Visualisation Evaluation

Visualization Overview

The IPL Analysis (2008-2022) dashboard represents a comprehensive analysis of the Indian Premier League cricket tournament from 2008 to 2022. It aims to provide numerical insights for each season, as well as highlights the importance of Toss Decisions in winning the matches.

Checking for Basic Rules

The dashboard adheres to best practices in data visualization as outlined in Data Visualization Checklist **(Stephanie Evergreen and Ann K. Emery's 2016).** It features a concise and clear title, easily legible and well-organized text, direct labelling of data, and no extraneous decoration.

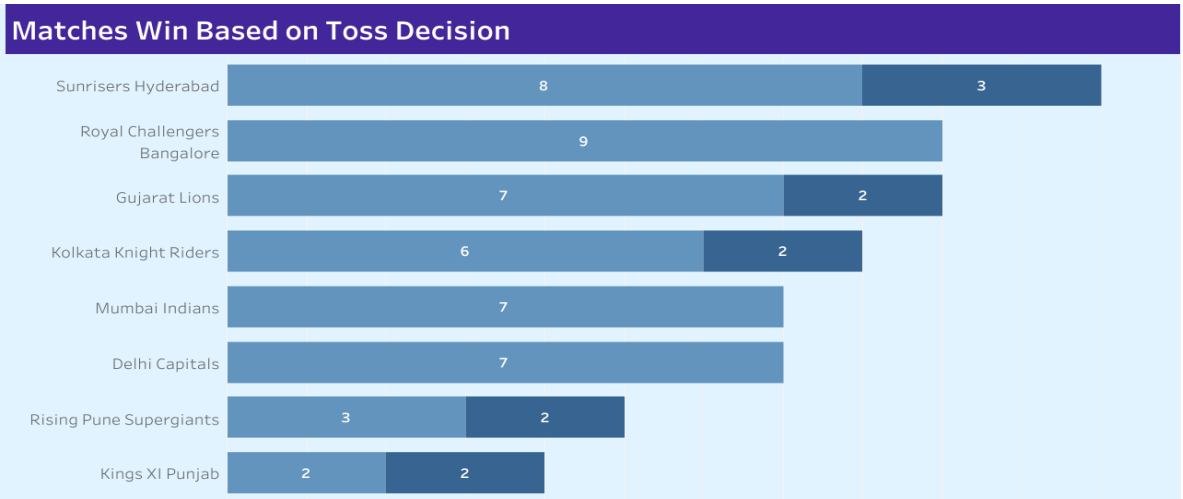
Why Most of the Visualization Is in Shade of Blue Colour?

The colour scheme is intended for IPL viewers, chosen in accordance with the IPL logo situated at the top right corner. The dark navy blue colour of the logo resembles the subtitle headings, while the light blue colour near the bat in the logo corresponds to the background of the dashboard. This helps in intimidating audience's mind into visualization and make it more compatible for perception. Lastly, shades of blue are used for the legends to align them completely with the IPL logo theme.

How Synchronized Colours and Images Help Convey the Main Message?

The text and logos are synchronized in the same colour, for instance, the Orange Cap player's name is written in orange colour. This allows the viewer to quickly navigate the key statistics, such as the Title winner, Orange Cap and Purple Cap. Additionally, seeing the image of the player and umpire (with signs) aids in remembering information, engages the audience, and provides a better understanding of the context, as stated by (**Paivio and Csapo 1973**). These factors are important due to the engaging effect they produce. Simply showing numbers wouldn't have the same effect and convenience for the audience. As (**Byrne et al 2020**) stated, the first few seconds of viewing a visualization are critical in engaging the viewer and conveying the main message. Therefore, our use of synchronized colours and images is effective in helping viewers to conveniently grasp the numerical information.

Why Have We Used Stacked Bar Chart?



The idea of using a stacked bar chart is derived from **'The Graphic Continuum'** and **'The Visual Vocabulary'**. As we have multiple categories of teams to show, and within sub-categories, we have two categories labelled with winning numbers - bat and bowl - a bar chart appears to be the most appropriate option. Also, the chart is in descending order for quick understanding of trend. Subsequently, stacked bars are efficient in demonstrating a part-to-whole relationship, and for single entity (Toss) we only have two components (bat and field) whose numeric labels add up to the total number of matches, it works quite well.

What Is the Rationale Behind Subtitle Text Colour?

The subtitle, "Bat First or Bowl First?", is highlighted in red colour as it is a critical decision to be made. So, any coach or analyst viewing the chart will be well-directed to their purpose. Based on numerical figures and toss history, they can decide for their team. Moreover, to aid brain's understanding, the legends are matched with the subtitle text and limited to two only which prevents cluttering **(Andy Kirk, n.d.)**. Therefore, according to Junk Chart trifecta **(Kaiser Fung, 2014)**,the critique type is 0 (everything is in sync, and the dashboard has no critique).

Why Interactivity Is Important?

While a static representation of the data can provide some insight into a particular season, it doesn't fully capture the entire dataset. As **(Ji Soo Yi, Youn ah Kang, and John T. Stasko**

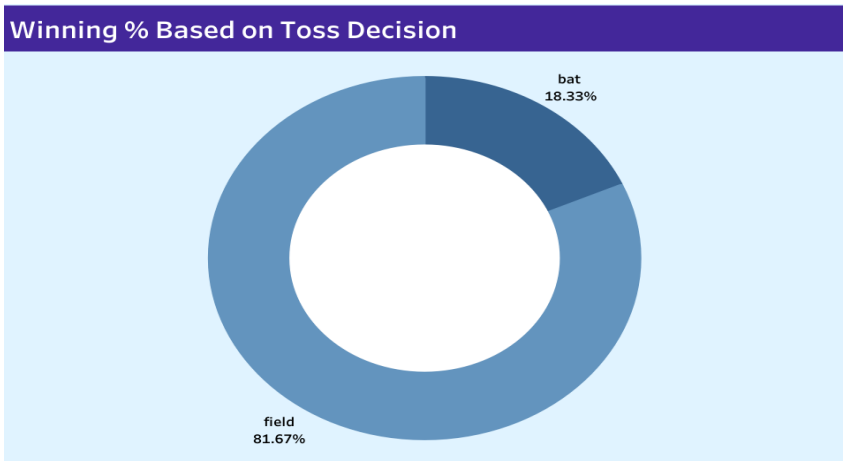
2007) suggest, gaining a comprehensive understanding of the data requires an interactive approach. The selection bar (Select season) brings the whole dataset to life over the years, and enables viewers to gain an entire understanding of the data.

What Are Some Areas of Improvement?

Use of terms like "Orange Cap" may be confusing for some audiences, especially those who are not familiar with Cricket or IPL. Secondly, it may not be accessible to visually impaired audiences. As noted by **(Meirelles 2013)**, designers need to consider accessibility in data visualization, including the use of high-contrast colours. Hence, we can improve with following points:

1. Include some annotations to help unfamiliar users interpret the terms.
2. Make visualization design accessible to visually impaired.

Why the Trade-offs are Benefitting?



While the use of a donut chart can be challenging to comprehend in some cases due to the human brain's difficulty perceiving angles, it is convenient in our case since we only have two directly labeled legends - bat and field. Therefore, it is a profitable trade-off. Additionally, even though we have used images and colors to facilitate the comprehension of the numerical data, the dashboard may still seem overwhelming to certain viewers due to the large volume of information and charts. Nonetheless, justifying our main title, 'IPL Analysis,' requires showcasing a great deal of information, which makes it a profitable trade-off.

Hence, upon considering the strengths, areas of improvement, and trade-offs, I believe that this visualization successfully represents the insights from the data.

References:

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