

## Project Report

**DATASET LINK:** <https://www.kaggle.com/datasets/utkarishtomar736/ipl-mens-cricket-matches-data-2008-2023>

### Objectives for Visualization

1. **Visual Analysis of Team Performance Over Time:** To provide a visual representation of the performance of different cricket teams across various Indian Premier League (IPL) seasons, showcasing their victories in each season.
2. **Venue-Specific Insights:** To demonstrate the relationship between match venues and team successes, offering insights into possible home advantage or preferred playing conditions.
3. **Trends and Patterns:** To identify and analyze trends over time regarding the successes of teams in different venues and seasons, which can help in understanding team dynamics and strategic placements.

### Key Findings

1. **Dominant Teams:** Mumbai Indians and Chennai Super Kings emerge as the most consistently successful teams across seasons, as shown by their regular high frequencies in the bar charts. This suggests strong team compositions and effective management strategies.
2. **Venue Preferences:** Teams like Kolkata Knight Riders and Royal Challengers Bangalore have shown particular success at specific venues like Eden Gardens and M. Chinnaswamy Stadium, respectively, which could indicate a home ground advantage or a preference for certain pitch conditions.
3. **Evolving Competitive Landscape:** The introduction of new teams such as Gujarat Titans and Lucknow Super Giants has diversified the competition, with these newer teams also securing significant wins, as indicated by their presence in later seasons' data.
4. **Venue Specificity:** The M. Chinnaswamy Stadium and Eden Gardens are the venues where a higher number of matches have been won by home teams, suggesting a strong home advantage or crowd influence at these locations.

### Conclusion & Summary Analysis

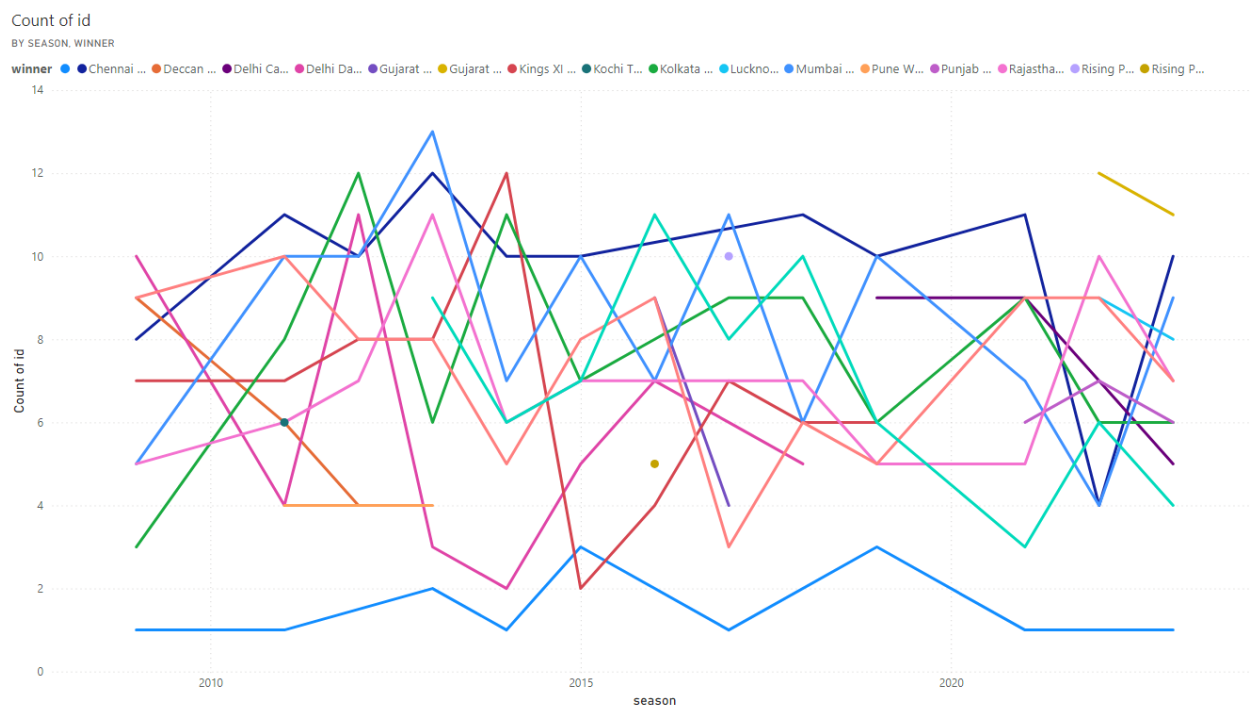
The visualizations illustrate a comprehensive overview of IPL team performances across different seasons and venues. Over the years, consistent performers like Mumbai Indians and Chennai Super Kings have maintained their dominance, which is clearly visible in the stacked bar chart of wins by season. This not only highlights their robust team strategy and player performance but also underscores their management's ability to adapt across seasons.

The venue-specific analysis adds another layer of depth, showcasing how teams perform at various cricket stadiums. For example, the distinct advantages seen at Eden Gardens for Kolkata Knight Riders and M. Chinnaswamy Stadium for Royal Challengers Bangalore suggest that these teams have optimized their strategies for their local conditions, or they benefit significantly from local fan support.

Furthermore, the introduction and performance of newer teams in the later seasons indicate a healthy competitive spirit and the dynamic nature of the IPL, where new entrants have quickly risen to challenge established teams.

Overall, these visualizations serve as a tool not only for cricket enthusiasts to appreciate the game's dynamics but also for team strategists to analyze past performances and plan future strategies. These insights can help teams in drafting, training, and match-day strategies, considering historical performances in specific conditions or venues. The detailed breakdown also helps in understanding how teams may need to evolve to maintain or improve their standings in future seasons.

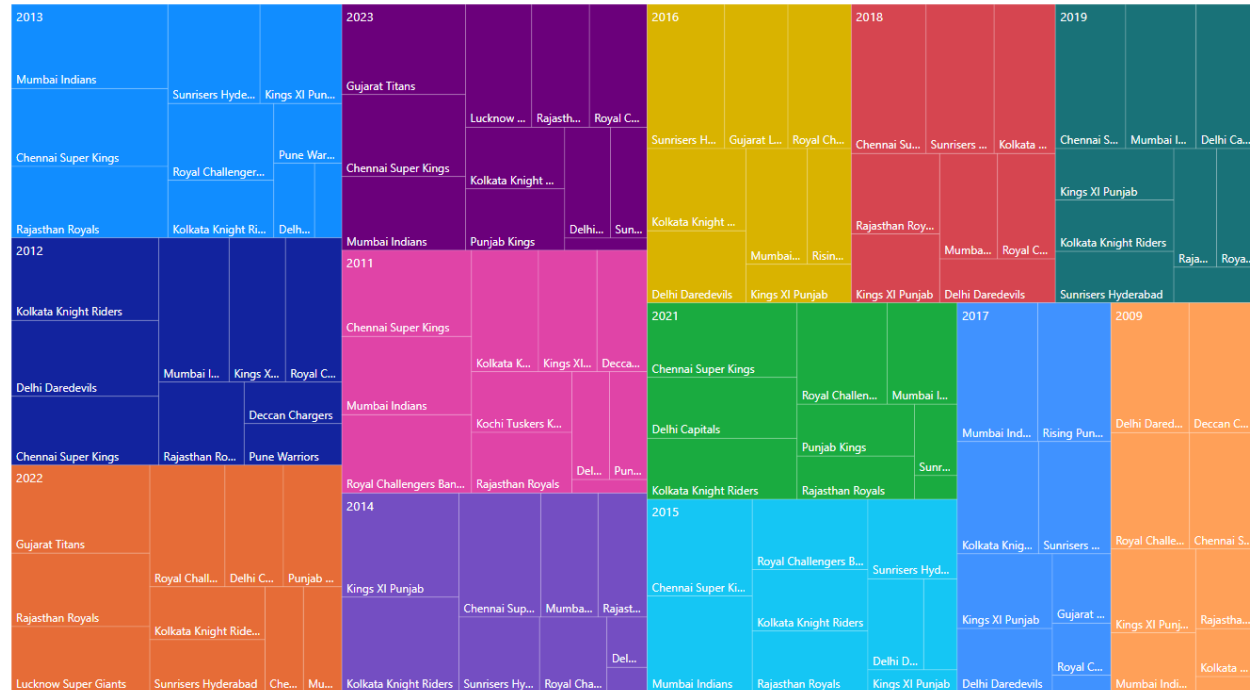
## Visualizations



## TEAM WISE PERFORMANCE OVER THE SEASONS

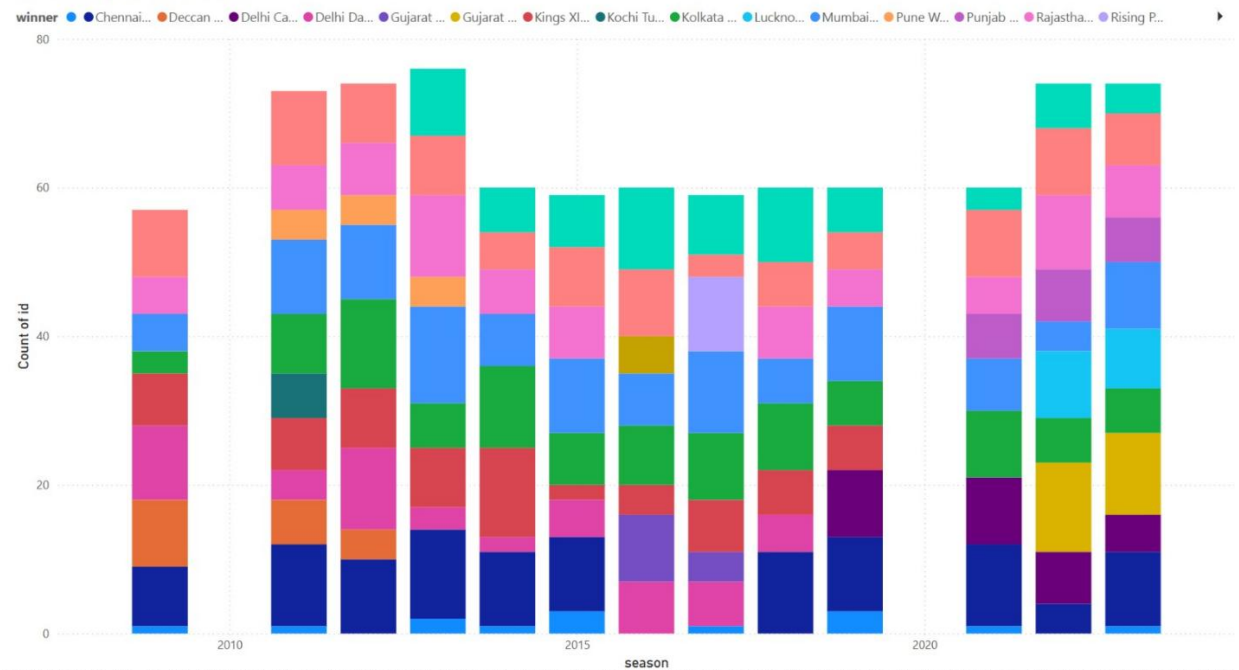
Count of id

BY SEASON, WINNER



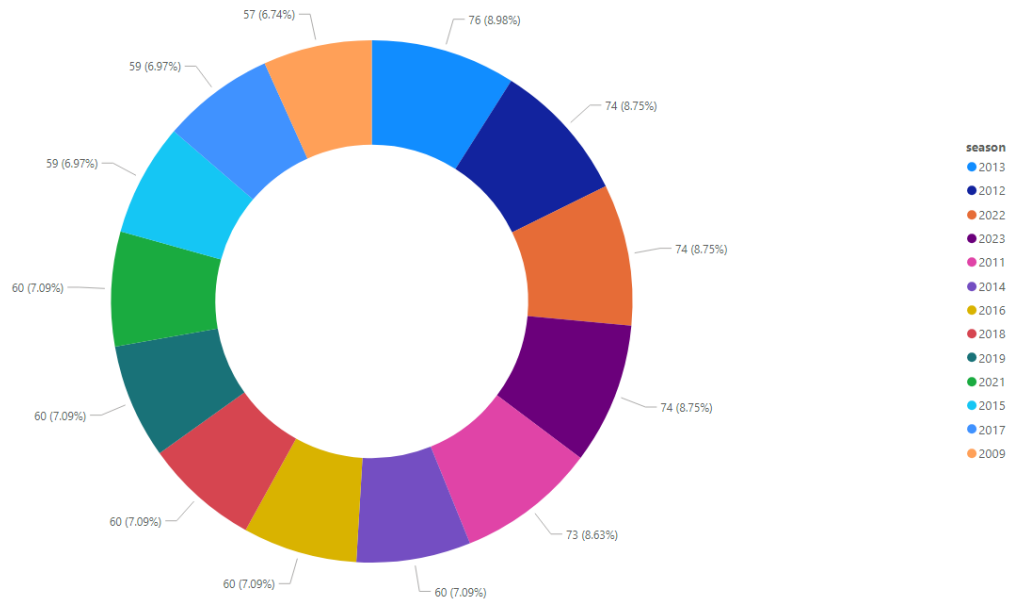
## COUNT OF WINS BY TEAMS IN EACH SEASON AND SEASON WINNER

Count of id by season and winner

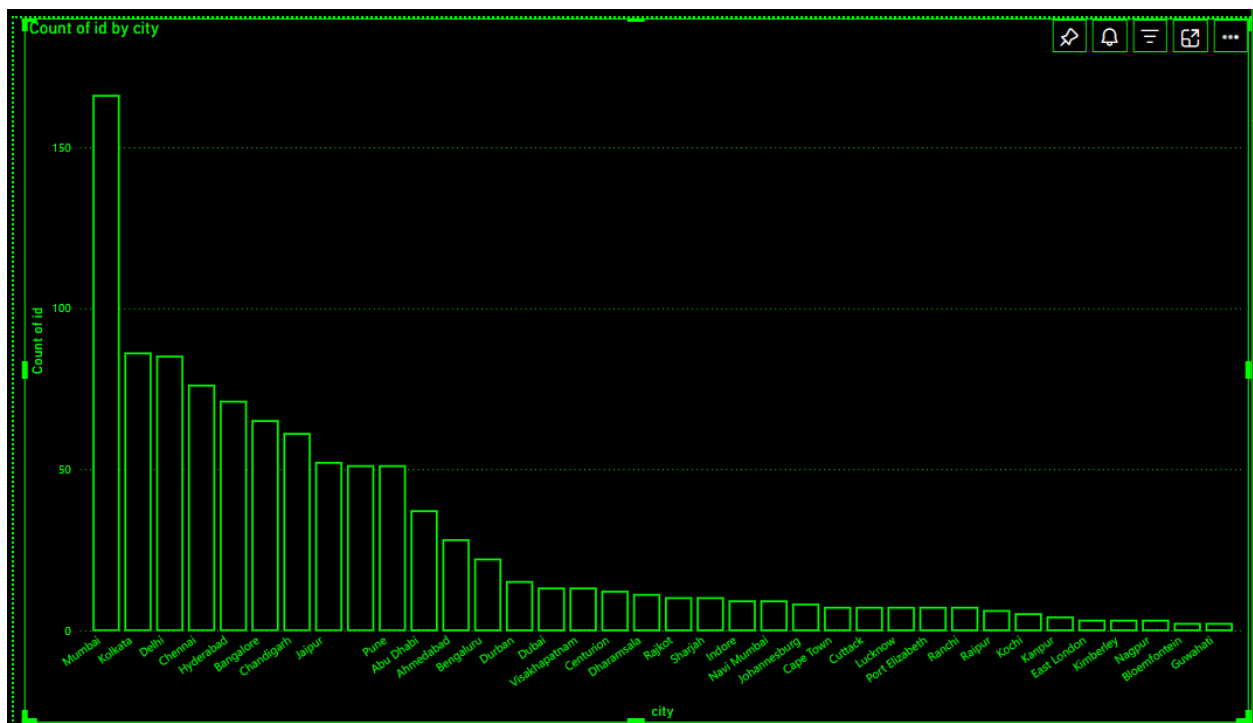


## Season-wise winners with respect to each team as a stacked view

Count of toss\_decision  
BY SEASON

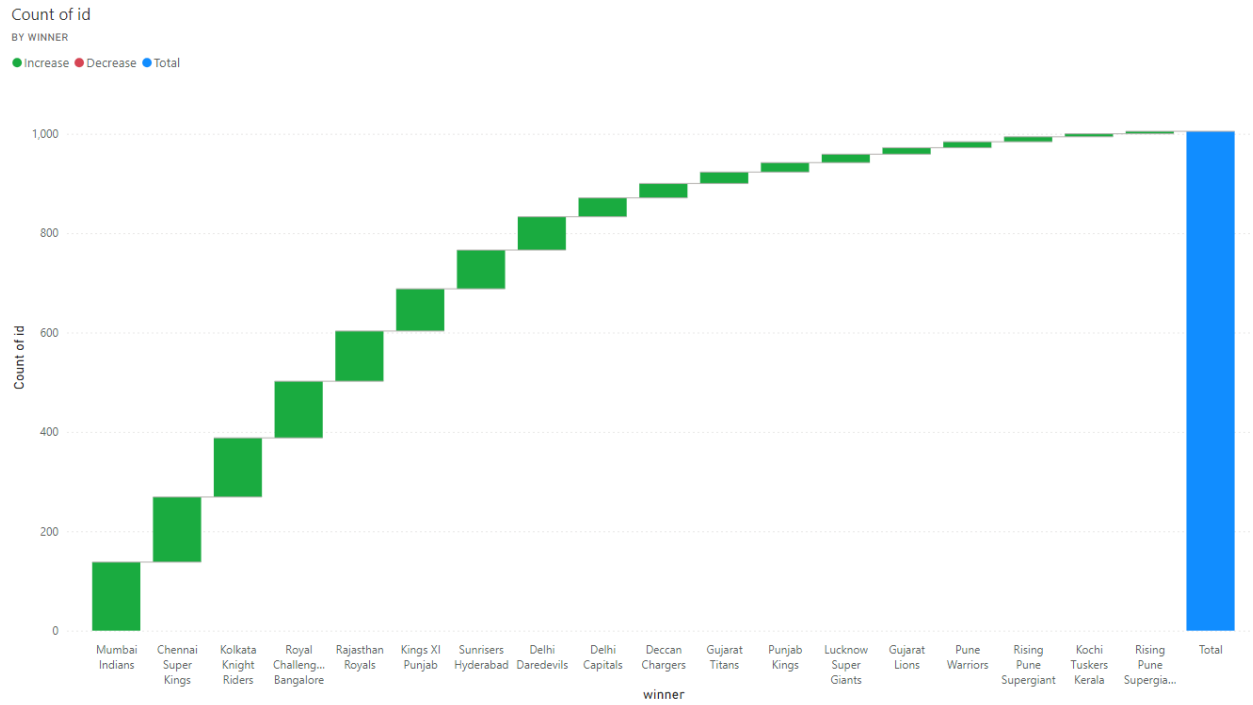


## TOSS DECISION PERCENTAGE SEASON WISE



## MATCHES PLAYED WITH RESPECT TO CITY





## TEAMWISE- MATCH WINS FOLLOWING TOSS WINS