**Analysis of World Development**

**Group F**

**OMIS – 645**

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Introduction

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Introduction

* Analysis of current world trends based on financial growth, lifestyle
* Countries based on socio-economic factors
* The main factors considered:
  + GDP
  + Peace Index
  + Human Development Index
  + Gender Inequality

Dataset

The primary source for our dataset is the World bank website. Out unit of analysis will be country level. Initially, from the source we downloaded time series data containing more than 3,00,000 records with more than 800 indicators represented as individual records. We filtered the year to 2020 and transposed the data to cross-sectional data. From that, we chose Economic, Trade, and Social related indicators. Few of our other variables like Gender inequality index, Global Peace Index were extracted through data scrapping from the Wikipedia web pages respectively. And Human Development Index variable was scrapped from the World Population review web page. We chose 32 variables representing the statistical development indicators for the countries. And our sample size is 199 records with 32 variables.

In the dataset, we have continuous variables like GDP, Tax revenue, Unemployment rate, Fertility rate, Population size, Death rate, Birth rate, Population growth, HDI, Global Peace Index, Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Regulatory Quality, Rule of Law, Access to Electricity, Life expectancy, Gender Inequality index value, Exports of goods and services, Imports of goods and services, GDP growth, Inflation - consumer prices, Inflation - GDP deflator and Literacy Rate.

Human Development Index is the measure to determine the country to be developed or not. It is the composite of Life expectancy, education and per capita income of the country. HDI is high when all these are high. Based on the HDI value, we encoded the first 100 countries as Developed country with the value Yes in the binary categorical variable, Developed/Not and the remaining countries were encoded as not a developed country. Based on countries possessing nuclear weapons, binary categorical variable Nuclear Weapon Possession was encoded with values Yes and No. Based on the variable Government Effectiveness, the first 100 countries having high effectiveness were encoded as Yes and the remaining countries were encoded as No for the binary categorical variable - Govt effectiveness status. Gender Inequality Index (GII) is the measure of loss of achievement in a country due to lack of gender equality. When the Gender Inequality is lower, the countries have good gender equality prevailing conditions in them. Based on the Gender Inequality Index value, the first 100 countries with high GII value were encoded as High Gender Inequality countries and the remaining were encoded as Low Gender Inequality in the binary categorical variable Gender Inequality. Global Peace index (GPI) is the measure of nation’s peacefulness. When the GPI is low, the country tends to be more peaceful. It takes into account factors like well-functioning government, low level of corruption, acceptance of rights of others and the country’s diplomatic relationship with its neighbors. Based on the GPI value, the first 100 countries with low GPI value were encoded as Peaceful countries with value Yes and the remaining were encoded as not a peaceful country in the binary categorical variable Peaceful country

Research and Analysis

Q1) What factors contribute to the Human Development in a country?

Q2) Whether Peace Quotient and Gender Inequality of a country depends on the Region it is located in?

Table

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Q3)

Conclusion

* No correlation between Developed countries and its peace index.
* Political stability and Absence of Terrorism does not affect the government effectiveness of a country.
* Gross Primary Education enrollment is not a key dimension for Human Development index.

**INTERESTING STATS :**

* Iceland is the most peaceful country!!
* Norway has low Gender Inequality and with high HDI !!
* Singapore score a perfect 100 in terms of government effectiveness !!
* Only 9 countries in the world possess nuclear weapons !!
* Qatar has the lowest unemployment rate of 0.09% !!