" WHY PAKISTAN IS LIKE THIS?"

A Project Report submitted to Dr. Junaid Akhtar for subject

QCR

in

Computer Science

by

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Introduction

Pakistan is on the verge of decline compared to other countries. There is no single cause for the plight of Pakistan, but many elements are responsible for the plight of Pakistan. In order to examine the condition of Pakistan, we were given the file of Gapminder [1] which contains the data of all countries in the world against different indicators (inflation, poverty etc.) for 16 years for each country. Gapminder is a nonprofit organization that promotes sustainable global development and achievement of United Nations development goals by increased use and understanding of statistics and other information about social, economic and environmental development at local, national and global levels. In this given data set our purpose was to compare Pakistan with all the countries in the world and to quantitatively explain "Why Pakistan is like this".

Project purpose

To read such a big data file having data of 257 countries for forty plus indicators for different years and to compare Pakistan with all these countries and to rank Pakistan among all these countries is nearly impossible to do in Excel. As data scientists, we can easily do this by using python which is impossible to do in Excel. Being data scientists, the purpose of our project is to compute such huge data in a very concise, readable, and understandable form even for those who are unfamiliar with such huge data. So, that they can easily distinguish "Why Pakistan is like this?"

Working of program

3.1 Comparison of Pakistan with continents

3.1.1 For indicators which leads to country downwards

Indicators that leads to country downward are inflation, poverty, children per woman and imports. If the value of these are greater than country will ultimately go down. That's why rank 1 will give to that country which has minimum average of such indicators.

Asia

When code run it collect all the countries in Asia and find the average of all countries for each indicator and give the rank of Pakistan for one indicator against all countries. For example, if there are 49 countries in Asia then in one list there will be average of all countries including Pakistan for one indicator. It sorts the list and then find the rank of Pakistan for each indicator and then append the rank of Pakistan for each indicator in a variable list. This code run for all indicators and it then find the rank of Pakistan for all indicators.

Rank	Indicators	Continent
29	Inflation	Asia
41	ChildrenPerWoman	Asia
16	Imports	Asia
38	Populationgrowth	Asia
37	Poverty	Asia

By adding all the average and dividing by length of indicators it gives the rank of Pakistan in Asia.

32 is rank of Pakistan in Asia for number of countries: 49

Europe

When code run it collect all the countries of Europe in a list and find average of all countries in Europe and append the average of Pakistan for each indicator in a list and got the rank of Pakistan for each indicator one by one and gives us table.

Rank	Indicators	Continent
40	Inflation	Europe
52	ChildrenPerWoman	Europe
18	Imports	Europe
51	Populationgrowth	Europe
52	Poverty	Europe

Then we append all the average of indicators and sum average of Pakistan for all indicators and gave the rank of Pakistan in Europe.

42 is rank of Pakistan in Europe for number of countries: 52

Africa

When code run it collect all the countries of Africa in a list and find average of all countries in Africa and append the average of Pakistan for each indicator in a list and got the rank of Pakistan for each indicator one by one.

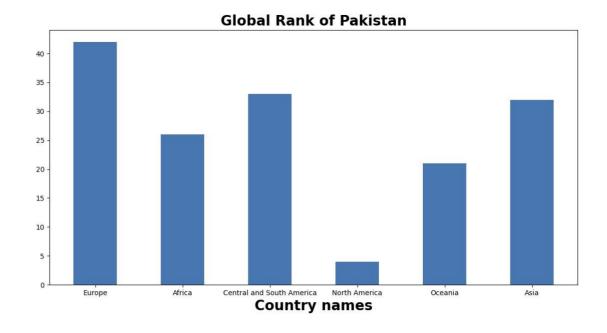
Rank	Indicators	Continent
31	Inflation	Africa
16	ChildrenPerWoman	Africa
9	Imports	Africa
38	Populationgrowth	Africa
38	Poverty	Africa

Then it appends all the average of indicators and sum average of Pakistan for all indicators and give the rank of Pakistan in Africa.

26 is rank of Pakistan in Africa for number of countries: 53

3.1.2 Global Rank

Now by adding all the continental ranks of dividing by length of continents it gives the global rank of Pakistan.



3.1.3 For indicators which leads to country upwards

Indicators that leads to country upwards are literacy rate, exports, income per person and tax revenue. If the value of these are greater than country will ultimately go up. That's why rank 1 will give to that country which has maximum average of such indicators.

Asia

When code run it collect all the countries of Asia in a list and find average of all countries in Asia and append the average of Pakistan for each indicator in a list and then sort and reverse list to arrange our list from maximum to minimum and it gives the rank of Pakistan for each indicator one by one in a table.

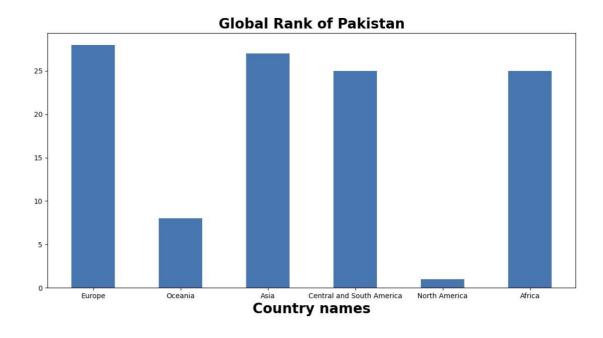
Rank	Indicators	Continent
44	IncomePerPerson	Asia
23	Literacyrateadulttotal	Asia
33	Exports	Asia
10	Taxrevenue	Asia

The it sums all the average and give us rank for Asia.

27 is rank of Pakistan in Asia for number of countries: 49

3.1.4 Global Rank

In this way the code run and give rank of Pakistan for all indicators. Now by adding all the average rank of Pakistan for each continent we can get the global rank of Pakistan.

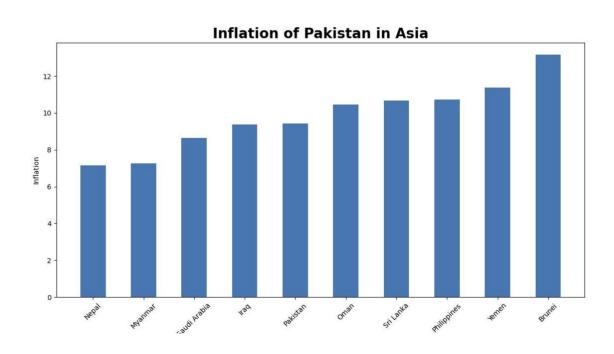


Discussion

4.1 Condition of Pakistan in Asia

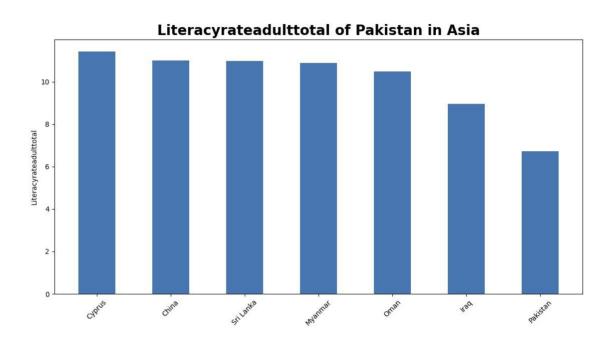
Inflation

The rank of Pakistan in Asia is 32 against 49 countries. This show that Pakistan is not a good country because if country has a rank 32 in Asia, it will not a good country. The inflation of Pakistan is more than Nepal and Myanmar. Below is the graph showing the countries that has average more and less than Pakistan. The rank of Pakistan for indicator inflation in not good. The rank of Pakistan for indicator inflation is 30 as shown above in table above.



Literacy Rate

Now if we talk about the literacy rate of Pakistan, the rank of Pakistan for literacy rate is 23. This is not a good rank. Because the educated people are capital of any country. If there are no educated people in your country, then how can country be better? The graph shown below clearly tells that educated young people in Pakistan is less than Iraq and Myanmar. So, it clear that our country is like this because our country has less educated people.

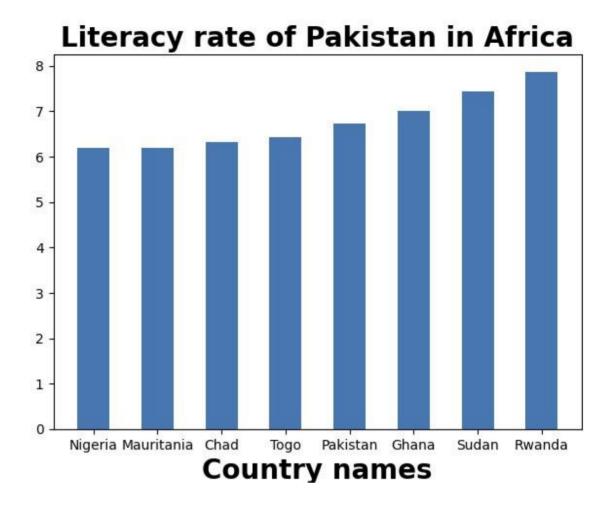


4.2 Condition of Pakistan in Africa

The rank of Pakistan in continent Africa for 53 countries is 25. Rank 25 among 53 countries, doesn't reflect good about the country. So, we can conclude due to this reason Pakistan is like this.

Literacy rate

Now if we talk about the literacy rate of Pakistan in Africa the condition is worse. There are many countries in Africa that has better literacy rate then Pakistan.



4.3 Condition of Pakistan in Europe and other continents

After knowing the condition of Pakistan in Africa and Africa we can easily understand what will be the condition of Pakistan in these continents

Conclusion

After analyzing such a huge data with the help of python, we were finally able to write such program that can tell "WHY PAKISTAN IS LIKE THIS?". Developed countries has a good ratio of exports, literacy rates, income per person which insures good quality life, which ultimately leads country to prosperity. This project and code made us able and will other people too to distingiush the main causes behind Pakistan's low condition. Pakistan has low rate of income per person, literacy rate and exports. While high rate of imports, inflation and children per woman which are main causes of current situation of Pakistan.

References

References[1]https://www.gapminder.org/