Happiness and Alcohol Consumption

Overview

This project explores the relationship between alcohol consumption and happiness across different countries. Using multivariate statistical techniques, the study examines how different types of alcohol consumption (beer, wine, and spirits) correlate with happiness scores and economic indicators like GDP per capita and Human Development Index (HDI).

Features

- Data collection from the United Nations and other sources
- Statistical analysis using clustering, multidimensional scaling, and dimension reduction techniques
- Visualization of patterns in happiness and alcohol consumption
- Identification of key factors influencing happiness

Data Source

The dataset used in this project was collected from the University of North Carolina at Charlotte – Data Science and Business Analytics website and contains information from 122 countries with five key variables:

- **HDI** (Human Development Index)
- **GDP Per Capita**
- **Beer Per Capita**
- **Spirit Per Capita**
- **Wine Per Capita**

Methodologies Used

- **Descriptive Statistics**: Understanding key trends and relationships
- **Cluster Analysis**: Grouping countries based on similarities in happiness and alcohol consumption
- **Multidimensional Scaling (MDS)**: Identifying relative positions of countries in a lower-dimensional space
- **Principal Component Analysis (PCA) & Factor Analysis**: Reducing dimensions and identifying key influencing variables

Results

- **Happiest Countries Due to Alcohol Consumption**: Countries like Germany and Czech Republic show the highest happiness scores.

- **Least Happy Countries**: Countries like Senegal and Mali are ranked lower in happiness scores.

- **Key Influencing Variable**: **Wine Per Capita** has the most significant impact on happiness scores.