World Happiness Report

Content :

Project overview

The purpose of this project is to measure and report on the levels of happiness and well-being of people around the world,identify the factors that contribute to happiness and well-being and provide insights and recommendations, objectives of the report measure and report on factors that contribute to happiness ,encourage action towards a happier world

Data Source

The data for this project was sourced from ([link here](link)).

The data includes estimates and projections and the Happiness Score for 153 countries from 2020 to 2021.

- The Happiness Score is a national average of the responses to the main life evaluation question asked in the Gallup World Poll (GWP), which uses the Cantril Ladder.
- The Happiness Score is explained by the following factors:
- **GDP per capita**
- **Healthy Life Expectancy**
- **Social support**
- **Freedom to make life choices**
- **Generosity**
- **Corruption Perception**

Data Preparation

The data was checked to be clean of Nulls ,Duplicates and any outliers or anything that can affect our estimation for both datasets and conclusion before being imported into Power BI and transformed in python notebook second, we created a pivot table for better understanding and more useful visualizations.
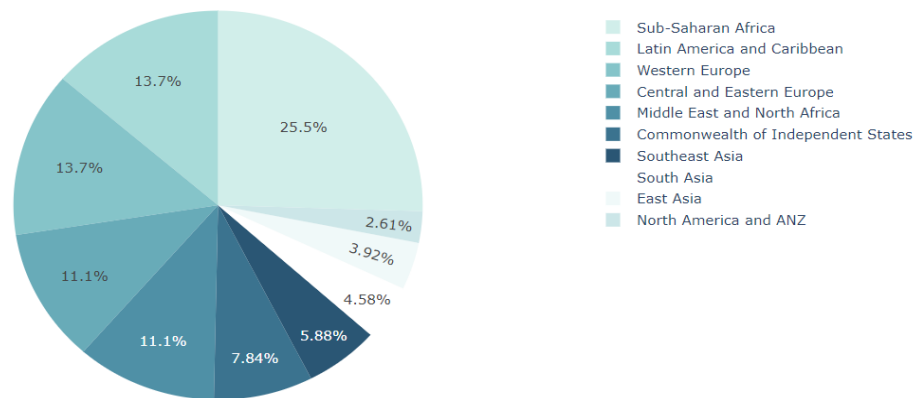
```
df20.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 153 entries, 0 to 152
Data columns (total 20 columns):
 #    Column                                          Non-Null Count
---   ------                                          --------------
 0    Country name                                    153 non-null
 1    Regional indicator                              153 non-null
 2    Ladder score                                    153 non-null
 3    Standard error of ladder score                  153 non-null
 4    upperwhisker                                    153 non-null
 5    lowerwhisker                                    153 non-null
 6    Logged GDP per capita                           153 non-null
 7    Social support                                  153 non-null
 8    Healthy life expectancy                         153 non-null
 9    Freedom to make life choices                    153 non-null
 10   Generosity                                      153 non-null
 11   Perceptions of corruption                       153 non-null
 12   Ladder score in Dystopia                        153 non-null
 13   Explained by: Log GDP per capita                153 non-null
 14   Explained by: Social support                    153 non-null
 15   Explained by: Healthy life expectancy           153 non-null
 16   Explained by: Freedom to make life choices      153 non-null
 17   Explained by: Generosity                        153 non-null
 18   Explained by: Perceptions of corruption         153 non-null
 19   Dystopia + residual                             153 non-null
dtypes: float64(18), object(2)
memory usage: 24.0+ KB
```

```
df20[df20.duplicated()]
```

| Country name	Regional indicator	Ladder score	Standard error of ladder score	upperwhisker	lowerwhisker	Logged GDP per capita	Social support	Healthy life expectancy	Freedom to make life choices	Generosity	Perceptions of corruption	Ladder score in Dystopia	Explained by: Log GDP per capita	Exp by: sup

Exploratory Data Analysis (EDA)
Countries per region

Legend:
- Sub-Saharan Africa
- Latin America and Caribbean
- Western Europe
- Central and Eastern Europe
- Middle East and North Africa
- Commonwealth of Independent States
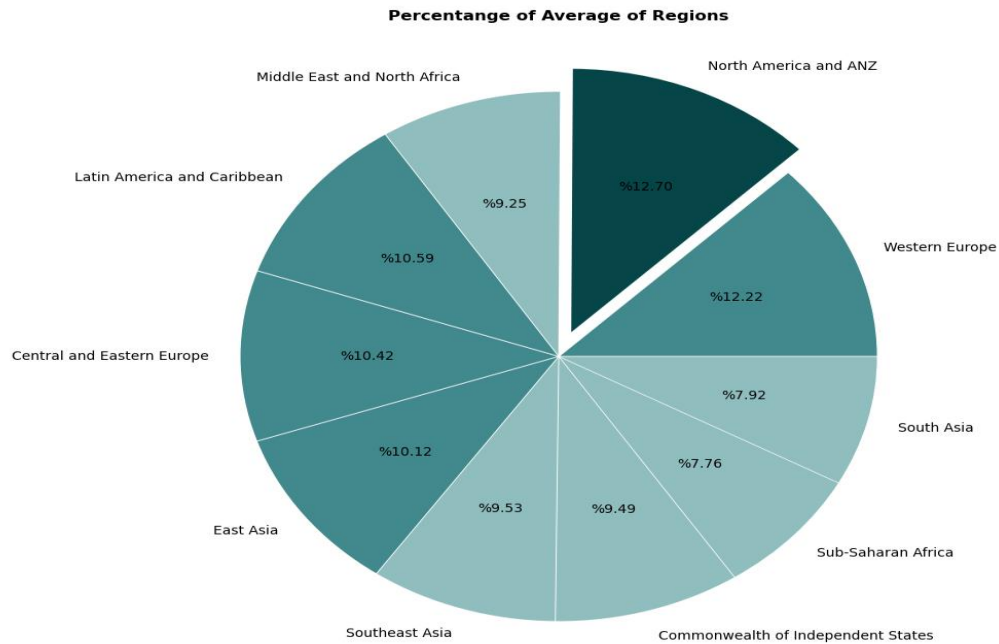- Southeast Asia
- South Asia
- East Asia
- North America and ANZ

As we can see here Region with the most countries : Sub-Saharan Africa
& Region with the fewest countries : North America and ANZ
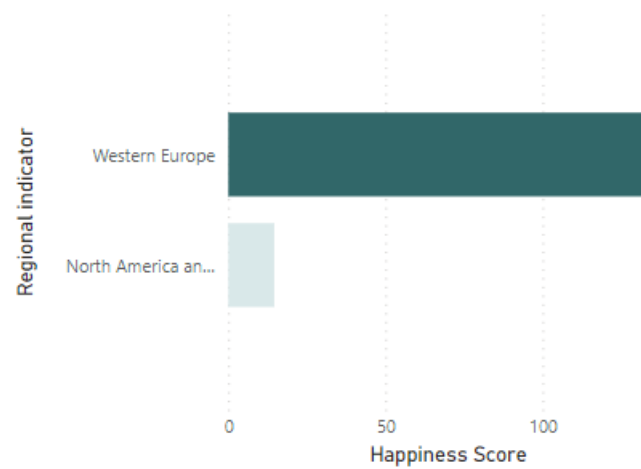Top happiest countries

Happiest Region
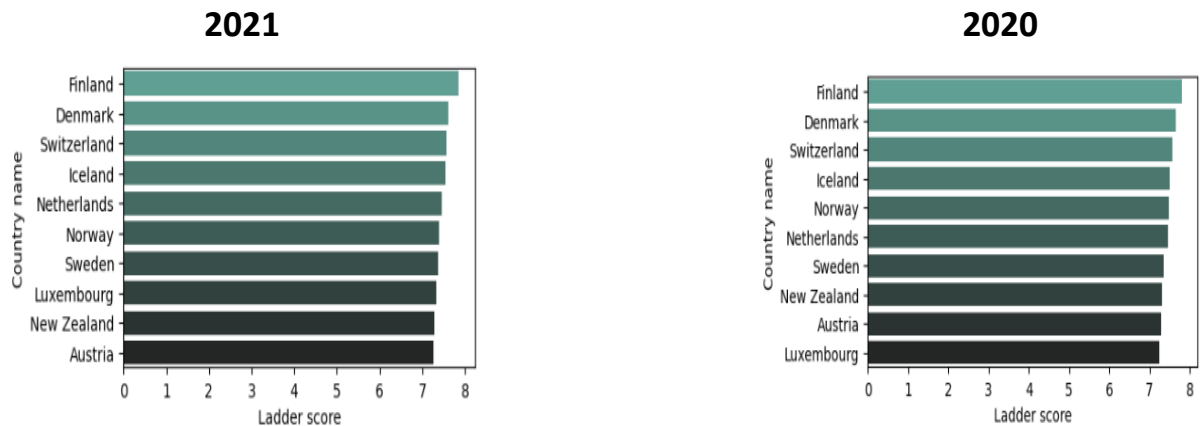
Percentage of Average of Regions
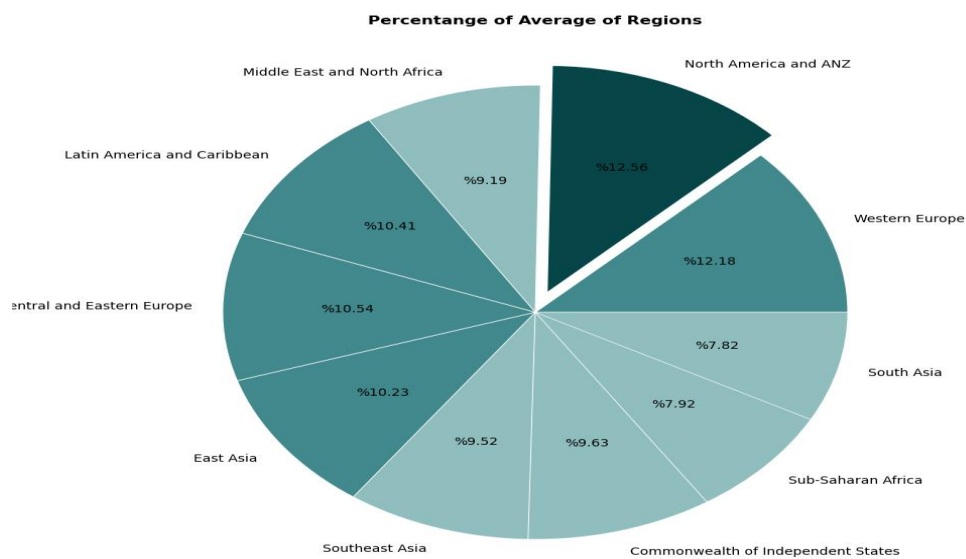
As we can see here that North America and ANZ is the top happiest region of all the regions in both year but with an extra score in 2021

However most of the top 10 happy countries are from East Europe as shown in the below fig

Top 10 happiest countries in both years

2021
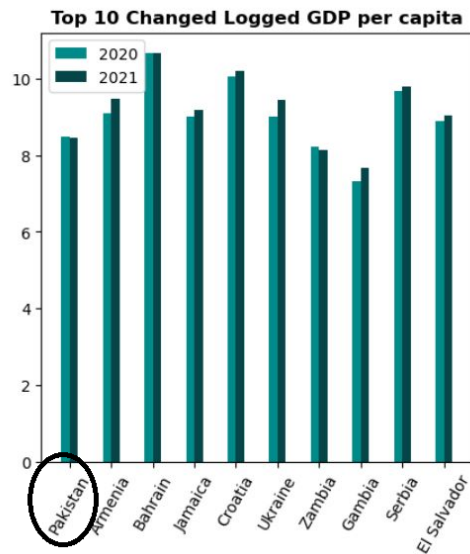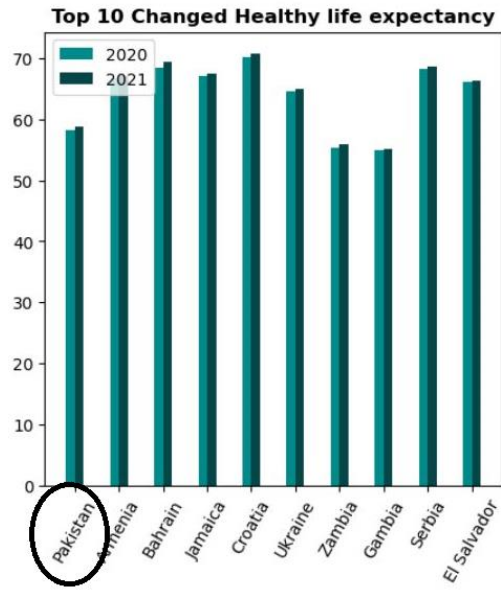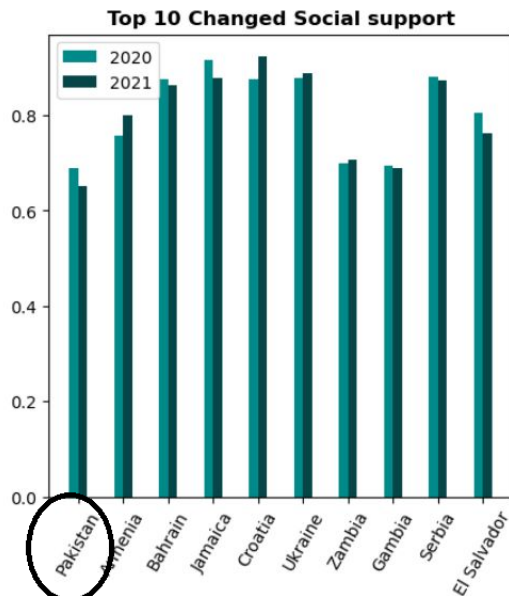

2020

In both years Finland was the happiest country with the same happiness rate and there wasn't really that much of a change in the top 10 between both years

But as we proceed
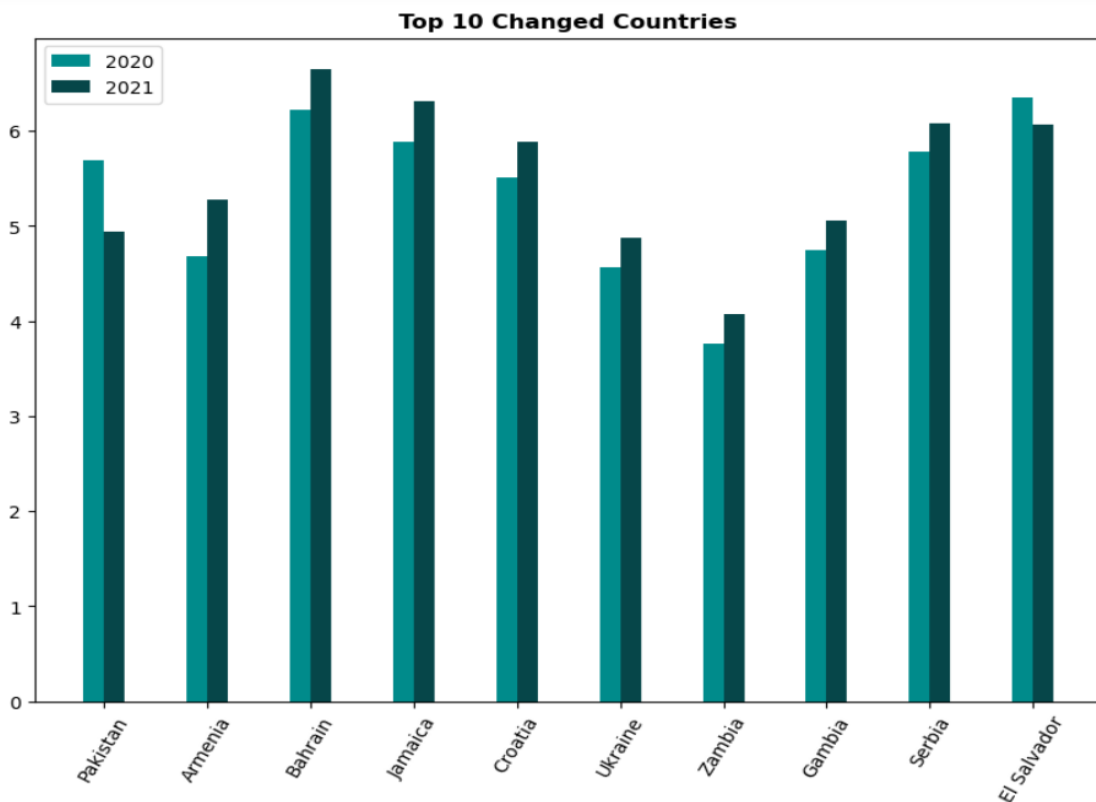
We found out that these countries had an obvious change in their happiness rate
Apart from Pakistan and El Salvador the rest of the countries were happier in 2021 rather in 2020

Top 10 Changed Social support

Top 10 Changed Healthy life expectancy

Top 10 Changed Logged GDP per capita

So if we noticed here that in order for Pakistan to have a decreased happiness score in 2021 the social support also decreased along with GDP (country's gross domestic product)

So after checking the correlation of the factors with the happiness score we found out as expected that Logged GDP , Social support and Healthy life expectancy are the most significant factors in the happiness score
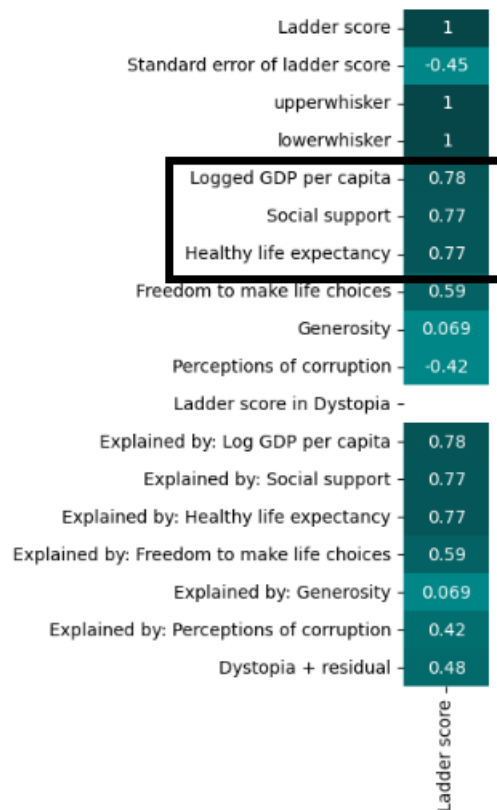
Conclusion

Happiness of course can't be measured by score and numbers but a lot of factors can have a strong effect on our life and satisfaction level somehow leading to happiness along with unmeasurable factors

But if we look closely in general we will find that good economy having a strong support from the government and a better Health can really define a good and practical environment to live in

Then comes having the freedom to do whatever you want and of course safety , honored and strict law system to assure justice among all people

Countries from east Europe ,North America and Australia have a strong economy and a good government providing a strong social support and a low level of corruption

But other countries as in Asia doesn't have a lot of necessities that allow them to have that satisfaction level

Maybe in 2020 all the governments tried to support their people as much as possible due to COVID-19 and that affected the Happiness score ; nevertheless, they didn't have that much of freedom or health

So we conclude that in order for any country to have a good ladder score which may lead for better future and better productivity and a lot of positive stuff , their government should have a good social support