CDS6324 Data Visualization

TERM: 2510

ASSIGNMENT 2 (20%)

REPORT

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Dataset Overview

The dataset chosen from Kaggle contains match results from BWF World Tour events (2018–2021). The dataset was divided by discipline, where each file included details of the match. We have decided to limit this assignment to Single's events only by combining the Women's Single and Men's Single datasets together to form a combined dataset of BWF Singles events.

Visualizations and Insights

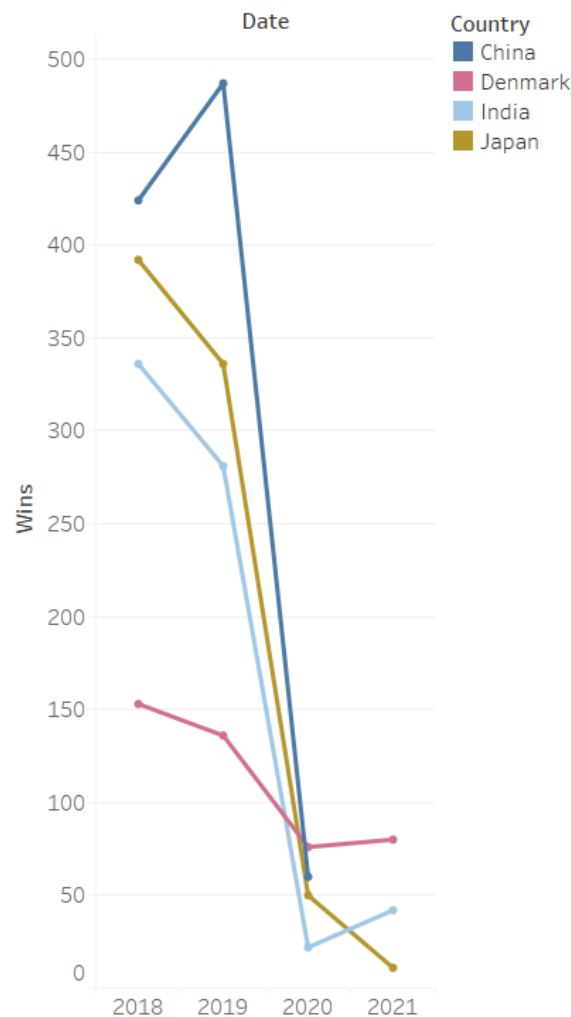1. Wins By Year (China, Japan India, Denmark)

Figure 1: Line Chart of Wins By Year (China, Japan, India, Denmark)

This line chart is insightful because it clearly shows how traditionally strong nations like China, Japan, and India experienced a sharp drop in wins starting in 2020, which is likely due to COVID-19 restrictions, while Denmark maintained a relatively stable performance. The contrast in trends suggests possible disruptions in participation for some countries, while others like Denmark remained active and benefited competitively.
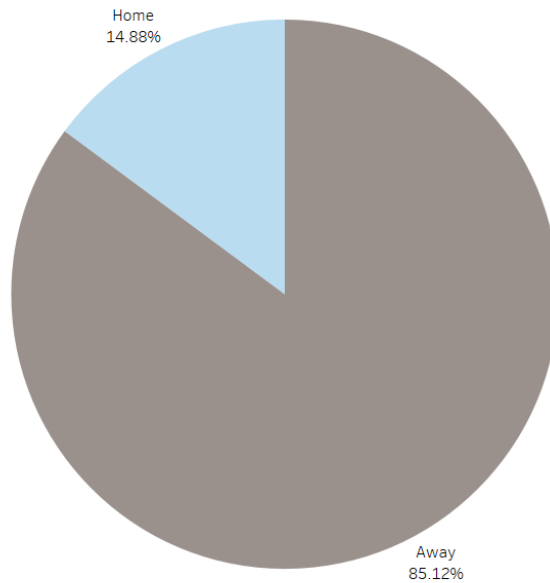
2. Home Vs Away Pie Chart

Figure 2: Pie Chart of Home Vs Away Wins

This pie chart shows the percentage of where wins occurred for all countries. Surprisingly, the majority of wins happened away, challenging common beliefs about home-court advantage (benefit a team gains by playing in their home arena).

Trend, Pattern or Relationship

The Home Vs Away pie chart reveals a pattern where the majority of match wins occur away from the player's home country, with only around 15% happening at home. This contradicts the common belief in home advantage, suggesting that top badminton players perform consistently well regardless of location or crowd support.

The Wins by Discipline bar chart shows a relationship between countries and event types. While dominant nations like China and Japan perform well in both Men's and Women's Singles, countries like Spain, Canada, and the US have most of their wins concentrated in Women's Singles, highlighting national strengths in specific disciplines rather than overall dominance.

Interpretation/Explanation

The pie chart data suggests that home advantage has little impact in professional badminton. Despite expectations that players would perform better on home soil, the majority of wins occur abroad. This may be due to the international nature of the BWF circuit, where players regularly travel and adapt to different playing conditions. It assumes that home country is correctly matched based on nationality and tournament location of the winning player.

The discipline bar chart shows that countries like Spain, Canada, and the US gain most of their wins in Women's Singles. This may reflect a broader sporting culture, where badminton is more popular in Asia, especially among men, while in Western countries, male athletes may favor other mainstream sports. As a result, badminton may offer more opportunities or focus for women in those countries.

This interpretation assumes discipline classifications are accurate and win counts reflect athlete participation trends.