IPL visualization Assignment

By Sagnik Chakravarty

Problem Statement

Intro:

- The Indian Premier League, or IPL, is a T20 cricket league, which was founded in 2008 and is held every year. It sees participation from both national and international players, and eight teams representing eight Indian cities compete with each other in a double round-robin format in the league stages, which are followed by playoffs. Over the years, IPL has become one of the most-watched and most attended live sporting events all over the world.

Objective:

- For this assignment we imagine ourselves to be working as a data analyst at **IFP**, a nationally recognized news agency, which is based out of New Delhi, and provides news reports and feeds to magazines, newspapers and TV broadcasters all over the country. The Sports Editor of the agency has approached us to build a Tableau dashboard of IPL statistics over the years since its inception in order to create an infographic for a newsletter that their team is working on. For this newsletter, in some cases, they will use the visual representations as we have created in Tableau directly for their infographic, and in a few other cases, they will use important statistics after trying out the different filters and customizations that we have provided for interactivity. Therefore, we have built an interactive dashboard in Tableau for this purpose.

Dataset

- We have used the following two datasets for this assignment:

- 1. **matches.csv** - It contains match-level information for each and every match held in IPL from 2008 to 2017.

- 2. **deliveries.csv** - It contains ball-by-ball information for each of the matches.

Using these 2 datasets and combining the info from them we have created 3 interactive tableau dashboards for the purpose of this assignment. These are **Match Statistics, Player Statistics** and **Team Statistics.**

Assignment Sub tasks

We have built 3 interactive tableau dashboards by combining the data from the deliveries and matches datasets. These are **Match Statistics, Player Statistics** and **Team Statistics.**

➡ **Match Statistics:** This dashboard conveys information graphically about:

1. Toss outcome vs Match outcome (for each Ground/Venue).

2. Biggest wins (by runs and by wicket).

3. Highest totals (across all the seasons).

➡ **Player Statistics:** This dashboard conveys information graphically about:

1. Orange Cap contenders (The batsmen who have scored the maximum number of runs in a particular season).

2. Purple Cap contenders (The bowlers who have taken the maximum number of wickets in a particular season).

3. Batsmen who have hit the most number of fours and sixes (per season and overall).

➡ **Team Statistics:** This dashboard conveys information graphically about:
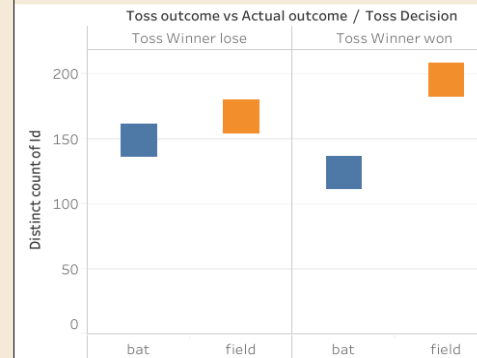
1. Season-wise team performance (wins vs losses).

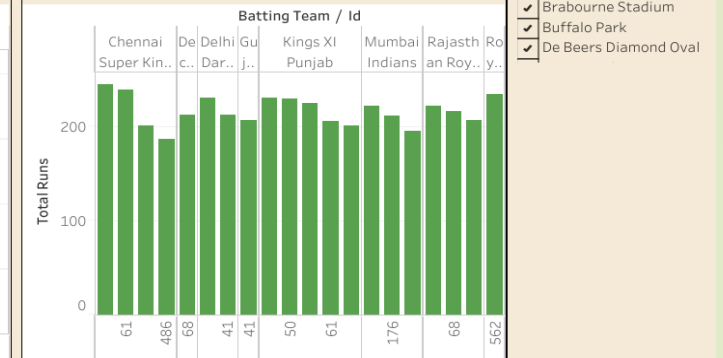2. Win %age (home vs away).

Match Statistics

1. We can see some interesting observations here like: toss winners won more matches fielding first than they did batting first.

2. As for when toss winners lost matches, we can see their decision to bat vs field is more evenly matched i.e. the gap is closer than when they won matches.

3. So we can conclude that fielding first generally is a better decision to win matches.

4. Judging by the frequency of RCB's appearance in the biggest wins by runs graphic, we can conclude RCB's batting is their strong point.

5. From 'Win by wickets vs Count of matches', we can see that winning by 4-9 wickets is the most common for defending teams.
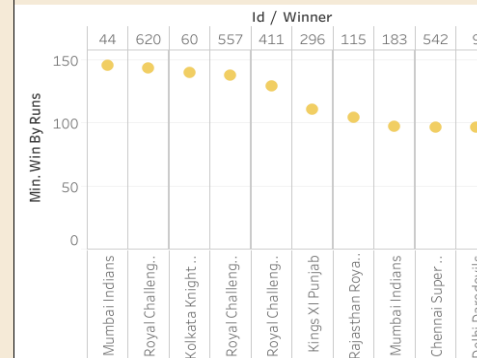
Player Statistics

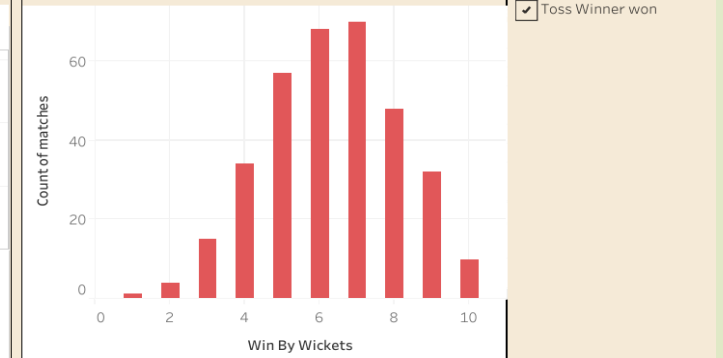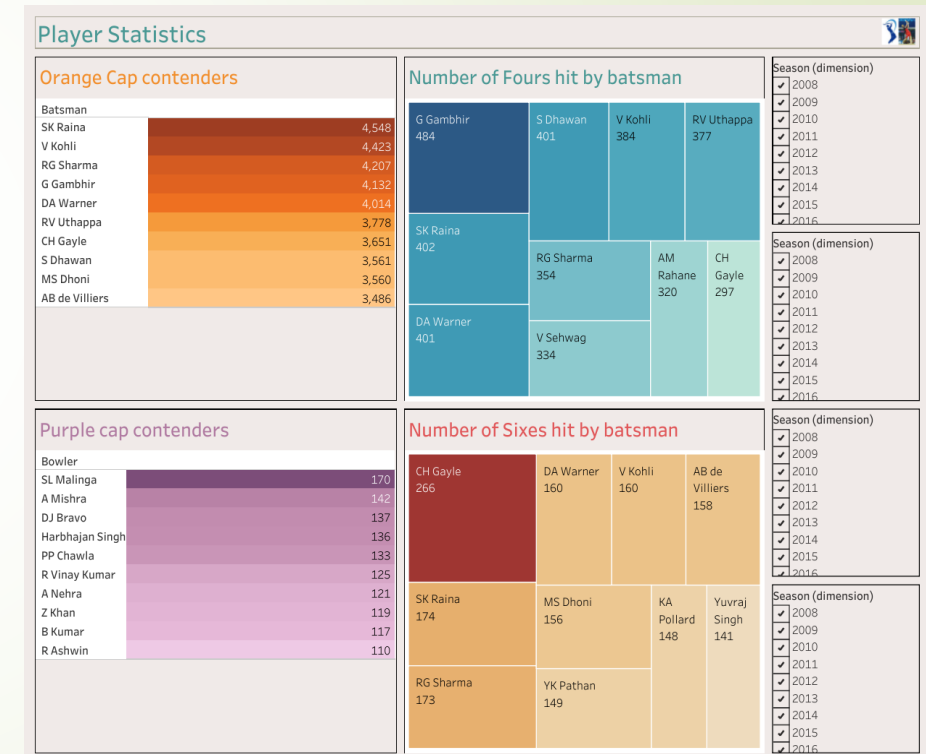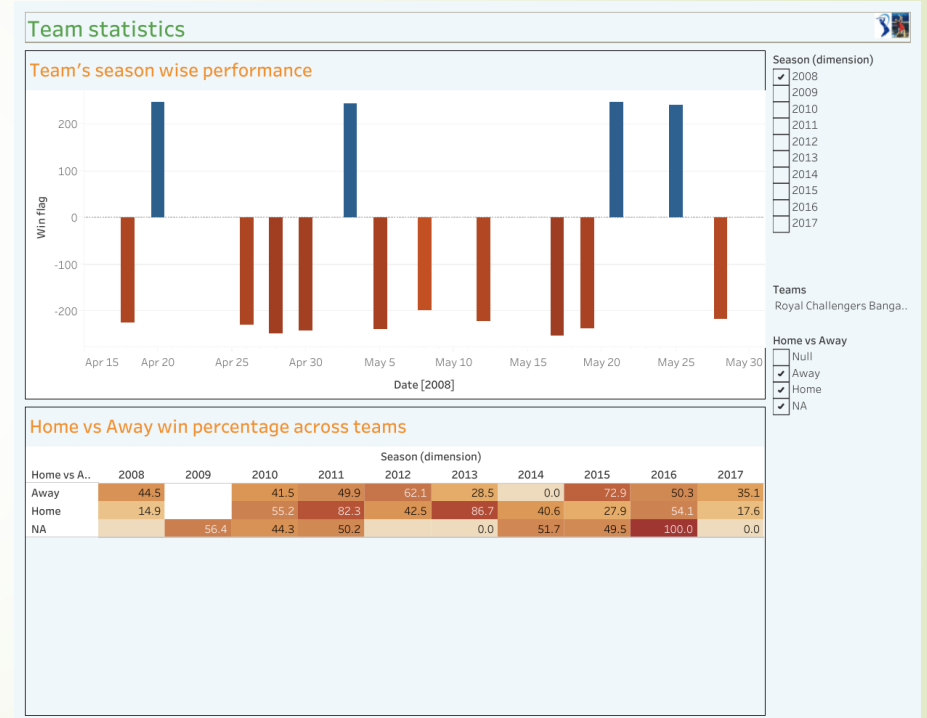- Suresh Raina, Virat Kohli and Rohit Sharma have been the most prolific run getters throughout the history of the IPL so far.

- Lasith Malinga, Amit Mishra and Dwayne Bravo have been the most prolific wicket takers in the history of IPL so far.

- Gautam Gambhir, Suresh Raina, David Warner and Shikhar Dhawan really have a knack for hitting fours.

- Chris Gayle has been the best six hitter in this tournament's history by far with 266 sixes.

- Virat Kohli is appearing in both top 10 four hitters and top 10 six hitters showing he is a very complete batsman when it comes to scoring runs with shots.

Team Statistics

We can observe from this dashboard's graphics that teams tend to win more when playing at home than when playing away.

Conclusion

We can conclude a few things from this analysis:

1. Fielding first is a better decision on winning toss than compared to batting first generally.

2. Winning by 4-9 wickets is more most common for defending teams.

3. Suresh Raina and Virat Kohli have been the best batsman in terms of scoring the most number of runs in the history of the tournament so far.

4. Gautam Gambhir, David Warner, Shikhar Dhawan and AB De Villers also have been great as they are appearing in both top 10 run scorers and top 10 Four hitters,

5. Viral Kohli is appearing in top 10 runs scorers, top 10 four hitters and top 10 six hitters so he has been the most consistent batsman in the IPL so far.

6. Chris Gayle has been by far the best six hitter with 266 sixes.

7. Lasisth Malinga, Amit Mishra and Dwayne Bravo have been the cream of the criop from the bowlers side.

8. Teams tend to win more when playing at home than when playing away.