

Exploring Global Happiness: An Analysis of the 2024 World Happiness Report

Name : Varun Paka

Student ID : 23096047

Email ID : vp24aav@herts.ac.uk

Git hub Link : [Link](#)

The World Happiness Report has been used as one of the leading surveys to indicate the present state of happiness and well-being across the world. This dataset encompasses several years of data collected from 2,097 observations of various countries looking at vital factors concerning economic output, social support, health, and individual freedoms. **The core metrics are those relating to the averaging of the Life Ladder score, at 5.47, and the logarithm of GDP per capita, averaging at 9.36; these provide a core insight into the connecting relations between economic and emotional well-being.** This report aims to apply that knowledge to policy-making decisions at all levels of government and organization.

The variables that most encapsulate the most important complexities of well-being include social support at an average of 0.81 and healthy life expectancy at birth of an average of 63.27 years. **For the Life Ladder, values were highly correlated at 0.79 with the GDP per capita and 0.73 with social support. From this, one could make an argument that a good economy with strong social networks allows people to enjoy their lives more.** A comparison of the affect means for both positive and negative of 0.65 and 0.27, respectively, conveys the emotional dimensions of well-being across populations. It is the hope of the World Happiness Report that, through this analysis, greater global well-being will be facilitated by allowing nations to better understand where more effective policy interventions should be implemented.

From a **statistical analysis perspective**, the average Life Ladder score comes to about 5.47, with a median of 5.43 and a standard deviation of 1.14, meaning a moderate dispersion in happiness. The key variables include the Log GDP per capita, which comes to an average of 9.36, while Social Support is 0.81, both reflecting the underlying economic and social conditions for well-being. Skew and kurtosis are extremely small, with the most significant skewness for Social Support of -1.04 and Positive Affect of -0.43. This may be an indication that the various indicators have some special distribution features.

Violin Plots

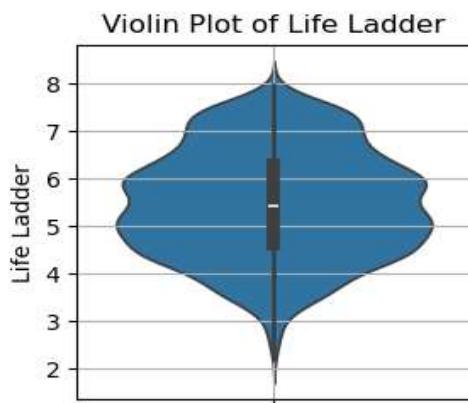


Figure (1)

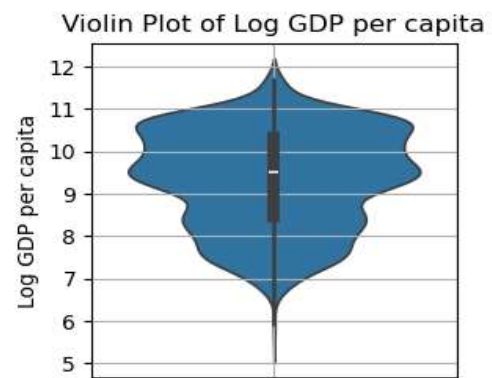


Figure (2)

This analysis will seek to build violin plots of the distribution and density of the variables "Life Ladder" and "Log GDP per capita". The Figure (1) shows the distribution of Life Ladder scores, with most scores around 6.5 to 7.5. The plot combines a box plot and density plot, highlighting the spread and concentration of scores between 2 and 8. The Figure (2) shows the distribution of log GDP per capita, with most values around 9 to 10. The plot combines a box plot and density plot, highlighting the spread and concentration of data between 8 and 11.

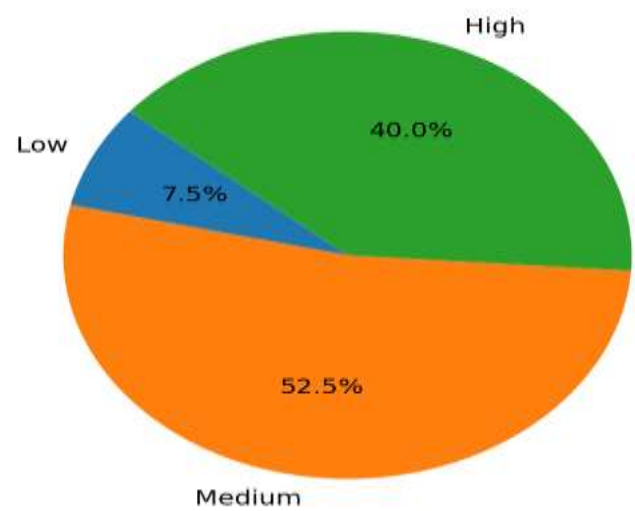
Graphical Explanation: Each plot includes

Title: This may be the variable under scrutiny; for instance, "Violin Plot of Life Ladder".

Y-axis: The variable values are taken on the y-axis. Grid: Grid lines increase the readability of this plot

Pie Chart

Proportion of Countries by Happiness Level



The ratings of happiness on the Life Ladder scores divide countries into three levels: Low, Medium, and High to understand the global distribution of happiness. The share of countries in each category has been presented using a pie chart: Low (7.5%, blue), Medium (52.5%, orange), High (40.0%, green). From this chart, it can be obtained that most countries have fallen into the category of medium-level happiness, which actually suggests areas toward which perhaps more focus needs to be directed in order to enhance general well-being.

Figure (3)

Line Plot

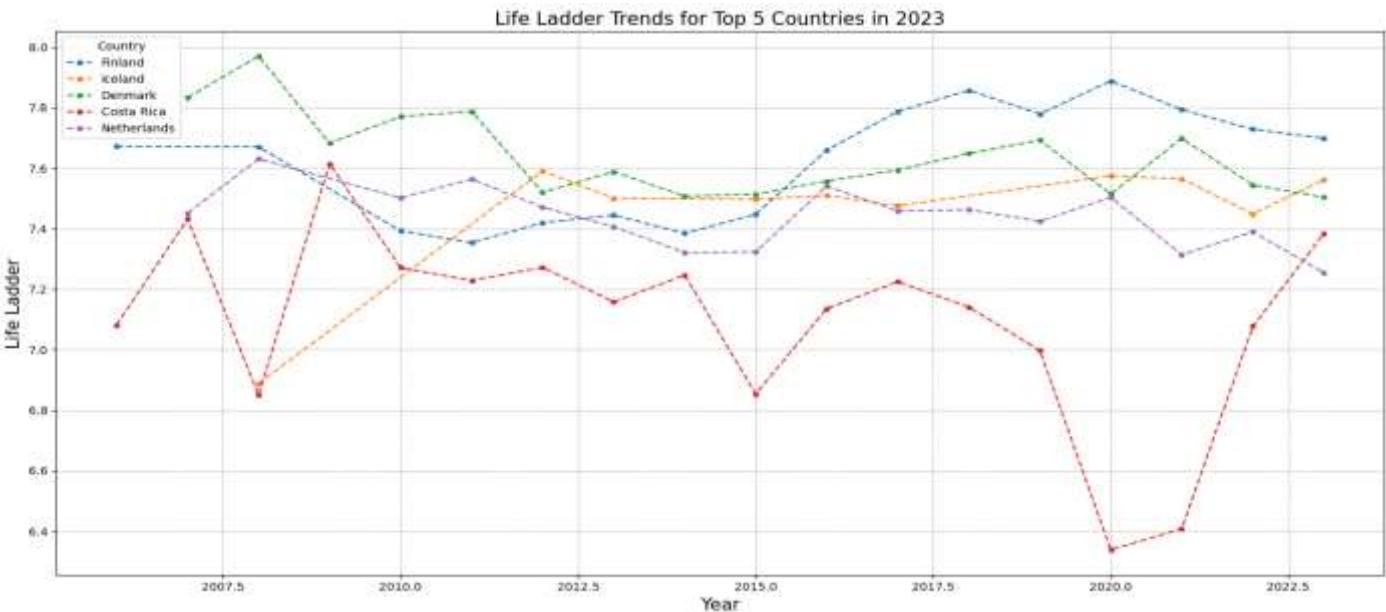


Figure (4)

The focus of the analysis will be to identify the top 5 countries ranking at the top in terms of Life Ladder values in 2023 and trace their trends over the years to understand the evolution of perceived quality of life. The graph shows the Life Ladder trends for the top 5 countries in 2023, with Finland consistently maintaining the highest score and Costa Rica exhibiting the most fluctuation. This visualization highlights the varying quality of life perceptions over time for these countries.

Graph Details:

Title: "Life Ladder Trends for Top 5 Countries in 2023"

X-axis: Years, ranging approximately from 2007 to 2023

Y-axis: Life Ladder scores, ranging between 6.4 and 8.0

Legend: Differentiates countries based on colour and line style

Grid: Dashed lines enhance readability