The World Happiness Report

visit: https://worldhappiness.report/ to learn more

The World Happiness Report (WHP) is an annual publication by the United Nations Sustainable Development Solutions Network. It ranks countries by their happiness levels based on **economic prosperity perception, social support, life expectancy, freedom to make life choices, generosity, and perceptions of corruption.**

Why is this analysis of happiness important?

--> Policy Making: Understanding the factors that contribute to happiness can inform policy-making decisions aimed at improving the well-being of citizens. Governments can use this analysis to prioritize areas for intervention and allocate resources effectively.

--> International Comparisons: This analysis allows for comparisons of happiness levels across countries, providing insights into cross-cultural differences and similarities in what contributes to happiness.

--> Social Progress Monitoring: Monitoring happiness trends over time can help assess the progress of societies in achieving social and economic development goals.

Who is this analysis for?

Governmental agencies that are interested in understanding the factors influencing happiness in their countries. These agencies aim to develop data-driven policies to enhance the well-being of their citizens.

How was the data for this analysis collected?
The data for the WHP was gathered through the **Gallup World Poll**, using a ladder methodology, where participants rated, **economic prosperity, social support, healthy life expectancy, freedom to make life choices, perceptions of corruption, and generosity** on a scale from 0 to 10.

What are the data limitations:
The rating of the factors relies on **self-reported assessments** of happiness and life satisfaction. This **subjectivity** can be influenced by various factors such as **cultural norms, individual perceptions, and personal biases**. Individuals may interpret and rate their happiness differently, leading to **potential inconsistencies in the data**.

The Gallup World Poll may suffer from **sampling bias**, as certain demographic groups or **regions may be underrepresented or excluded** from the survey.
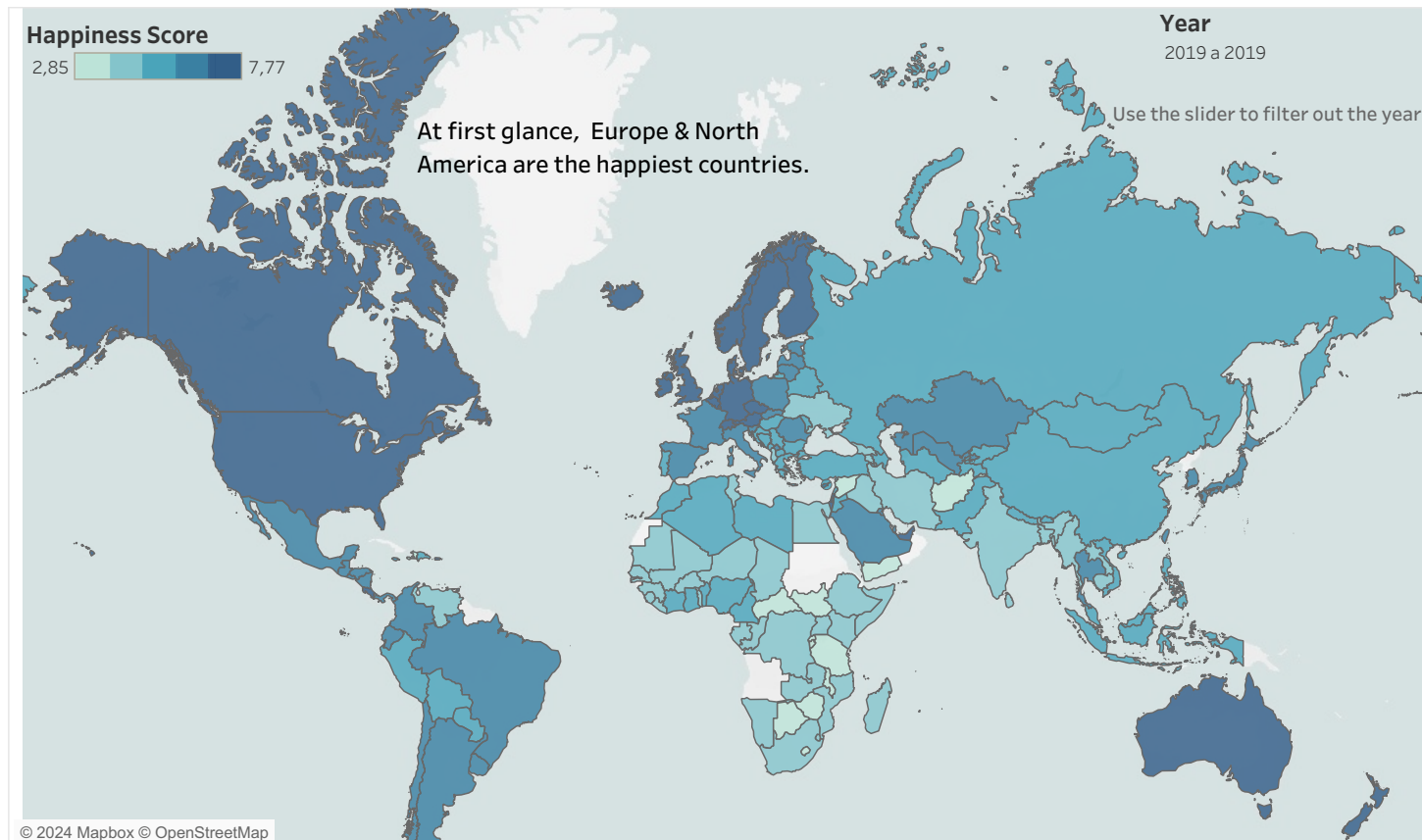
Research Questions & Hypotheses

Research questions:
- What is the **correlation between the happiness score** and the **6 happiness factors**?
- Is the average overall happiness score **increasing or decreasing**?
- What **regions increased their happiness scores**? Which ones **decreased** their happiness score? And why?

Hypothesis:
1. As **economic prosperity perception increases/decreases** so does the Happiness Score.
2. Countries/regions with **higher economic prosperity perception have a higher happiness** score.
3. The Happiness Score is **higher in countries near the equator** where the climate/temperatures are higher.

Happiness Score

2,85 [____] 7,77

At first glance, Europe & North America are the happiest countries.

Year
2019 a 2019

Use the slider to filter out the year!

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Exploratoring Relationships

We started by running a correlation test, we measured the **strength of the relationship between two variables**. The **correlation heatmap** below each cell represents the correlation coefficient between two variables. **A value closer to 1 or -1 indicates a stronger correlation, while a value closer to 0 indicates a weaker or no correlation.**

Correlation Heatmap
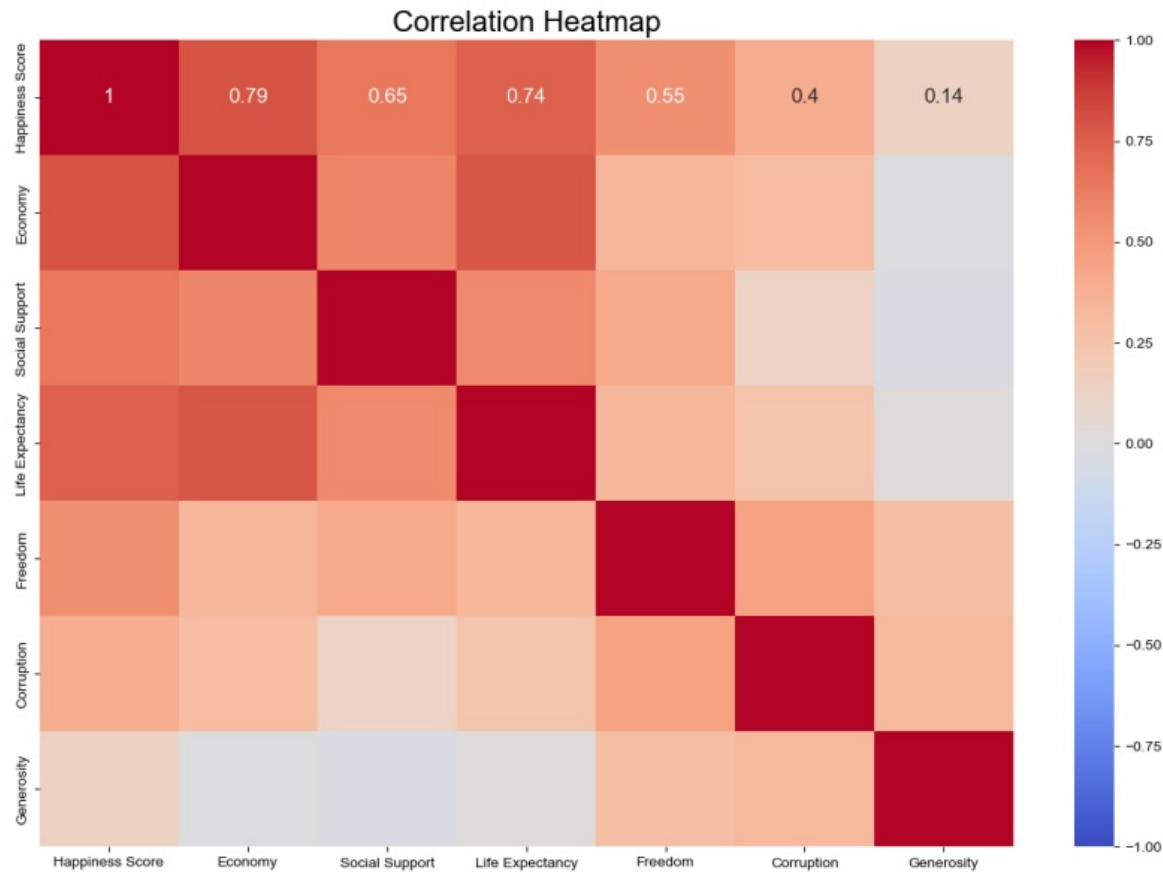
The correlation heatmap uncovered the following insights:
- **Economy** and **Life Expectancy** have the **highest positive correlation** with Happiness Score.
- **Generosity** has the **lowest correlation** with the Happiness Score and the **lowest correlation with other factors**.
- There is a **strong positive correlation between Economy & Life Expectancy**.

Is the Happiness Score Increasing?

Prom. Happiness Score

The European Regions and Sub-Saharan Africa are the only regions improving their happiness score.

Avg. Economy Perception

There is a notable general decline in the perception of economic prosperity.

Avg. Life Expectancy Perception

There is a notable overall improvement in the life expectancy perception across all regions.

The positive trend might be driving the relatively stable and in some cases improvements in the happiness score.

Regions

- Asia
- Australia and New Zealand
- Central and Eastern Europe
- Latin America and Caribbean
- Middle East and Northern Africa
- North America
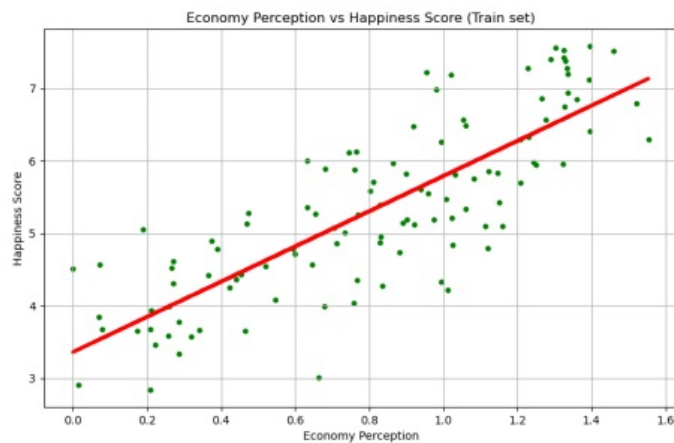- Sub-Saharan Africa
- Western Europe

Regression Analysis
Economic Perception & Life Expectancy vs. Happiness Score

First hypothesis: As the Economic Perception increases/decreases so does the Happiness Score.
During the exploratory analysis, we uncovered that economic prosperity perception and life expectancy perception were strongl..

The results showed that economic prosperity perception and happiness score have a **positive linear relationship**, we can observe that the points form a roughly straight line along the trend line.

The regression analysis also uncovered that economic prosperity perception **contributes to 66% of the trends** in the data.

Similar to the results above, the life expectancy perception and happiness score have a **positive linear relationship**, we can observe that the points form a roughly straight line along the trend line.
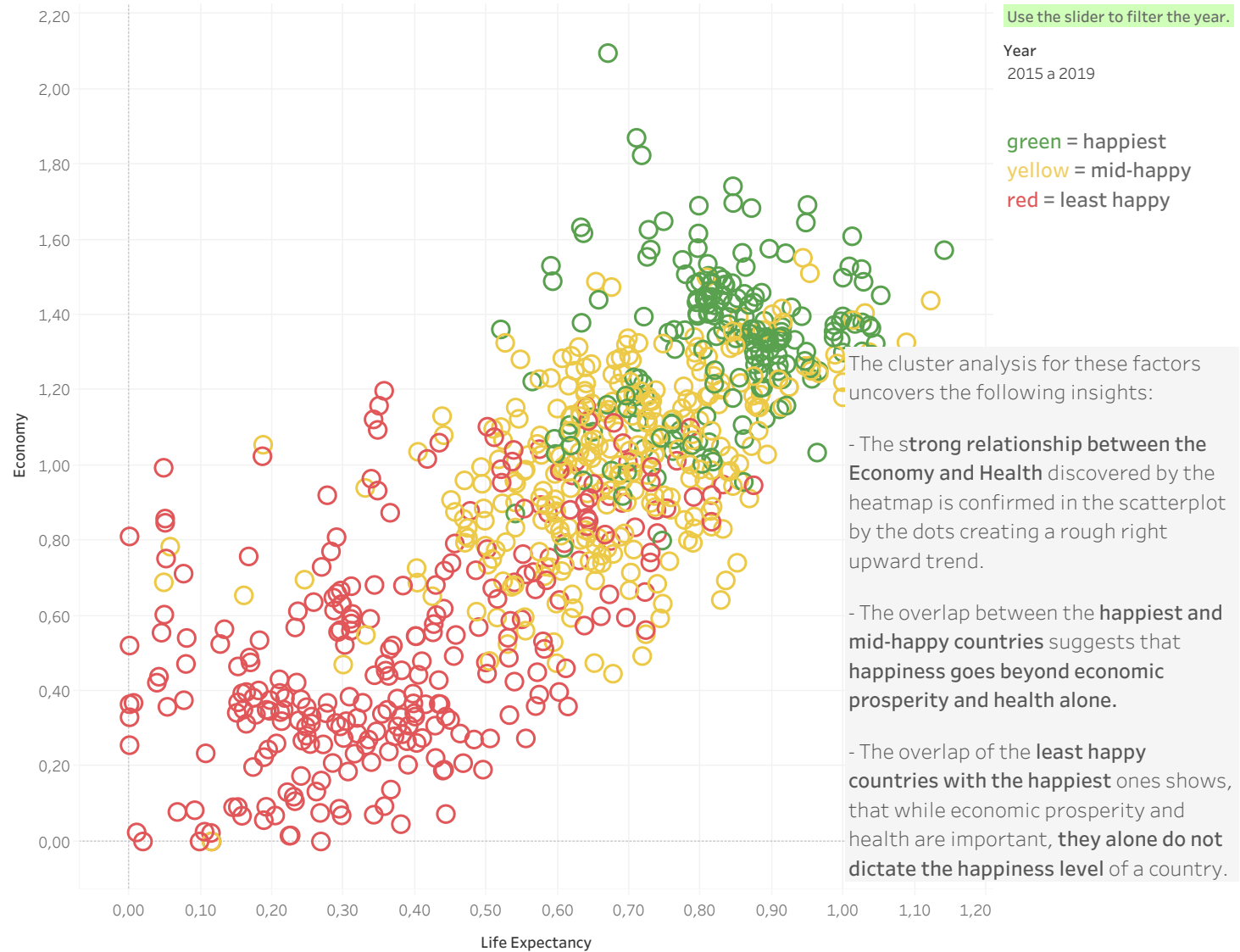
The regression analysis also uncovered That life expectancy perception **contributes to 57% of the trends** in the data.

To further understand the influence of these 2 factors we proceed to do a cluster analysis.   *Continue to the next page -->*

Cluster Analysis for strong related factors
Economic Perception vs. Life Expectancy

Use the slider to filter the year.

Year
2015 a 2019

green = happiest
yellow = mid-happy
red = least happy

The cluster analysis for these factors uncovers the following insights:

- The s**trong relationship between the Economy and Health** discovered by the heatmap is confirmed in the scatterplot by the dots creating a rough right upward trend.

- The overlap between the **happiest and mid-happy countries** suggests that **happiness goes beyond economic prosperity and health alone.**

- The overlap of the **least happy countries with the happiest** ones shows, that while economic prosperity and health are important, **they alone do not dictate the happiness level** of a country.
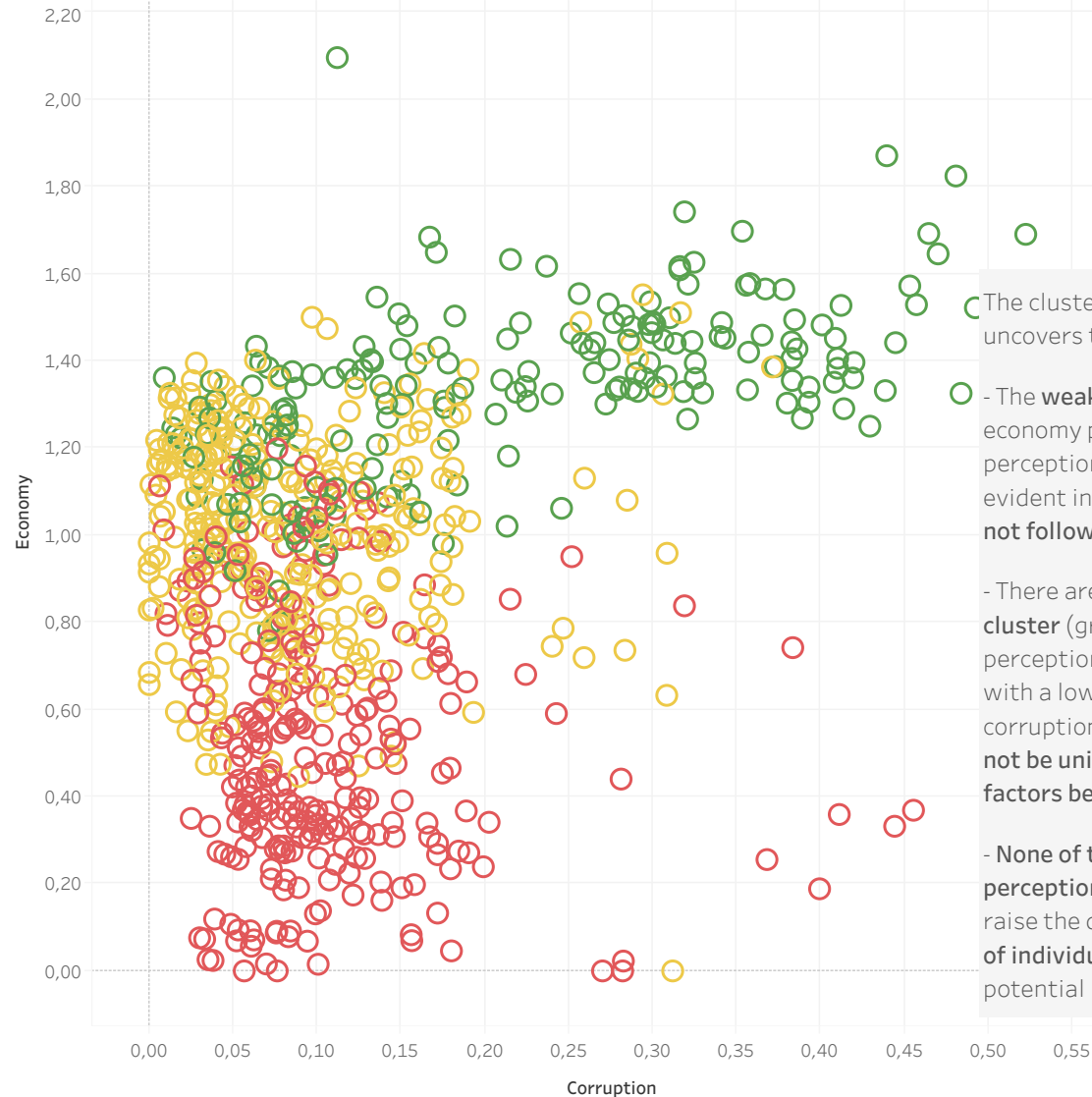
Economy

Life Expectancy

Cluster Analysis for weak related factors
Economic Perception vs. Corruption Perception

Use the slider to filter the year.

Year
2015 a 2019

green = happiest
yellow = mid-happy
red = least happy

The cluster analysis for these factors uncovers the following insights:

- The **weak relationship** between the economy perception and corruption perception in the correlation heatmap is evident in the scatterplot by the **dots not following a right upward trend**.

- There are **two groups in the happiest cluster** (green) - one with a high perception of corruption and another with a low perception - implying that corruption's effect on happiness may **not be universal and is influenced by factors beyond economic prosperity**.

- **None of the clusters share a uniform perception of corruption**, this might raise the question about **the reliability of individual corruption** perception and potential limitations in the data collect..

Are countries close to the equator happier?

Happiness Score around the globe

Continue exploring the happiness score of other countries here: https://public.tableau.com/views/HappinessScore_17143272804820/MapHappy2?:language=es-ES&:sid=&..

Through spatial analysis using data from 2019, we discovered that **countries around the equator do not necessarily have the highest happiness scores.** This suggests that pleasant weather throughout the year may not directly correlate with a nation's overall happiness.

Further examination uncovered that **colder nations such as Sweden, Norway, and Finland ranked highest in the happiness score..**

Insights Summary & Recommendations

Based on our research questions and hypotheses, our analysis uncovered several key insights:

1. Happiness factors relationships: **Economic prosperity and life expectancy** perception could be **strongly correlated** with the **happiness score**. **Generosity** showed the **lowest correlation** with the happiness score and other factors. Additionally, a strong positive correlation was observed between economic prosperity and life expectancy perception.

2. Regional happiness trends: The **European regions and Sub-Saharan Africa show improvements in their happiness scores**. There is a **general decline in the perception of economic prosperity**. However, there is a **notable overall improvement in life expectancy** perception across all regions.

3. Regression analysis findings: We **confirm that economic prosperity perception and happiness score have a positive linear relation.** The higher the economic prosperity perception the higher the happiness score. The same is true for economic prosperity and life expectancy perception.

4. Cluster Analysis Insights: The cluster analysis of strongly related factors revealed overlaps between the happiest and mid-happy countries. This suggests that **happiness extends beyond economic prosperity and health alone.**

Despite a weak relationship between economic prosperity and corruption perception, the scatterplot shows distinct groups within the happiest cluster. **The lack of uniformity in corruption perception across clusters raises questions about the reliability of individual perceptions** and potential limitations in data collection methods.

5. Spatial Analysis Findings: Contrary to expectations, **countries around the equator did not consistently have the highest happiness scores**. Instead, colder nations like Sweden, Norway, and Finland ranked highest, emphasizing that climate alone does not dictate happiness levels.

Moving forward, we recommend diving deep into the factors contributing to happiness **beyond economic prosperity and health. Exploring the cultural and societal influences** on the weakly correlated factors can enhance our understanding of their impact on happiness.

Finally, further investigation i**nto the complex relationship between weather, climate, and happiness can uncover additional insights** into the determinants of overall well-being.