INTRODUCTION

The craze for cricket in India is huge and millions of cricket fans are glued to their television sets to watch their favorites players battle it out for their country. In 2008, BCCI introduced IPL which is a now a professional t20 league, where players for different countries play together with our Indian domestic and international player to represent their franchise and win the ultimate IPL trophy. The brand valuation of the IPL was rupees 458 billion in 2020 which is expected to rise with its tremendous popularity worldwide. So, let's analyze the IPL through various stats and learn the insights of it.

DATASET DESCRIPTION AND SOURCE

The dataset is available on Kaggle, refer to this link to download and work with it. The dataset usually contains two csv file namely

1. IPL Ball-by-Ball 2008-2020 contains 193469 rows and 17 columns containing ball by ball details of the matches been played
2. IPL Matches 2008-2020 contains 817 rows and 17 columns containing information about various matches played.

I will be using the power BI desktop for this analysis

DATA PREPARATION AND CLEANING

1. First and the fore most change the regional setting and the autodetect relationship options

Go to File ->options and settings -> options->current file ->Data load -> Deselect the autodetect new relation after data is loaded option (if you want to create relationship on your own)

Go to File ->options and settings -> options->current file ->Regional settings ->English (USA)

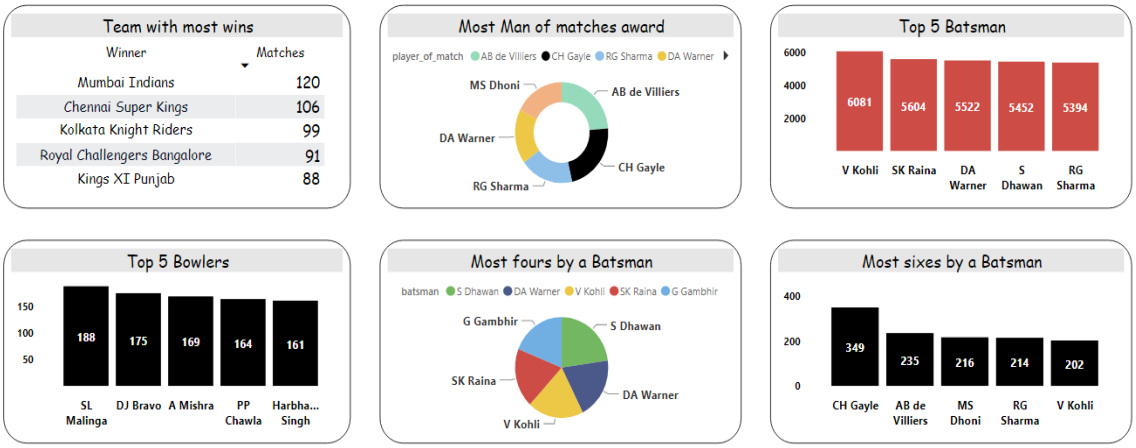
2. For, IPL Ball-by-Ball 2008-2020
    - promote the headers by using the use first row as header options.
    - Changed data types of "options."
    - Created conditional column with names "SIXES" and "FOURS".
3. For, IPL Matches 2008-2020
    - promote the headers by using the use first row as header options.
    - Changed data types of "options.".
    - Create a custom column and name it "year" which will help us to distinguish different season or years in which it is played.
4. Connect the two data tables in the relationship tab and make sure the relationship is of one-to-many type and the flow is bidirectional.

DAX MEASURES

MEASURE NAME	DAX FUNCTION	M-CODE	EXPLANATION
Total runs total sixes total fours total wickets total extras Extra runs concedded	SUM ()	Total runs = SUM ('IPL Ball-by-Ball 2008-2020'[total runs]) total sixes = SUM ('IPL Ball-by-Ball 2008-2020'[SIXES]) total fours = SUM ('IPL Ball-by-Ball 2008-2020'[FOURS]) total wickets = SUM ('IPL Ball-by-Ball 2008-2020'[is wicket]) total extras = SUM ('IPL Ball-by-Ball 2008-2020'[extra runs]) Extra runs conceded = SUM ('IPL Ball-by-Ball 2008-2020'[extra runs])	Sum () function will operate over a single column of data to aggregate all the data in the column
Strike rate (Bating)	COUNT ()	Strike rate = ([Total runs] *100)/COUNT ('IPL Ball-by-Ball 2008-2020'[ball])	Will count the no of cells in the name column
finals date	MAX ()	finals date = MAX ('IPL Matches 2008-2020'[date])	Will return the largest value in the column, or between two scalars expressions
economy rate	SUM ()	economy rate = SUM ('IPL Ball-by-Ball 2008-2020'[over])/ [Total runs]	Sum () function will operate over a single column of data to aggregate all the data in the column
Bowler's average	SUM ()	Bowler's average = [Total runs]/SUM ('IPL Ball-by-Ball 2008-2020'[is wicket])	Sum () function will operate over a single column of data to aggregate all the data in the column
Average	SUM ()	Average = SUM ('IPL Ball-by-Ball 2008-2020'[batsman runs])/SUM ('IPL Ball-by-Ball 2008-2020'[is wicket])	Sum () function will operate over a single column of data to aggregate all the data in the column

INFERENCES AND CONCLUSIONS OF OUR OBJECTIVES

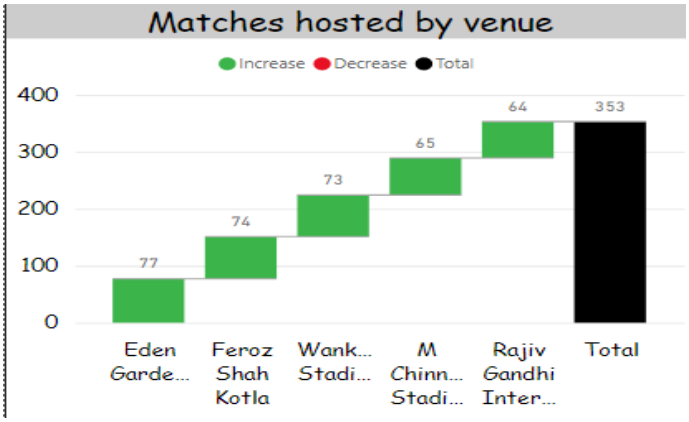
1. To find the team with most wins, player with most Man of the matches, most sixes, most fours, most wickets



From above we can conclude the following

1. **Team with most wins** – Mumbai Indians is leading with 120 wins, followed by Chennai super kings and Kolkata knight
2. **Most man of the match award** – AB De Villiers who plays for RCB have 23 which is the most MOM awards, followed by Chris Gayle -22 and Rohit Sharma with 18
3. **Most runs scored** – Virat Kohli from RCB has the most runs (6081), followed by Suresh Raina and David warner
4. **Most wickets** – Lasith Malinga from Mumbai India has most wickets (188) followed by DJ Bravo from csk
5. **Most sixes** – Chris Gayle leads this section with 349 followed by – AB De Villiers and MS Dhoni
6. **Most fours** – S Dhawan leads with 591. followed by David warner with 510 and Virat Kohli with 504

2. **city that hosted most matches.**



Eden gardens has hosted the greatest number of matches 77, followed by **ferozshah kotla** and **Wankhede stadium**

2 TOP – 5 Batsman stats - His strike rate, Total runs scored, balls faced, his average etc

Batsman Stats

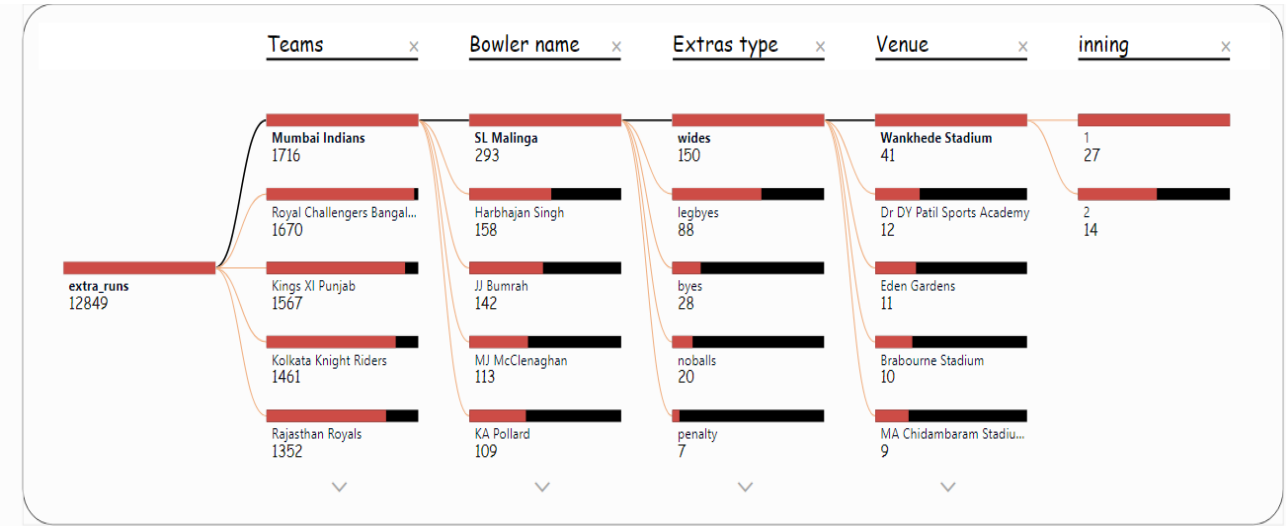
batsman	Matches	Total runs	Balls faced	Strike rate	Average	Total fours	Total sixes	Player dismissed
V Kohli	184	6081	4609	131.94	36.06	504	202	163
SK Raina	189	5604	4041	138.68	33.55	493	194	160
DA Warner	142	5522	3819	144.59	41.70	510	195	126
S Dhawan	175	5452	4208	129.56	34.19	591	109	152
RG Sharma	194	5394	4088	131.95	29.55	458	214	177
Total	**633**	**28053**	**20765**	**135.10**	**34.61**	**2556**	**914**	**778**

3 top-5 Bowler's stats - wickets, his economy, his average and extra runs conceded

Bowlers stats

bowler	Matches	Wickets	Runs Conceded	Balls bowled	Average	economy rate	Extra runs
DJ Bravo	137	175	3869	2846	22.11	9.33	210
A Mishra	150	169	3913	3233	23.15	8.62	125
SL Malinga	122	188	3486	2974	18.54	8.57	293
PP Chawla	163	164	4330	3285	26.40	7.65	134
Harbhajan Singh	157	161	4038	3451	25.08	7.27	170
Total	**490**	**857**	**19636**	**15789**	**22.91**	**8.26**	**932**

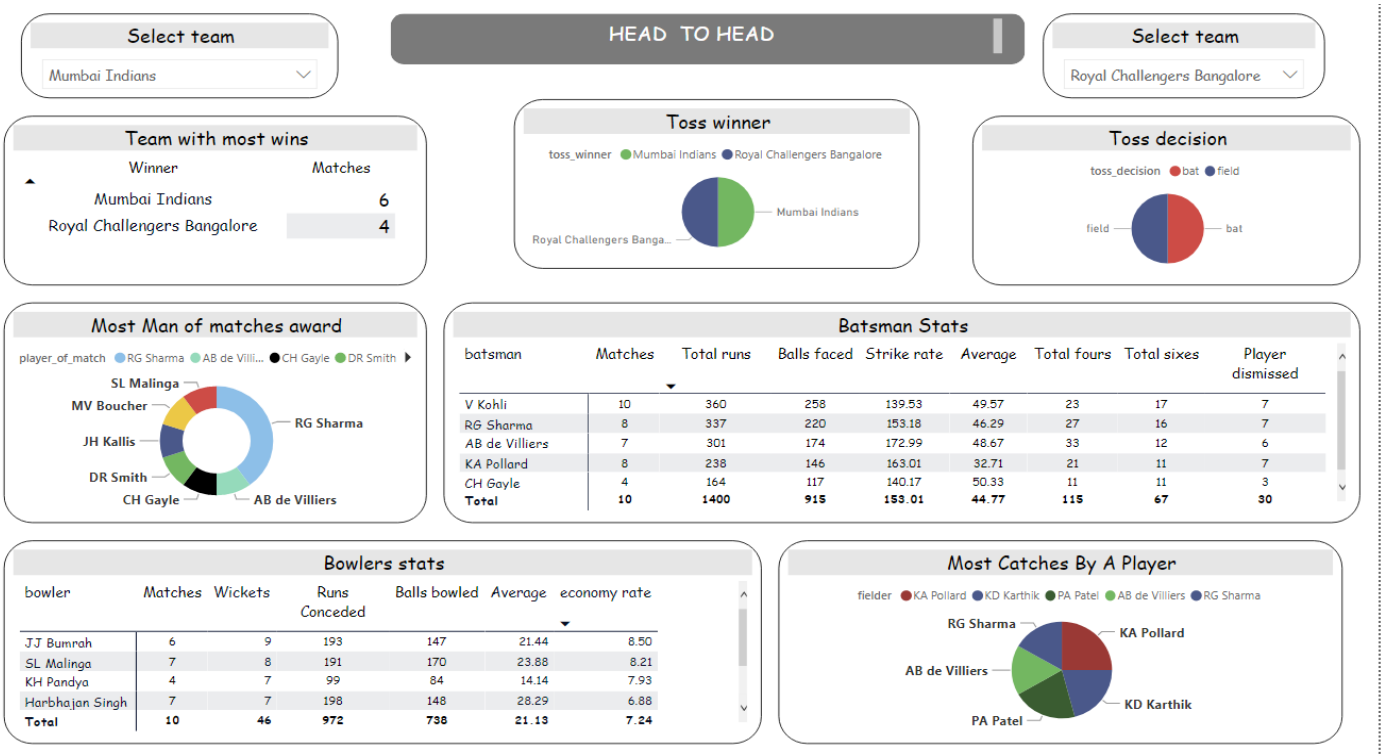
4 Extra runs and their types, team and players with most extras given.



Mumbai Indians have given the highest numbers of extra runs of which Malinga has bowled 17% of extras in which 51% are wide balls.

5. Head-to-Head stats between Mumbai Indians and Royal challengers Bangalore

From above we can conclude the following



1. **Head-to-Head** – Out of the 10 matches played, Mumbai Indians have won 6 matches and royal challengers have won 4 of those.
2. **Toss winner** – out of the 10 matches both teams have won 5 toss each. Out of the 5 tosses Mumbai Indians have batted first in 3 of them and have lost 2 matches, whereas fielding first they have won both their matches. Royal challengers Bangalore also have won 5 tosses I, out of which 2 times they batted first and won 1 of them while fielding first they have won 1.
3. **Most man of the match –** Rohit sharma has won a staggering 4 times which shows he is a stand out player for this clash, followed by AB De Villiers, Chris Gayle and Dwayne smith.
4. **Batting stats**
   Most Runs – Virat kohli leads with 360 runs followed by Rohit Sharma and AB De Villiers with 337 and 301 runs, and also, they have played lesser matches than him.
   Highest strike rate (min 5 matches) – Hardik Pandya has the highest strike rate of 200, followed by AB De Villiers 172.89 and Kieron pollard 163.01
   Highest Average (min 5 matches) - Hardik Pandya has the highest average of 78 followed by virat kolhi 0f 49.57
   Most Fours - AB De Villiers leads with 33 followed by Rohit Sharma and Virat Kohli at 27 and 23 respectively
   Most sixes - Virat Kohli has 17, followed by Rohit sharma at 16 and AB De Villiers at 12
5. **Bowling stats**
   Most wickets – Jasprit bumrah leads with 9 wickets in 6 matches, followed by Vinay kumar with 8 wickets in 4 matches and Lasith malinga with 8 wickets in 7 matches
   Best economy rate (5 matches min) – Yuzvinder Chahal has an economy of 6.69, followed by Hardik pandya
   Best average (5 matches min) - Jasprit bumrah leads followed by Lasith malinga

FUTURE WORKS

There are a lot of insights which can be added to these reports in future, some of them are as listed Below

- Total matches lost by individual teams throughout the years
- Which batsman have scored most runs against which bowlers and which bowlers have dismissed them the most?
- How the batsman got wicket (his weakness)
- Highest winning margin by runs and wickets, which team have won most matches by wickets and runs etc
- Players performances at their home ground as compared to away matches
- Create a dream team based on the stats
- Umpires officiating and many more stuff

REFRENCES

- IPL 2008-2020 Dataset
  IPL Complete Dataset (2008-2020) | Kaggle
- Stats crosschecking –
  IPLT20.com - Indian Premier League Official Website