|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Using K-Mean Clustering | | | | | | | | | | | | | | | | | | |
| Parameters | No Data Processing | | | Using Normalization | | | Using Transform | | | Using PCA | | | Using T + N | | | Using T + N + PCA | | |
| C=3 | C=4 | C=5 | C=3 | C=4 | C=5 | C=3 | C=4 | C=5 | C=3 | C=4 | C=5 | C=3 | C=4 | C=5 | C=3 | C=4 | C=5 | |
| Sihhouette | 0.4784 | 0.3997 | 0.3635 | 0.5424 | 0.4041 | 0.3686 | 0.3757 | 0.3319 | 0.3006 | 0.4770 | 0.3866 | 0.3690 | 0.2362 | 0.2049 | 0.1870 | 0.2555 | 0.2121 | 0.1888 | |
| Calinski-Harabasz | 210.152 | 207.81 | 214.06 | 141.12 | 144.022 | 162.330 | 544.87 | 507.486 | 472.06 | 210.14 | 207.81 | 213.907 | 162.743 | 138.705 | 122.697 | 162.78 | 138.714 | 122.77 | |
| Davies-Bonldins | 0.8895 | 0.9014 | 0.9122 | 0.9612 | 0.9384 | 0.9036 | 0.8594 | 0.9160 | 1.0051 | 0.8905 | 0.9543 | 0.8906 | 1.4019 | 1.5043 | 1.5546 | 1.3099 | 1.4736 | 1.5382 | |