

World Happiness Report Analysis 2015-2019

Data Integrity

| Inconsistency | Measures taken |
|--|--|
| Mismatching column names for various datasets from 2017-2019 | Renamed columns for uniformity with datasets from 2015 and 2016 |
| Missing Region column for datasets 2017 -2019 | Filled up the missing information based on the concatenated df_15_16 |
| Countries that were surveyed only once | Dropped them from dataset, as they make 0,03% of the whole |
| No duplicates found. | |
| No missing values found. | |

Data profile after cleaning and combining all dataframes

| Variable | Description | Data Types | Counts |
|-------------------------------|--|--------------------------|--------|
| Country | Name of country | Qualitative, Nominal | 160 |
| Region | Mapping of country to a region | Qualitative, Nominal | 10 |
| Happiness Rank | Numerical rank of country based on happiness | Qualitative, Ordinal | 155 |
| Happiness Score | Score for Happiness per country | Quantitative, continuous | 701 |
| Economy (GDP per Capita) | Value for a country's economy | Quantitative, continuous | 728 |
| Family | Value for the social support of that country's residents | Quantitative, continuous | 717 |
| Health (Life Expectancy) | Value for the life expectancy of that country's residents | Quantitative, continuous | 692 |
| Freedom | Value for the ability to make free choices in that country's residents | Quantitative, continuous | 684 |
| Trust (Government Corruption) | Value for the trust in a government of that country's residents | Quantitative, continuous | 623 |
| Generosity | Value for generosity | Quantitative, continuous | 650 |
| Year | Year of survey report | Quantitative, discrete | 5 |

Statistics:

| | Happiness Rank | Happiness Score | Economy (GDP per Capita) | Family | Health (Life Expectancy) | Freedom | Trust (Government Corruption) | Generosity | Year |
|-------|----------------|-----------------|--------------------------|------------|--------------------------|------------|-------------------------------|------------|-------------|
| count | 763.000000 | 763.000000 | 763.000000 | 763.000000 | 763.000000 | 763.000000 | 763.000000 | 763.000000 | 763.000000 |
| mean | 79.246396 | 5.364510 | 0.910665 | 1.076753 | 0.609808 | 0.410371 | 0.123595 | 0.217820 | 2016.985583 |
| std | 44.967146 | 1.123326 | 0.403930 | 0.328814 | 0.247824 | 0.153124 | 0.105126 | 0.122748 | 1.416458 |
| min | 1.000000 | 2.693000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 2015.000000 |
| 25% | 41.000000 | 4.510500 | 0.604024 | 0.868716 | 0.440030 | 0.309470 | 0.053426 | 0.128761 | 2016.000000 |
| 50% | 79.000000 | 5.303000 | 0.975000 | 1.123236 | 0.646740 | 0.430540 | 0.089000 | 0.201870 | 2017.000000 |
| 75% | 117.500000 | 6.167500 | 1.229215 | 1.324055 | 0.805168 | 0.531000 | 0.153763 | 0.277075 | 2018.000000 |
| max | 158.000000 | 7.769000 | 1.870766 | 1.644000 | 1.141000 | 0.724000 | 0.551910 | 0.838075 | 2019.000000 |

Questions to explore:

- Does money buy happiness? If so, why are the countries with the highest Economy scores not the happiest countries at the same time?
- Is the answer to happiness related to a combination of the six life factors?
- Why is generosity not related to economy?
- Where is the epicenter of happiness globally?
- Is the data showing a trend of happiness increasing or decreasing?