

# IPL Visualisation Assignment

By:

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# Business Problem:

This case study aims to build a Tableau dashboard of IPL statistics over the years since its inception in order to create an infographic for a newsletter that the team is working on.

We have been provided with two data sets matches wise details and delivery wise details of each match. Combining the information in these two data sets, we have to create an interactive dashboard that highlights some of the important statistics of IPL over the years.

In other words, the Editor wants to see different patterns and performance of different teams and players over the years in the different seasons of IPL. This case study aims to build a Tableau dashboard of IPL statistics over the years since its inception in order to create an infographic for a newsletter that the team is working on.

# Data and Business Understanding:

**The data contains two files as mentioned below:**

- **matches.csv** - It contains match-level information for each and every match held in IPL from 2008 to 2017.
- **deliveries.csv** - It contains ball-by-ball information for each of the matches.

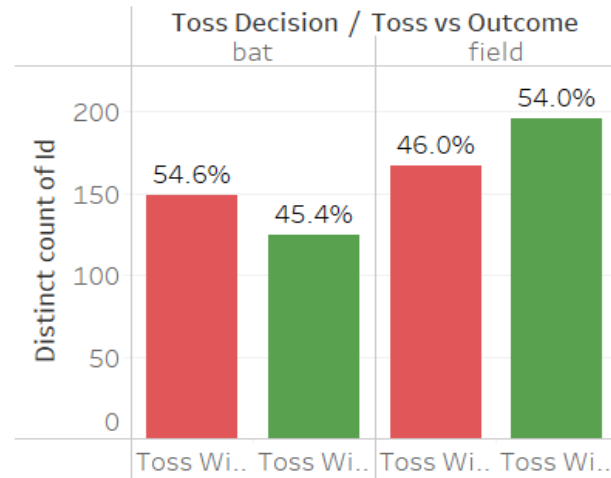
**Insights on data:**

- The Indian Premier League is a professional Twenty20 cricket league in India.
- The data contains ball-by-ball summary of 636 matches played among 13 teams (not all of them participating in all the seasons) over a period of first 10 years of the IPL.
- Three dashboards are created to provide analysis based on Match Statistics, Player Statistics and Team Statistics.

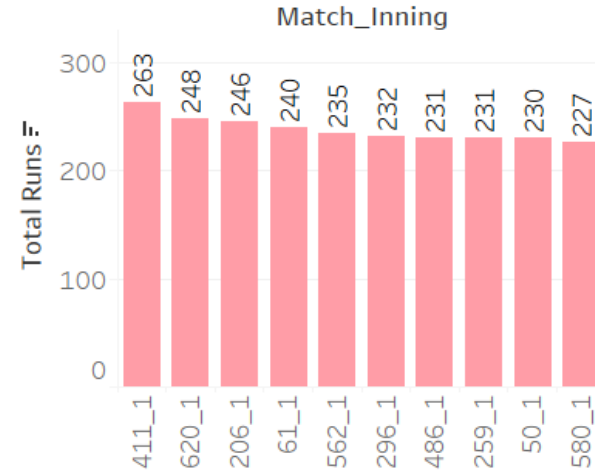
# Match Statistics:

## Match Statistics

Toss Outcome vs Match Outcome



Highest Totals across Seasons



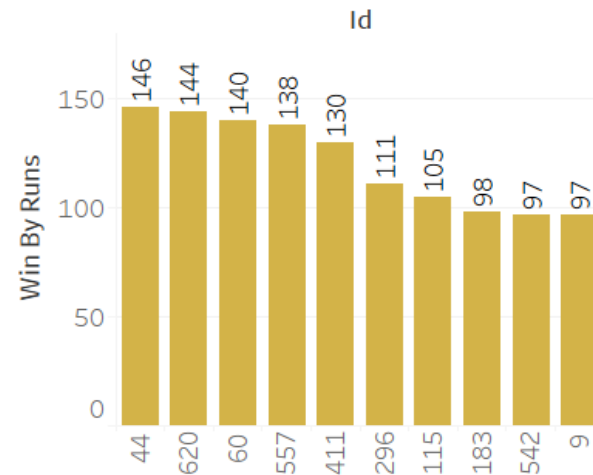
Toss vs Outcome

Toss Winner LOST  
Toss Winner WON

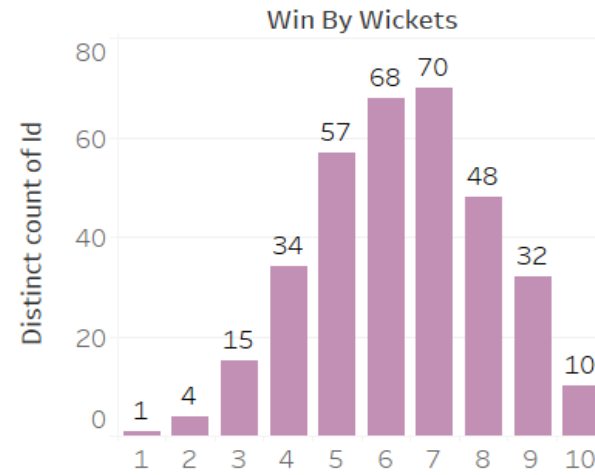
Venue

- ☒ (All)
- ☐ Barabati Sta...
  - ☐ Brabourne St...
  - ☐ Buffalo Park
  - ☐ De Beers Dia...
  - ☐ Dr DY Patil Sp...
  - ☐ Dr. Y.S. Rajas...
  - ☐ Dubai Interna...
  - ☐ Eden Gardens
  - ☐ Feroz Shah K...
  - ☐ Green Park
  - ☐ Himachal Pra...
  - ☐ Holkar Cricke...
  - ☐ JSCA Internat...
  - ☐ Kingsmead
  - ☐ M Chinnaswa...
  - ☐ MA Chidamba...
  - ☐ Maharashtra ...
  - ☐ Nehru Stadium
  - ☐ New Wander...
  - ☐ Newlands
  - ☐ OUTsurance ...
  - ☐ Punjab Cricke...
  - ☐ Punjab Cricke...

Biggest Wins by Runs (Top 10)



Distribution of Win by Wickets



# Match Statistics Analysis:

## **Toss outcome vs Match outcome (for each Ground/Venue):**

- Considering all the venues, choosing to field first after winning the toss seems to be the better option as winning % for field first is 54% and that for bat first is 45.4%

## **Biggest wins by Runs:**

- Mumbai Indians won in 2017 by the biggest margin of 146 runs at FerozShahKotla in Delhi.
- The second highest win was when Royal Challengers Bangalore won by 144 runs at their home ground in Bangalore in the 2016.

## **Biggest wins by Wickets:**

- Among win by wickets, most of the times winner has won by 7 wickets (i.e. 70 times) followed by 6 wickets (i.e. 68 times).

## **Highest totals (across all the seasons) :**

- The highest score ever in IPL history is of 263 runs that Royal Challengers Bangalore scored in 2013 at their home ground in Bangalore.
- The second highest score of 248 was also scored by the same team at the same venue but in 2016.

# Player Statistics:

## Player Statistics

Orange Cap Contenders (Top 10)

SE Marsh 616	SR Watson 472	GC Smith 441	AC Gilchrist 436
G Gambhir 534	YK Pathan 435	MS Dhoni 414	V
ST Jayasuriya 514	SK Raina 421		

Purple Cap Contenders (Top 10)

Sohail Tanvir 24	SK Warne 20	SR Watson 20	MF
IK Pathan 20	PP Chawla 19	MS Gony 18	RP Singh 17
JA Morkel 20	S Sreesanth 19		

**Season**

- ☐ (All)  
☒ 2008  
☐ 2009  
☐ 2010  
☐ 2011  
☐ 2012  
☐ 2013  
☐ 2014  
☐ 2015  
☐ 2016  
☐ 2017

Most Fours (Top 10)

G Gambhir 68	GC Smith 54	AC Gilchrist 51	SR Watson 47
SE Marsh 59	V Sehwag 46	YK	PA Patel 42
ST Jayasuriya 57	SA Asnodkar 43		

Most Sixes (Top 10)

ST Jayasuriya 31	V Sehwag 21	AC Gilchrist 19	RG Sharma 19
SE Marsh 26	SR Watson 19	SK Raina 18	DJ
YK Pathan 25	Yuvraj Singh 19		

# Player Statistics Analysis:

## **Orange Cap contenders:**

- Shaun Marsh won the orange cap in the inaugural year of IPL i.e. 2008 by scoring a total of 616 runs.
- Virat Kohli has scored the maximum of 973 runs in a single IPL winning the Orange cap in year 2016.

## **Purple Cap contenders:**

- Sohail Tanveer from Rajasthan Royals took maximum of 24 wickets in year 2008 helping his team to win the title.
- DJ Bravo bagged 34 wickets in the year 2013 making him the highest in a single season.

## **Batsmen who hit the most number of fours:**

- In the inaugural season of 2008, Gautam Gambhir topped this list with a total of 68 fours.
- The highest number of fours in a single season was score in 2016 when DA Warner hit 88 fours.

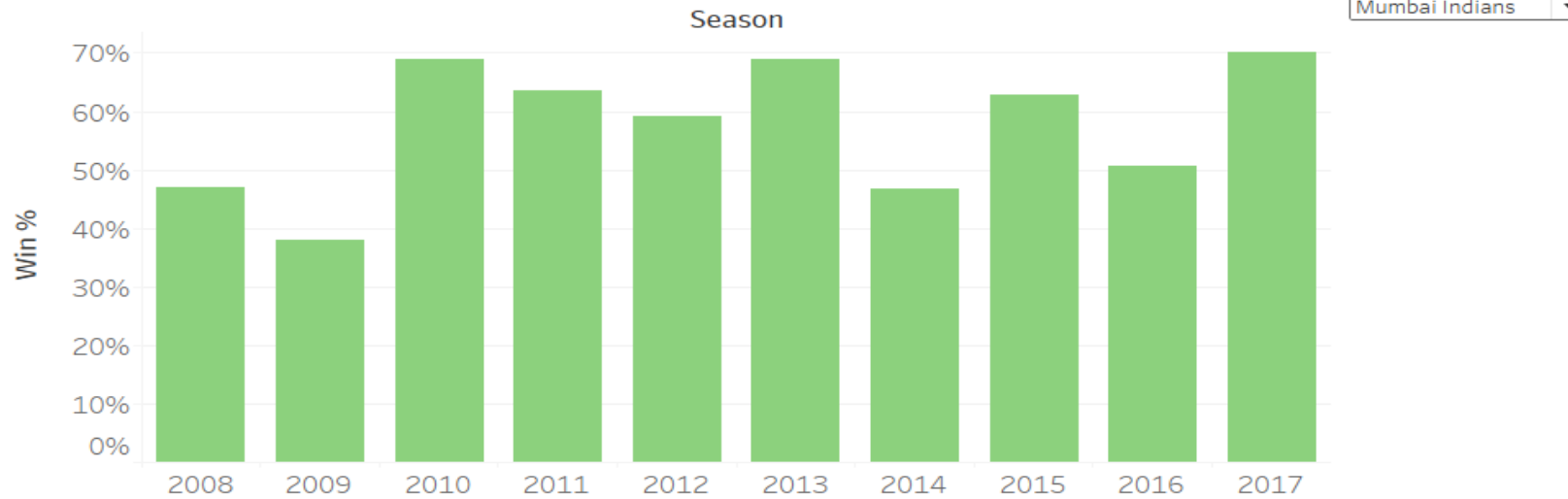
## **Batsmen who hit the most number of sixes:**

- In the inaugural season of 2008, ST Jayasuriya topped this list with a total of 31 sixes.
- The highest number of sixes in a single season was score in 2012 when CH Gayle hit 59 sixes.

# Team Statistics:

## Team Statistics

Season-wise Team Performance



### Win% (Home vs Away)

Season	Home vs Away		NA
	Away	Home	
2008	41.47%	53.35%	NA
2009			37.95%
2010	49.97%	80.19%	
2011	68.40%	67.74%	0.00%
2012	85.59%	37.81%	49.39%
2013	37.94%	100.00%	68.03%
2014	100.00%	66.32%	0.00%
2015	56.75%	63.16%	100.00%
2016	66.83%	50.05%	25.57%
2017	66.60%	62.27%	100.00%

For the selected team, the Season-wise Team Performance shows the winning percentage of the team over the years.

Whereas Win% (Home vs Away) provides the winning percentage of the selected team in the Home and Away locations over the years.

In 2009, we see that Home/Away is not applicable to any of the teams as this season was hosted in South Africa...



# Team Statistics Analysis:

## **Season-wise team performance (wins vs losses):**

- Chennai Super Kings have been consistent across all the IPL where in every season they've won more matches as compared to losses making them one of the most successful IPL team. However CSK didn't partake in 2016 and 2017.
- Performance of Royal Challengers, Kings XI and Kolkata Knight Riders have varied a lot across the seasons.
- Kochi Tuskers Kerala has only played single season i.e. 2011 of IPL where they won 41% of the matches.
- Mumbai Indians is also one of the most successful team by winning the IPL 3 times and winning more games than losing in 7 season out of 10.

## **Win %age ( home vs away):**

- Most of the team have performed fairly well at home as compared to away games. The clear reason is that home conditions favors the team more.
- The teams which have not played all the seasons of IPL such as Deccan Chargers (five seasons), Rising Pune Supergiants(two seasons), Gujrat Lions (two seasons) and Kochi Tuskers (one season) have shown better performance in away matches as compared to Home games.
- In **2009**, we see that Home/Away is not applicable to any of the teams as this season was hosted in South Africa.