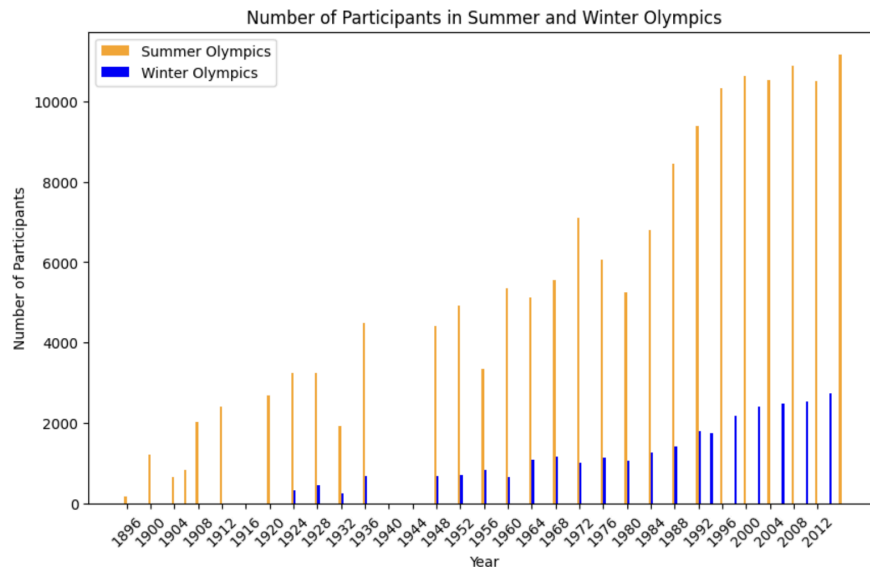


Olympic Games (1896-2016) Data Insights

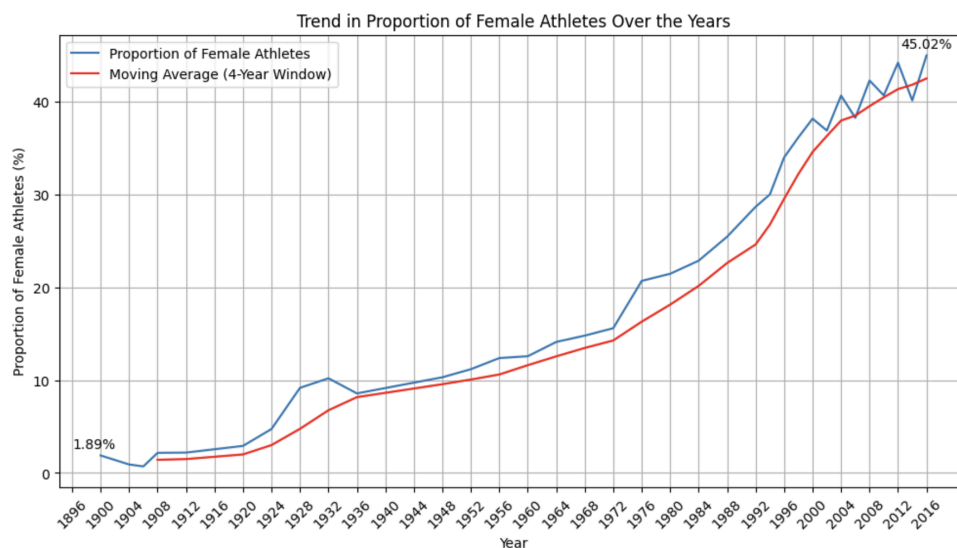
The open-source Olympics data spans 120 years (1896 to 2016) and contains information on athlete demographics, sport events, seasons, and medals across all countries and years. I conducted an exploratory analysis to uncover interesting trends/patterns in historical data and identify potential opportunities for my client, which I have assumed to be a sports apparel company. Initially, I did some data cleaning to ensure effective analysis. I dropped a repetitive variable, 'Games', combined some NOCs due to historical naming, imputed numeric NaN values with the median, and made the necessary data type conversions. I also created a new column, "Received_Medal", a binary variable indicating a win, regardless of medal type.

Historical Trends



This comprehensive bar graph demonstrates the growth of the Olympics since its inception. Winter Olympics only began in 1924, explaining the lack of data prior. The empty spaces represent years the games did not occur, namely, 1916, 1940, and 1944, due to WWI and WWII. Boycotts caused less participation in 1956, 1976, and 1980. Summer and winter games began taking place on alternating years after 1992.

The below time series graphs female participation over time, growing from 1.89% in 1900 to 45.02% in 2016. The biggest jump occurred between 1972-1976, with a slope of 1.28, presumably due to addition of new sports.

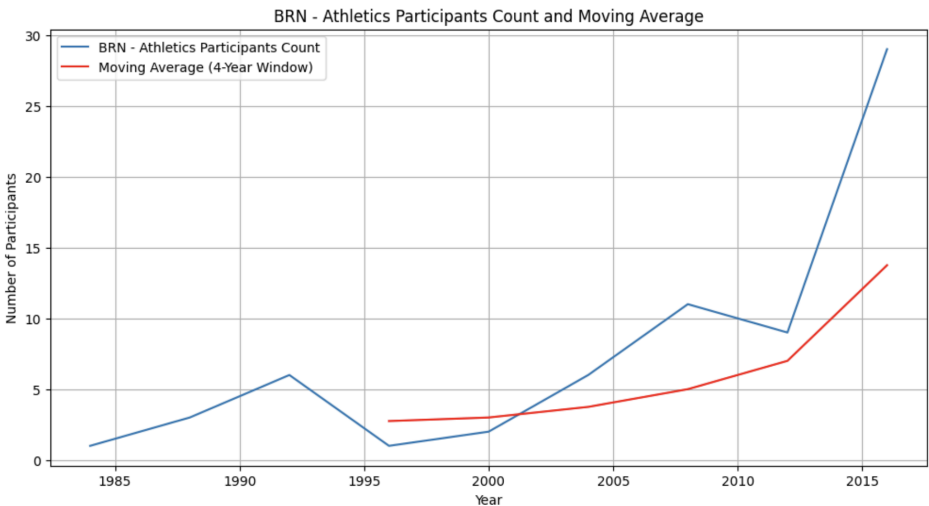


Emerging Markets

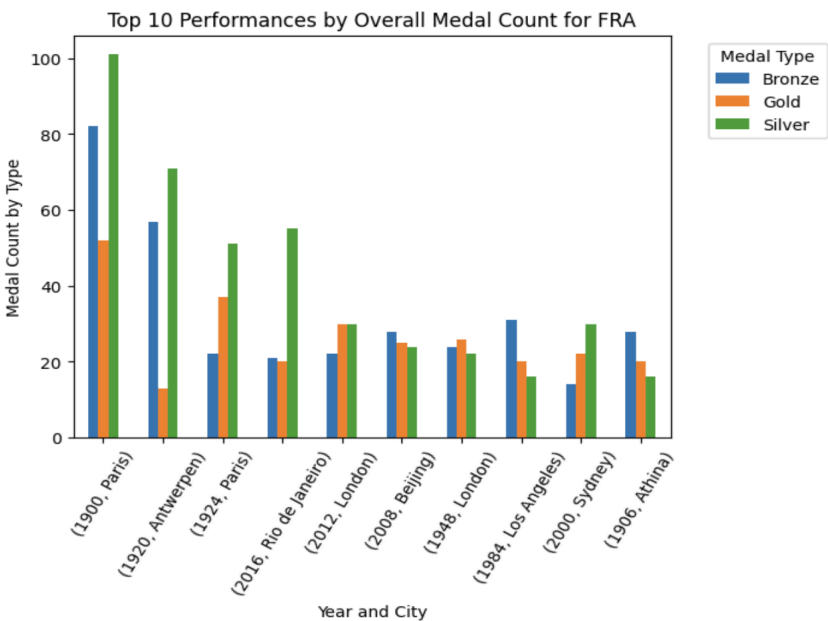
Among countries that began to win medals after 2000, Bahrain stood out to me most. Female athletes from Bahrain have consistently stood on the podium for Athletics events in recent years.

	Year	NOC	Medal	Sport	Sex	TotalMedalCount
0	2012	BRN	Bronze	Athletics	F	1
1	2016	BRN	Gold	Athletics	F	1
2	2016	BRN	Silver	Athletics	F	1

These successes can empower younger generations, leading to increased participation in sports. Bahrain’s athlete count has been increasing and the pattern is projected to continue.



France had its best performances when Paris hosted the Games in 1900 and 1924. This trend was consistent for multiple countries. If hosting the games increases athlete’s chances, France is in for a treat this year!



This analysis offers my client valuable insights into emerging trends, potential sponsorships, and opportunities for increased brand visibility and customer base expansion.