DAFTAR PUSTAKA

Anggraini, N., Kusnandar, D., & Debataraja, N. N. (2019). Metode Generalized Ridge Regression Dalam Mengatasi Multikolinearitas. Bimaster : Buletin Ilmiah Matematika, Statistika Dan Terapannya, 8(4), 679–686. https://doi.org/10.26418/bbimst.v8i4.35879

Arrasyid, A. H., Ispriyanti, D., & Hoyyi, A. (2021). Metode *Modified Jackknife Ridge Regression* Dalam Penanganan Multikolinieritas (Studi Kasus Indeks Pembangunan Manusia Di Jawa Tengah). Jurnal Gaussian, 10(1), 104– 113. https://doi.org/10.14710/j.gauss.v10i1.29922

Arstiarto, dkk. 2023. Analisis Regresi *Robust* estimasi GM Pada Indeks Keparahan Kemiskinan Provinsi-Provinsi Di Indonesia. Seminar Nasional Riset dan Inovasi Teknologi (SEMNAS RISTEK). Vol.7, No.1. Hal 205-209. https://doi.org/10.30998/semnasristek.v7i1.6273

Batiran KB. 2013. Pertanian Skala Kecil Versus Dampak Perubahan Iklim: Kasus Desa Tompobulu, Kabupaten Pangkep, Sulawesi Selatan. Jurnal Transformasi Sosial-Wacana, 29(15): 91 – 112.

Bergant, K., Kajfez, B. L., & Crepinsek, Z. (2002). The use of EOF analysis for preparing the phenological and climatological data for statistical downscaling-case study: The beginning of flowering of the dandelion (Taraxacum officinale) in Slovenia. Developments in Statistics , 17:163- 174.

Busuioc, A., Chen, D., & Hellstrom, C. (2001). Performance of Statistical Downscaling Models in GCM Validation and Regional Climate Change Estimates: Application For Swedish Precipitation. International Journal of Climatology: A Journal of the Royal Meteorological Society, 21(5), 557–578

Devita, H., Sukarsa, I. K. G., & N. Kencana, I. P. E. (2014). Kinerja Jackknife Ridge Regression Dalam Mengatasi Multikolinearitas. E-Jurnal Matematika, 3(4), 146. https://doi.org/10.24843/mtk.2014.v03.i04.p077

Dewi, T. M. (2021). Penanganan Multikolinearitas dengan Regresi Ridge pada Analisis Produk Domestik Regional Bruto Kabupaten Bantul. Prosiding Pendidikan Matematika Dan Matematika, 3(2721), 1–8.

Efek Perubahan Iklim Terhadap Usaha Tambak Ikan Bandeng di Desa Bulu Cindea Biringkassi, Kecamatan Bungoro, Kabupaten Pangkep The Effect of Climate ilkfish Pond Farming Business in Pangkep Regency, South . Sirajuddina, Andi A. Wahditiyab *,Valentine D. Saleky

N. (1995). Basic Econometrics. New York: McGraw-Hill

Hanifah F.D. 2020. Penerapan *Robust Jackknife Ridge Regression Dengan Estimator Generalized-M* untuk Mengatasi Multikolinearitas dan Pencilan. Yogyakarta: Skripsi,Departemen Matematika FMIPA UGM.

Hurint, dkk. 2016. Metode Regresi *Robust* Dengan Estimasi Method of Moment (Estimasi-MM) Pada Regresi Linier Berganda (Studi Kasus : Data Indeks Harga Konsumen (IHK) Provinsi Kalimantan Timur). Jurnal EKSPONENSIAL. Vol.2, No.2, hal 155-162.

Indri Febriani Hartono dan Sutikno. (2020). Analisis Curah Hujan Ekstrem pada Kasus Elevasi Tinggi Air Muka Bendungan Bilibili Sulawesi Selatan dengan Pendekatan Peaks Over Threshold. Vol (9) No.2.

Mardiana. 2019. Perbandingan Model Regresi Estimasi M, Estimasi S, dan Estimasi MM pada Faktor yang Mempengaruhi Angka Kejadian Demam Berdarah Dengue di Provinsi Jawa Timur Tahun 2017. Universitas Airlangga (Tesis).Surabaya

Millenia J.P., 2021, *Robust* Jackknife Ridge Regression Dengan *Estimator Least Trimmed Squares* (LTS) Untuk Mengatasi Masalah Multikolinearitas Dan Pencilan, Yogyakarta: Skripsi,Departemen Matematika FMIPA UGM.

Montgomery, D. C. & Peck, E. A. (1992). Introduction to Linear Regression Analysis, 2 nd Edition. New York : John Wiley & Sons Inc.

Nurbaqorah dkk. (2022). PENDEKATAN REGRESI *ROBUST* DENGAN FUNGSI PEMBOBOT BISQUARE TUKEY PADA ESTIMAsi - M DAN ESTIMASI S

Pangesti dkk. 2020. PEMODELAN REGRESI RIDGE *ROBUST* S,M, MM-ESTIMATOR DALAM PENANGANAN MULTIKOLINIERITAS DAN PENCILAN (Studi Kasus : Faktor-Faktor yang Mempengaruhi Kemiskinan di Jawa Tengah Tahun 2020). Vol 10, No.3, Hal 402-412.

Putri, Y. A., & Anggorowati, M. A. (2017). Metode Penanganan Multikolinearitas Pada RLB: Perbandingan Partial Least Square dengan Ridge Regression. Jurnal Aplikasi Statistika & Komputasi Statistik, 8(2), 47–56.

Rahmawati, Candra. 2015. Regresi Ridge-*Robust* untuk Menangani Multikolinearitas dan Pencilan. Jurnal Jurusan Matematika Fakultas MIPA. Universitas Brawijaya.

Ri[illegible]eph Irawan, dkk.2023. Permalan Curah Hujan menggunakan [illegible] linier berganda IOT.

[illegible]anti. 2023. Statistical Downsclling Model With Principal [illegible]egression and Latent Root Regression to Forecast Rainfall in [illegible]ncy. Vol. 17 No.1 Hal 401-410

Sahriman dkk. 2024. *Rainfall Forecasting of Salt Producing Areas in Pangkep Regency Using Statistical Downscalling Model With Linerized Ridge Rgeression Dummy*. Vol. 18, No.1, Hal. 483-492.

Sahriman, Djuraidah, dan Wigena. 2014. Application of Principal Component Regression with *Dummy* Variabel in Statistical Downscalling to Forecast Rainfall. Open Journal of Statistics, Vol 4, No 678-686. http://dx.doi.org/10.4236/ojs.2014.49063

Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. American Journal of Applied Mathematics and Statistics, 8(2), 39–42. https://doi.org/10.12691/ajams8-2-1

Soemartini. 2007. Pencilan (Pencilan), FMIPA Universitas Padjadjaran. Susanti,Y., Pratiwi H.

Sulistijowati S., & Liana, T. 2014. M Estimation, S Estimation, and MM Estimation In *Robust* Regression. International Journal of Pure and Applied Mathematics. 91(3).

Sutikno. (2008). Statistical Downscaling Luaran GCM dan Pemanfaatannya untuk Peramalan Produksi Padi. In [disertasi]. Bogor: Program Pascasarjana, Institut Pertanian Bogor.

Tinungki, G. M. (2019).ortogonal iteration process of determining K value on estimator of Jackknife ridge regression parameter. Journal of Physics: Conference Series, 1341(9). https://doi.org/10.1088/1742-6596/1341/9/092001

Upa, D. P., Sahriman, S., Thamrin, S. A. (2021). Pemodelan Statistical Downscaling Dengan Regresi Modifikasi Jackknife Ridge *Dummy* Berbasis K-Means Untuk Pendugaan Curah Hujan. Estimasi, 2(1), 19-28.

Winda, Malau. (2021). Penerapan Metode Jackknife Ridge Regression Dalam Kasus Multikolinieritas Pada Indeks Pembangunan Manusia Di Kabupaten/Kota Provinsi Jawa Tengah. Universitas Andalas.

Wirnancy, J. S. (2015). Model Statistical Downscaling dengan Regresi Kuantil Komponen Utama Fungsional untuk Prediksi Curah Hujan Ekstrem [Tesis]. Bogor: Institut Pertanian Bogor.

, V. H. (1999). The analog method as a simple statistical echnique: comparison with more complicated methods. J Clim .

LAMPIRAN

Lampiran 1. Data Curah Hujan dan Presipitasi GCM Tahun 1999−2023

No	Waktu	Y	X_1	X_2	X_3	X_4	⋯	X_{61}	X_{62}	X_{63}	X_{64}
1	Jan-99	1017.50	4.64	6.37	7.57	11.50	⋯	10.16	10.34	10.83	12.13
2	Feb-99	427.00	5.97	7.97	9.63	10.89	⋯	11.57	11.15	11.38	11.78
3	Mar-99	444.00	5.96	6.93	7.62	9.16	⋯	10.36	9.42	8.74	9.32
4	Apr-99	577.00	5.36	6.49	7.19	8.88	⋯	9.78	9.32	8.33	9.07
5	May-99	202.50	4.07	5.20	5.89	8.01	⋯	10.66	8.41	7.36	7.39
6	Jun-99	61.50	2.92	3.76	4.20	6.18	⋯	9.29	8.42	8.04	7.65
7	Jul-99	96.00	1.67	2.21	2.97	4.68	⋯	7.42	8.11	7.46	7.23
8	Aug-99	0.00	1.04	1.43	1.91	3.66	⋯	6.14	7.30	6.72	6.26
9	Sep-99	0.00	0.66	1.27	2.00	3.49	⋯	5.74	6.90	6.46	6.23
10	Oct-99	248.50	0.96	1.65	2.36	3.62	⋯	4.96	5.57	5.91	6.78
11	Nov-99	443.00	1.21	2.38	3.53	5.49	⋯	4.77	5.38	5.35	6.53
12	Dec-99	1019.00	2.68	4.63	5.81	8.75	⋯	7.43	7.71	8.80	10.38
13	Jan-00	714.50	4.21	6.09	7.82	11.11	⋯	9.43	9.62	10.22	11.97
14	Feb-00	792.00	5.68	7.84	9.09	10.79	⋯	10.99	10.46	11.04	11.61
15	Mar-00	421.50	4.67	6.26	7.57	8.59	⋯	9.86	9.20	9.63	9.84
16	Apr-00	159.50	5.46	6.57	6.79	8.45	⋯	9.57	8.53	7.58	7.62
17	May-00	162.00	5.01	6.73	6.67	8.22	⋯	11.01	7.59	6.72	6.22
18	Jun-00	231.50	2.82	3.66	4.41	6.34	⋯	10.20	8.23	6.57	6.60
19	Jul-00	38.50	1.74	2.25	2.80	4.37	⋯	7.57	8.54	8.23	7.63
20	Aug-00	36.50	1.00	1.41	1.91	3.02	⋯	5.92	8.15	7.91	7.50
	⋮	⋮	⋮	⋮	⋮	⋮	⋯		⋮	⋮	⋮
287	Nov-22	563.00	1.53	2.25	3.09	4.90	⋯	5.35	6.02	6.49	7.24
288	Dec-22	649.00	2.18	3.81	5.22	8.77	⋯	7.89	8.60	8.90	10.15
289	Jan-23	839.00	3.63	5.85	8.45	12.00	⋯	10.07	10.24	10.60	11.61
290	Feb-23	778.00	4.98	7.26	8.62	10.22	⋯	10.51	9.94	9.63	10.38
291	Mar-23	288.00	5.17	6.72	8.04	9.73	⋯	10.41	9.61	10.15	10.79
292	Apr-23	378.30	4.59	5.84	6.68	8.35	⋯	9.03	8.96	8.66	8.41
293	May-23	58.70	4.06	4.92	5.54	7.96	⋯	11.33	8.30	7.42	6.98
294	Jun-23	78.30	2.64	3.24	3.70	5.85	⋯	9.83	8.73	7.77	7.10
295	Jul-23	143.30	1.41	1.81	2.24	3.97	⋯	6.38	7.51	7.57	7.36
		00	1.06	1.42	1.83	3.01	⋯	5.61	6.88	7.05	6.91
		00	0.74	1.41	1.91	3.07	⋯	5.59	6.44	6.04	6.70
		70	0.65	1.29	2.13	3.52	⋯	4.58	5.08	5.48	6.34
		30	1.07	2.00	3.14	4.92	⋯	5.13	5.69	5.97	7.34
		00	2.20	3.37	4.97	8.29	⋯	7.58	7.68	8.23	10.12

Lampiran 2. Nilai DFFITS

No	DFIT	No	DFIT	No	DFIT	No	DFIT	No	DFIT	No	DFIT	No	DFIT
1	1.284	43	0.131	85	-0.200	127	-0.220	169	0.183	211	-0.152	253	-0.622
2	-1.587	44	0.101	86	-0.460	128	0.103	170	0.327	212	-0.089	254	-0.471
3	-0.137	45	0.022	87	-0.095	129	-0.070	171	0.092	213	0.064	255	-0.360
4	0.552	46	-0.19	88	0.259	130	-0.230	172	0.525	214	0.266	256	-0.670
5	0.214	47	-1.09	89	-0.123	131	-0.050	173	-0.177	215	-0.440	257	-0.240
6	0.105	48	-0.28	90	0.533	132	-0.280	174	-0.586	216	-0.108	258	-0.289
7	0.134	49	-0.64	91	-0.194	133	1.152	175	-0.044	217	-0.190	259	0.135
8	0.082	50	-0.67	92	-0.093	134	-1.540	176	-0.032	218	0.664	260	0.063
9	-0.002	51	-1.05	93	-0.127	135	-0.550	177	-0.263	219	-0.467	261	-0.335
10	0.256	52	-0.87	94	-0.085	136	0.908	178	-0.083	220	0.138	262	0.041
11	0.318	53	-0.28	95	-0.801	137	0.367	179	-0.045	221	0.204	263	-0.129
12	1.458	54	-0.31	96	-1.479	138	-0.250	180	-0.184	222	0.331	264	1.592
13	-0.051	55	-0.16	97	0.214	139	0.063	181	1.156	223	-0.058	265	-0.077
14	0.423	56	0.181	98	0.027	140	0.219	182	-1.055	224	0.073	266	-0.027
15	0.201	57	0.02	99	0.119	141	0.413	183	0.122	225	0.198	267	0.409
16	-0.426	58	-0.17	100	0.619	142	0.409	184	0.175	226	0.042	268	0.737
17	-0.915	59	-0.1	101	-0.192	143	-0.150	185	-0.372	227	0.322	269	-0.090
18	0.746	60	1.497	102	0.740	144	-1.640	186	-0.405	228	0.466	270	-0.171
19	-0.141	61	-0.56	103	0.156	145	3.144	187	-0.026	229	-0.298	271	0.107
20	0.141	62	1.01	104	0.059	146	0.117	188	-0.073	230	-0.039	272	-0.047
21	-0.153	63	1.025	105	-0.014	147	1.999	189	-0.021	231	0.403	273	0.096
22	0.149	64	-0.96	106	0.075	148	2.530	190	-0.259	232	-0.299	274	0.391
23	0.126	65	-0.55	107	0.110	149	0.255	191	-0.526	233	-0.556	275	0.301
24	-0.607	66	-0.39	108	1.873	150	0.273	192	-0.559	234	-0.102	276	0.695
25	-0.851	67	0.202	109	0.527	151	-0.080	193	0.282	235	-0.063	277	-0.030
26	2.224	68	0.031	110	0.227	152	-0.066	194	0.575	236	-0.059	278	-0.078
27	0.604	69	-0.03	111	0.827	153	-0.319	195	0.167	237	-0.395	279	-0.322
28	-0.361	70	-0.23	112	0.080	154	-0.038	196	0.158	238	-0.017	280	-0.574
29	-0.228	71	-0.35	113	0.107	155	0.446	197	-0.978	239	-0.056	281	0.942
30	0.516	72	-1.81	114	0.053	156	0.197	198	-0.232	240	0.733	282	0.217
31	-0.122	73	0.598	115	-0.131	157	-1.922	199	-0.419	241	-0.726	283	-0.190
32	-0.059	74	-0.05	116	-0.200	158	-0.065	200	-0.014	242	-2.179	284	0.066
33	-0.157	75	0.13	117	-0.280	159	-0.225	201	0.019	243	0.078	285	0.329
34	-0.330	76	0.244	118	0.135	160	0.416	202	-0.098	244	0.076	286	0.622
35	-0.598	77	0.531	119	1.077	161	-0.077	203	-0.282	245	-0.634	287	0.587
36	-1.195	78	-0.27	120	0.919	162	0.233	204	0.288	246	0.272	288	0.092
				121	3.473	163	0.181	205	-0.606	247	-0.133		
				122	0.364	164	0.117	206	0.037	248	0.125		
				123	-1.230	165	-0.038	207	-0.347	249	-0.121		
				124	-0.110	166	0.251	208	-0.448	250	-0.469		
				125	0.510	167	0.378	209	0.191	251	-0.569		
				126	-0.110	168	-0.201	210	0.155	252	-0.743		

Lampiran 3. Nilai *Leverage Value*

No	LV	No	LV	No	LV	No	LV	No	LV	No	LV	No	LV
1	0.339	43	0.117	85	0.341	127	0.205	169	0.373	211	0.172	253	0.311
2	0.379	44	0.153	86	0.307	128	0.110	170	0.322	212	0.103	254	0.406
3	0.249	45	0.090	87	0.221	129	0.079	171	0.241	213	0.087	255	0.231
4	0.316	46	0.085	88	0.278	130	0.133	172	0.255	214	0.097	256	0.340
5	0.238	47	0.175	89	0.322	131	0.135	173	0.250	215	0.196	257	0.324
6	0.247	48	0.256	90	0.304	132	0.256	174	0.201	216	0.246	258	0.235
7	0.143	49	0.361	91	0.131	133	0.322	175	0.132	217	0.323	259	0.173
8	0.143	50	0.369	92	0.121	134	0.442	176	0.093	218	0.431	260	0.107
9	0.123	51	0.347	93	0.128	135	0.220	177	0.167	219	0.314	261	0.153
10	0.107	52	0.353	94	0.141	136	0.305	178	0.125	220	0.328	262	0.145
11	0.199	53	0.249	95	0.215	137	0.286	179	0.140	221	0.232	263	0.147
12	0.275	54	0.217	96	0.212	138	0.194	180	0.258	222	0.195	264	0.291
13	0.351	55	0.158	97	0.247	139	0.142	181	0.420	223	0.126	265	0.337
14	0.276	56	0.150	98	0.370	140	0.091	182	0.307	224	0.144	266	0.373
15	0.254	57	0.104	99	0.348	141	0.070	183	0.373	225	0.145	267	0.304
16	0.264	58	0.108	100	0.236	142	0.151	184	0.290	226	0.115	268	0.318
17	0.398	59	0.157	101	0.261	143	0.153	185	0.201	227	0.245	269	0.302
18	0.280	60	0.198	102	0.212	144	0.233	186	0.163	228	0.170	270	0.180
19	0.151	61	0.386	103	0.189	145	0.309	187	0.147	229	0.358	271	0.127
20	0.124	62	0.299	104	0.126	146	0.482	188	0.096	230	0.321	272	0.124
21	0.127	63	0.320	105	0.108	147	0.324	189	0.115	231	0.240	273	0.107
22	0.120	64	0.335	106	0.144	148	0.257	190	0.094	232	0.348	274	0.131
23	0.143	65	0.332	107	0.139	149	0.309	191	0.228	233	0.209	275	0.143
24	0.300	66	0.188	108	0.263	150	0.163	192	0.249	234	0.252	276	0.402
25	0.247	67	0.123	109	0.376	151	0.143	193	0.387	235	0.162	277	0.335
26	0.372	68	0.124	110	0.386	152	0.141	194	0.339	236	0.090	278	0.302
27	0.289	69	0.145	111	0.327	153	0.127	195	0.296	237	0.140	279	0.267
28	0.233	70	0.092	112	0.217	154	0.128	196	0.244	238	0.171	280	0.297
29	0.287	71	0.143	113	0.323	155	0.086	197	0.313	239	0.145	281	0.283
30	0.215	72	0.222	114	0.223	156	0.240	198	0.243	240	0.250	282	0.172
31	0.158	73	0.394	115	0.163	157	0.352	199	0.213	241	0.323	283	0.211
32	0.076	74	0.263	116	0.130	158	0.315	200	0.104	242	0.389	284	0.117
33	0.133	75	0.339	117	0.130	159	0.327	201	0.106	243	0.281	285	0.180
34	0.124	76	0.250	118	0.070	160	0.309	202	0.101	244	0.292	286	0.093
35	0.146	77	0.299	119	0.167	161	0.286	203	0.131	245	0.247	287	0.162
36	0.297	78	0.141	120	0.266	162	0.223	204	0.227	246	0.217	288	0.235
				121	0.378	163	0.158	205	0.321	247	0.154		
				122	0.298	164	0.117	206	0.455	248	0.111		
				123	0.277	165	0.142	207	0.323	249	0.114		
				124	0.227	166	0.117	208	0.340	250	0.131		
				125	0.262	167	0.158	209	0.310	251	0.145		
				126	0.213	168	0.204	210	0.184	252	0.306		

Lampiran 4. Nilai Variabel *Dummy*

No	Waktu	Y	D1	D2	D3
1	Jan-99	1017.50	0	0	1
2	Feb-99	427.00	0	1	0
3	Mar-99	444.00	0	1	0
4	Apr-99	577.00	0	1	0
5	May-99	202.50	1	0	0
6	Jun-99	61.50	1	0	0
7	Jul-99	96.00	1	0	0
8	Aug-99	0.00	1	0	0
9	Sep-99	0.00	1	0	0
10	Oct-99	248.50	0	1	0
11	Nov-99	443.00	0	1	0
12	Dec-99	1019.00	0	0	1
13	Jan-00	714.50	0	0	1
14	Feb-00	792.00	0	0	1
15	Mar-00	421.50	0	1	0
	⋮	⋮			
281	May-22	374.30	0	1	0
282	Jun-22	228.70	1	0	0
283	Jul-22	87.67	1	0	0
284	Aug-22	42.33	1	0	0
285	Sep-22	148.00	1	0	0
286	Oct-22	524.30	0	1	0
287	Nov-22	563.00	0	1	0
288	Dec-22	649.00	0	0	1

Keterangan:

Kelompok	D1	D2	D3	Keterangan
		0	0	0 – 231.5 mm/bulan
		1	0	231.6 – 607.0 mm/bulan
		0	1	607.0 – 1019.0 mm/bulan
		0	0	1019.0 – 1540.5 mm/bulan

Lampiran 5. Hasil *Transformasi* Metode Pemusatan dan Penskalaan

Waktu	Y^*	$X_1{}^*$	$X_2{}^*$	$X_3{}^*$	$X_4{}^*$	⋯	$X_{60}{}^*$	$X_{61}{}^*$	$X_{62}{}^*$	$X_{63}{}^*$	$X_{64}{}^*$
Jan-99	0.141	0.054	0.058	0.062	0.095	⋯	0.062	0.056	0.086	0.102	0.119
Feb-99	0.025	0.096	0.098	0.110	0.083	⋯	0.083	0.094	0.117	0.122	0.108
Mar-99	0.029	0.095	0.072	0.063	0.048	⋯	0.054	0.062	0.051	0.026	0.029
Apr-99	0.055	0.076	0.061	0.053	0.042	⋯	0.048	0.047	0.047	0.011	0.021
May-99	-0.019	0.036	0.029	0.023	0.024	⋯	0.084	0.070	0.012	-0.024	-0.032
Jun-99	-0.046	0.000	-0.007	-0.016	-0.013	⋯	0.021	0.034	0.012	0.000	-0.024
Jul-99	-0.040	-0.040	-0.046	-0.044	-0.044	⋯	-0.037	-0.016	0.000	-0.021	-0.037
Aug-99	-0.059	-0.060	-0.066	-0.069	-0.064	⋯	-0.069	-0.050	-0.031	-0.048	-0.069
Sep-99	-0.059	-0.072	-0.070	-0.067	-0.068	⋯	-0.068	-0.061	-0.047	-0.057	-0.069
Oct-99	-0.010	-0.062	-0.060	-0.058	-0.065	⋯	-0.069	-0.082	-0.098	-0.077	-0.052
Nov-99	0.029	-0.054	-0.042	-0.031	-0.027	⋯	-0.067	-0.087	-0.105	-0.097	-0.060
Dec-99	0.142	-0.008	0.015	0.021	0.039	⋯	-0.009	-0.016	-0.015	0.028	0.063
Jan-00	0.082	0.040	0.051	0.068	0.087	⋯	0.044	0.037	0.058	0.079	0.114
Feb-00	0.097	0.087	0.095	0.097	0.081	⋯	0.076	0.079	0.091	0.109	0.102
Mar-00	0.024	0.055	0.055	0.062	0.036	⋯	0.046	0.048	0.042	0.058	0.046
⋮	⋮	⋮	⋮	⋮	⋮	⋯		⋮	⋮	⋮	
Nov-21	0.035	-0.048	-0.041	-0.028	-0.025	⋯	-0.065	-0.085	-0.086	-0.049	-0.030
Dec-21	0.082	-0.026	-0.006	0.015	0.043	⋯	-0.015	-0.015	0.000	0.030	0.062
Jan-22	0.088	0.061	0.073	0.077	0.088	⋯	0.059	0.043	0.077	0.094	0.109
Feb-22	0.078	0.085	0.077	0.080	0.064	⋯	0.079	0.057	0.067	0.087	0.090
Mar-22	0.018	0.059	0.048	0.059	0.043	⋯	0.047	0.060	0.054	0.060	0.045
Apr-22	-0.039	0.081	0.074	0.050	0.032	⋯	0.048	0.038	0.008	-0.007	-0.015
May-22	0.015	0.026	0.036	0.025	0.024	⋯	0.088	0.080	0.036	-0.018	-0.041
Jun-22	-0.014	-0.009	-0.020	-0.020	-0.018	⋯	0.015	0.026	0.001	-0.022	-0.037
Jul-22	-0.041	-0.042	-0.050	-0.050	-0.042	⋯	-0.042	-0.034	-0.007	-0.009	-0.030
Aug-22	-0.050	-0.060	-0.068	-0.072	-0.075	⋯	-0.069	-0.062	-0.039	-0.016	-0.040
Sep-22	-0.029	-0.072	-0.076	-0.080	-0.086	⋯	-0.077	-0.086	-0.072	-0.069	-0.077
Oct-22	0.045	-0.066	-0.066	-0.064	-0.069	⋯	-0.077	-0.091	-0.102	-0.093	-0.052
Nov-22	0.052	-0.044	-0.045	-0.041	-0.039	⋯	-0.060	-0.071	-0.081	-0.056	-0.037
Dec-22	0.069	-0.024	-0.006	0.008	0.040	⋯	-0.008	-0.004	0.019	0.031	0.056

Lampiran 6. Nilai Eigen

Simbol	Nilai Eigen
λ_1	46.58096
λ_2	8.62099
λ_3	4.44494
λ_4	1.61772
λ_5	0.87078
λ_6	0.49734
λ_7	0.24513
λ_8	0.18351
λ_9	0.13675
λ_{10}	0.11046
λ_{11}	0.09543
λ_{12}	0.07200
λ_{13}	0.06131
λ_{14}	0.05512
λ_{15}	0.04530
⋮	⋮
λ_{53}	0.00102
λ_{54}	0.00095
λ_{55}	0.00078
λ_{54}	0.00071
λ_{55}	0.00062
λ_{56}	0.00056
λ_{57}	0.00049
λ_{58}	0.00044
λ_{59}	0.00029
λ_{60}	0.00026
λ_{61}	0.00024
λ_{62}	0.00020
λ_{63}	0.00016
λ_{64}	0.00011

Lampiran 7. Vector Eigen

No	P_1	P_2	P_3	P_4	⋯	P_{62}	P_{63}	P_{64}
1	-0.1349	-0.0917	0.0986	-0.0641	⋯	0.0875	0.0786	-0.0680
2	-0.1415	-0.0426	0.0818	-0.0503	⋯	-0.1871	-0.0883	0.0476
3	-0.1436	-0.0034	0.0673	-0.0566	⋯	0.1115	0.0591	-0.0180
4	-0.1436	0.0299	0.0209	0.0736	⋯	-0.0966	-0.1000	-0.0054
5	-0.1312	0.0142	-0.0119	0.2891	⋯	0.0342	0.0240	0.0038
6	-0.1064	0.1046	0.2437	0.1126	⋯	-0.0177	-0.0032	-0.0015
7	-0.0694	0.2304	0.2481	0.0105	⋯	0.0056	-0.0055	0.0102
8	0.0153	0.3128	-0.0620	0.1533	⋯	0.0036	0.0155	-0.0053
9	-0.1406	-0.0510	0.0712	-0.0917	⋯	-0.1194	-0.1437	0.0960
10	-0.1432	-0.0208	0.0662	-0.0644	⋯	0.3057	0.2239	-0.0813
11	-0.1444	-0.0077	0.0567	-0.0462	⋯	-0.2032	-0.0862	0.0258
12	-0.1448	-0.0027	-0.0051	0.0665	⋯	0.1432	0.1308	0.0221
13	-0.1407	-0.0391	0.0008	0.1704	⋯	-0.0535	-0.0316	-0.0074
14	-0.1174	0.0298	0.2406	0.0719	⋯	0.0265	0.0010	-0.0015
15	-0.0525	0.1226	0.3838	0.0395	⋯	-0.0041	0.0023	0.0102
⋮	⋮	⋮	⋮	⋮	⋱	⋮	⋮	⋮
48	-0.0807	0.2151	-0.2428	0.0063	⋯	-0.0060	0.0076	-0.0095
49	-0.1310	0.1192	-0.0115	-0.1998	⋯	0.0604	-0.2207	-0.3111
50	-0.1412	0.0578	0.0303	-0.1398	⋯	0.0010	0.3302	0.4184
51	-0.1434	-0.0273	0.0623	-0.0073	⋯	0.2373	-0.1296	-0.1921
52	-0.1358	-0.1000	0.0242	0.0865	⋯	-0.2130	-0.0725	0.1531
53	-0.1160	-0.1879	-0.0574	0.1104	⋯	0.0297	-0.0233	-0.0266
54	-0.1123	-0.1573	-0.1663	0.0184	⋯	0.0082	0.0056	0.0171
55	-0.1288	0.0014	-0.1976	0.0249	⋯	0.0234	-0.0051	-0.0104
56	-0.1021	0.1595	-0.2424	0.0238	⋯	0.0002	-0.0059	0.0159
57	-0.1274	0.1351	-0.0103	-0.2013	⋯	-0.1275	0.1292	0.1915
58	-0.1388	0.0721	0.0263	-0.1709	⋯	0.1475	-0.1501	-0.2952
59	-0.1423	-0.0333	0.0753	-0.0227	⋯	-0.2273	-0.0037	0.1719
60	-0.1291	-0.1283	0.0577	0.1069	⋯	0.1968	0.0632	-0.1225
61	-0.1233	-0.1645	-0.0113	0.1167	⋯	-0.0497	0.0001	0.0278
		0881	-0.1407	0.0051	⋯	-0.0089	0.0049	-0.0132
		0246	-0.1853	-0.0765	⋯	-0.0064	0.0051	0.0112
		1279	-0.1507	-0.0213	⋯	-0.0079	0.0091	-0.0170

Lampiran 8. Nilai Variabel Prediktor Ortoghonal Z

No	Z_1	Z_2	Z_3	Z_4	⋯	Z_{60}	Z_{62}	Z_{63}	Z_{64}
1	-0.6134	0.2795	-0.0832	0.1294	⋯	0.0004	0.0006	0.0006	-0.0002
2	-0.7052	0.0233	-0.0691	-0.1261	⋯	-0.0004	0.0028	-0.0008	-0.0002
3	-0.4653	-0.0266	0.1511	-0.0359	⋯	0.0005	0.0008	0.0007	0.0017
4	-0.2936	-0.0442	0.1581	0.0796	⋯	0.0006	0.0010	-0.0002	-0.0010
5	-0.1259	-0.2335	0.0935	0.1315	⋯	-0.0003	-0.0009	-0.0010	-0.0006
6	0.1012	-0.2816	-0.0981	0.0028	⋯	0.0005	-0.0004	0.0014	0.0002
7	0.2568	-0.1828	-0.1530	0.0227	⋯	-0.0003	0.0004	0.0005	-0.0002
8	0.4280	-0.1199	-0.0455	-0.0180	⋯	0.0000	0.0005	0.0004	-0.0007
9	0.4910	0.0161	0.0509	-0.0419	⋯	0.0007	0.0000	-0.0002	0.0006
10	0.4766	0.1327	0.1180	-0.0315	⋯	-0.0006	-0.0008	0.0003	-0.0001
11	0.3664	0.1067	0.1670	-0.0601	⋯	-0.0018	0.0002	-0.0001	0.0007
12	-0.1575	0.2322	-0.0366	0.0393	⋯	-0.0009	0.0006	0.0009	0.0002
13	-0.5718	0.2923	-0.0753	0.0882	⋯	-0.0003	-0.0002	0.0014	-0.0010
14	-0.6716	0.0402	-0.0583	-0.1037	⋯	0.0028	0.0013	-0.0009	0.0003
15	-0.3119	-0.1060	0.0913	-0.1152	⋯	0.0000	0.0006	-0.0001	0.0000
⋮	⋮	⋮	⋮	⋮	⋱	⋮	⋮	⋮	⋮
276	-0.1496	0.2008	-0.0306	0.0992	⋯	-0.0019	0.0000	-0.0010	0.0013
277	-0.6280	0.2822	-0.0969	0.0283	⋯	-0.0007	0.0013	0.0009	0.0005
278	-0.5985	0.0438	-0.0657	-0.1444	⋯	0.0002	-0.0013	-0.0001	-0.0006
279	-0.4116	0.0376	0.0307	-0.0151	⋯	0.0010	0.0006	0.0009	0.0000
280	-0.2674	-0.1092	0.2291	-0.0065	⋯	-0.0008	0.0023	-0.0006	0.0008
281	-0.1367	-0.2159	0.1235	0.1586	⋯	-0.0011	0.0008	-0.0004	-0.0011
282	0.1222	-0.3042	-0.1102	0.0082	⋯	0.0003	-0.0002	0.0000	0.0007
283	0.2794	-0.1204	-0.1796	0.0060	⋯	0.0006	0.0006	-0.0002	0.0004
284	0.4605	-0.0170	-0.1402	-0.0712	⋯	0.0005	-0.0003	-0.0008	0.0003
285	0.5710	0.0667	0.0215	-0.0963	⋯	-0.0005	-0.0003	-0.0001	0.0001
286	0.5258	0.2333	0.1648	-0.0096	⋯	-0.0002	0.0001	0.0005	-0.0004
287	0.2832	0.2027	0.1616	0.0471	⋯	0.0005	-0.0007	0.0005	-0.0002
288	-0.1293	0.1097	-0.0364	0.0683	⋯	0.0002	-0.0005	-0.0008	0.0001

Lampiran 9. Nilai Pembobot W_i tanpa *Dummy*

No	W	No	W	No	W	No	W	No	W	No	W	No	W
1	0.48	43	1	85	1	127	1	169	1	211	1	253	0.93
2	0.43	44	1	86	1	128	1	170	1	212	1	254	1
3	1	45	1	87	1	129	1	171	1	213	1	255	1
4	1	46	1	88	1	130	1	172	0.96	214	1	256	0.93
5	1	47	0.37	89	1	131	1	173	1	215	0.97	257	1
6	1	48	1	90	1	132	1	174	0.74	216	1	258	1
7	1	49	1	91	1	133	0.52	175	1	217	1	259	1
8	1	50	0.99	92	1	134	0.5	176	1	218	1	260	1
9	1	51	0.6	93	1	135	0.83	177	1	219	1	261	1
10	1	52	0.74	94	1	136	0.63	178	1	220	1	262	1
11	1	53	1	95	0.57	137	1	179	1	221	1	263	1
12	0.37	54	1	96	0.31	138	1	180	1	222	1	264	0.35
13	1	55	1	97	1	139	1	181	0.64	223	1	265	1
14	1	56	1	98	1	140	1	182	0.55	224	1	266	1
15	1	57	1	99	1	141	0.58	183	1	225	1	267	1
16	1	58	1	100	0.78	142	0.89	184	1	226	1	268	0.8
17	0.77	59	1	101	1	143	1	185	1	227	1	269	1
18	0.72	60	0.29	102	0.61	144	0.3	186	0.94	228	0.84	270	1
19	1	61	1	103	1	145	0.19	187	1	229	1	271	1
20	1	62	0.56	104	1	146	1	188	1	230	1	272	1
21	1	63	0.58	105	1	147	0.3	189	1	231	1	273	1
22	1	64	0.64	106	1	148	0.21	190	1	232	1	274	0.86
23	1	65	1	107	1	149	1	191	0.89	233	0.8	275	1
24	0.93	66	1	108	0.28	150	1	192	0.89	234	1	276	1
25	0.58	67	1	109	1	151	1	193	1	235	1	277	1
26	0.3	68	1	110	1	152	1	194	1	236	1	278	1
27	0.91	69	1	111	0.73	153	1	195	1	237	0.88	279	1
28	1	70	1	112	1	154	1	196	1	238	1	280	0.98
29	1	71	1	113	1	155	0.59	197	0.6	239	1	281	0.58
30	0.88	72	0.26	114	1	156	1	198	1	240	0.68	282	1
31	1	73	1	115	1	157	0.34	199	1	241	0.82	283	1
32	1	74	1	116	1	158	1	200	1	242	0.32	284	1
33	1	75	1	117	1	159	1	201	1	243	1	285	1
34	0.98	76	1	118	1	160	1	202	1	244	1	286	0.45
35	0.6	77	1	119	0.36	161	1	203	1	245	0.78	287	0.65
36	0.47	78	1	120	0.57	162	1	204	1	246	1	288	1
				121	0.2	163	1	205	0.98	247	1		
				122	1	164	1	206	1	248	1		
				123	0.44	165	1	207	1	249	1		
				124	1	166	1	208	1	250	0.72		
				125	1	167	0.99	209	1	251	0.63		
				126	1	168	1	210	1	252	0.77		

Lampiran 10. Nilai Pembobot W_i dengan *Dummy*

No	W	No	W	No	W	No	W	No	W	No	W	No	W
1	0.418	43	1	85	1	127	1	169	1	211	1	253	1
2	1	44	1	86	1	128	1	170	0.625	212	1	254	1
3	1	45	1	87	0.728	129	1	171	1	213	0.906	255	0.713
4	0.631	46	1	88	1	130	1	172	1	214	1	256	0.958
5	1	47	1	89	1	131	1	173	1	215	0.612	257	1
6	1	48	1	90	1	132	1	174	1	216	0.576	258	1
7	1	49	1	91	1	133	1	175	1	217	0.477	259	1
8	1	50	0.884	92	1	134	1	176	1	218	0.565	260	1
9	1	51	1	93	1	135	1	177	1	219	1	261	1
10	1	52	1	94	0.972	136	1	178	1	220	1	262	0.804
11	1	53	1	95	1	137	0.856	179	1	221	1	263	1
12	0.409	54	1	96	1	138	1	180	0.572	222	1	264	0.436
13	0.789	55	1	97	1	139	0.952	181	1	223	1	265	1
14	1	56	1	98	0.9	140	0.987	182	0.804	224	1	266	1
15	1	57	1	99	1	141	1	183	1	225	1	267	1
16	0.853	58	1	100	0.797	142	1	184	0.852	226	0.745	268	1
17	1	59	1	101	1	143	0.986	185	1	227	0.576	269	1
18	0.861	60	0.928	102	1	144	0.999	186	1	228	1	270	1
19	1	61	1	103	1	145	0.499	187	1	229	1	271	1
20	1	62	0.978	104	1	146	1	188	1	230	0.503	272	1
21	1	63	0.847	105	1	147	0.721	189	1	231	0.883	273	1
22	1	64	1	106	0.579	148	0.506	190	1	232	0.647	274	1
23	1	65	1	107	1	149	1	191	1	233	1	275	0.787
24	1	66	1	108	0.397	150	1	192	0.712	234	1	276	1
25	1	67	1	109	1	151	1	193	0.661	235	1	277	0.788
26	0.454	68	1	110	1	152	1	194	0.566	236	1	278	0.443
27	0.967	69	1	111	0.876	153	1	195	0.543	237	1	279	1
28	1	70	1	112	1	154	1	196	0.821	238	1	280	1
29	1	71	1	113	0.963	155	0.541	197	1	239	1	281	1
30	0.739	72	0.612	114	1	156	1	198	1	240	1	282	0.6
31	1	73	1	115	1	157	1	199	1	241	0.35	283	0.78
32	1	74	1	116	1	158	1	200	1	242	0.419	284	1
33	1	75	1	117	1	159	1	201	1	243	1	285	0.673
34	1	76	1	118	1	160	1	202	1	244	0.766	286	0.465
35	0.665	77	0.769	119	1	161	0.948	203	1	245	1	287	0.609
				120	1	162	1	204	1	246	1	288	0.701
				121	0.55	163	1	205	1	247	1		
				122	1	164	1	206	1	248	1		
				123	1	165	1	207	0.569	249	1		
				124	1	166	1	208	1	250	1		
				125	0.835	167	1	209	1	251	1		
			9	126	1	168	1	210	0.866	252	1		

Lampiran 11. Hasil Iterasi *Robust* GM tanpa *Dummy*

Iterasi	Parameter						
	β_0	β_1	β_2	⋯	β_{62}	β_{63}	β_{64}
MKT	9.839 e-018	-0.09499673	0.1490469	⋯	0.05371661	-4.185994	0.2393117
1	0.001114850	-0.09350079	0.14647381	⋯	-0.99607424	-4.8035351	0.49541167
2	-0.00154484	-0.09267011	0.14591147	⋯	-0.67931497	-5.19586407	0.54087466
3	-0.00172265	-0.09221422	0.14563886	⋯	-0.50297123	-5.35994235	0.5830938
4	-0.00177375	-0.09196029	0.14553426	⋯	-0.45840047	-5.410984864	0.558902159
5	-0.00181303	-0.09183000	0.14542139	⋯	-0.41496106	-5.456409744	0.550235485
6	-0.00182886	-0.09175903	0.14535235	⋯	-0.39636474	-5.488439525	0.549451862
7	-0.00183435	-0.09171819	0.14531152	⋯	-0.38942611	-5.507770376	0.550085583
8	-0.00183656	-0.09169427	0.14528576	⋯	-0.38621763	-5.519442120	0.551130659
9	-0.00183707	-0.09167998	0.14527031	⋯	-0.38503156	-5.526365283	0.552006821
10	-0.00183704	-0.09167144	0.14526093	⋯	-0.38457765	-5.530500244	0.552686258
11	-0.00183675	-0.091666263	0.14525565	⋯	-0.38459945	-5.532949639	0.553156046
12	-0.00183636	-0.091663091	0.14525311	⋯	-0.38492115	-5.534395442	0.553440716
13	-0.00183601	-0.091661147	0.14525193	⋯	-0.38528879	-5.535267457	0.553600916
14	-0.00183574	-0.091659967	0.14525131	⋯	-0.38556877	-5.535806455	0.553674509
15	-0.00183553	-0.091659251	0.14525104	⋯	-0.38576929	-5.536139967	0.553702429
16	-0.00183542	-0.091658817	0.14525085	⋯	-0.38590921	-5.536347734	0.553709077
17	-0.00183534	-0.091658553	0.14525076	⋯	-0.38600273	-5.536478660	0.553706553
18	-0.00183524	-0.091658394	0.14525071	⋯	-0.38606265	-5.536561963	0.553700969
19	-0.0018355	-0.091658297	0.14525067	⋯	-0.38609948	-5.536615351	0.553695215
20	-0.00183523	-0.091658239	0.14525064	⋯	-0.38612119	-5.536649727	0.553690437
21	-0.00183522	-0.091658204	0.14525061	⋯	-0.38613342	-5.536671908	0.553686900
22	-0.00183521	-0.091658183	0.14525058	⋯	-0.38613992	-5.536686216	0.553684485
23	-0.00183520	-0.091658170	0.14525056	⋯	-0.38614314	-5.536695426	0.553682942
24	-0.00183520	-0.091658162	0.14525055	⋯	-0.38614456	-5.536701330	0.553682019
25	-0.00183521	-0.091658157	0.14525053	⋯	-0.38614505	-5.536705095	0.553681505
26	-0.00183521	-0.091658154	0.14525052	⋯	-0.38614512	-5.536707481	0.553681245
27	-0.00183521	-0.091658153	0.14525052	⋯	-0.38614501	-5.536708982	0.553681132
28	-0.00183521	-0.091658152	-0.14525052	⋯	-0.38614487	-5.536709920	0.553681098
29	**-0.00183521**	**-0.091658152**	**-0.14525052**	⋯	**-0.38614487**	**-5.536709920**	**0.553681098**

Lampiran 12. Hasil Iterasi *Robust* GM dengan *Dummy*

Iterasi	Parameter							
	β_0	β_1	β_2	⋯	β_{64}	β_{D1}	β_{D2}	β_{D3}
MKT	8.280 e-018	-0.0955667	0.1503957	⋯	1.4464745	-0.0936831	0.9683648	2.1555360
1	-0.0004634	-0.0964715	0.1495397	⋯	1.6062318	-0.6727025	1.6822348	1.9269839
2	-0.0005857	-0.0967200	0.1493849	⋯	1.6793295	-0.754253	1.9747687	1.8146655
3	-0.0006154	-0.0967910	0.1493172	⋯	1.7118731	-0.7662559	2.0905173	1.7861812
4	-0.0006222	-0.0966850	0.1492788	⋯	1.7207369	-0.7723928	2.1343770	1.7642616
5	-0.0006281	-0.0969000	0.1492603	⋯	1.7207369	-0.7763421	2.1532157	1.7541298
6	-0.0006364	-0.0969409	0.1492405	⋯	1.7195131	-0.7793239	2.1639339	1.7466455
7	-0.0006426	-0.0969702	0.1492183	⋯	1.7149537	-0.7799655	2.1693762	1.7422972
8	-0.0006479	-0.0969921	0.1491986	⋯	1.7106254	-0.7794272	2.1725304	1.7400954
9	-0.0006526	-0.0970088	0.1491815	⋯	1.7070199	-0.7784403	2.1746788	1.7387829
10	-0.0006545	-0.0970201	0.1491674	⋯	1.70744066	-0.7772898	2.1752066	1.7385479
11	-0.0006543	-0.0970274	0.1491567	⋯	1.7027707	-0.7763429	2.1746988	1.7389248
12	-0.0006536	-0.0970325	0.1491492	⋯	1.7018042	-0.7757241	2.1741147	1.7393207
13	-0.0006529	-0.0970362	0.1491440	⋯	1.7012406	-0.7753277	2.1736351	1.7396525
14	-0.0006524	-0.0970388	0.1491405	⋯	1.70009128	-0.7750739	2.1732868	1.7399085
15	-0.0006519	-0.0970407	0.1491381	⋯	1.7007220	-0.7749099	2.1730492	1.7400992
16	-0.0006516	-0.0970421	0.1491365	⋯	1.7006105	-0.7748022	2.1728936	1.7402391
17	-0.0006514	-0.0970431	0.1491353	⋯	1.7005451	-0.7747303	2.1727951	1.7403411
18	-0.0006512	-0.0970438	0.1491345	⋯	1.7005066	-0.7746813	2.1727345	1.7404156
19	-0.0006511	-0.0970444	0.1491339	⋯	1.7004840	-0.7746473	2.1726984	1.7404700
20	-0.0006510	-0.0970447	0.1491335	⋯	1.7004707	-0.7746232	2.1726778	1.7405100
21	-0.0006510	-0.0970450	0.1491332	⋯	1.7004629	-0.7746059	2.1726666	1.7405395
22	-0.0006510	-0.0970452	0.1491330	⋯	1.7004584	-0.7745933	2.1726611	1.7405613
23	-0.0006509	-0.0970453	0.1491328	⋯	1.7004559	-0.7745841	2.1726588	1.7405775
24	-0.0006509	-0.0970455	0.1491327	⋯	1.7004545	-0.7745772	2.1726583	1.7405896
25	-0.0006509	-0.0970455	0.1491326	⋯	1.7004537	-0.7745721	2.1726588	1.7405986
26	-0.0006509	-0.0970456	0.1491325	⋯	1.7004534	-0.7745683	2.1726596	1.7406054
27	-0.0006509	-0.0970456	0.1491325	⋯	1.7004533	-0.7745655	2.1726606	1.7406105
28	-0.0006509	-0.0970457	0.1491324	⋯	1.7004533	-0.7745633	2.1726615	1.7406143
29	-0.0006509	-0.0970457	0.1491324	⋯	1.7004534	-0.7745617	2.1726624	1.7406172
30	-0.0006509	-0.0970457	0.1491324	⋯	1.7004535	-0.7745605	2.1726631	1.7406194
31	-0.0006509	-0.0970457	0.1491324	⋯	1.7004536	-0.7745595	2.1726637	1.7406210
32	-0.0006509	-0.0970457	0.1491323	⋯	1.7004537	-0.7745588	2.1726642	1.7406222
33	-0.0006509	-0.0970457	0.1491323	⋯	1.7004538	-0.7745583	2.1726646	1.7406231
34	-0.0006509	-0.0970457	0.1491323	⋯	1.7004539	-0.7745579	2.1726649	1.7406238
35	-0.0006509	-0.0970457	0.1491323	⋯	1.7004539	-0.7745576	2.1726651	1.7406244
36	**-0.0006509**	**-0.0970457**	**0.1491323**	⋯	**1.7004539**	**-0.7745576**	**2.1726651**	**1.7406244**

Lampiran 13. Penduga *Robust Ridge Regression* GM Estimator

β_{RR_1}	-0.8833	$\beta_{RR_{17}}$	-0.5163	$\beta_{RR_{33}}$	1.4412	$\beta_{RR_{49}}$	3.2424
β_{RR_2}	0.0646	$\beta_{RR_{18}}$	0.7373	$\beta_{RR_{34}}$	0.8780	$\beta_{RR_{50}}$	1.4032
β_{RR_3}	2.2405	$\beta_{RR_{19}}$	1.6958	$\beta_{RR_{35}}$	1.4501	$\beta_{RR_{51}}$	0.9382
β_{RR_4}	3.8162	$\beta_{RR_{20}}$	1.5297	$\beta_{RR_{36}}$	0.8735	$\beta_{RR_{52}}$	0.1229
β_{RR_5}	7.9539	$\beta_{RR_{21}}$	0.8485	$\beta_{RR_{37}}$	-2.3782	$\beta_{RR_{53}}$	-2.9710
β_{RR_6}	10.8609	$\beta_{RR_{22}}$	4.0711	$\beta_{RR_{38}}$	-0.0429	$\beta_{RR_{54}}$	-8.0340
β_{RR_7}	7.6544	$\beta_{RR_{23}}$	-5.0659	$\beta_{RR_{39}}$	8.0956	$\beta_{RR_{55}}$	3.8132
β_{RR_8}	14.5988	$\beta_{RR_{24}}$	3.6501	$\beta_{RR_{40}}$	6.6079	$\beta_{RR_{56}}$	10.2376
β_{RR_9}	-0.6933	$\beta_{RR_{25}}$	0.4810	$\beta_{RR_{41}}$	2.4353	$\beta_{RR_{57}}$	3.7124
$\beta_{RR_{10}}$	0.1705	$\beta_{RR_{26}}$	0.2966	$\beta_{RR_{42}}$	1.4913	$\beta_{RR_{58}}$	1.0516
$\beta_{RR_{11}}$	1.8433	$\beta_{RR_{27}}$	1.4819	$\beta_{RR_{43}}$	1.3323	$\beta_{RR_{59}}$	0.0620
$\beta_{RR_{12}}$	1.8726	$\beta_{RR_{28}}$	1.6388	$\beta_{RR_{44}}$	0.4336	$\beta_{RR_{60}}$	0.0913
$\beta_{RR_{13}}$	2.2740	$\beta_{RR_{29}}$	0.9389	$\beta_{RR_{45}}$	-2.2282	$\beta_{RR_{61}}$	-1.0215
$\beta_{RR_{14}}$	2.5685	$\beta_{RR_{30}}$	3.5914	$\beta_{RR_{46}}$	-3.7932	$\beta_{RR_{62}}$	-3.6330
$\beta_{RR_{15}}$	-1.4206	$\beta_{RR_{31}}$	-0.8301	$\beta_{RR_{47}}$	8.5780	$\beta_{RR_{63}}$	-1.7981
$\beta_{RR_{16}}$	6.8789	$\beta_{RR_{32}}$	10.0337	$\beta_{RR_{48}}$	12.1636	$\beta_{RR_{64}}$	4.5534

Lampiran 14. Penduga *Robust Jackknife Ridge Regression* GM Estimator

β_{RJRR_0}	-252.155	$\beta_{RJRR_{17}}$	-90.867	$\beta_{RJRR_{34}}$	-26.634	$\beta_{RJRR_{51}}$	72.815
β_{RJRR_1}	130.627	β_{RJRR18}	127.695	$\beta_{RJRR_{35}}$	-25.506	$\beta_{RJRR_{52}}$	-50.331
β_{RJRR_2}	-71.160	$\beta_{RJRR_{19}}$	0.280	$\beta_{RJRR_{36}}$	-24.904	$\beta_{RJRR_{53}}$	29.525
β_{RJRR_3}	41.189	$\beta_{RJRR_{20}}$	44.803	$\beta_{RJRR_{37}}$	-44.811	$\beta_{RJRR_{54}}$	-76.281
β_{RJRR_4}	17.060	$\beta_{RJRR_{21}}$	-42.790	$\beta_{RJRR_{38}}$	-32.360	$\beta_{RJRR_{55}}$	74.296
β_{RJR_5}	40.146	$\beta_{RJRR_{22}}$	57.050	$\beta_{RJRR_{39}}$	86.920	$\beta_{RJRR_{56}}$	1.367
β_{RJRR_6}	67.089	$\beta_{RJRR_{23}}$	-102.747	$\beta_{RJRR_{40}}$	-91.364	$\beta_{RJRR_{57}}$	34.113
β_{RJRR_7}	-107.287	$\beta_{RJRR_{24}}$	31.828	$\beta_{RJRR_{41}}$	16.358	$\beta_{RJRR_{58}}$	-34.486
β_{RJRR_8}	62.099	$\beta_{RJRR_{25}}$	4.932	$\beta_{RJRR_{42}}$	19.447	$\beta_{RJRR_{59}}$	-48.685
β_{RJRR_9}	21.029	$\beta_{RJRR_{26}}$	-96.837	$\beta_{RJRR_{43}}$	77.407	$\beta_{RJRR_{60}}$	29.670
$\beta_{RJRR_{10}}$	-77.275	$\beta_{RJRR_{27}}$	-32.832	$\beta_{RJRR_{44}}$	-41.979	$\beta_{RJRR_{61}}$	35.181
$\beta_{RJRR_{11}}$	50.096	$\beta_{RJRR_{28}}$	4.260	$\beta_{RJRR_{45}}$	-22.591	$\beta_{RJRR_{62}}$	37.253
$\beta_{RJRR_{12}}$	-30.424	$\beta_{RJRR_{29}}$	35.129	$\beta_{RJRR_{46}}$	37.753	$\beta_{RJRR_{63}}$	-46.628
$\beta_{RJRR_{13}}$	-6.965	$\beta_{RJRR_{30}}$	-12.771	$\beta_{RJRR_{47}}$	-29.688	$\beta_{RJRR_{64}}$	-4.161
$\beta_{RJRR_{14}}$	-100.423	$\beta_{RJRR_{31}}$	-33.983	$\beta_{RJRR_{48}}$	44.926		
$\beta_{RJRR_{15}}$	158.230	$\beta_{RJRR_{32}}$	69.375	$\beta_{RJRR_{49}}$	44.071		
$\beta_{RJRR_{16}}$	-62.182	$\beta_{RJRR_{33}}$	-9.024	$\beta_{RJRR_{50}}$	-9.054		

Lampiran 15. Penduga *Robust Jackknife Ridge Regression* GM Estimator *Dummy*

β_{RJRR_0}	785.58	$\beta_{RJRR_{17}}$	-40.03	$\beta_{RJRR_{34}}$	-44.68	$\beta_{RJRR_{51}}$	99.16
β_{RJRR_1}	10.99	β_{RJRR18}	140.76	$\beta_{RJRR_{35}}$	-46.51	$\beta_{RJRR_{52}}$	-109.68
β_{RJRR_2}	18.45	$\beta_{RJRR_{19}}$	-154.75	$\beta_{RJRR_{36}}$	-58.38	$\beta_{RJRR_{53}}$	30.04
β_{RJRR_3}	3.22	$\beta_{RJRR_{20}}$	82.00	$\beta_{RJRR_{37}}$	-8.53	$\beta_{RJRR_{54}}$	-15.45
β_{RJRR_4}	32.65	$\beta_{RJRR_{21}}$	-35.79	$\beta_{RJRR_{38}}$	-8.10	$\beta_{RJRR_{55}}$	-3.04
β_{RJR_5}	11.59	$\beta_{RJRR_{22}}$	-5.67	$\beta_{RJRR_{39}}$	27.76	$\beta_{RJRR_{56}}$	-73.90
β_{RJRR_6}	-10.51	$\beta_{RJRR_{23}}$	-18.60	$\beta_{RJRR_{40}}$	35.81	$\beta_{RJRR_{57}}$	-40.96
β_{RJRR_7}	-24.11	$\beta_{RJRR_{24}}$	49.28	$\beta_{RJRR_{41}}$	-8.95	$\beta_{RJRR_{58}}$	16.08
β_{RJRR_8}	39.93	$\beta_{RJRR_{25}}$	-71.35	$\beta_{RJRR_{42}}$	64.73	$\beta_{RJRR_{59}}$	-22.99
β_{RJRR_9}	83.42	$\beta_{RJRR_{26}}$	-18.16	$\beta_{RJRR_{43}}$	-29.02	$\beta_{RJRR_{60}}$	26.77
$\beta_{RJRR_{10}}$	-131.66	$\beta_{RJRR_{27}}$	87.98	$\beta_{RJRR_{44}}$	104.95	$\beta_{RJRR_{61}}$	4.60
$\beta_{RJRR_{11}}$	70.51	$\beta_{RJRR_{28}}$	2.79	$\beta_{RJRR_{45}}$	0.39	$\beta_{RJRR_{62}}$	10.27
$\beta_{RJRR_{12}}$	-68.36	$\beta_{RJRR_{29}}$	-22.93	$\beta_{RJRR_{46}}$	-11.57	$\beta_{RJRR_{63}}$	-24.04
$\beta_{RJRR_{13}}$	-18.16	$\beta_{RJRR_{30}}$	42.91	$\beta_{RJRR_{47}}$	22.23	$\beta_{RJRR_{64}}$	46.39
$\beta_{RJRR_{14}}$	7.40	$\beta_{RJRR_{31}}$	3.80	$\beta_{RJRR_{48}}$	13.50	$\beta_{RJRR_{D1}}$	559.56
$\beta_{RJRR_{15}}$	23.16	$\beta_{RJRR_{32}}$	-53.10	$\beta_{RJRR_{49}}$	66.79	$\beta_{RJRR_{D2}}$	-346.67
$\beta_{RJRR_{16}}$	-70.83	$\beta_{RJRR_{33}}$	48.64	$\beta_{RJRR_{50}}$	-87.12	$\beta_{RJRR_{D3}}$	-607.63

Lampiran 16. Pengujian Multikolinearitas dengan estimasi RJRR GM *Dummy*

Prediktor	**VIF**	Prediktor	**VIF**	Prediktor	**VIF**
$\boldsymbol{X_1}$	0.0245	X_{24}	0.1119	X_{47}	0.0401
$\boldsymbol{X_2}$	0.0152	X_{25}	0.0132	X_{48}	0.0429
$\boldsymbol{X_3}$	0.0139	X_{26}	0.0080	X_{49}	0.0207
$\boldsymbol{X_4}$	0.0160	X_{27}	0.0056	X_{50}	0.0116
$\boldsymbol{X_5}$	0.0557	X_{28}	0.0118	X_{51}	0.0117
$\boldsymbol{X_6}$	0.0583	X_{29}	0.0148	X_{52}	0.0199
$\boldsymbol{X_7}$	0.0449	X_{30}	0.0382	X_{53}	0.0260
$\boldsymbol{X_8}$	0.0649	X_{31}	0.1156	X_{54}	0.0517
$\boldsymbol{X_9}$	0.0189	X_{32}	0.0483	X_{55}	0.0393
$\boldsymbol{X_{10}}$	0.0133	X_{33}	0.0150	X_{56}	0.0369
$\boldsymbol{X_{11}}$	0.0102	X_{34}	0.0087	X_{57}	0.0256
$\boldsymbol{X_{12}}$	0.0117	X_{35}	0.0064	X_{58}	0.0148
$\boldsymbol{X_{13}}$	0.0202	X_{36}	0.0120	X_{59}	0.0146
$\boldsymbol{X_{14}}$	0.0458	X_{37}	0.0183	X_{60}	0.0261
$\boldsymbol{X_{15}}$	0.0728	X_{38}	0.0480	X_{61}	0.0277
$\boldsymbol{X_{16}}$	0.0704	X_{39}	0.0389	X_{62}	0.0508
$\boldsymbol{X_{17}}$	0.0144	X_{40}	0.0319	X_{63}	0.0459
$\boldsymbol{X_{18}}$	0.0101	X_{41}	0.0183	X_{64}	0.0342
$\boldsymbol{X_{19}}$	0.0076	X_{42}	0.0092	X_{D1}	0.2454
$\boldsymbol{X_{20}}$	0.0137	X_{43}	0.0070	X_{D2}	0.1897
$\boldsymbol{X_{21}}$	0.0246	X_{44}	0.0160	X_{D3}	0.1462
$\boldsymbol{X_{22}}$	0.1460	X_{45}	0.0296		
$\boldsymbol{X_{23}}$	0.0920	X_{46}	0.0473		

Lampiran 17. Nilai Ui

No	U	No	U	No	U	No	U	No	U	No	U	No	U
1	2.32	43	-0.69	85	-0.85	127	-0.21	169	0.13	211	-0.32	253	0.86
2	-0.94	44	0.10	86	0.36	128	0.05	170	1.55	212	-0.21	254	-0.37
3	0.16	45	-0.27	87	-1.34	129	-0.41	171	-0.03	213	1.07	255	-1.36
4	1.54	46	-0.48	88	-0.78	130	0.04	172	0.44	214	0.62	256	1.01
5	0.81	47	-0.62	89	-0.97	131	-0.81	173	0.42	215	-1.59	257	0.16
6	-0.23	48	0.82	90	-0.73	132	0.95	174	-0.17	216	-1.69	258	-0.42
7	0.56	49	-0.37	91	-0.40	133	0.01	175	0.36	217	2.04	259	0.26
8	-0.30	50	-1.10	92	-0.40	134	-0.93	176	-0.21	218	1.72	260	-0.02
9	-0.15	51	-0.53	93	-0.71	135	-0.02	177	-0.74	219	-0.32	261	-0.37
10	-0.93	52	-0.49	94	-1.00	136	-0.05	178	0.15	220	-0.25	262	1.21
11	0.75	53	0.06	95	-0.65	137	-1.13	179	-0.40	221	0.90	263	-0.51
12	2.38	54	-0.39	96	-0.12	138	0.23	180	1.70	222	0.24	264	2.23
13	-1.23	55	-0.26	97	-0.51	139	1.02	181	0.41	223	0.19	265	0.35
14	0.18	56	0.07	98	1.08	140	0.98	182	-1.21	224	0.41	266	0.57
15	-0.04	57	-0.28	99	0.42	141	0.57	183	-0.58	225	0.06	267	0.78
16	1.14	58	0.02	100	1.22	142	0.53	184	1.14	226	1.31	268	-0.37
17	0.32	59	-0.17	101	-0.87	143	-0.99	185	-0.60	227	1.69	269	-0.13
18	1.13	60	-1.05	102	0.23	144	-0.97	186	-0.57	228	0.88	270	-0.20
19	-0.20	61	0.29	103	0.29	145	1.95	187	-0.23	229	-0.51	271	0.91
20	0.10	62	0.99	104	0.12	146	0.80	188	-0.09	230	-1.93	272	0.77
21	-0.56	63	-1.15	105	-0.14	147	1.35	189	-0.34	231	1.10	273	0.88
22	-0.70	64	0.47	106	1.68	148	1.92	190	-0.94	232	-1.50	274	0.20
23	0.96	65	-0.65	107	-0.54	149	-0.20	191	-0.44	233	-0.41	275	1.23
24	-0.22	66	-0.63	108	-2.45	150	-0.04	192	-1.37	234	0.64	276	-0.08
25	0.95	67	-0.19	109	-0.55	151	-0.59	193	1.47	235	-0.30	277	-1.23
26	2.14	68	0.03	110	-0.82	152	-0.13	194	1.72	236	-0.06	278	-2.20
27	1.01	69	-0.35	111	1.11	153	-0.72	195	1.79	237	-0.30	279	-0.75
28	-0.31	70	-0.36	112	-0.70	154	0.57	196	-1.18	238	-0.05	280	0.58
29	-0.64	71	0.33	113	1.01	155	1.80	197	0.06	239	-0.86	281	-0.04
30	1.32	72	-1.59	114	-0.17	156	0.47	198	-0.86	240	0.74	282	1.62
31	-0.65	73	0.23	115	-0.06	157	-0.86	199	-0.52	241	-2.78	283	1.25
32	-0.53	74	0.37	116	-0.45	158	0.75	200	-0.04	242	-2.32	284	0.48
33	-0.32	75	-0.46	117	-0.40	159	0.85	201	-0.14	243	-0.53	285	1.44
34	-0.53	76	-0.72	118	-0.70	160	-0.85	202	-0.44	244	1.27	286	2.09
35	-1.46	77	1.26	119	0.41	161	-1.03	203	0.19	245	-0.72	287	1.60
			00	120	0.20	162	0.34	204	-0.84	246	0.01	288	-1.39
			12	121	1.77	163	0.32	205	0.58	247	-0.21		
			15	122	-0.30	164	0.02	206	-0.28	248	0.26		
			15	123	-0.46	165	-0.34	207	-1.71	249	-0.04		
			22	124	0.51	166	-0.63	208	0.29	250	-0.77		
			33	125	-1.16	167	0.67	209	-0.06	251	-0.94		
			65	126	-0.18	168	0.15	210	1.12	252	-0.48		

Lampiran 18. Penentuan *Cluster*

Cluster Membership

Case Number	Cluster	Distance
1	3	205.262
2	2	16.775
3	2	33.775
4	2	166.775
5	1	130.660
6	1	10.340
7	1	24.160
8	1	71.840
9	1	71.840
⋮	⋮	⋮
282	1	156.860
283	1	15.830
284	1	29.510
285	1	76.160
286	2	114.075
287	2	152.775
288	3	163.238

Final Cluster Centers

	Cluster			
	1	2	3	4
Y	72	410	812	1375

Distance = Data Y – Final Cluster
Distance 1 = 1017.5 – Cluster 3 = $1017.5 - 812 = 205.5$

Lampiran 19. Riwayat Hidup Penulis

A. DATA PRIBADI

Nama	: Ruslinda
NIM	: H051201045
Tempat, Tanggal Lahir	: Sorowako, 23 Agustus 2001
Agama	: Islam
Jenis Kelamin	: Perempuan
Suku/Bangsa	: Makassar,Padoe/Indonesia
Alamat	: Jl. Perintis Kemerdekaan VI, No.20
E-mail	: ruslindalinda01@gmail.com
No. Handphone	: 082292467733

B. RIWAYAT PENDIDIKAN

1. SDN 256 Dongi (2008-2014)
2. SMPN 1 Nuha (2014-2017)
3. SMAN 11 Luwu Timur (2017-2020)
4. S1 Program Studi Statistika FMIPA Unhas (2020-2024)

C. KARYA ILMIAH YANG TELAH DIPUBLIKASIKAN

Nurhaliza Rais, Maryana Maharani, Rahmat Hermawan, Fadlan Amin, Ahmad Ryan Al Aqsha, Fauziah Nurhidayah, Taufiqurrahman Sadikin, Nahdah Azatil Ismah, **Ruslinda**, Najlah Fauziah, Azalia Filadelfia Pagalo, M. Zaky Hisyam smaulidin, Nur Talitha Putri, Muh. Barakatuh Sophian, & 2024). INOVASI SIPAKAMASETA UNTUK MENDORONG TALISASI DI DESA TAMANNYELENG, KABUPATEN GOWA, ELATAN. *Panrita Abdi - Jurnal Pengabdian Pada*), 593-614. https://doi.org/10.20956/pa.v8i3.33107