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K-means Clustering

Parameters	No Data Preprocessing			Using Normalisation			Using Transformation			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
Silhouette	0.2352	0.2393	0.1872	0.5609	0.5201	0.5053	0.5036	0.4498	0.4171	0.4593	0.437	0.3442	0.2157	0.1992	0.1845	0.2157	0.1991	0.1844
Calinski-Harabasz	2033.7787	1716.6899	1523.5327	18444.5412	20995.1243	23152.1301	13953.122	14169.441	13916.441	11671.332	13305.751	11613.021	2026.889	1652.518	1455.011	2026.8867	1652.5139	1455.037
Davies-Bouldin	1.5146	1.5661	1.7984	0.5382	0.5669	0.5906	0.6417	0.7124	0.7717	0.6587	0.7301	0.8048	1.728	1.7183	1.8913	1.7281	1.7184	1.8895

Hierarchical Clustering

Parameters	No Data Preprocessing			Using Normalisation			Using Transformation			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
Silhouette	0.4539	0.437	0.3442	0.2149	0.1961	0.1469	0.5356	0.4988	0.4489	0.4593	0.437	0.3442	0.1937	0.173	0.1479	0.1937	0.173	0.1479
Calinski-Harabasz	11671.3325	13305.753	11613.0286	1877.4671	1508.5949	1307.3101	16028.574	19463.952	18920.361	11671.332	13305.751	11613.021	1877.9228	1501.124	1272.674	1877.9228	1501.1243	1272.674
Davies-Bouldin	0.6587	0.7301	0.8048	1.58	16.739	2.0254	0.5206	0.5703	0.6004	0.6587	0.7301	0.8048	1.8677	1.8333	2.1318	1.8677	1.8333	2.1318

K-means Shift Clustering

Parameters	No Data Preprocessing			Using Normalisation			Using Transformation			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
Silhouette	0.3846	0.3846	0.3846	0.29	0.29	0.29	0.4715	0.4715	0.4715	0.3846	0.3846	0.3846	0.2872	0.2872	0.2872	0.2872	0.2872	0.2872
Calinski-Harabasz	3625.9526	3625.9526	3625.9526	56.5686	56.5686	56.5686	4364.6228	4364.6228	4364.6228	3625.9526	3625.9526	3625.9526	12.4613	12.4613	12.4613	12.4613	12.4613	12.4613
Davies-Bouldin	0.735	0.735	0.735	0.6327	0.6327	0.6327	0.3821	0.3821	0.3821	0.735	0.735	0.735	0.9663	0.9663	0.9663	0.9663	0.9663	0.9663