams make better player decisions, and the NBA enhances its scouting process with it.

Similarly, AI has multiple applications in the area that concerns us most, the sport business. In this context, AI's greatest influence is likely in the area of fan insights, which are key for any sports entity to offer the best possible experience to its target audience. Without needing to rely on current market studies or individual panel data, AI will allow us to recognize who our fans are, what profiles they have, their preferences, what they've purchased in the past, what events they've attended, and so on. All of this data, crucial for any business intelligence team today, will be provided by AI.

In the area of optimizing fan engagement, AI-powered chatbots will be able to offer fans a personalized experience like never before, acting as a personal guide that provides great recommendations, making fans feel better and generating revenue for the Club. Stadiums will also play a decisive role, becoming primary providers of content and data to offer the best experience to fans and meet their demands. In fact, stadiums and fan platforms will become "data temples." With this data, product campaigns, games, and tailored sales recommendations can be conducted onsite, enhancing the fan experience (Kees Mon, July 21, 2020, <https://shre.ink/8CRt>).

Finally, another well-known potential use of AI is its ability to create personalized content for individual users. By analyzing a person's preferences and interests, AI systems can recommend relevant content and ads, potentially making the experience of engaging with a sports entity more enjoyable and efficient. AI could also be used to automate certain marketing tasks, such as creating social media posts or sending email campaigns. This will save clubs time and resources, allowing them to focus on higher-level strategies.

Figure 10: Use of AI



Source: Itransition, n.d., <https://shre.ink/8Cwg>

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Actividad

The goal of BI is to transform unrelated data sources into...
coherent and visually compelling information.

Storytelling is a technique aimed at conveying a message through the narration of events, provoking a specific reaction in the audience (e.g., sadness, anger, joy, worry) that connects them emotionally.

- convey a message through the narration of events
- provoke a specific reaction in the audience
- ensure that the narration emotionally connects with the audience
- help to connect various events across different areas of

sports.

SUBMIT

In Sports Business, where AI can have the greatest influence is in the field of...

fan insights.

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