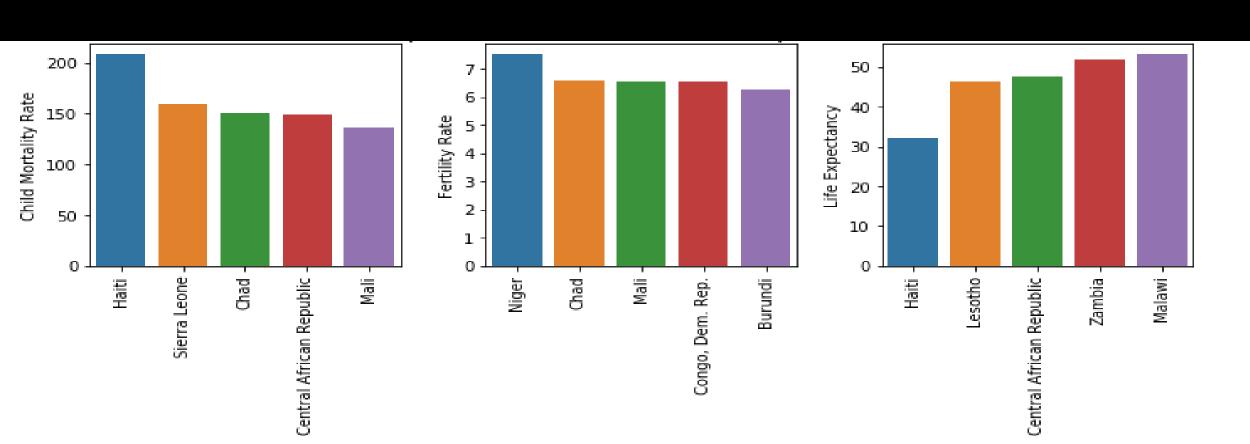
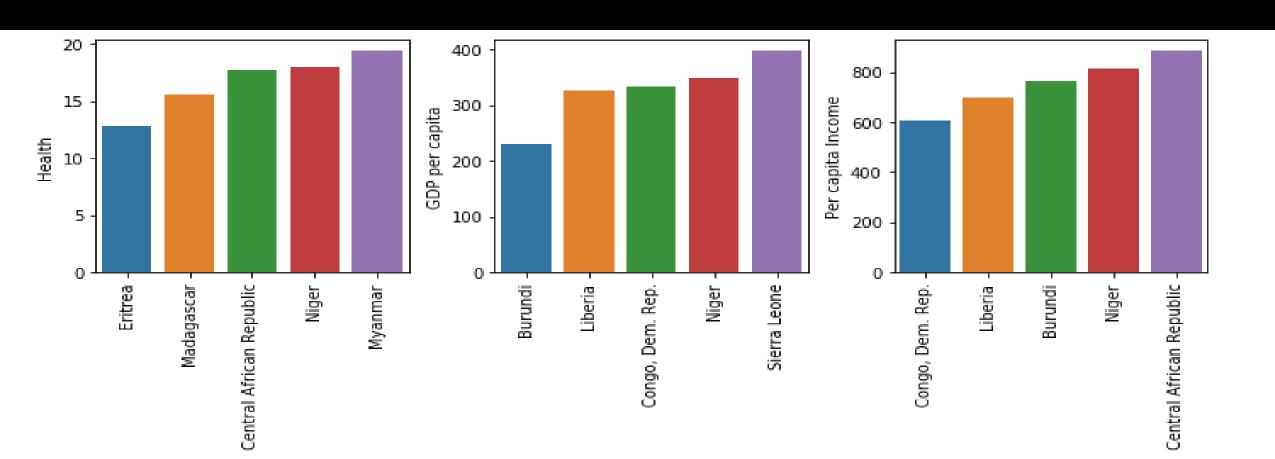
## PCA & CLUSTERING ASSIGNMENT

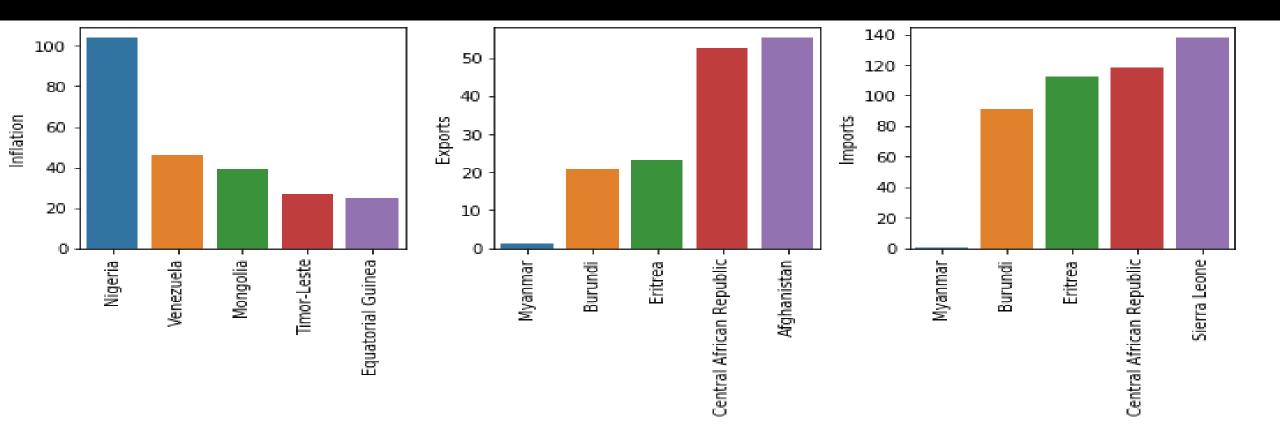
## Following are the countries which are have high <u>CHILD</u> <u>MORTALITY RATE</u>, <u>FERTILITY RATE</u> and <u>LIFE EXPECTANCY</u>



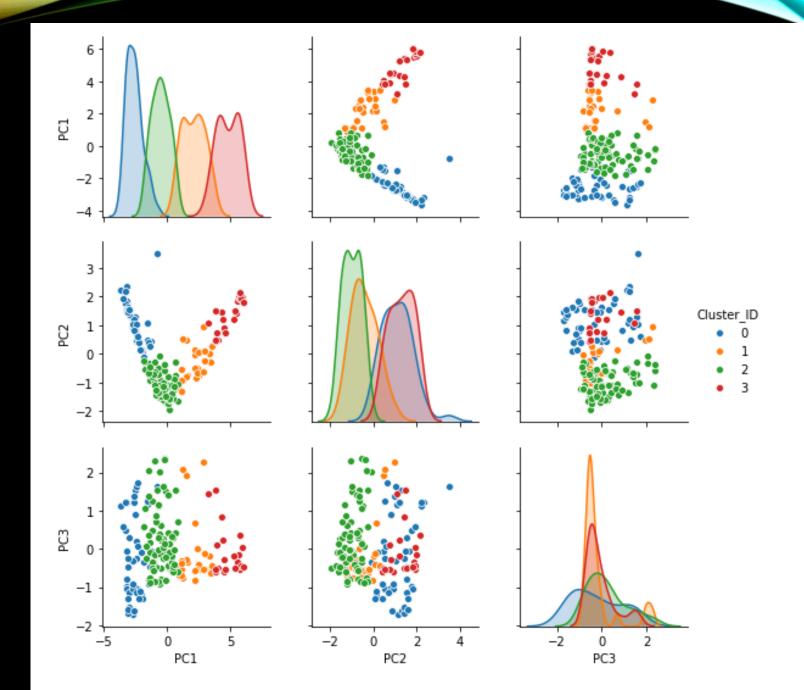
Following are the least or bottom countries in <u>HEALTH</u>, <u>INCOME</u> and <u>GDP</u> aspects.

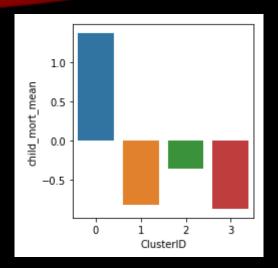


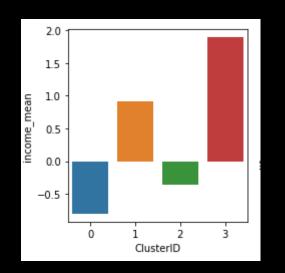
- *Inflation* shows top 5 countries in that aspect
- <u>Imports</u> and <u>exports</u> shows the <u>bottom or least countries</u> from their aspects.

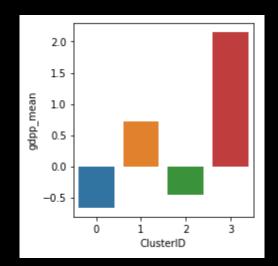


The scatter plots in the fig. shows the behavior of all the clusters with respect to the other clusters

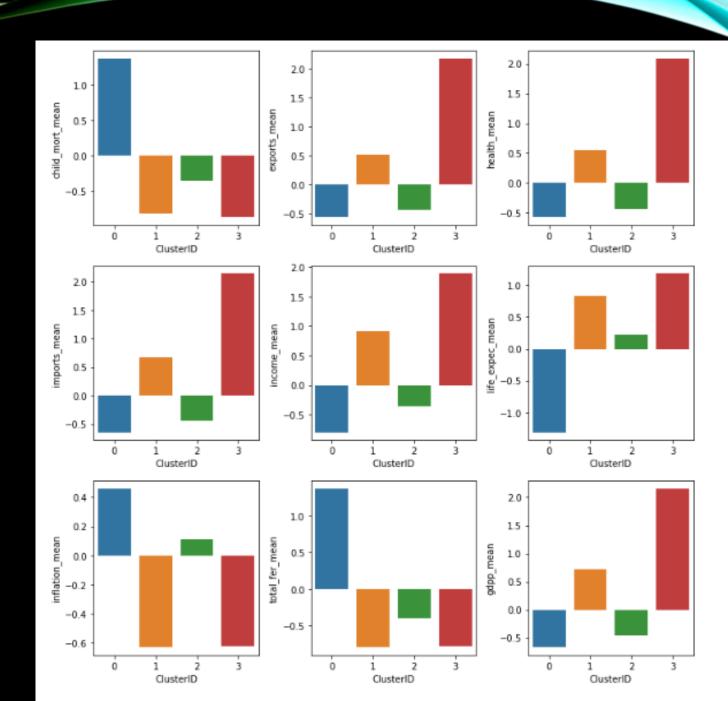








 Quster '0' have the highest and cluster
'3' have the lowest child mortality rates  Cluster 'O' has the lowest and cluster '3' have the highest income mean  Quster '0' have the lowest and cluster '3' have the highest GDP mean The fig. shows the overall Means of each aspect with respect to every cluster



Following are the countries obtained by K-means clustering which requires support from the NGO

'Afghanistan', 'Angola', 'Benin', 'Botswana', 'Burkina Faso', 'Burundi', 'Cameroon', 'Central African Republic', 'Chad', 'Comoros', 'Congo, Dem. Rep.', 'Congo, Rep.', "Cote d'Ivoire"

'Equatorial Guinea', 'Eritrea', 'Gabon', 'Gambia', 'Ghana', 'Guinea', 'Guinea-Bissau', 'Haiti', 'Iraq', 'Kenya', 'Kiribati', 'Lao', 'Lesotho', 'Liberia', 'Madagascar', 'Malawi', 'Mali' 'Mauritania', 'Mozambique', 'Namibia', 'Niger', 'Nigeria', 'Pakistan', 'Rwanda', 'Senegal', 'Sierra Leone', 'Solomon Islands', 'South Africa', 'Sudan', 'Tanzania', 'Timor-Leste', 'Togo', 'Uganda', 'Yemen', 'Zambia'

## THANK YOU