In [1]:
```
import warnings
warnings.filterwarnings('ignore')

import pandas as pd
import matplotlib.pyplot as plt

pd.set_option('display.max_rows', None)
pd.set_option('display.max_columns', None)
pd.set_option('display.expand_frame_repr', False)
pd.set_option('max_colwidth', -1)
```

In [2]:
```
main_df = pd.read_csv('E:/Data Analytics/workshop/ABD vs Bumrah-20220218T052448Z-001/AB
```

In [3]:
```
main_df.dtypes
```

Out[3]:
```
match_id                int64
season                  int64
start_date              object
venue                   object
innings                 int64
ball                    float64
batting_team            object
bowling_team            object
striker                 object
non_striker             object
bowler                  object
runs_off_bat            int64
extras                  int64
wides                   float64
noballs                 float64
byes                    float64
legbyes                 float64
penalty                 float64
wicket_type             object
player_dismissed        object
other_wicket_type       float64
other_player_dismissed  float64
dtype: object
```

In [4]:
```
main_df.head(1)
```

Out[4]:

	match_id	season	start_date	venue	innings	ball	batting_team	bowling_team	striker	nor
0	335982	2008	2008-04-18	M Chinnaswamy Stadium	2	6.8	Royal Challengers Bangalore	Kolkata Knight Riders	MV Boucher	(

In [5]:
```
main_df = main_df[(main_df.innings == 1) | (main_df.innings == 2)]
Dhoni_df = main_df[main_df.striker == 'MS Dhoni']
Dhoni_df = Dhoni_df[(main_df.wides != 1.)]
Dhoni_df = Dhoni_df[(main_df.wides != 2.)]
```

```
Dhoni_df = Dhoni_df[(main_df.wides != 3.)]
Dhoni_df = Dhoni_df[(main_df.wides != 5.)]
```

In [6]:
```
Dhoni_df.ball.count() , Dhoni_df.runs_off_bat.sum(), Dhoni_df.runs_off_bat.sum()/Dhoni_
```

Out[6]:
```
(3494, 4746, 1.3583285632512878)
```

In [7]:
```
Dhoni_df_runs_by_year = pd.DataFrame(Dhoni_df.groupby('season')['runs_off_bat'].sum()).
Dhoni_df_balls_by_year = pd.DataFrame(Dhoni_df.groupby('season')['ball'].count()).sort_
Dhoni_df_dismiss_by_year = pd.DataFrame(Dhoni_df.groupby('season')['player_dismissed'].
Dhoni_df_by_each_year = Dhoni_df_runs_by_year.merge(Dhoni_df_balls_by_year , on = 'seas
Dhoni_df_by_each_year['Strike_rate'] = 100* Dhoni_df_by_each_year.runs_off_bat/Dhoni_df
Dhoni_df_by_each_year = Dhoni_df_by_each_year.merge(Dhoni_df_dismiss_by_year , on = 'se
Dhoni_df_by_each_year = Dhoni_df_by_each_year.rename(columns={"player_dismissed":"numbe
```

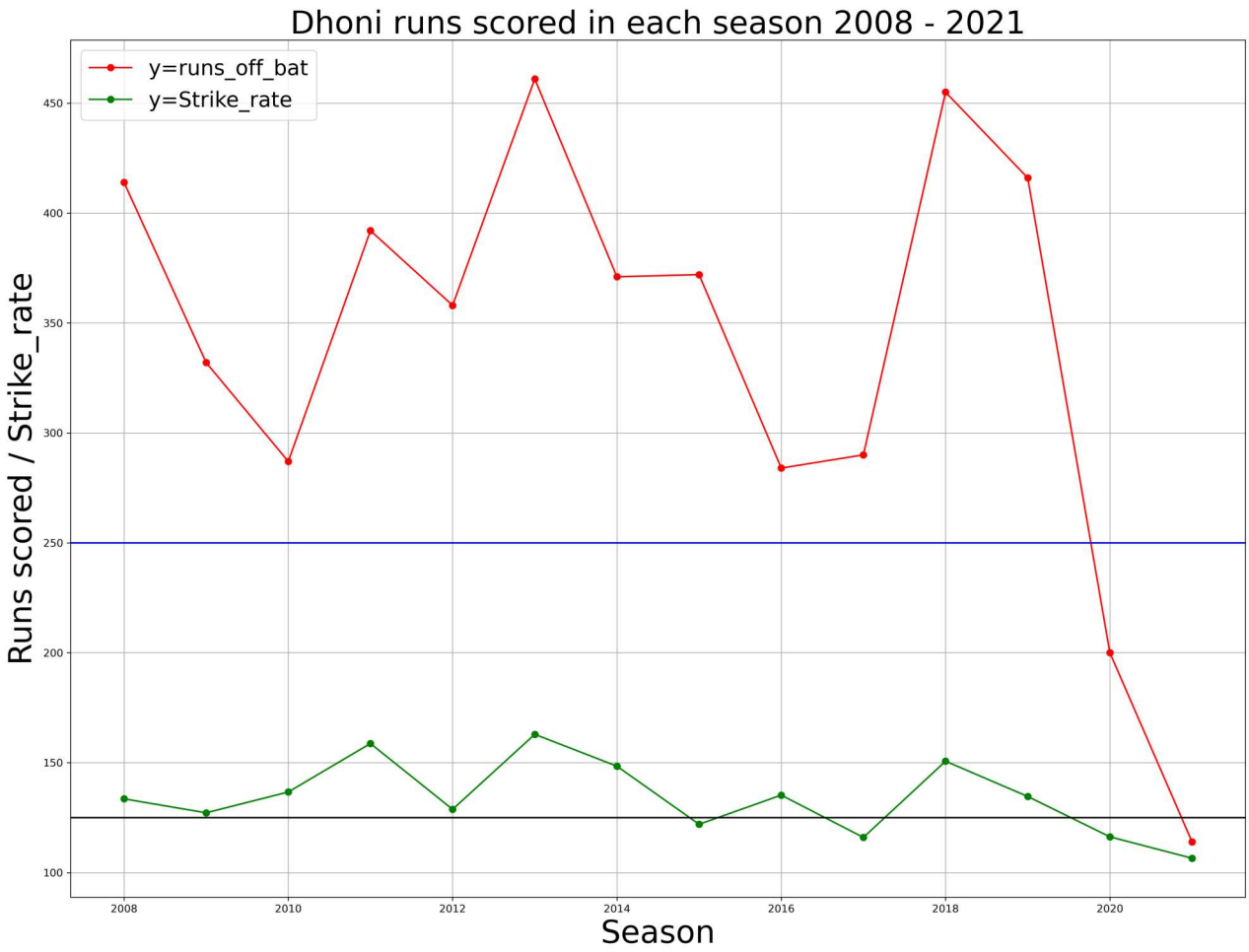
In [8]:
```
Dhoni_df_by_each_year
```

Out[8]:

	season	runs_off_bat	ball	Strike_rate	number of times dismissed
0	2008	414	310	133.548387	11
1	2009	332	261	127.203065	8
2	2010	287	210	136.666667	9
3	2011	392	247	158.704453	11
4	2012	358	278	128.776978	11
5	2013	461	283	162.897527	12
6	2014	371	250	148.400000	6
7	2015	372	305	121.967213	16
8	2016	284	210	135.238095	8
9	2017	290	250	116.000000	13
10	2018	455	302	150.662252	7
11	2019	416	309	134.627832	6
12	2020	200	172	116.279070	8
13	2021	114	107	106.542056	8

In [9]:
```
plt.figure(figsize = (20,15),dpi=300)
# plt.legend(['label1', 'label2'])
plt.plot(Dhoni_df_by_each_year.season,Dhoni_df_by_each_year.runs_off_bat, color='red',
plt.plot(Dhoni_df_by_each_year.season,Dhoni_df_by_each_year.Strike_rate, color='green',
plt.legend(["y=runs_off_bat", "y=Strike_rate" ], loc =2 , fontsize = 20)
plt.axhline(250, ls = '-', color = 'blue')
plt.axhline(125, ls = '-', color = 'black')
plt.xlabel('Season',fontsize = 30)
plt.ylabel('Runs scored / Strike_rate', fontsize = 30)
plt.title('Dhoni runs scored in each season 2008 - 2021', fontsize = 30)
```

```
plt.grid(True)
plt.show()
```



Based on above analysis, Dhoni is not consistent in last two seasons. According to previous batting analysis dhoni is not good enough to bat in upcoming season.