

IPL insights and visualization

- 1) I have extracted the data set of **Indian Premier League (IPL)**. We Indians are big fan of cricket, so the good exploratory analysis would be helpful and exciting for every cricket fan.
- 2) In the Notebook I tried to do Basic Analysis like Teams with **maximum matches, wins, etc Batsman Analysis, Bowler Analysis ,200+ scores analysis.**
- 3) We have two dataframes, **1. Matches 2. Deliveries.**
- 4) **Matches dataframe** contains information about city in which match was played, date and team names, toss winner and decision, result, player of the match and umpires.
- 5) **Deliveries dataframe** contains information about match and its deliveries.
- 6) Matches dataframe contains **636 rows and 18 columns.**
- 7) deliveries dataframe contains **150460 rows and 21 columns.**
- 8) **Integer variables:** id, season, wins_by_runs, wins_by_wickets, dl_applied
Object variables: city, date, team1, team2, toss_winner, player_of_match , toss_decision, result, winner, venue, umpire1, umpire2
Float: umpire3
- 9) Number of teams = 13
- 10) **Team Names** : . Sunrisers Hyderabad', 'Mumbai Indians', 'Gujarat Lions', 'Rising Pune Supergiant', 'Royal Challengers Bangalore', 'Kolkata Knight Riders', 'Delhi Daredevils', 'Kings XI Punjab', 'Chennai Super Kings', 'Rajasthan Royals', 'Deccan Chargers', 'Kochi Tuskers Kerala', 'Pune Warriors', 'Rising Pune Supergiants'
- 11) total Number of seasons data = **10 (2008 - 2017)**
- 12) In 30 cities matches were held.

13) we dropped umpire3 data since it has all NaN values.

14) **MI (Mumbai Indians)** won the highest number of tosses.

15) maximum toss decisions were of fielding: field 363 , bat 273.

16) maximum tosses were won by Mumbai Indians.

17) maximum matches were won by Mumbai Indians.

18) As we can see **maximum tosses** were won by **Mumbai Indians** and **Maximum matches** were won by same team.

19) **CH Gayle** has **most player of the match** awards in 18 matches.

20) MI won by maximum runs of 146 against DD.

21) KKR won by maximum wicket of 10 against GL.

22) **48.90 % toss decision leads to winning**, so we can't say toss winner leads to winning the match. Thus the toss winner is not necessarily the match winner. The match winning probability for toss winning team is about 50%-50%.

23) Maximum **number of matches were played in year 2013** i.e. **76**.

24) **Maximum number of matches were played in Mumbai**.

25) There is decline in total number of runs from 2008 to 2009, then there continues increase from 2009 to 2013, then there is sudden decline of around 4000 runs in 2014, then there is little decline and a little increase in 2016.

26) The plot shows the number of 6's and 4's across the seasons. we can see that number of 4's almost remains same, with a slight increase between year 2009 to 2012.

27) Total number of 6's decreases from year 2008 to 2009, but continue to increase till 2013 , then there is sudden decrease in 2014, after that it is almost constant.

28) Total matches with super over = 7.

29) HDPK Dharmasena was recruited maximum number of times as umpire, and then **S Ravi**.

30) As we can see that **CSK has continuously won the IPL 2 times**, MI and KKR have also won 2 times alternate years. By this we can say that CSK, MI, KKR are strong teams.

31) CH Gayle scores the highest runs of 175.

32) CSK has played 6 IPL finals but could win only 2, followed by RCB with 3. CSK ,MI ,KKR have all won 2 titles each. But RCB have never won a final even with 3 appearances.

33) Kohli has scored the maximum 1's, Dhoni has the maximum 2's . Those Strong Legs :p, Gambhir has the maximum 4's. C Gayle has the maximum 6's.

34) Malinga took most number of wickets (154).

35) David Warner's form looks to be improving season by season. There has been a sharp decline in Kohli's Runs in the last season.