

Clustering Assignment Presentation

Problem Statement & Analysis Approach

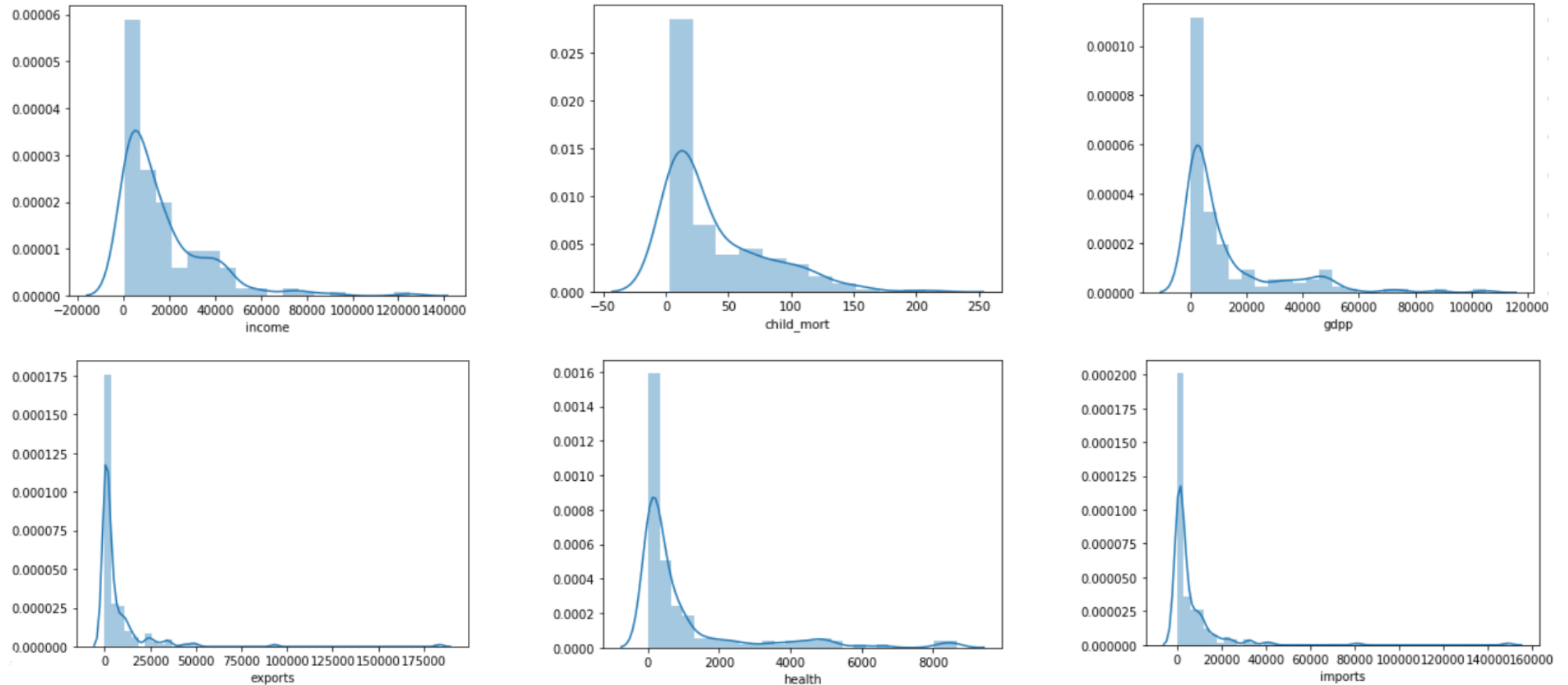
Problem Statement

- CEO of the NGO needs to decide how to use \$ 10 Million money strategically and effectively. The significant issues that come while making this decision are mostly related to choosing the countries that are in the direst need of aid.

Analysis Approach

- The Analysis is basically performed at two levels:
 - The datasets containing those socio-economic factors and the corresponding data dictionary are provided
 - We can basically check which are those countries required direst need of aid from K – Means Clustering and Hierarchical Clustering

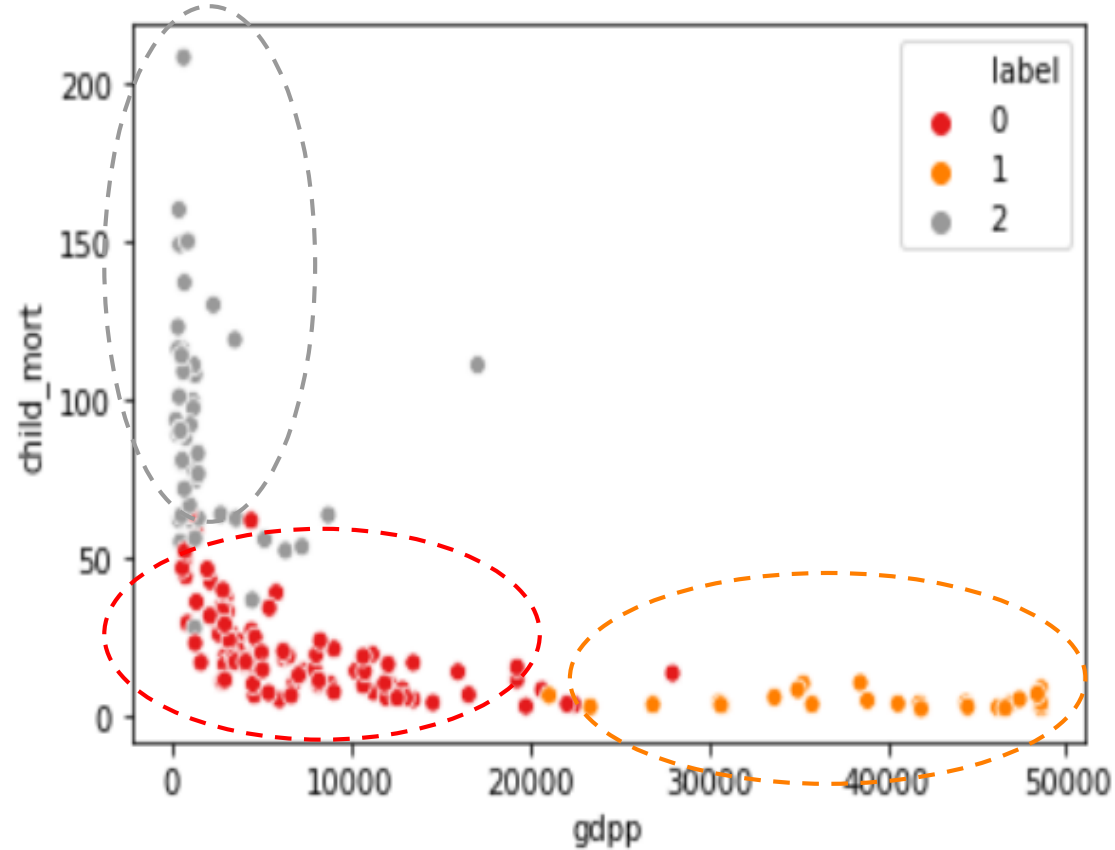
Highly Correlation Values



- These variables have High Correlation Values in the Data Set

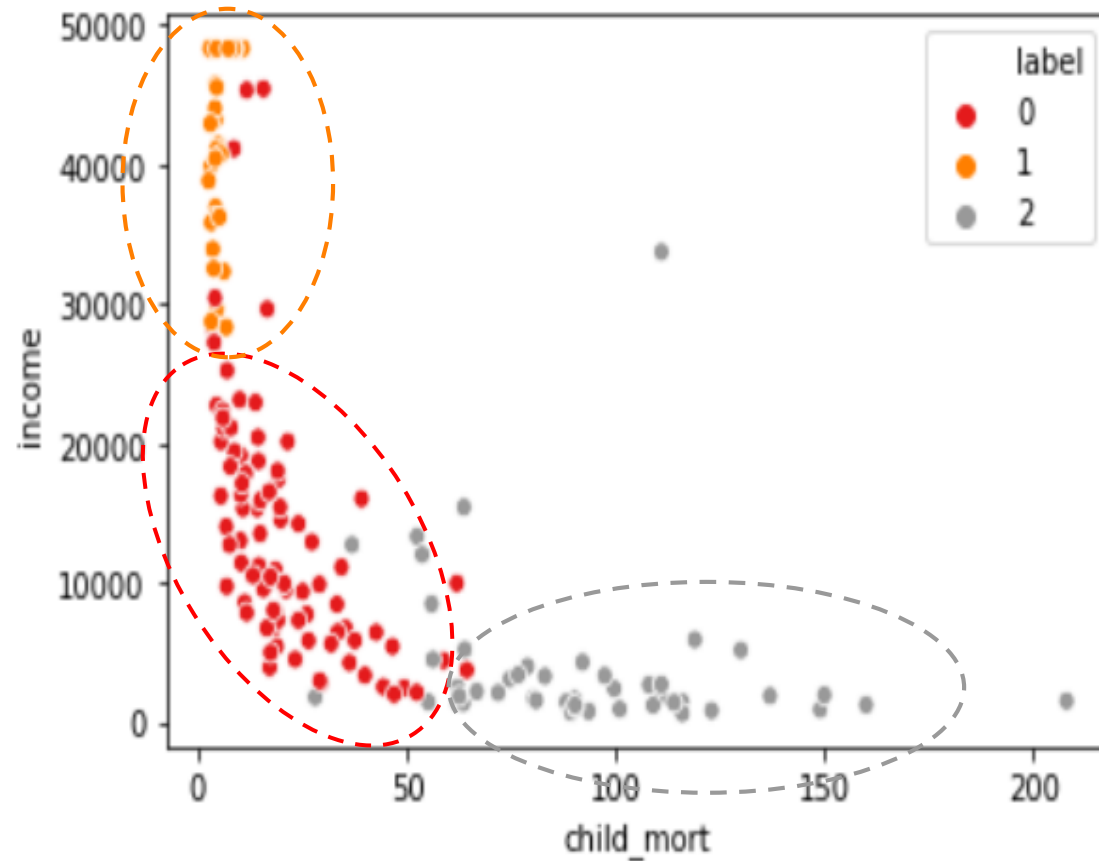
K-means Clustering

Label wise Child_Mort & Gdpp



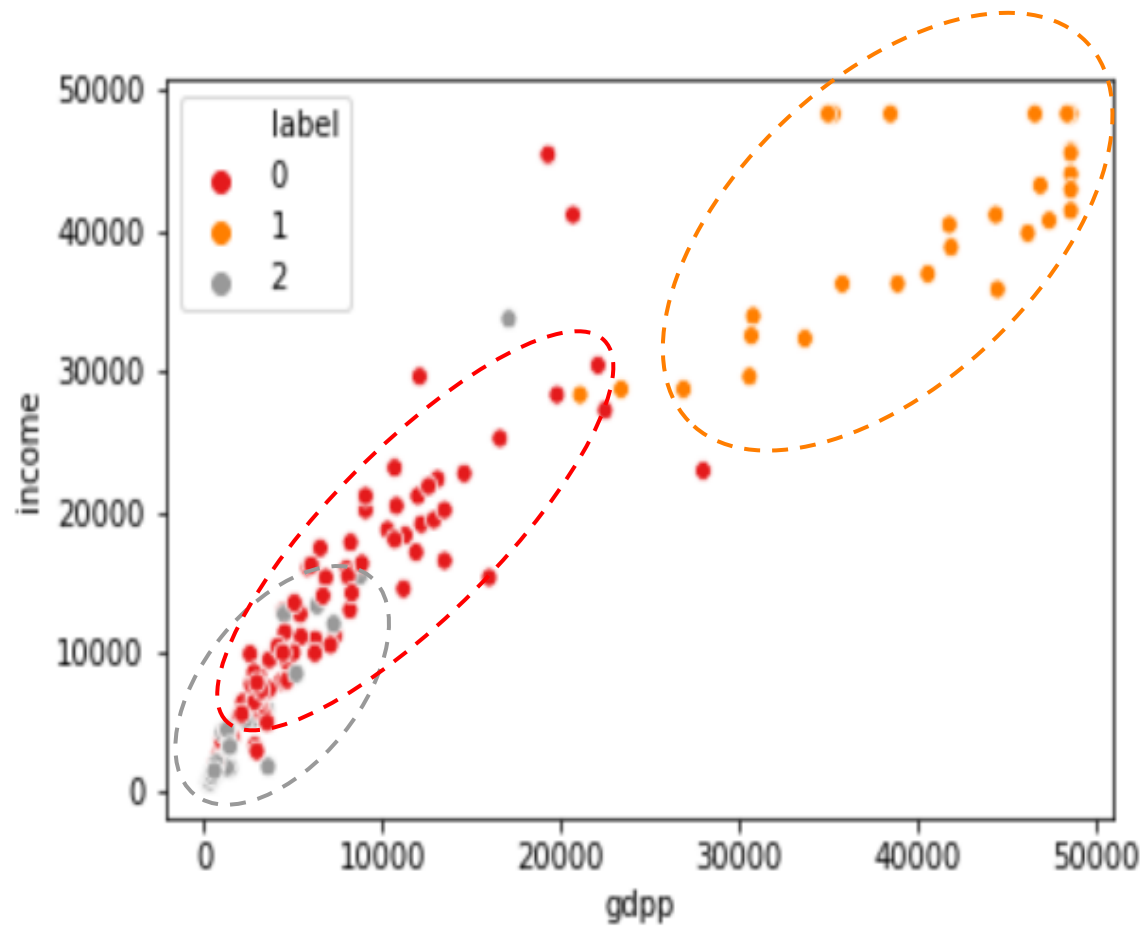
- 0 label countries have Average & Low Gdpp and Low Child_Mort - these countries will require average focus
- 1 label countries have High Gdpp and Low Child_Mort - these countries are in very good condition
- 2 label countries have Low Gdpp and High Child_Mort - these countries will require more focus

Label wise Child_Mort & Income



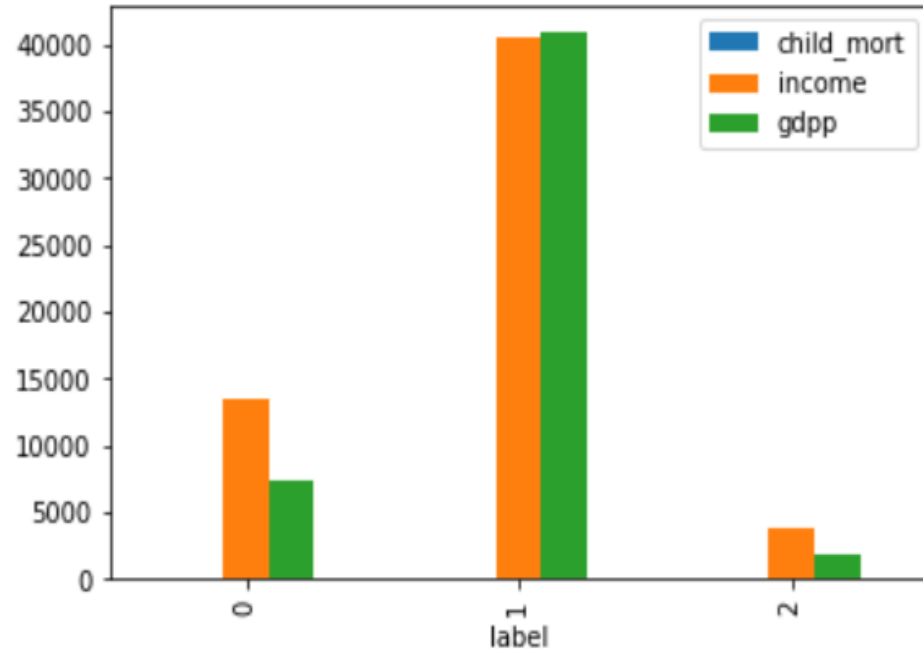
- 0 label countries have Low Child_Mort and High & Average Income - these countries will require average focus but we are getting a constant income from these countries
- 1 label countries have Low Child_Mort and Very High Income - these countries is in very good condition
- 2 label countries have High Child_Mort and Low Income - these countries will require more focus

Label wise Child_Mort, Income & Gdpp



- 0 label countries have Average Income and Low Gdpp - these countries will require average focus
- 1 label countries have Very High Income and High Gdpp - these countries is in very good condition
- 2 label countries have Low Income and Low Gdpp - these countries will require more focus
- Label 0 and 2 country's mostly overlapping between these two labels

Label wise Child_Mort, Income & Gdpp



- Child_Mort have very low values as compare to other 02 variables
- Income & Gdpp is Very High values in 01 label

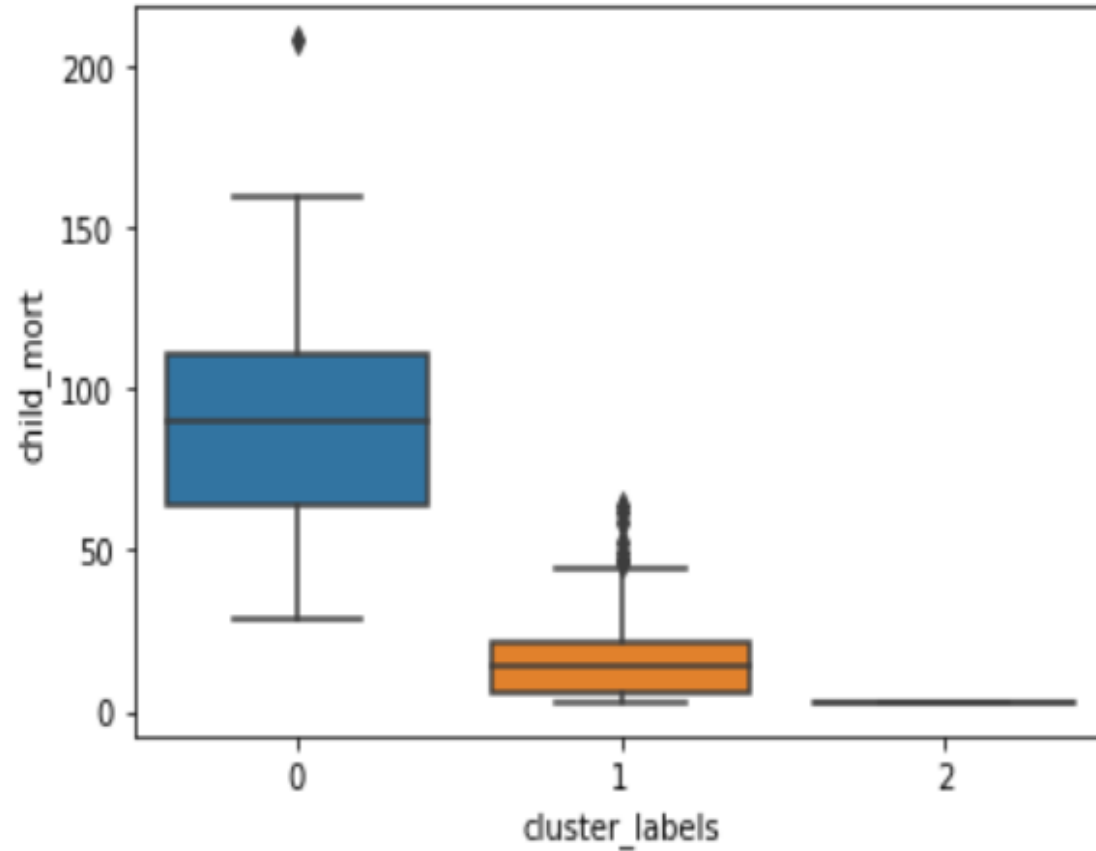
	country	child_mort	exports	health	imports	income	inflation	life_expec	total_fer	gdpp	label
98	Malta	6.8	32283.0	1825.15	32494.0	28300.0	3.830	80.3	1.36	21100	1
135	Slovenia	3.2	15046.2	2201.94	14718.6	28700.0	-0.987	79.5	1.57	23400	1
60	Greece	3.9	5944.9	2770.70	8258.3	28700.0	0.673	80.4	1.48	26900	1
74	Israel	4.6	10710.0	2334.78	10067.4	29600.0	1.770	81.4	3.03	30600	1
139	Spain	3.8	7828.5	2928.78	8227.6	32500.0	0.160	81.9	1.37	30700	1



These top 5 countries need more focus and direct need of aid

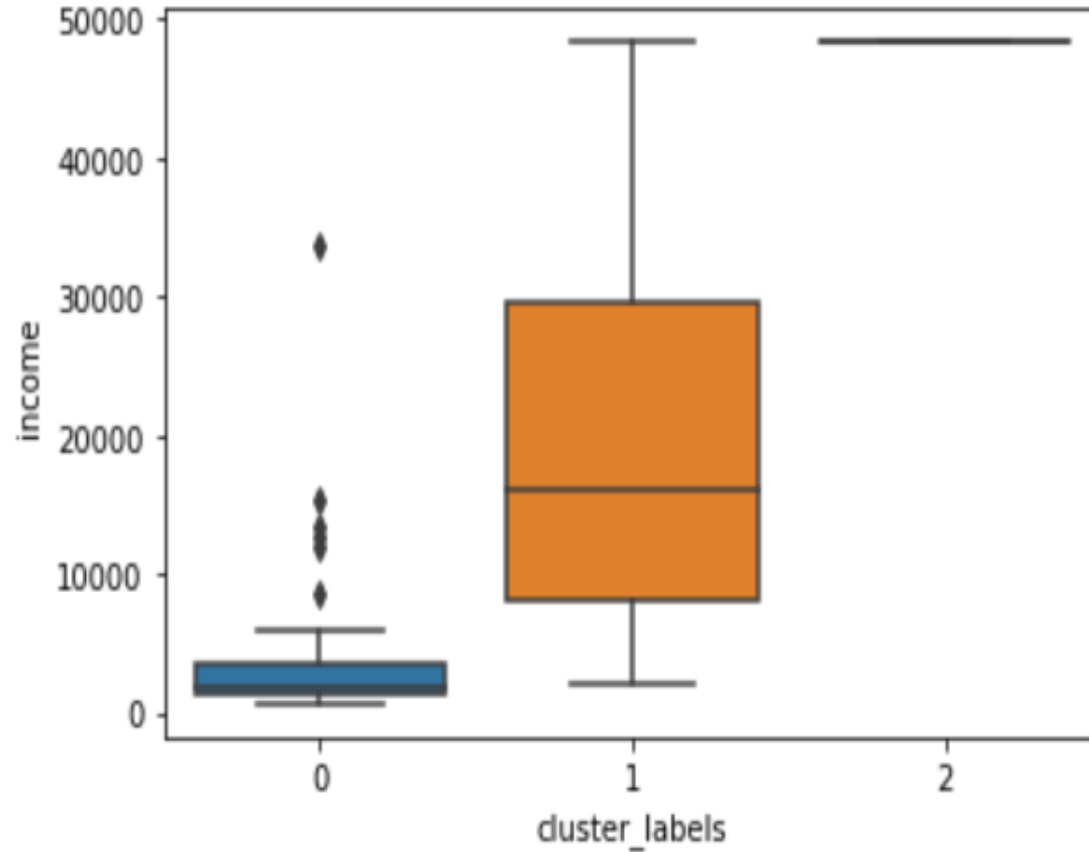
Hierarchical Clustering

Cluster_labels wise Child_Mort



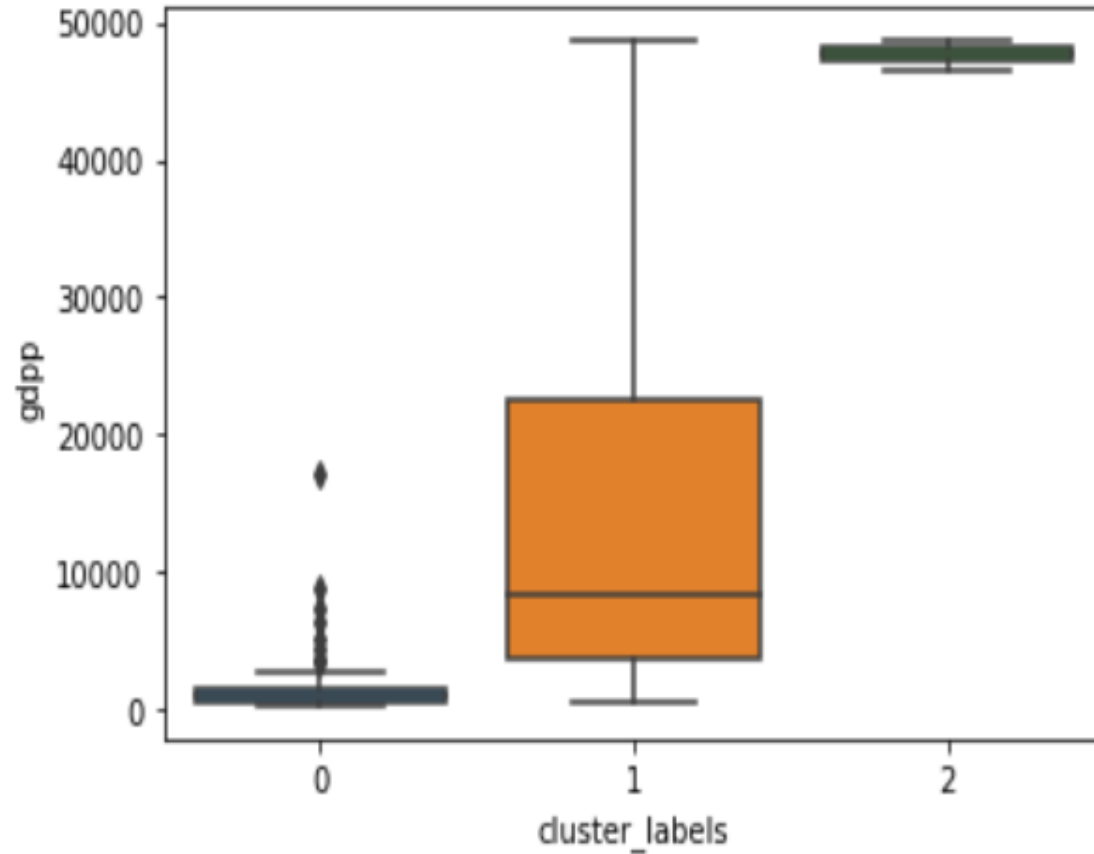
- 0 label countries have Average & High Child_Mort - these countries will require more focus
- 1 label countries have Low Child_Mort - these countries is in good condition
- 2 label countries have Very Low Child_Mort - these countries is in very good condition

Cluster_labels wise Income



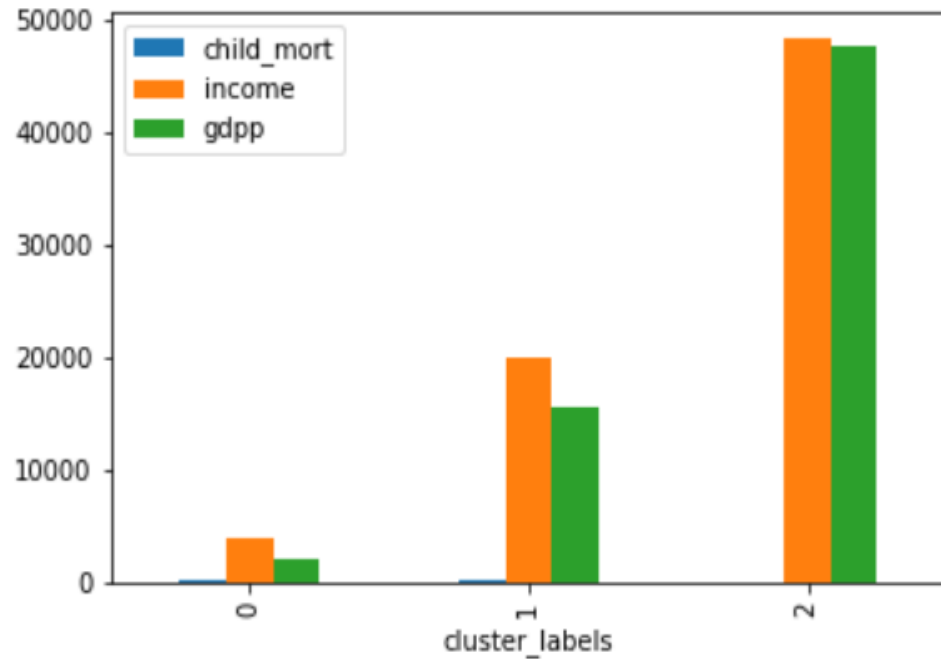
- 0 label countries have Very Low Income - these countries will require more focus
- 1 label countries have High Income - these countries is in good condition
- 2 label countries have Very High Income - these countries is in very good condition

Cluster_labels wise Gdpp



- 0 label countries have Very Low Gdpp - these countries will require more focus
- 1 label countries have High Gdpp - these countries is in good condition
- 2 label countries have Very High Gdpp - these countries is in very good condition

Label wise Child_Mort, Income & Gdpp



- Child_Mort have very low values as compare to other 02 variables
- Income & Gdpp is Very High values in 02 label

	country	child_mort	exports	health	imports	income	inflation	life_expec	total_fer	gdpp	label	cluster_labels
109	Nepal	47.0	56.71	31.08	215.49	1990.0	15.10	68.3	2.61	592	0	1
146	Tajikistan	52.4	109.96	44.13	432.47	2110.0	12.50	69.6	3.51	738	0	1
12	Bangladesh	49.4	121.28	26.68	165.24	2440.0	7.14	70.4	2.33	758	0	1
27	Cambodia	44.4	425.23	44.64	467.67	2520.0	3.12	66.1	2.88	786	0	1
83	Kyrgyz Republic	29.6	454.08	54.38	718.96	2790.0	10.00	68.5	3.10	880	0	1



These top 5 countries need more focus and direct need of aid

Thank You