World Happiness Report



Overview

Objective



The objective was to uncover the main variable(s) influencing the happiness score over the years.

Context



This dataset represents the World Happiness data from the Gallup World Poll surveys from 2019 to 2022. The survey shows the estimated extent to which six main factors, affect people in different countries.

Questions

What are the main factors influencing the happiness score over the years?

Do the factors influencing the happiness score to vary spatially?

Is there a primary factor influencing the happiness score?

Is there a change in the happiness score over the years?

Data



This data is publicly available open-source data. It was downloaded from Kaggle.com: World Happiness Report up to 2022

Skills



- Transalating business requirements •
- Data sourcing
- Data cleaning
- Data wrangling
- Data merging

- Data transformation
- Statistical hypothesis testing
- Visual Analysis
- Reporting in Tableau

Tools















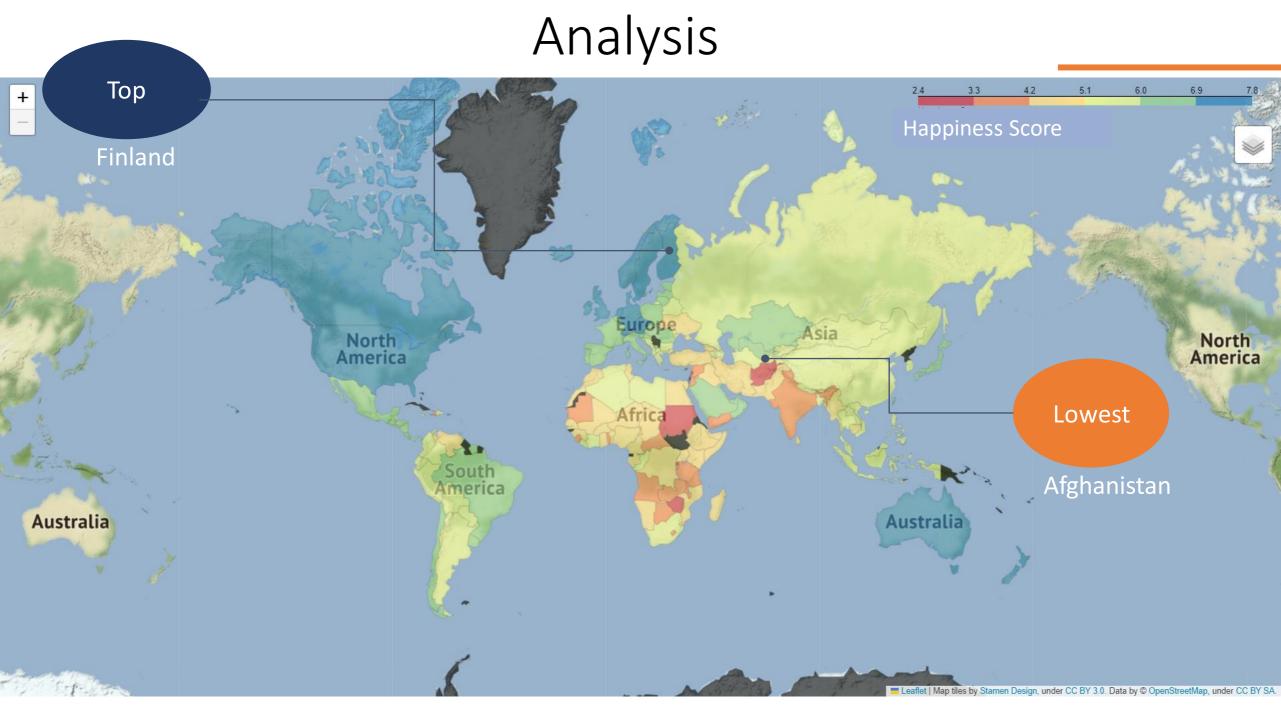




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To analyze the World Happiness Report data using machine learning, I tackled the challenge by comprehensively understanding the dataset and its variables. After preprocessing and cleaning the data, I applied various machine-learning algorithms to uncover patterns and relationships. By fine-tuning the models and interpreting the results, I gained valuable insights into the factors affecting global happiness trends.

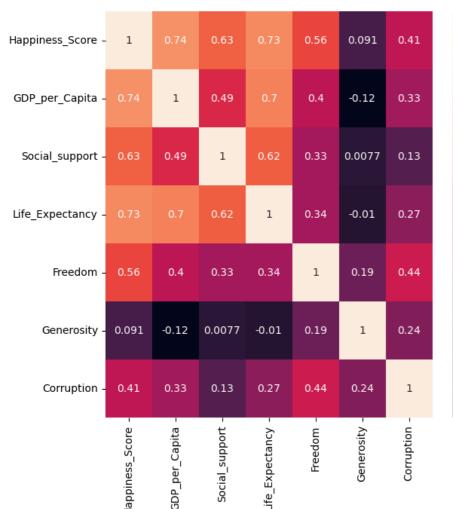
Challenges

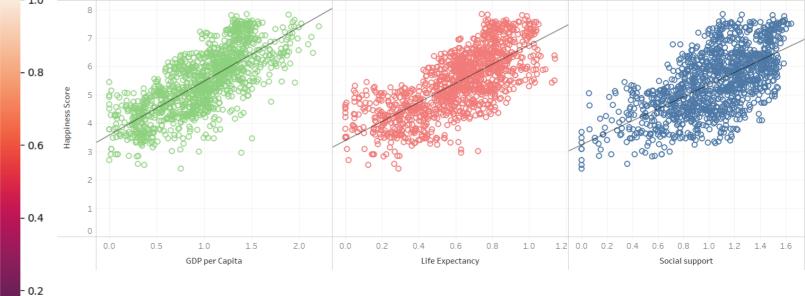


Findings

Research Hypothesis: Countries with a high GDP per capita, life expectancy and social support present the highest happiness score

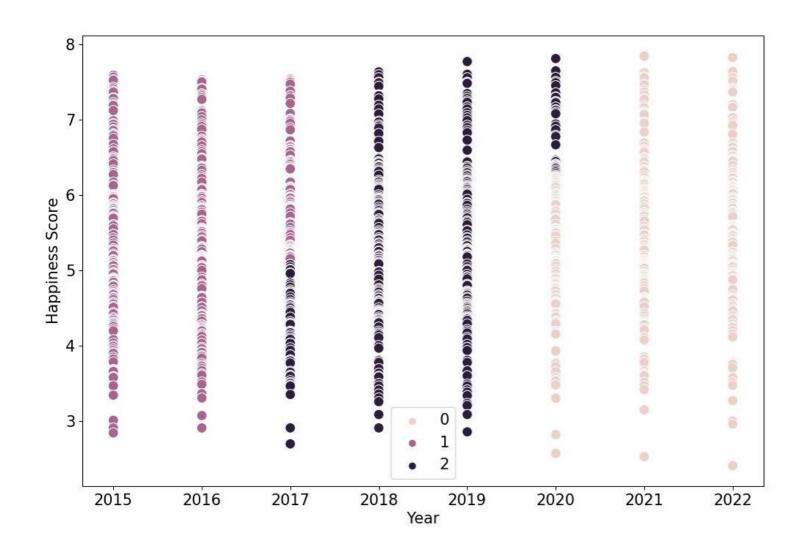
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A strong positive correlation exists between Happiness Score with GDP per capita, Life expectancy and social support. It shows that economic prosperity, health and counting on relatives or friends when you need them are three main factors influencing a person's happiness.

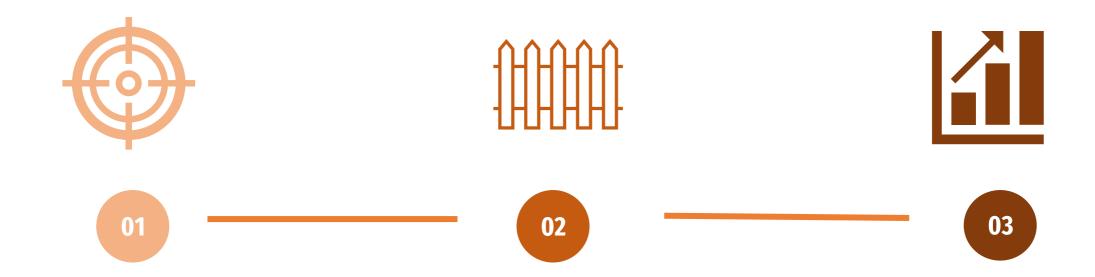
Clustering Time



There is an important effect of Year on the different variables. Cluster change is clear to see. Since 2020 pink has been the main cluster. This could mean that the COVID pandemic might influence the variables defining the happiness score

Recommendations





Result

 Economical security, health, and support from your close ones are the factors that globally impact happiness the most over the years.

Limitations

 Small amount of available data (1230 rows)

Future Plan

 Deeper analysis of the effect of the COVID pandemic on the happiness variables.