



IPL MATCH DATA ANALYSIS USING



WHAT WE HAVE TO EXPLORE ??

•Questions for Key Insights

•Top Teams:

- Which team has the highest number of wins in the IPL?
- How do Chennai Super Kings and Kolkata Knight Riders rank in terms of the number of wins?

•Top Players:

- Who is the player with the most "Player of the Match" awards in the IPL?
- Which other players are frequently awarded the "Player of the Match"?

•Match Venues:

- Which city has hosted the highest number of IPL matches?
- What are the other top cities in terms of the number of matches hosted?
- How many international venues have hosted IPL matches, and which ones are they?

•Matches Played Each Season:

- How has the number of matches played each season varied over the years?

•Winning the Toss and Winning the Match:

- How often does winning the toss lead to winning the match in the IPL?
- What is the percentage of matches won by the team that won the toss?

QUESTIONS FOR CONCLUSIONS

- **CONSISTENCY OF TEAMS:**

- Which teams have shown consistent performance in the IPL?
- What factors contribute to the consistent performance of teams like MI, CSK, and KKR?

- **IMPACT OF TOSS:**

- what is the significance of winning the toss in an IPL match?
- How does winning the toss influence the match outcome?

- **VENUE PREFERENCES:**

- why are Mumbai, Kolkata, and Delhi the most popular venues for IPL matches?
- How might the venue affect the performance and outcome of matches?

- **PLAYER PERFORMANCES:**

- which players have the most significant impact on their teams' success in the IPL?



IPL MATCH DATA ANALYSIS USING PYTHON

```
[1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
[2]: ipl=pd.read_csv(r'C:\Users\Windows\Downloads\matches.csv')
```

```
[3]: ipl.shape
```

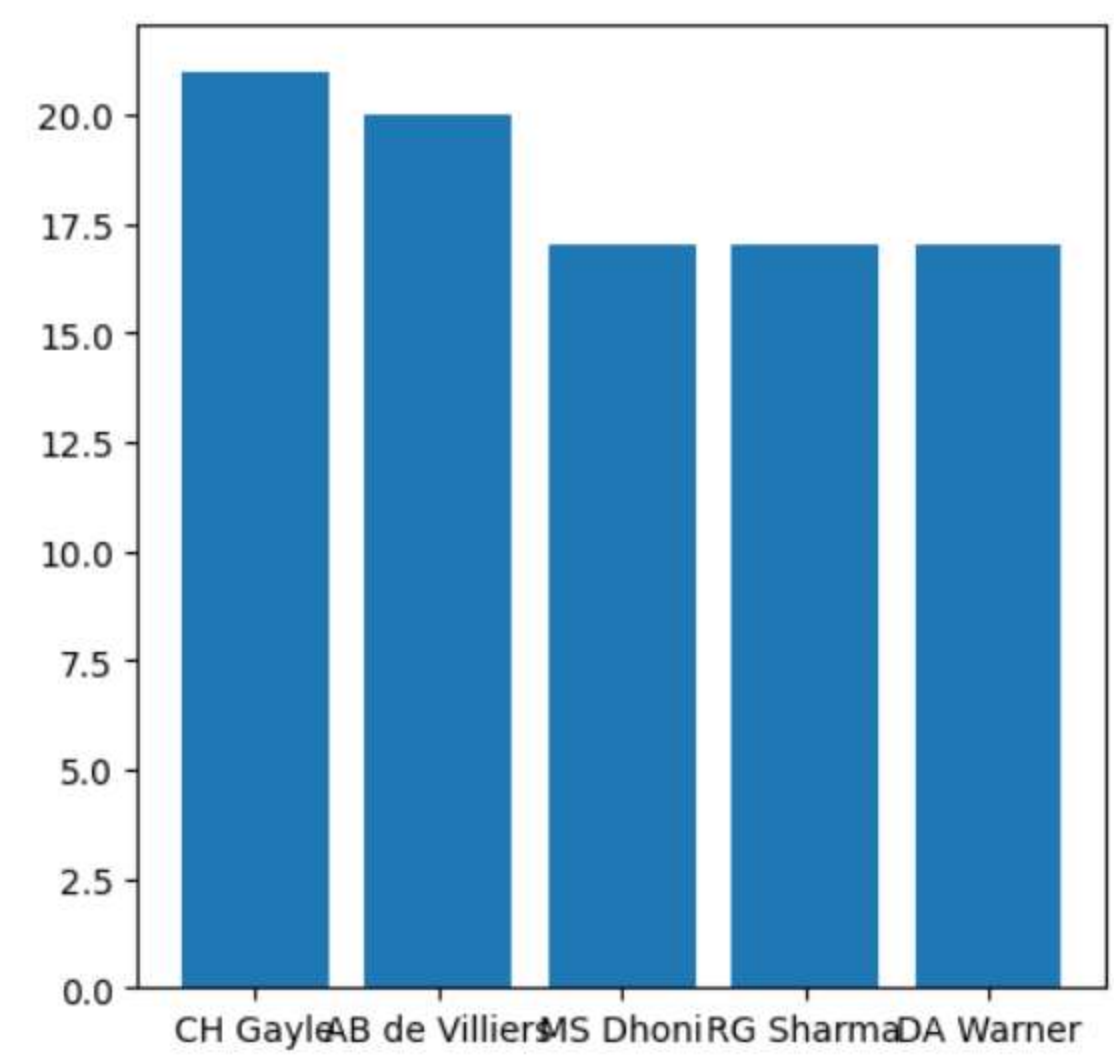
```
[3]: (756, 18)
```

```
[4]: ipl.head()
```

[4]:	id	season	city	date	team1	team2	toss_winner	toss_decision	result	dl_applied	winner	win_by_runs	win_by_wickets	player_of_match
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	field	normal	0	Sunrisers Hyderabad	35	0	Yuvraj Singh
1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Rising Pune Supergiant	0	7	SPD Smith
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	field	normal	0	Kolkata Knight Riders	0	10	CA Lynn


```
[7]: #making a bar-plot for the top 5 players with most man of the match awards
plt.figure(figsize=(5,5))
plt.bar(list(ipl['player_of_match'].value_counts()[0:5].keys()),list(ipl['player_of_match'].value_counts()[0:5]))
plt.show()
```

```
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```



```
[8]: #Getting the frequency of result column
ipl['result'].value_counts()
```

[8]: result

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```

```
[8]: result
normal      743
tie          9
no result    4
Name: count, dtype: int64
```

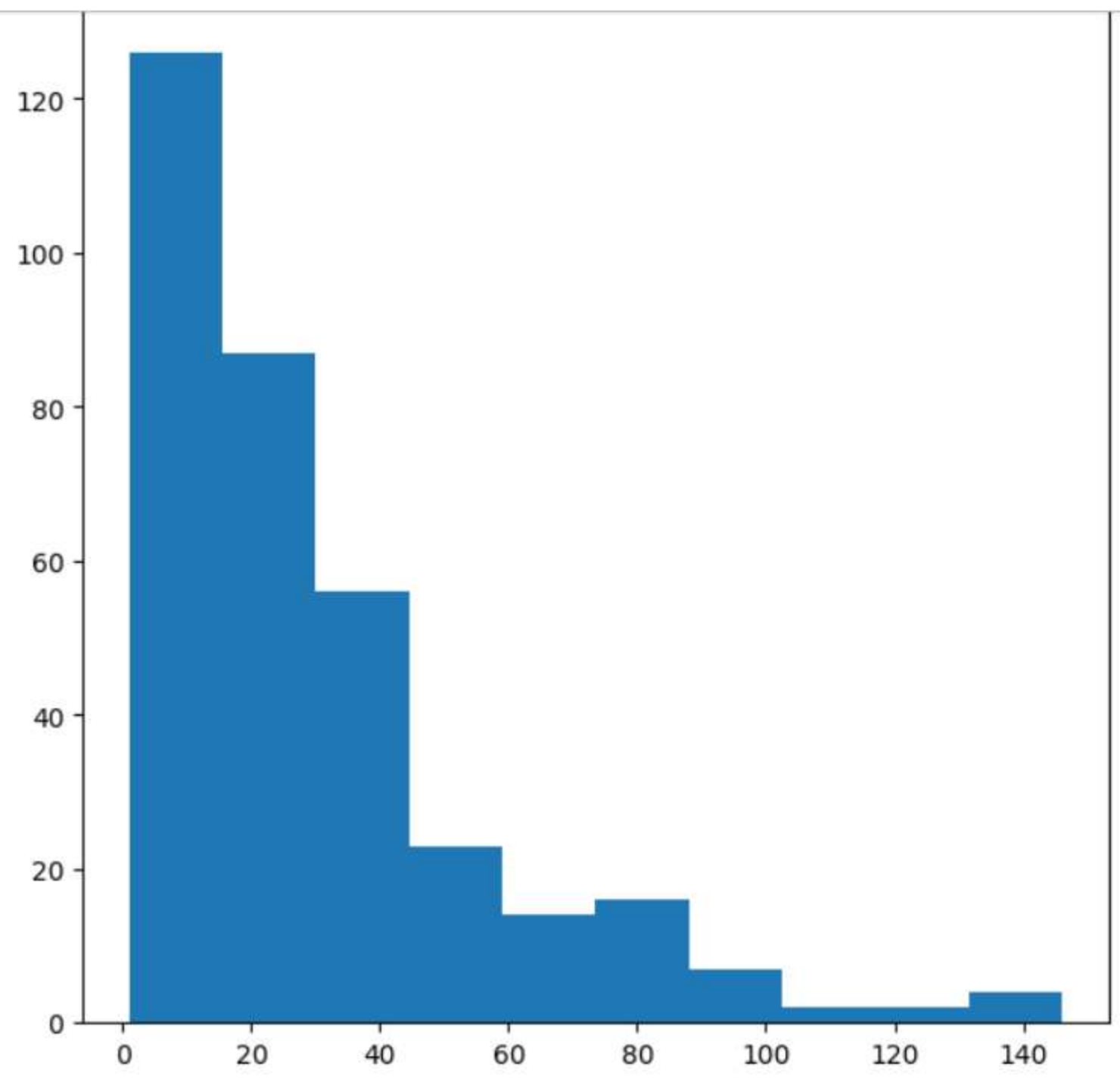
```
[9]: #Finding out the number of toss wins w.r.t each team
ipl['toss_winner'].value_counts()
```

```
[9]: toss_winner
Mumbai Indians      98
Kolkata Knight Riders  92
Chennai Super Kings  89
Kings XI Punjab     81
Royal Challengers Bangalore  81
Delhi Daredevils     80
Rajasthan Royals     80
Sunrisers Hyderabad  46
Deccan Chargers      43
Pune Warriors        20
Gujarat Lions        15
Delhi Capitals        10
Kochi Tuskers Kerala   8
Rising Pune Supergiants  7
Rising Pune Supergiant  6
Name: count, dtype: int64
```

```
[10]: #Extracting the records where a team won batting first
batfirst=ipl[ipl['win_by_runs']!=0]
```

```
[11]: batfirst.head()
```

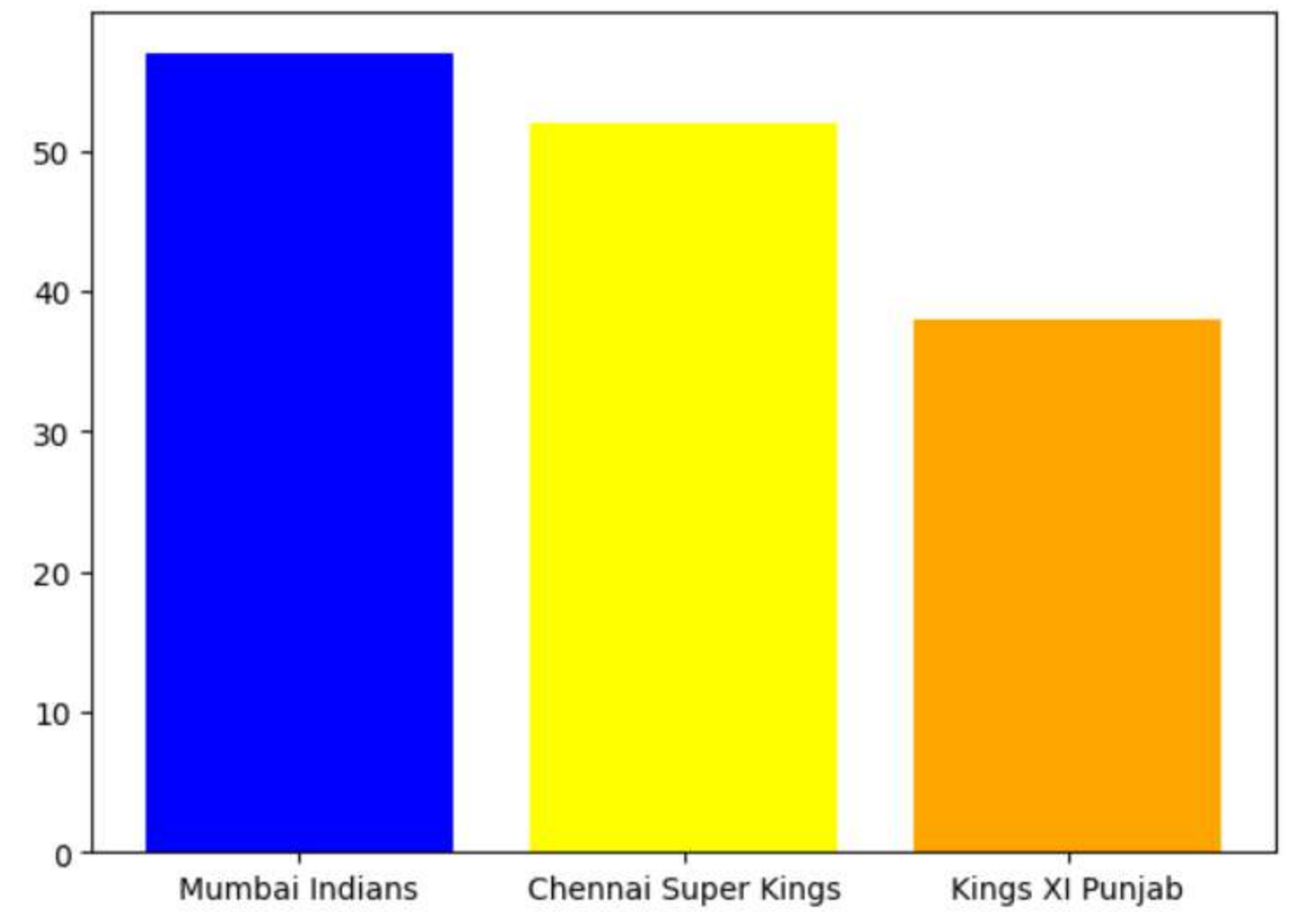

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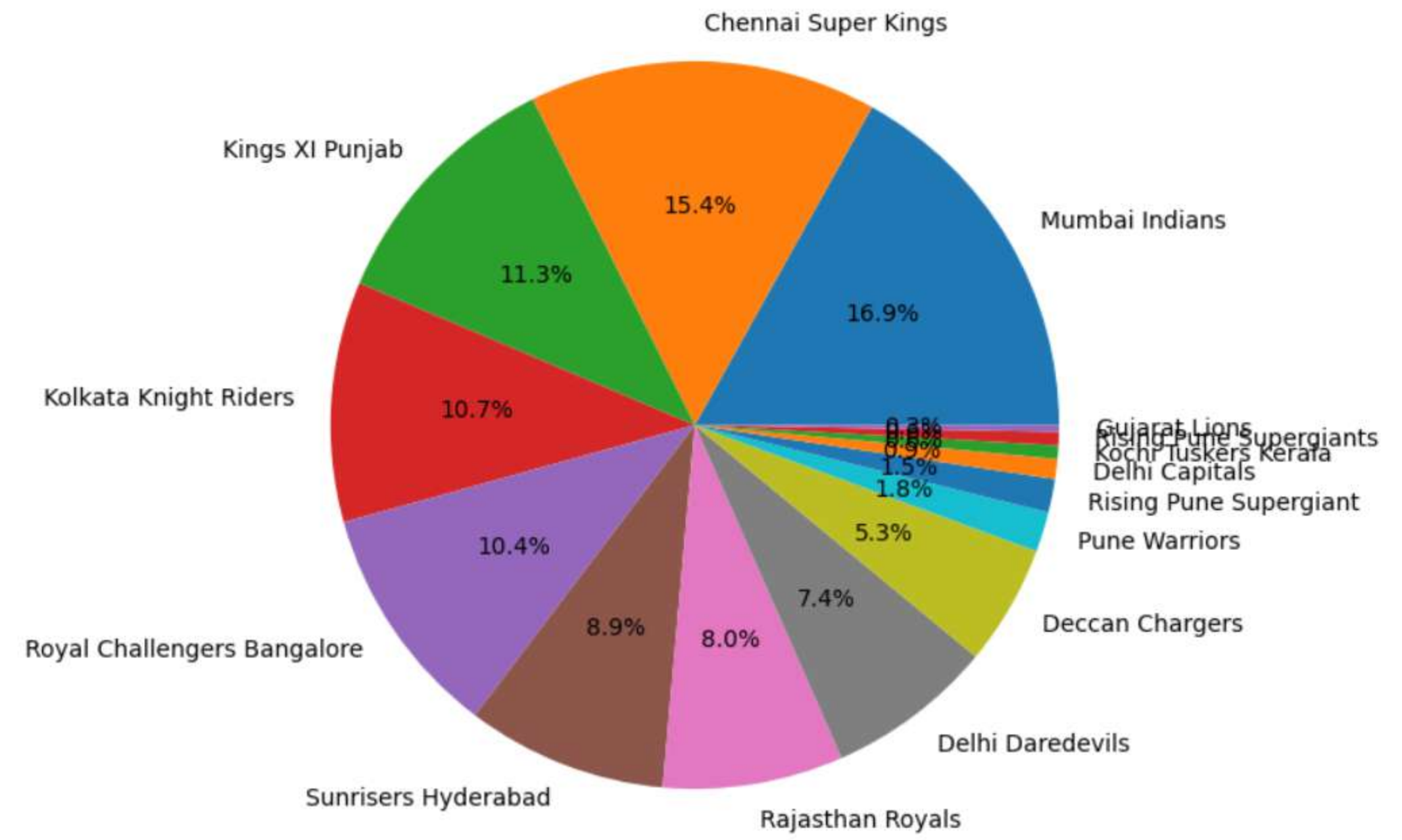
```
[13]: #Finding out the number of wins w.r.t each team after batting first
batfirst['winner'].value_counts()
```

```
Rising Pune Supergiant      5
Delhi Capitals               3
Kochi Tuskers Kerala        2
Rising Pune Supergiants     2
Gujarat Lions               1
Name: count, dtype: int64
```

```
[14]: #Making a bar-plot for top 3 teams with most wins after batting first
plt.figure(figsize=(7,5))
plt.bar(list(batfirst['winner'].value_counts()[0:3].keys()),list(batfirst['winner'].value_counts()[0:3]),color=["blue","yellow","orange"])
plt.show()
```



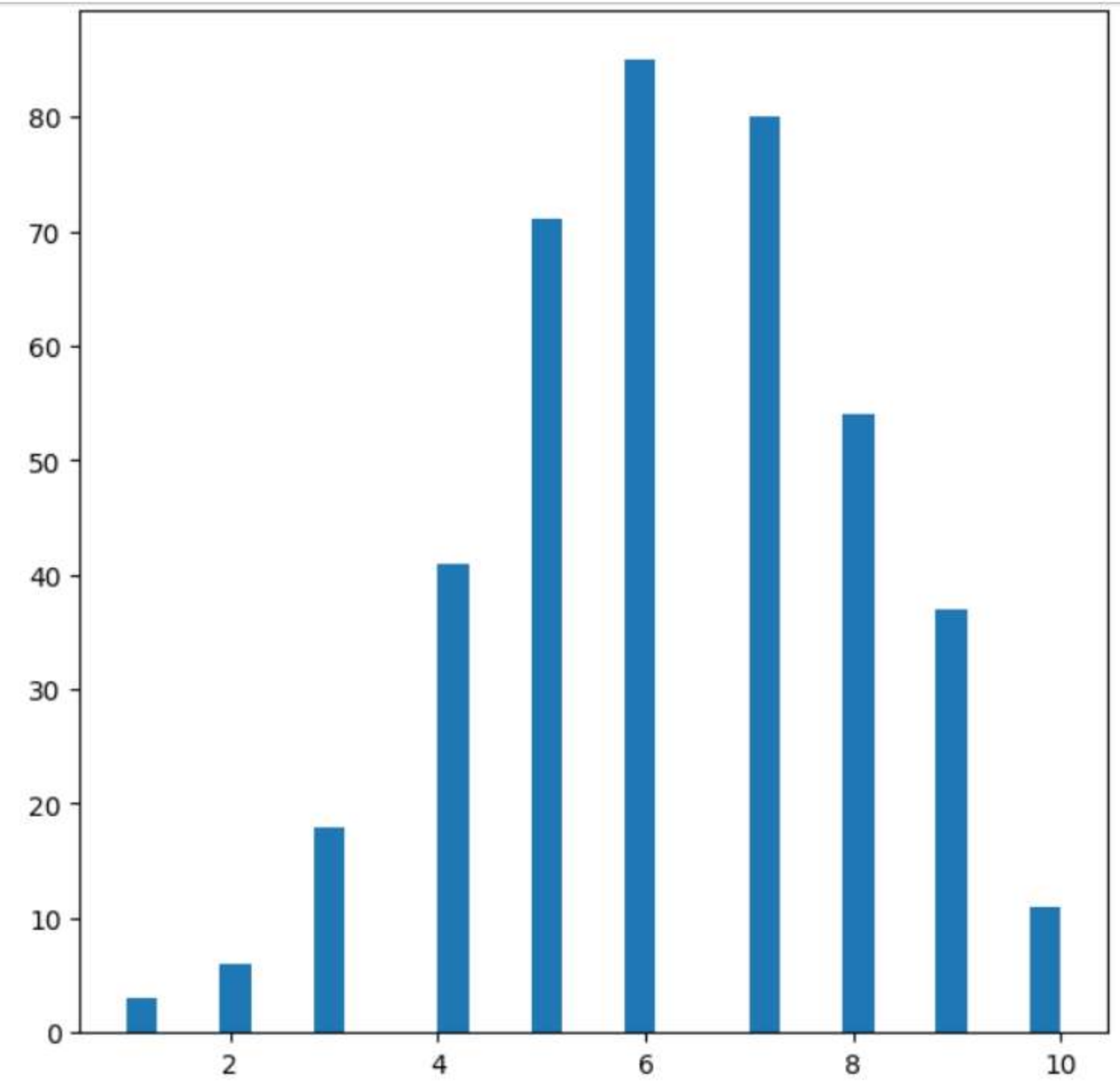

```
[15]: #making a pie chart
plt.figure(figsize=(7,7))
plt.pie(list(batfirst['winner'].value_counts()),labels=list(batfirst['winner'].value_counts().keys()),autopct='%0.1f%%')
plt.show()
```



```
[17]: batsec.head()
```

1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Rising Pune Supergiant	0	7	SPD Smith	Maha Asso S
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	field	normal	0	Kolkata Knight Riders	0	10	CA Lynn	Sau Asso S
3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	field	normal	0	Kings XI Punjab	0	6	GJ Maxwell	St
5	6	2017	Hyderabad	2017-04-09	Gujarat Lions	Sunrisers Hyderabad	Sunrisers Hyderabad	field	normal	0	Sunrisers Hyderabad	0	9	Rashid Khan	Rajiv (Intern St
6	7	2017	Mumbai	2017-04-09	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	field	normal	0	Mumbai Indians	0	4	N Rana	War St

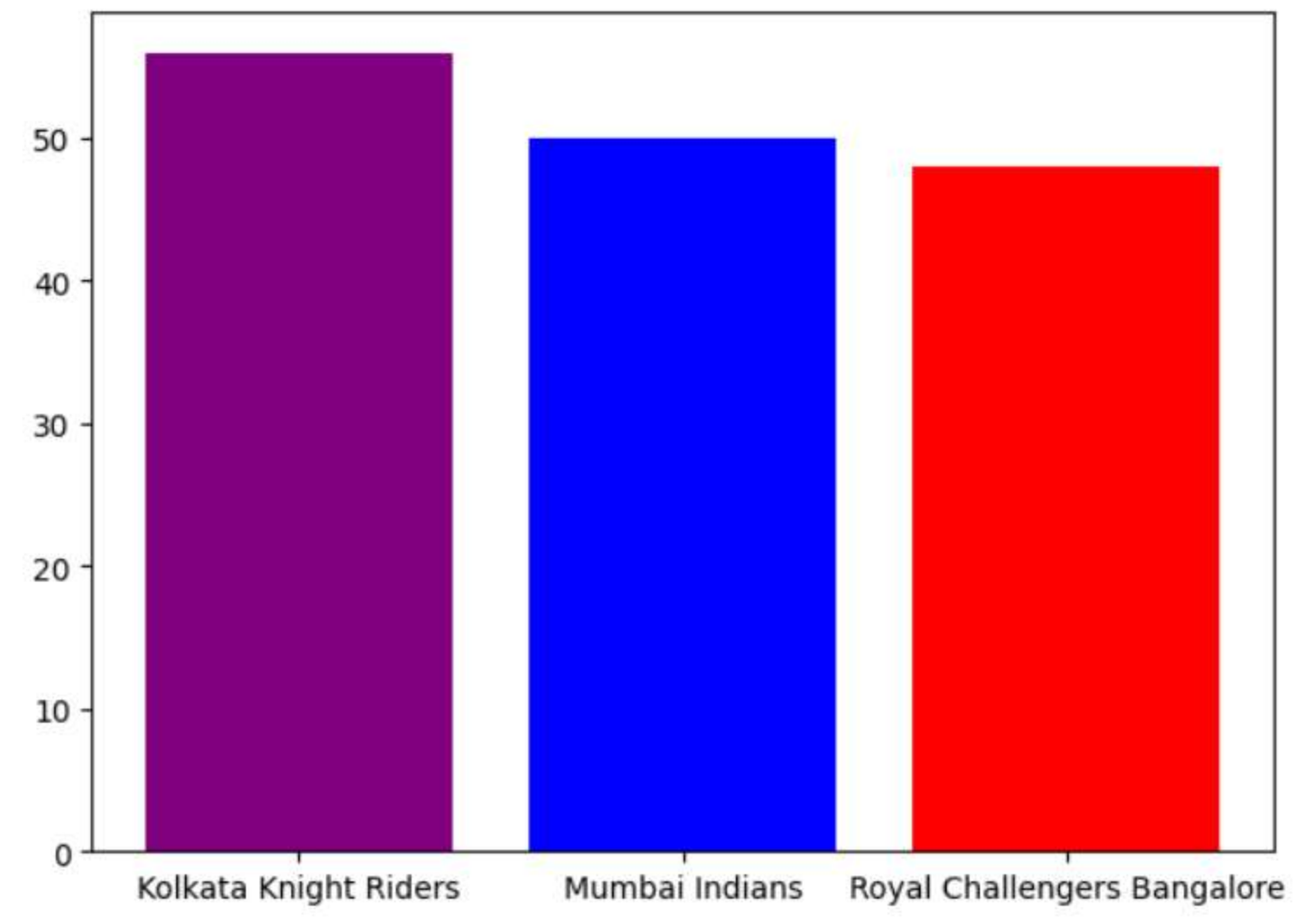
```
[18]: #Making a histogram for frequency of wins w.r.t number of wickets
plt.figure(figsize=(7,7))
plt.hist(batsec['win_by_wickets'],bins=30)
plt.show()
```

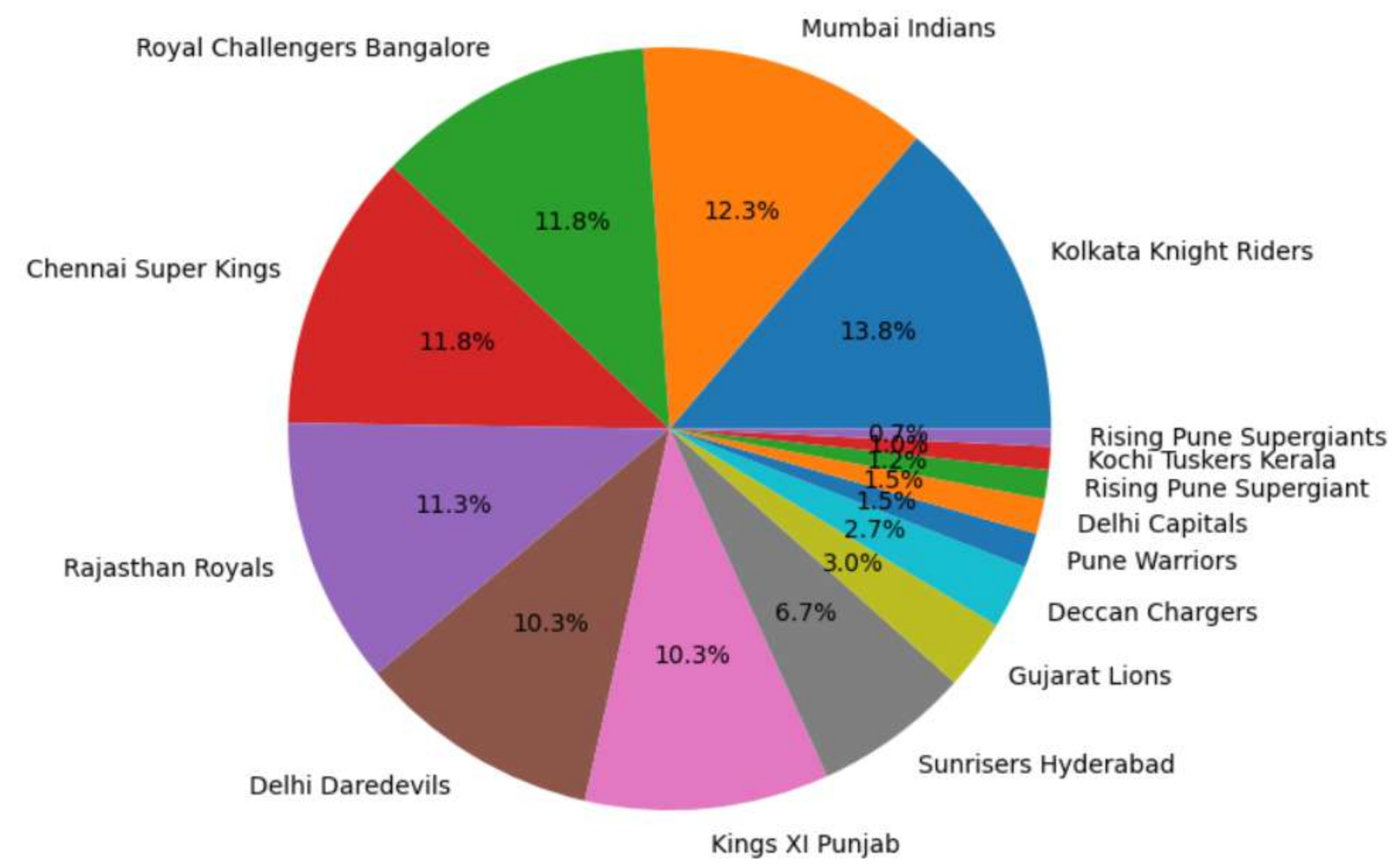
```
[19]: #Finding out the frequency of number of wins w.r.t each time after batting second
batsec['winner'].value_counts()
```

```
Pune Warriors 6
Delhi Capitals 6
Rising Pune Supergiant 5
Kochi Tuskers Kerala 4
Rising Pune Supergiants 3
Name: count, dtype: int64
```

```
[20]: #Making a bar plot for top-3 teams with most wins after batting second
plt.figure(figsize=(7,5))
plt.bar(list(batsec['winner'].value_counts()[0:3].keys()),list(batsec['winner'].value_counts()[0:3]),color=("purple","blue","red"))
plt.show()
```




```
[21]: #Making a pie chart for distribution of most wins after batting second
plt.figure(figsize=(7,7))
plt.pie(list(batsec['winner'].value_counts()),labels=list(batsec['winner'].value_counts().keys()),autopct='%0.1f%%')
plt.show()
```



```
[22]: #Looking at the number of matches played each season
ipl['season'].value_counts()
```

```
[22]: season
2013    76
2012    74
2011    73
2010    60
2016    60
2018    60
2019    60
2014    60
2017    59
2015    59
2008    58
2009    57
Name: count, dtype: int64
```

```
[23]: #Looking at the number of matches played in each city
ipl['city'].value_counts()
```

```
[23]: city
Mumbai          101
Kolkata          77
Delhi            74
Bangalore        66
Hyderabad        64
Chennai          57
Jaipur           47
Chandigarh       46
Pune             38
Durban           15
Bengaluru        14
Visakhapatnam    13
Centurion        12
Ahmedabad        12
Mohali           10
```



```
Bengaluru      14
Visakhapatnam  13
Centurion      12
Ahmedabad      12
Mohali         10
Rajkot         10
Dharamsala     9
Indore         9
Johannesburg   8
Port Elizabeth 7
Abu Dhabi      7
Cape Town      7
Ranchi         7
Cuttack        7
Sharjah        6
Raipur         6
Kochi          5
Kanpur         4
Kimberley      3
Nagpur         3
East London    3
Bloemfontein   2
Name: count, dtype: int64
```

```
[24]: #Finding out how many times a team has won the match after winning the toss
np.sum(ipl['toss_winner']==ipl['winner'])
```

```
[24]: np.int64(393)
```

```
[25]: 393/636
```

```
[25]: 0.6179245283018868
```

THANK YOU !!

A large, brightly lit stadium at night, filled with spectators. The stadium lights are on, creating a hazy, atmospheric effect. In the foreground, a large, ornate trophy is visible on the right side. The text "THANK YOU !!!" is overlaid in the center of the image.

THANK YOU !!!