

Analysis of the ICC T20 World Cup 2021

by:

Tushar Das (B.A Economics)

Dibyojit Ghoshal (B.SC Statistics and Data Analytics Hons.)

Soham Patra (B.A Economics)

Naholi Sarkar (M.sc Economics)

Suchetana Ghosh (B.A Economics)

Abstract : This report aims to analyse and find some different aspects of the ICC T20 World Cup 2021, from the statistical data which provide us with the detailed match information. We tried to find the teams with Most target throughout the tournament. We also compared teams with other teams to observe their performance. This report includes visual graphs on the analysis of the data. This report also discussed on other stats from the tournament which is further included with the graphs.



About ICC T20 World Cup 2021

The **ICC Men's T20 World Cup**, previously known as the **ICC World Twenty20**, is the Twenty20 International cricket tournament, organised by the International Cricket Council (ICC) since 2007. As of 2024 it will include 20 teams.

The event has generally been held every two years. In May 2016, the ICC put forward the idea of having a tournament in 2018, with South Africa being the possible host, but the ICC later dropped the idea of a 2018 edition at the conclusion of the 2017 ICC Champions Trophy. The 2020 edition of the tournament was scheduled to take place but due to the COVID-19 pandemic, the tournament was postponed until 2021, with the intended host changed to India.

The **2021 ICC Men's T20 World Cup** was the seventh ICC Men's T20 World Cup tournament, with the matches played in the United Arab Emirates and Oman, on behalf of India, from 17 October to 14 November 2021. The West Indies were the defending champions, but were eventually eliminated in the Super 12 stage.

Originally, the event was scheduled to be held in Australia from 18 October to 15 November 2020, but in July 2020, the International Cricket Council (ICC) confirmed that this tournament had been postponed, due to the COVID-19 pandemic. In August 2020, the ICC confirmed that India would host the 2021 tournament as planned.

Data Collection:

For the analysis, We collected data on the World Cup 2021 championship.

The dataset includes features such as teams playing, match venues, winners, player of the match, best batter and bowler statistics (including their strike rates), total targets, and more. This Data was collected from trustable source like Kaggle. We have selected the 2021 world cup as it was right after the pandemic and we wanted to observe the performance of the teams after a long break.

Data Analysis and Visualization:

Using Power BI software, we analysed all match outcomes and created a dashboard.

The dashboard includes visualizations for Most Strike Rates by all teams, Total Targets by all teams, Most Individual Scores by best batters, Most Wickets taken by all bowlers, and other

match details (toss winners, toss decisions, match winners, etc.). We make use of every graphs on the visualizer to keep it simple to understand the stats data.

Slicer and Card Visualizations:

Utilizing the slicer visualizer, we filtered data for specific matches to examine their results. For visualizing the selected match data, we used the card visualizer,

incorporating 11 match results such as toss winner, toss decision, match winner, player of the match, venues, best batter scores, bowlers, and match targets.

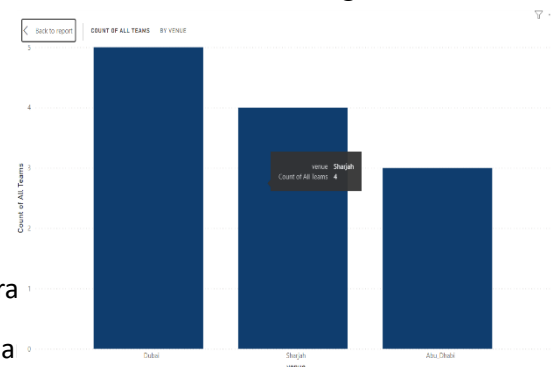
This is a interactive visual which can show the match statistics and information from a particular match selected.

Clustered Bar Graph:

We used a clustered bar graph to display data on matches played by all teams in different venues.

The graph shows us the most matches played in a particular stadium (venue) and the least played matches in a stadium.

Notably, from the three venues (stadiums) in Saudi Arabia, Dubai had the highest number of matches played, while Sharjah had the least.



Pie Chart - Strike Rates:

A pie chart illustrates the distribution of total strike rate

Its is done to display the most Strike rate made by a Tea

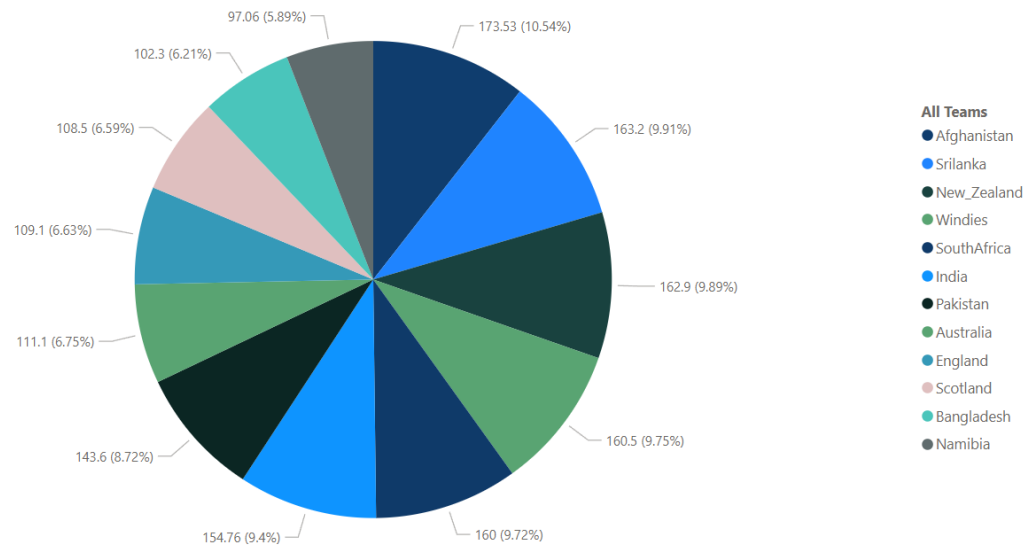
Least Strike rate made by a team.

Notably, Team Afghanistan had the highest strike rate, whereas Namibia had the lowest.

[Back to report](#)

SUM OF STRIKE_RATE BY ALL TEAMS

...



Line Chart - Individual Scores:

A line chart was used to showcase the sum of individual scores by the best batters from all matches.

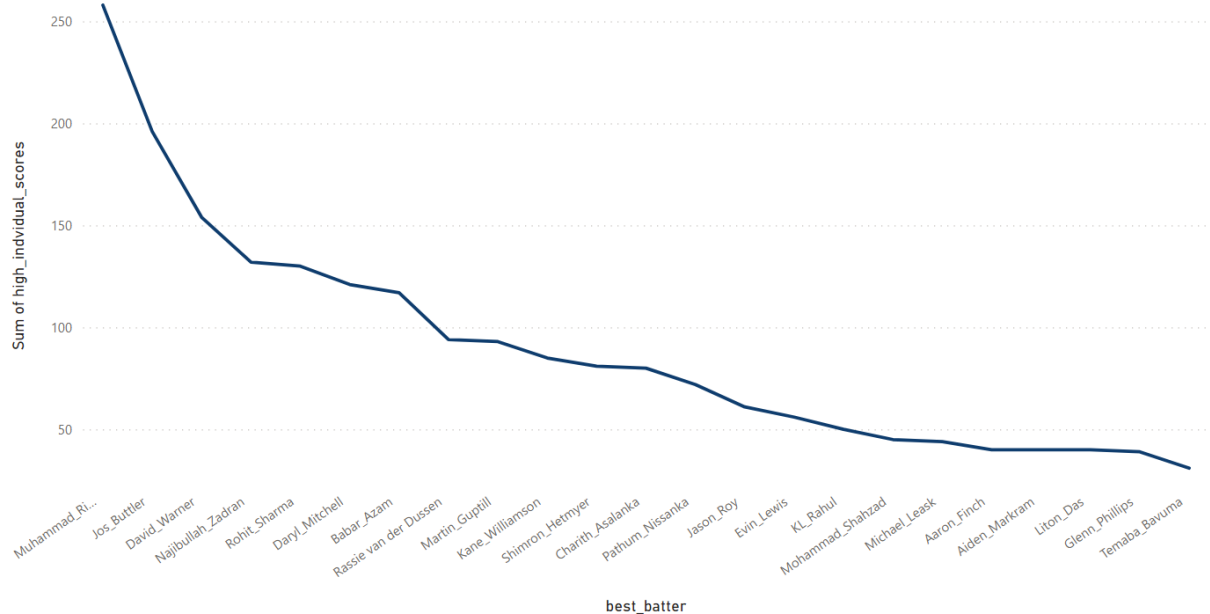
To display the top batsman with their total scores through out the tournament.

The top three batsmen with the highest individual scores were Md Rizwan, Jos Buttler, and David Warner.

[Back to report](#)

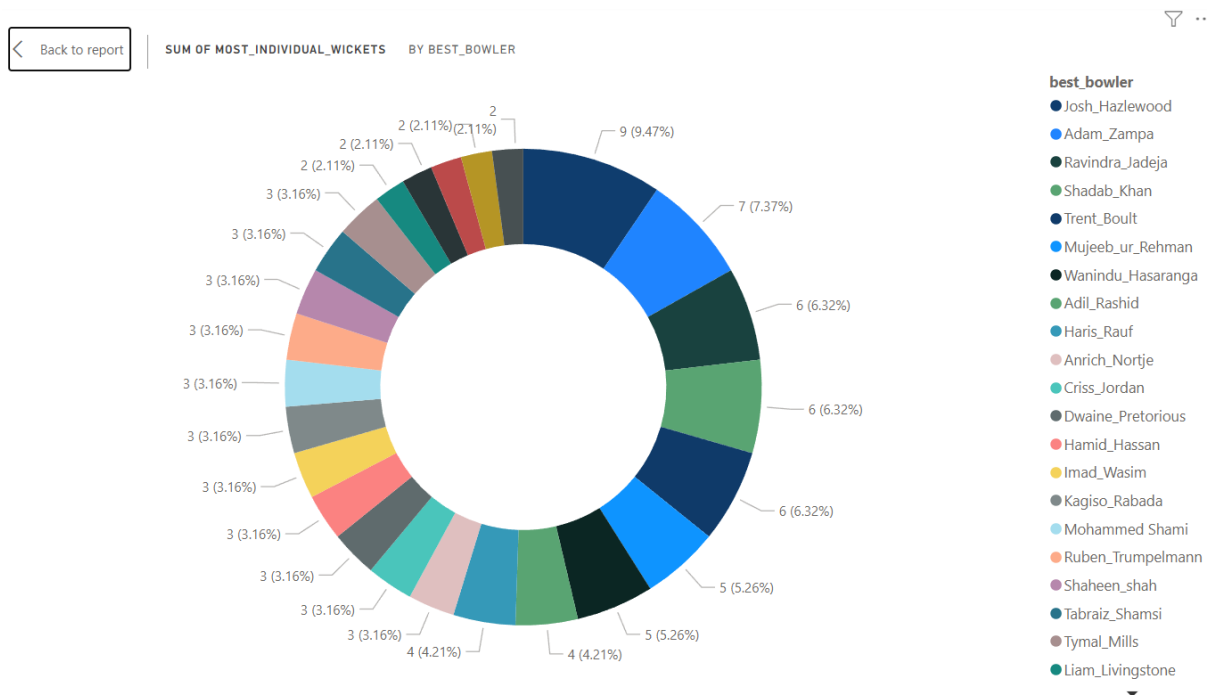
SUM OF HIGH_INDIVIDUAL_SCORES BY BEST_BATTER

...



every match. This shows us the best bowler with their highest wickets.

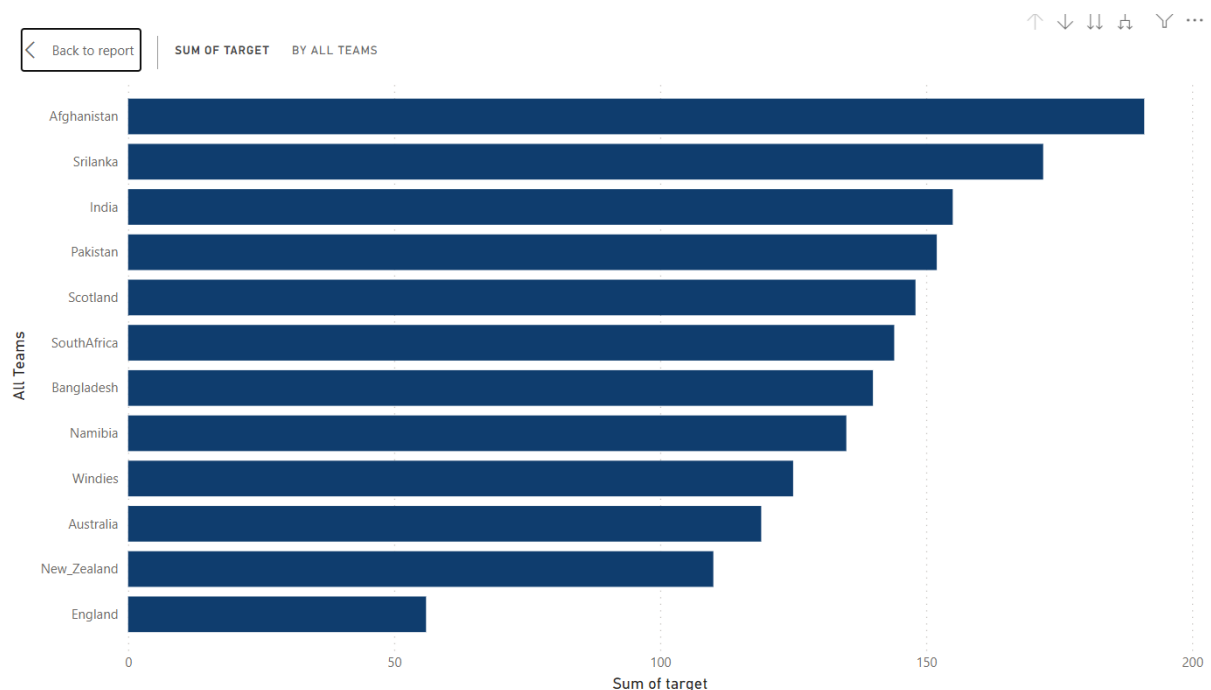
Josh Hazlewood emerged as the leading wicket-taker with 9 wickets.



Clustered Graph - Total Targets:

The last graph, presented as a clustered graph, displays the total targets set by all teams in the tournament. This includes all the 12 teams with the most and least total target.

Afghanistan secured the top position with the highest total target in their best scoring match.



INFERENCES FROM THE ABOVE ANALYSIS

Increase in the strike rate and individual score of Rohit Sharma:-

In the first match the best batter of India who was Rohit Sharma had a strike rate of 151.47 due to the compact and good length bowling of Ravindra Jadeja who is a left-arm leg spinner and in the second match it has increased to 157.45 due to some of the irregular variations and inconsistent lengths of the ball and also due to the batsman's consistent practice of shot selection and understanding of those kinds of deliveries. The score of Rohit Sharma in the first match was 56 and in the second match it was 74 which has increased significantly.

Decrease in economy and increase in wicket of the Ravindra Jadeja

Ravindra Jadeja who is a left-arm leg spinner has a decreased economy rate of 8 in the Namibia match compared to the match of Afghanistan which was 4. Due to consistent lengths and varying pitch conditions and more variations of the type of deliveries and an easy understandable strategy the batsman now cannot easily reciprocate their deliveries and hence cannot pull off boundaries leading more stability and variability of Jadeja.

Difference in Avg temperature resulting to changes in pitch conditions of bowling and batting

In the India vs Namibia Match the Avg temperature of the match was 28 which was less which India vs Afghanistan match which was 29, which indicates that as temperature increases, pitches tend to crack and become more conducive to spin bowling. The surface hardens, and the bounce can become uneven, making life difficult for batsmen, especially in the later stages of a Test match. The parched ground sucks moisture out of the pitch, making it susceptible to erratic bounce. The dryness also causes the surface to deteriorate faster, with cracks forming and dust rising. Batsmen often find it challenging to cope with the variable bounce and spin produced by spin bowlers in these conditions, making it a testing period for them.

CONCLUSIONS FROM THE ABOVE ANALYSIS

1. ACTIONABLE INSIGHTS FROM THE DATA- We came to know about the important features such as the best bowler, batter, target , etc. which helps us to take data driven informed decisions for the prediction purposes in the future.
2. UNDERSTANDING THE DATA DISTRIBUTION AND VARIOUS PATTERNS AND RELATIONSHIPS- It helps to understand the patterns and relationships among the various features related affecting the playing conditions such as the relationship between venue and temperature, best batter and batter team and their runs along with strike rate, etc. which helped more in exploring and taking relevant insights.
3. VISUALIZING THE DATA AND TAKING INFORMATIVE DECISIONS- All the above analysis are then visualized to create a meaningful graphs and charts from which various data related undiscovered patterns and relationships are drawn and explicitly organized to generalize the summary of the story which the data tells

