# IPL – An Analysis

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# Agenda

- Sound Bite and History
- Objective
- Dataset
- Process
- Analysis
- Summary

# Sound Bite and History

The **Indian Premier League (IPL)** is a professional **Twenty20** cricket league in India contested during March or April and May of every year by eight teams representing eight different cities in India. The league was founded by the Board of Control for Cricket In India (**BCCI**) in 2008.

# Objective

**Cricket** one of the most loved and favorite sports entertainment specially in India.

Here I present data analysis for IPL (Indian Premier League) matches from the year 2008 till year 2018.

# Data Set

This is an Open source data set provided by **Insaid.**

The current IPL crown holder is **Mumbai Indians**, who have won the **2019** season but we have data till season 2018.

| Column Name | Description |
|---|---|
| id | It's acting like a primary key for the data |
| season | Contains IPL season i.e. Year |
| city | City where the Cricket match played |
| date | Scheduled Date for the match |
| team1 | Name of the paritcipating team 1 |
| team2 | Name of the paritcipating team 2 |
| toss_winner | Team name who won the toss |
| toss_decision | Winning team decision either for fielding or batting |
| result | Result of the match (No result,normal,tie) |
| dl_applied | DL applied or not 0 or 1 |
| winner | Team who is winner of the match |
| win_by_runs | Win by runs by a team |
| win_by_wickets | Win by wickets by a team |
| player_of_match | Player of the match |
| venue | Stadium name where match was played |
| umpire1 | Umpire 1 name |
| umpire2 | Umpire 2 name |
| umpire3 | Umpire 3 name |

# Process followed

matplotlib

plotly

**DATA** **DATA PROFILING & ANALYSIS** **RESULTS**

# Data processing

## Data pre processing

### Dataset info

| | |
|---|---|
| **Number of variables** | 18 |
| **Number of observations** | 696 |
| **Missing cells** | 651 (5.2%) |
| **Duplicate rows** | 0 (0.0%) |
| **Total size in memory** | 98.0 KiB |
| **Average record size in memory** | 144.1 B |

### Warnings

- `city` has 7 (1.0%) missing values
- `date` has a high cardinality: 498 distinct values
- `player_of_match` has a high cardinality: 215 distinct values
- `umpire1` has a high cardinality: 56 distinct values
- `umpire2` has a high cardinality: 59 distinct values
- `umpire3` has 636 (91.4%) missing values
- `win_by_runs` has 381 (54.7%) zeros
- `win_by_wickets` has 325 (46.7%) zeros

## Data post processing

### Dataset info

| | |
|---|---|
| **Number of variables** | 21 |
| **Number of observations** | 696 |
| **Missing cells** | 13 (0.1%) |
| **Duplicate rows** | 0 (0.0%) |
| **Total size in memory** | 114.3 KiB |
| **Average record size in memory** | 168.1 B |

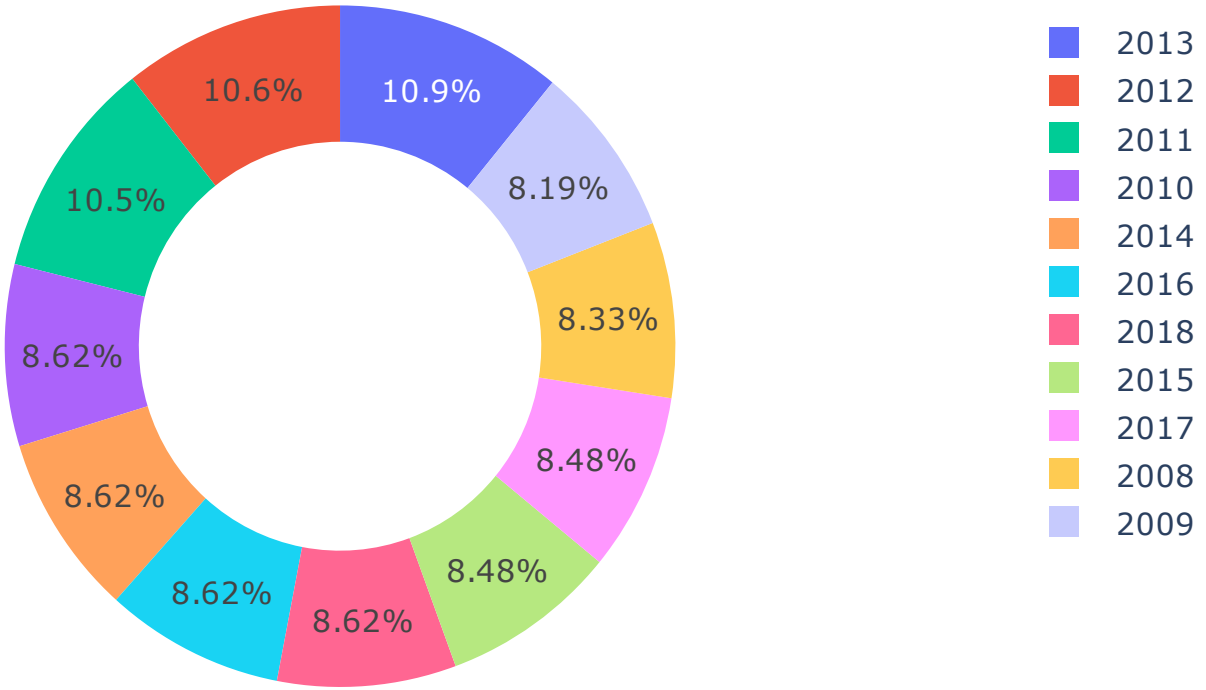
### Warnings

- `date` has a high cardinality: 498 distinct values
- `player_of_match` has a high cardinality: 215 distinct values
- `umpire1` has a high cardinality: 55 distinct values
- `umpire2` has a high cardinality: 58 distinct values
- `win_by_runs` has 381 (54.7%) zeros
- `win_by_wickets` has 325 (46.7%) zeros
- `winner` has 10 (1.4%) missing values

# Analysis

# Percentage of matches played across IPL seasons

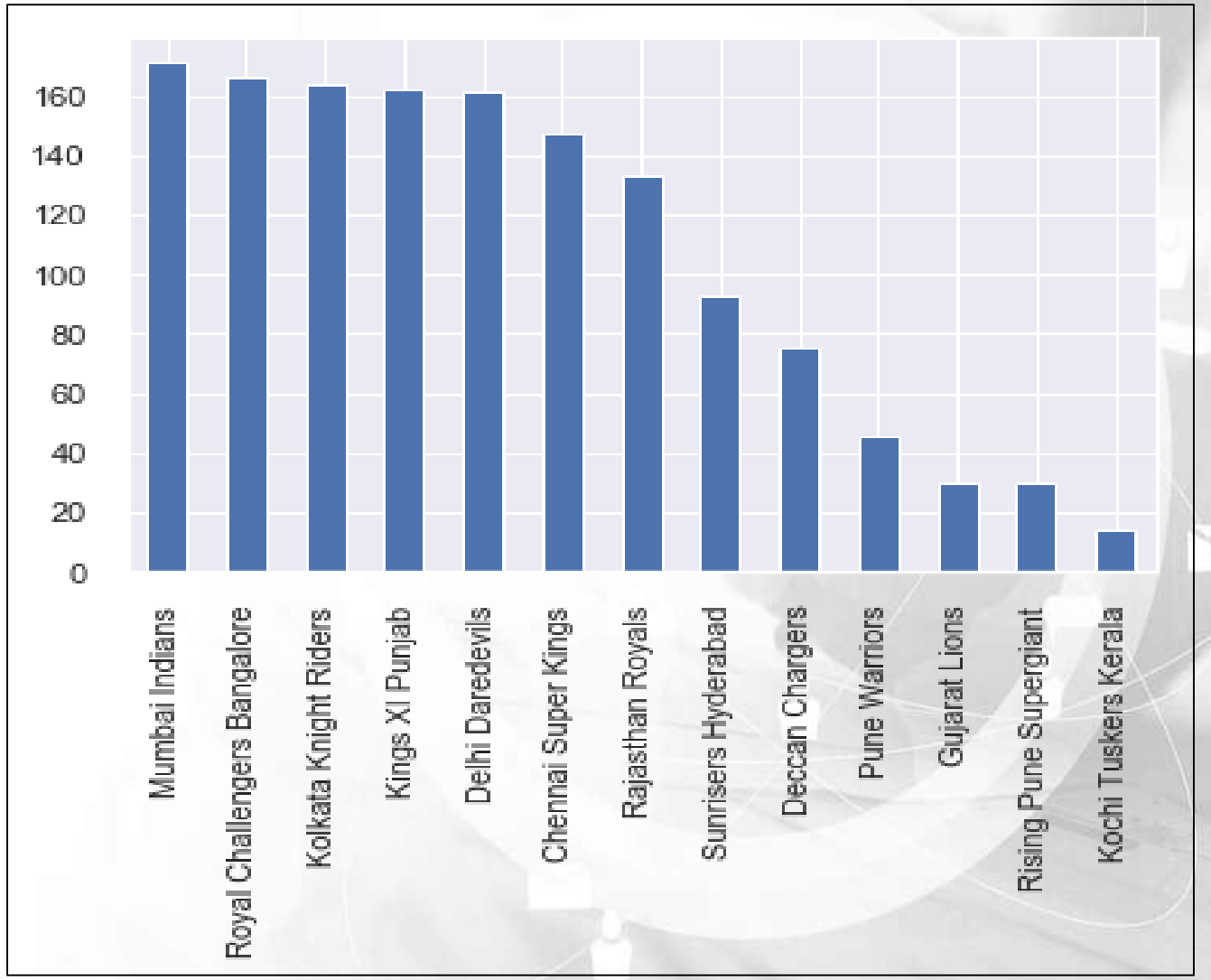
IPL Seasons 2013, 2012 and 2011 are amongst top 3 seasons, where highest number of matches played.



# Number of matches played team wise

Highest number of matches are played by Mumbai Indians.

Lowest ranker in this table is Kochi Tuskers Kerala across all IPL Seasons.



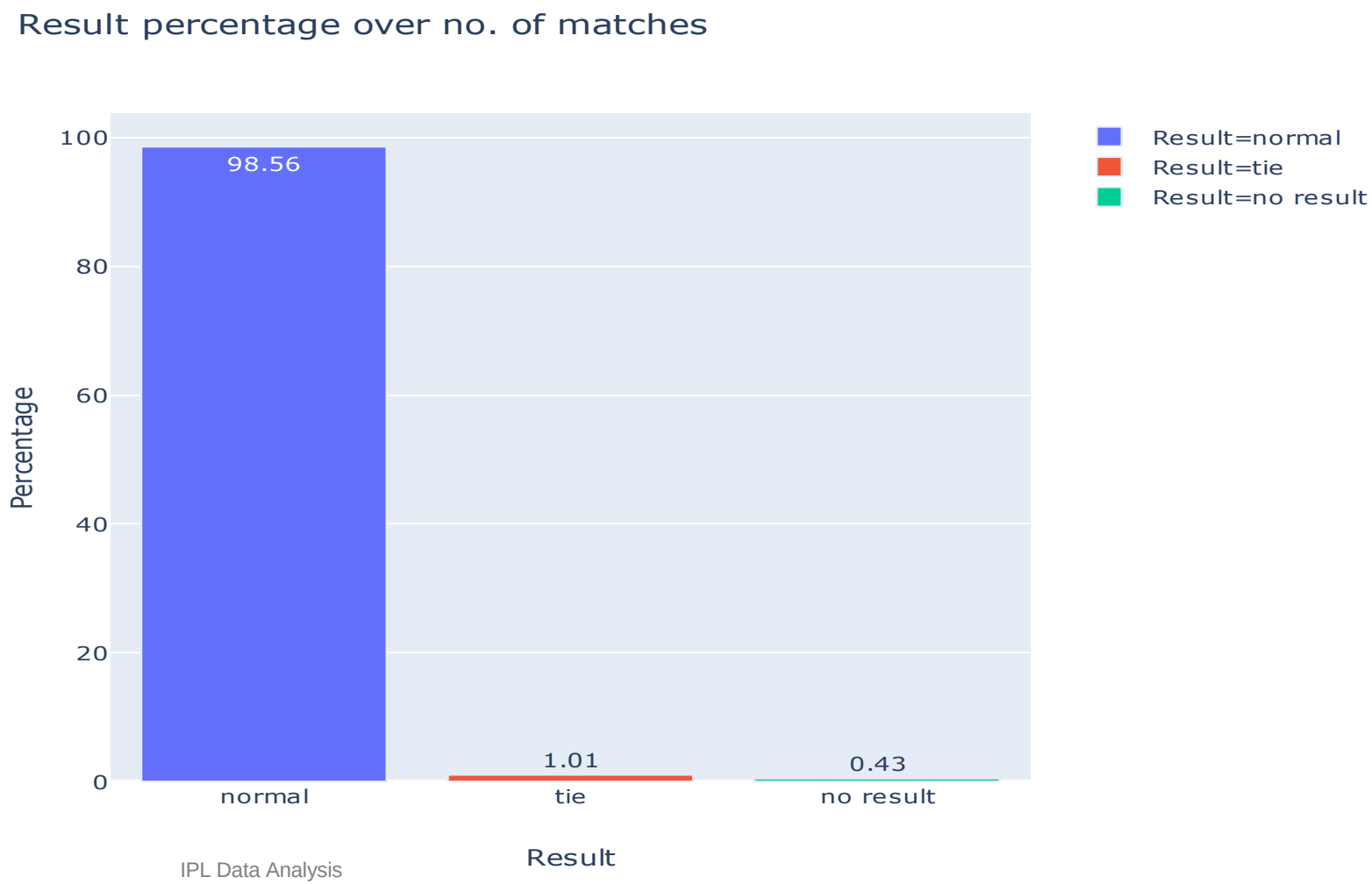
# Number of matches played for each season team wise

Total Number of matches played in all IPL seasons are not the same.

Only 5 teams i.e. Delhi Daredevils, Kings XI Punjab, Kolkata Knight Riders, Mumbai Indians, Royal Challengers Bangalore have played all the seasons of IPL.

# Result percentage of matches played across all IPL season

Across all IPL seasons approx. **98.5%** resulted normal, **1%** of the total matches got tied and only **.5%** matches ended up with no result.

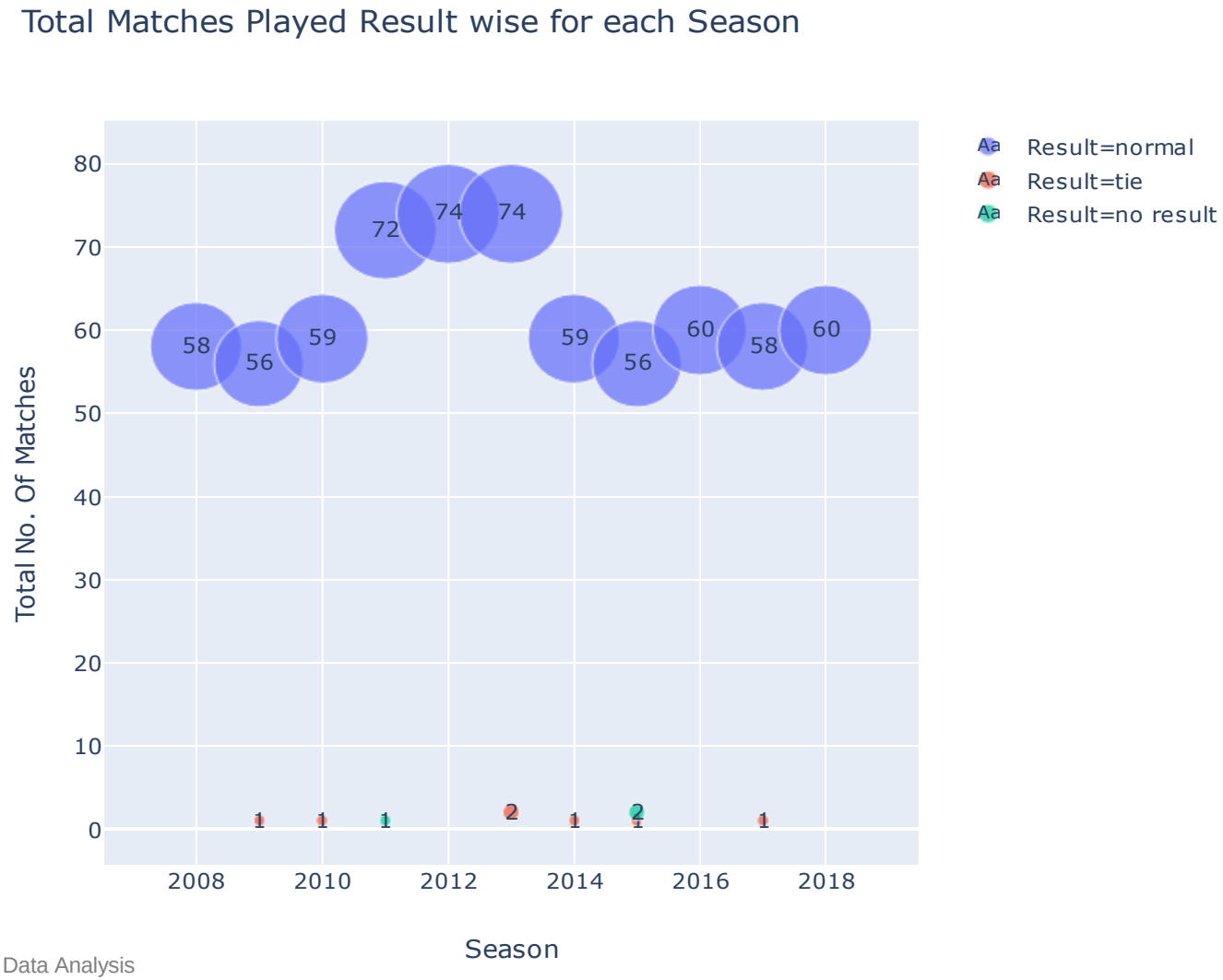


# Number of matches played for all seasons result wise

In Seasons **2008, 2012, 2016, 2018** none of the matches resulted **tie** or ended up with **no result**.

Maximum number of tied matches were in the season **2013** which is 28% of the total tied IPL matches across all the seasons.

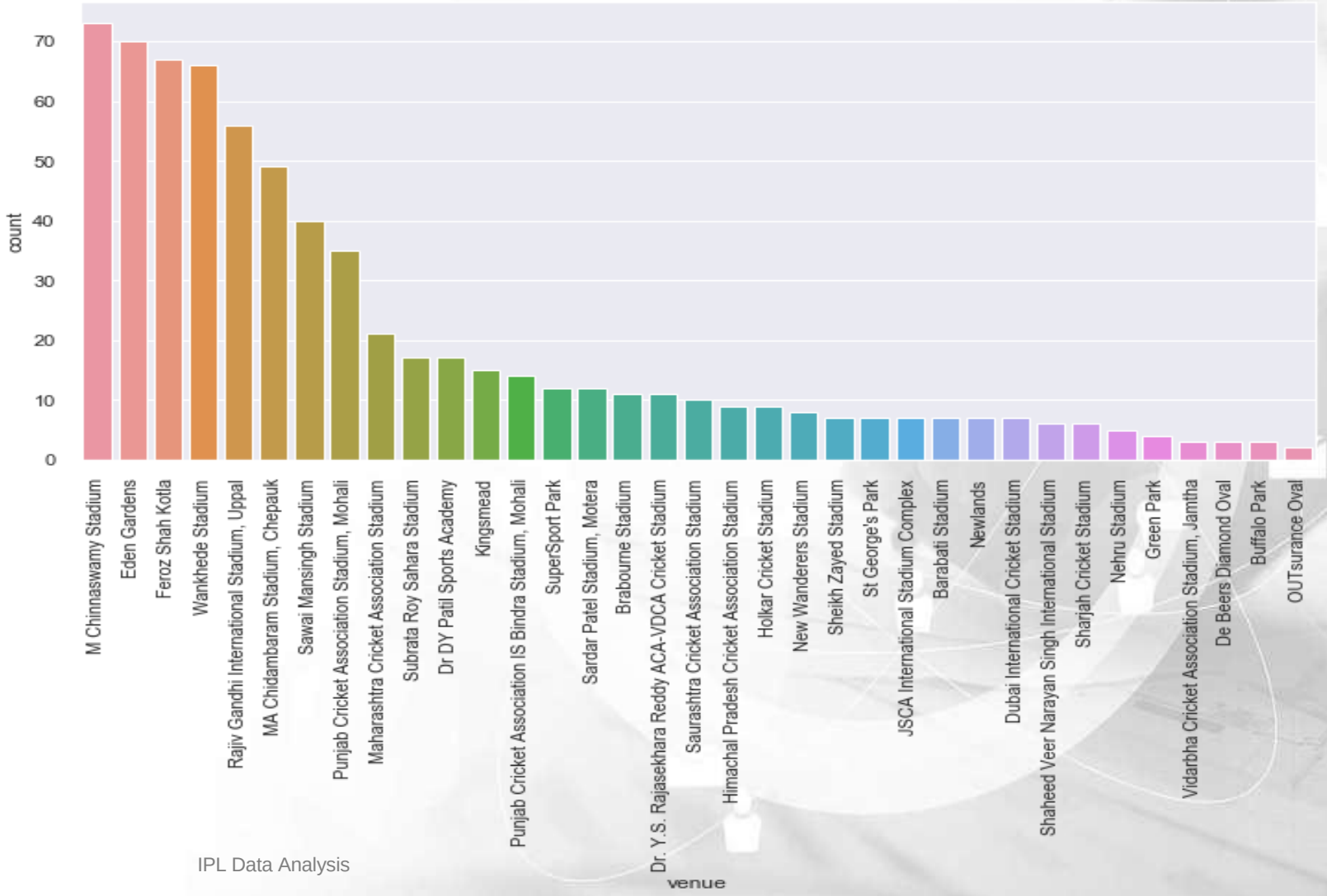
Two matches in **2015** ended up with no result which is approx. 66% of the total matches ended up with no result across all the IPL seasons.



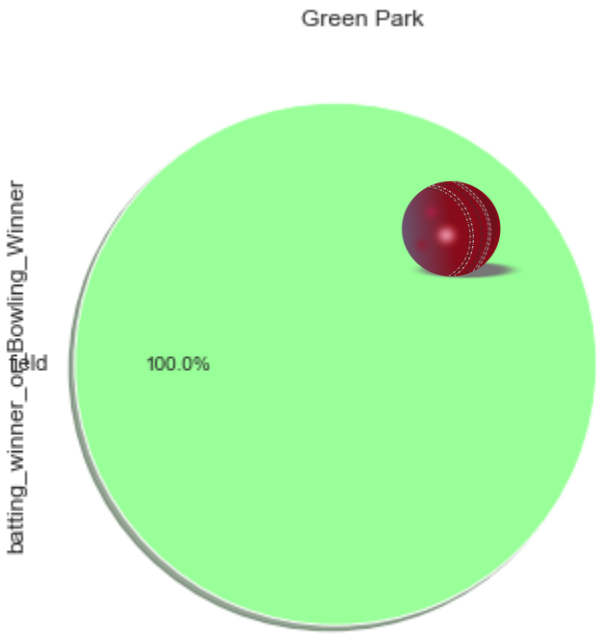
# Number of matches played venue wise

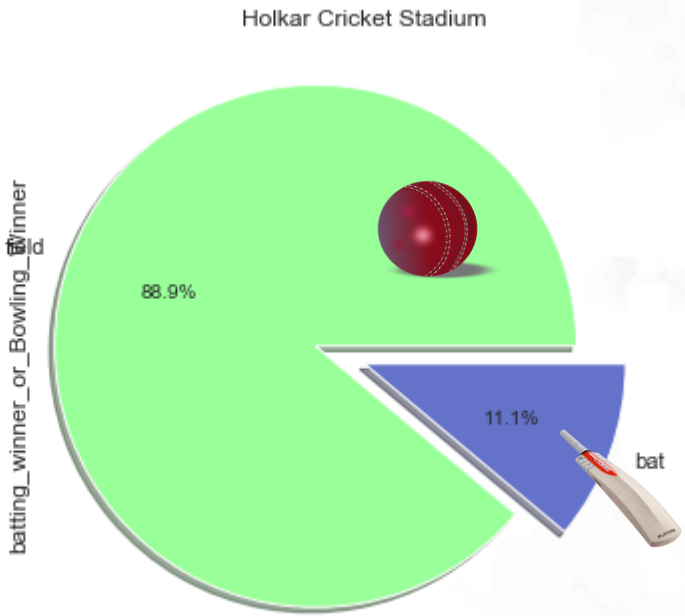
Top 4 stadium where maximum number of matches played are

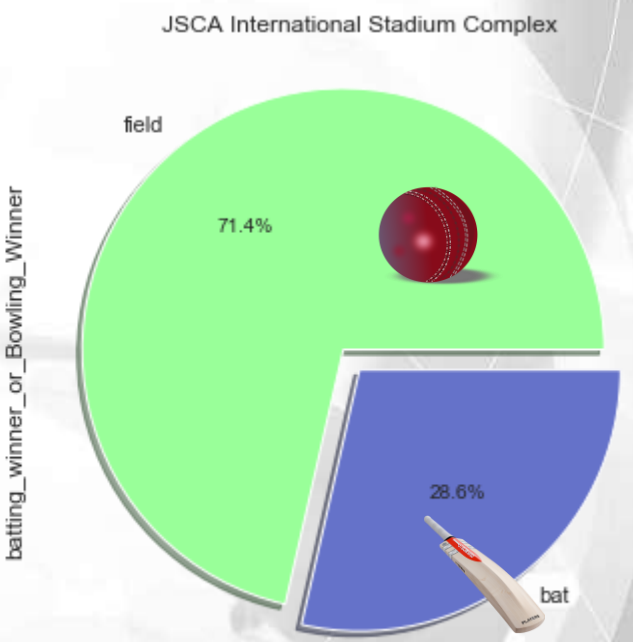
- M Chinnaswamy Bangalore.
- Eden Garden Kolkata.
- Feroz Shah Kotla Delhi.
- Wankhede stadium Mumbai.



# Does fielding or batting first matters?




Three grounds **Green Park Kanpur, Holkar Cricket Stadium Indore** and **JSCA International Stadium Complex Ranchi**, where if you field first your chances of winning the match are greater than 70%

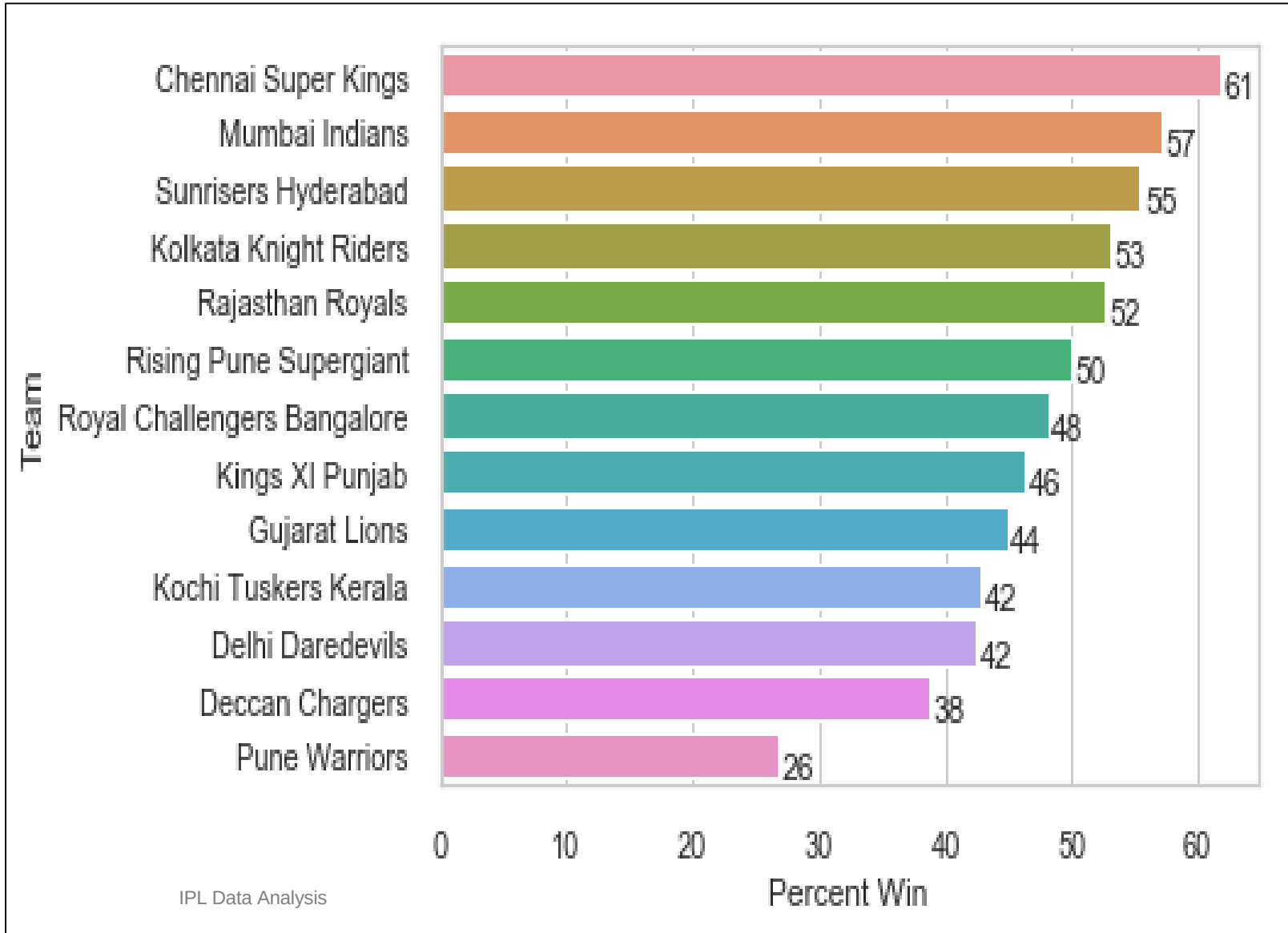
# Team’s top win percentage venue wise?

Three Luckiest grounds for Mumbai Indians.

| Venue | City | Team | MatchesPlayed | PercentWin |
|---|---|---|---|---|
| Brabourne Stadium | Mumbai | Mumbai Indians | 8 | 75.00 |
| Eden Gardens | Kolkata | Mumbai Indians | 12 | 83.33 |
| Feroz Shah Kotla | Delhi | Royal Challengers Bangalore | 8 | 75.00 |
| M Chinnaswamy Stadium | Bangalore | Mumbai Indians | 10 | 80.00 |
| Maharashtra Cricket Association Stadium | Pune | Chennai Super Kings | 6 | 83.33 |

# Percentage of matches won by each team

Top three teams who wins the table of win percentage across all IPL seasons are **Chennai Super Kings, Mumbai Indians and Sunrisers Hyderabad**.

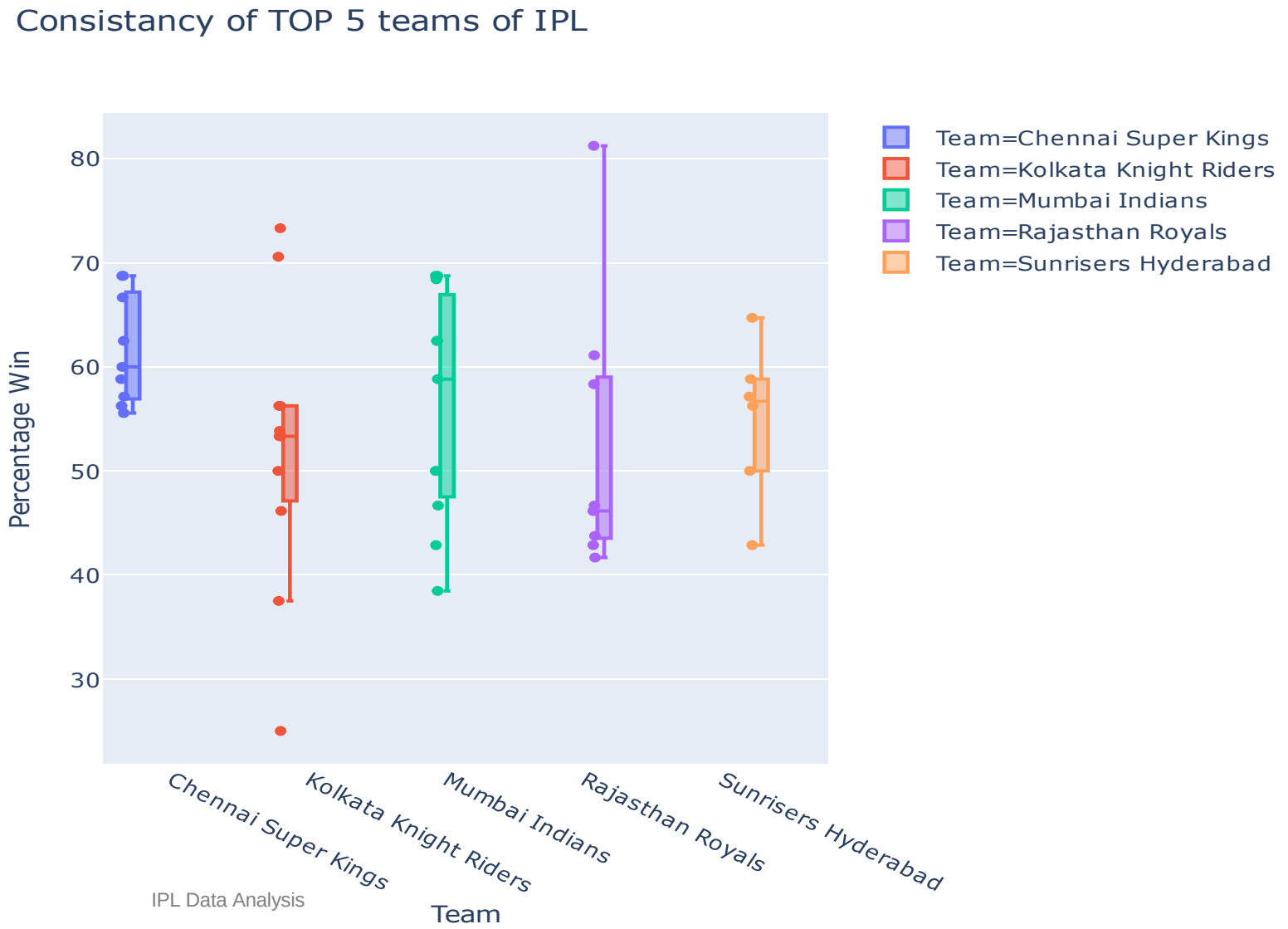


# Team Consistency across IPL season

Most consistent team is **Chennai Super King**.

Most inconsistent team is **Kolkata Knight Riders**

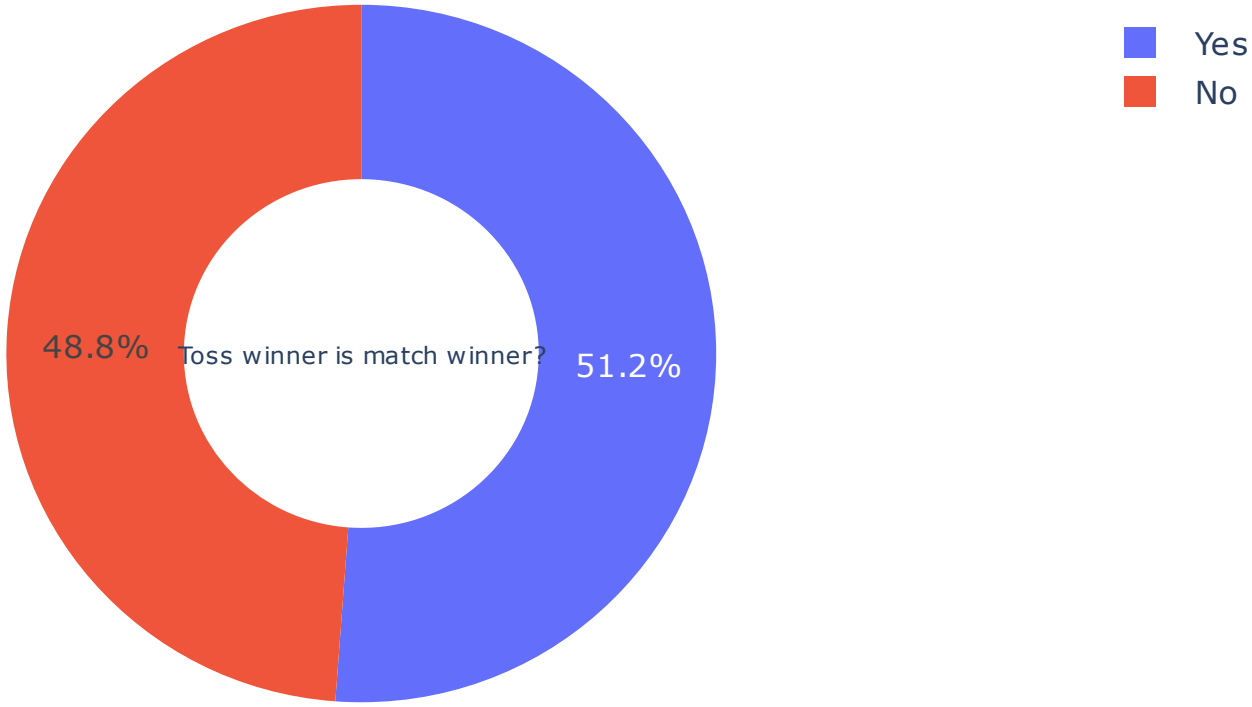
out of TOP 5 teams of IPL.



# Does toss really matter?

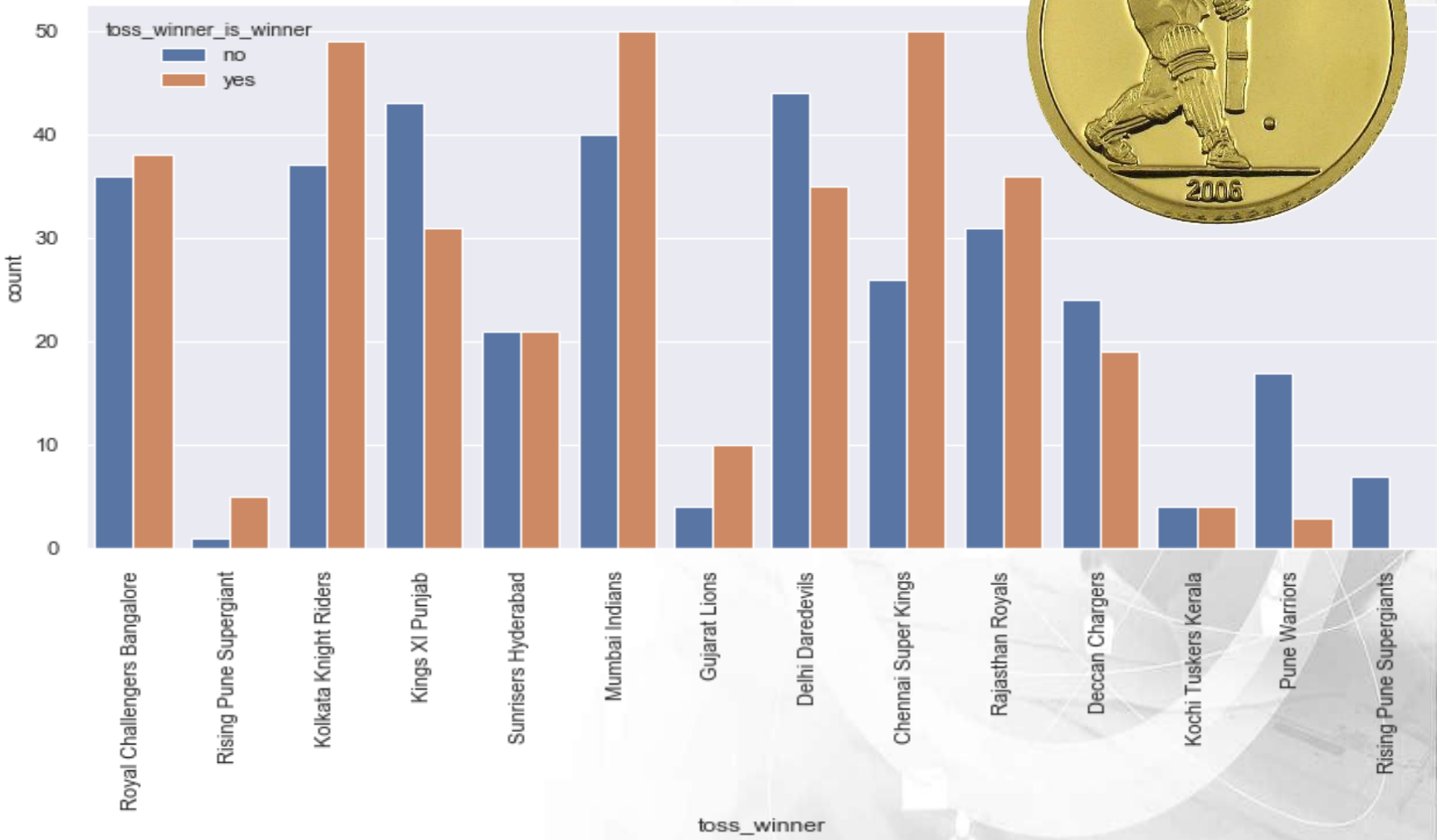
After Analyzing all the matches possibility for a toss winner to be match winner is almost **50:50**

There might be a possibility this inference may vary team to team.



# Does toss really matter?

It seems for **Chennai Super Kings (CSK)** winning the toss is an indication of winning the match with high probability. On the other hand, Pune Warriors end up losing the matches more often when they win the toss.



2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
IPL WINNERS TILL NOW 2008-2018

# Chances for final's qualifier to be winner ?

Chennai Super King Qualified for maximum number of times to the finals, followed by Mumbai Indians and Royal Challengers Bangalore.

Chennai Super King and Mumbai Indians won the IPL crown equal number of times

As compare to other teams that chances of winning the IPL for Mumbai Indians and Kolkata Knight Riders are quiet high when they qualify for the finals.

| Team | QualifyTimes | WinTimes | Chances |
|---|---|---|---|
| Kolkata Knight Riders | 2 | 2.0 | 100.00 |
| Mumbai Indians | 4 | 3.0 | 75.00 |
| Chennai Super Kings | 7 | 3.0 | 42.86 |
| Royal Challengers Bangalore | 3 | 0.0 | 0.00 |

# Summary (1 of 4)

Highest number of matches played in season 2013 followed by 2012 and then 2011.

**Mumbai Indians** is the team who played highest number of matches and on contrary **Kochi Tuskers Kerala** have played lowest number of matches across all seasons of IPL.

Only 5 teams i.e. **Delhi Daredevils, Kings XI Punjab, Kolkata Knight Riders, Mumbai Indians, Royal Challengers Banglore** have played all the seasons of IPL.

# Summary (2 of 4)

Across all sesons of IPL, results of most of the matches are normal i.e. approx **98.5%**, **1%** of the total matches got tied and only approx **.5%** matches ended up with no result.

In Seasons **2008, 2012, 2016, 2018** none of the matches resulted Tie or ended up no result. Maximum number of tied matches were in the season **2013** which is 28% of the total tied IPL matches across all the seasons Two matches in **2015** ended up with no result which is alomst 66% of the total matches ended up with no result across all the IPL seasons.

**M Chinnaswamy, Eden Garden and Feroz Shah Kotla** are the TOP 3 stadium where maximum number of matches played.

# Summary (3 of 4)

Three grounds **Green Park Kanpur, Holkar Cricket Stadium Indore and JSCA International Stadium Complex Ranchi**, where if you field first your chances of winning the match are greater than 70%

**Brabourne Stadium, Eden Gardens, M Chinnaswamy Stadium** are the favorite ground of the **Mumbai Indians** team. They loosed only 25% of matches on these ground, similarly **Maharashtra Cricket Association Stadium Pune** for **Chennai Super Kings** and **Feroz Shah Kotla** for **Royal Challengers Bangalore** are the luckiest ground where they hardly loose matches.

Top three teams who wins the table of win percentage across all IPL seasons are **Chennai Super Kings, Mumbai Indians and Sunrisers Hyderabad**.

# Summary (4 of 4)

Most consistent team is **Chennai Super King** while most inconsistent team is **Kolkata Knight Riders** out of TOP 5 teams of IPL.

It seems for **Chennai Super Kings (CSK)** winning the toss is an indication of winning the match with high probability. On the other hand, **Pune Warriors** end up losing the matches more often when they win the toss.

**Chennai Super King** Qualified for maximum number of times to the finals, followed by **Mumbai Indians and Royal Challengers Banglore**.

**Chennai Super King and Mumbai Indians** won the IPL crown equal number of times.

We can say as compare to other teams that chances of winning the IPL for **Mumbai Indians and Kolkata Knight Riders** are quiet high when they qualify for the finals.

THANK YOU
merci
spasiba
kam ouen
gratzias
manana
mahalo
cheers
toda
hvala
gracias
grassie
thank you
danki
grazie
tak
kitos
welalin
mahalo
danki
thanks
takk
gracias
domo arrigato
merci
dankon
danke
grattitude
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