

DAFTAR PUSTAKA

- Agustina, M., Abapihi, B., Wibawa, G. N. A., dan Yahya, I. (2022). Pemodelan Faktor-Faktor yang Mempengaruhi Tingkat Pengangguran Terbuka di Indonesia dengan Pendekatan Regresi Spasial. *Prosiding Seminar Nasional Sains dan Terapan (SINTA) VI*, 56, 56–70. <https://www.bps.go.id>
- Ania, S. A., Ilyas, N., dan Herdiani, E. T. (2024). Robust Spatial Temporal Analysis with Improved Geographically and Temporally Weighted Regression Model of Dengue Incidence Rate. *Communications in Mathematical Biology and Neuroscience*, 2024(22), 1–18. <https://doi.org/10.28919/cmbn/8376>
- Arkes, J. (2023). *Regression Analysis* (2 ed.). Routledge.
- Azizah, A. N., dan Ratnasari, V. (2023). Pemodelan Status Ketahanan Pangan Kabupaten/Kota di Provinsi Papua dan Provinsi Papua Barat Menggunakan Regresi Probit Ordinal. *Jurnal Sains dan Seni ITS*, 12(2), 2337–3520.
- Badan Pangan Nasional. (2023). *Indeks Ketahanan Pangan*. <https://badanpangan.go.id/buku-digital>
- Brundson, C., Fotheringham, A. S., dan Charlton, M. E. (1996). *Geographically weighted regression: a method for exploring spatial nonstationarity* (4 ed., Vol. 28). Geogr Anal.
- Chicco, D., Warrens, M. J., dan Jurman, G. (2021). The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. *PeerJ Computer Science*, 7, 1–24. <https://doi.org/10.7717/PEERJ-CS.623>
- Collins, S. M. (2010). *An Application of Geographically Weighted Poisson Regression*. Newfoundland.
- Delsen, M. S. N. Van, Wattimena, A. Z., dan Saputri, S. D. (2017). Penggunaan Metode Analisis Komponen Utama untuk Mereduksi Faktor-Faktor Inflasi di Kota Ambon. *Jurnal Ilmu Matematika dan Terapan*, 11(2), 109–118.
- Djuraidah, A. (2020). *Monograph Penerapan dan Pengembangna Regresi Spasial dengan Studi Kasus Pada Kesehatan, Sosial, dan Ekonomi* (1 ed.). PT Penerbit IPB Press.
- Fu, L., Wang, Q., Li, J., Jin, H., Zhen, Z., dan Wei, Q. (2022). Spatiotemporal Heterogeneity and the Key Influencing Factors of PM2.5 and PM10 in Heilongjiang, China from 2014 to 2018. *International Journal of Environmental Research and Public Health*, 19(18). <https://doi.org/10.3390/ijerph191811627>
- Haining, R., dan Li, G. (2021). Spatial Data and Spatial Statistics. Dalam *Handbook of Regional Science* (hlm. 1961–1983).
- Huang, B., Wu, B., dan Barry, M. (2010). Geographically and temporally weighted regression for modeling spatio-temporal variation in house prices. *International*

- Journal of Geographical Information Science*, 24(3), 383–401.
<https://doi.org/10.1080/13658810802672469>
- Johnson, R. A., dan Wichern, D. W. (2007). *Applied Multivariate Statistical Analysis* (4 ed.). Pearson Prentice Hall.
- Kherif, F., dan Latypova, A. (2019). Principal component analysis. Dalam *Machine Learning: Methods and Applications to Brain Disorders* (hlm. 209–225). Elsevier.
<https://doi.org/10.1016/B978-0-12-815739-8.00012-2>
- Lu, B., Charlton, M., Harris, P., dan Fotheringham, A. S. (2014). Geographically weighted regression with a non-Euclidean distance metric: A case study using hedonic house price data. *International Journal of Geographical Information Science*, 28(4), 660–681. <https://doi.org/10.1080/13658816.2013.865739>
- Ma, X., Zhang, J., Ding, C., dan Wang, Y. (2018). A geographically and temporally weighted regression model to explore the spatiotemporal influence of built environment on transit ridership. *Computers, Environment and Urban Systems*, 70, 113–124. <https://doi.org/10.1016/j.compenvurbsys.2018.03.001>
- Malá, I., Sládek, V., dan Bílková, D. (2021). Power comparisons of normality tests based on I-moments and classical tests. *Mathematics and Statistics*, 9(6), 994–1003.
<https://doi.org/10.13189/ms.2021.090615>
- Mandloi, K. (2018). Role of Correlation in Business and Day to Day Life. *International Journal of Trend in Scientific Research and Development (IJTSRD)*, 2(5), 1106–1111.
- Mikis, D. S., Robert, A. R., Nikolaos, G., dan Fernanda, D. B. (2022). Principal component regression in GAMLSS applied to Greek–German government bond yield spreads. *Statistical Modelling*, 22(1–2), 127–145.
<https://doi.org/10.1177/1471082X211022980>
- Muttaqin, R., Usman, F., dan Subagiyo, A. (2022). Faktor-Faktor yang Mempengaruhi Ketahanan Pangan di Kecamatan Bungah Kabupaten Gresik. *Planning for Urban Region and Environment*, 11(2), 149–160.
- Oktarina, C. R., Rizal, J., Faisal, F., Lioni Tasyah, Q., dan Pratiwi, S. C. (2024). Pemodelan IPM di Provinsi Bengkulu dengan Pendekatan Metode Geographically Weighted Regression dan Geographically Temporally Weighted Regression A B S T R A K INFORMASI ARTIKEL. *Jurnal EurekaMatika*, 12(1), 23–34.
<https://ejournal.upi.edu/index.php/JEM>
- Panda, S., Gaur, G. K., Sahoo, N. R., Bharti, P. K., dan Kar, J. (2020). Principal component analysis of morphometric and growth traits in crossbred piglets. *Indian Journal of Animal Sciences*, 90(8), 1168–1171.
<https://doi.org/10.56093/ijans.v90i8.109303>
- PPK-LIPI. (2012). *Ketahanan Pangan. Seri Penelitian PPK-LIPI No. 56/2012*. Pustlit Kependudukan LIPI.

- Prasetya, A. W. Y. (2024). Analisis Pengaruh Jumlah Penduduk, Ketersediaan Pangan, Konsumsi Pangan, dan Harga Pangan Strategis terhadap Indeks Ketahanan Pangan. *Jurnal Pertahanan dan Bela Negara*, 14(2), 82–102.
- Punggodewi, P., dan Pratiwi, N. (2020). Pemodelan Faktor-Faktor yang Mempengaruhi Indeks Ketahanan Pangan dengan Menggunakan Pendekatan Multivariate Adaptive Regression Spline (MARS). *Jurnal Statistika Industri dan Komputasi*, 5(1), 93–106. <http://bkp.pertanian.go.id>
- Raihan, R. Z., Kastaman, R., dan Tensiska, T. (2020). Menentukan Kondisi Ketahanan Pangan Jawa Barat Wilayah IV Menggunakan Food Security Quotient (FSQ). *Jurnal Ekonomi Pertanian dan Agribisnis*, 4(1), 68–76. <https://doi.org/10.21776/ub.jepa.2020.004.01.7>
- Ramadhani, E., Salwa, N., dan Mazaya, M. S. (2020). Identifikasi Faktor-Faktor yang Memengaruhi Angka Harapan Hidup di Sumatera Tahun 2018 Menggunakan Analisis Regresi Spasial Pendekatan Area. Dalam *Journal of Data Analysis* (Vol. 3, Nomor 2).
- Salasa, A. R. (2021). Paradigma dan Dimensi Strategi Ketahanan Pangan Indonesia Paradigm and Dimensions of Indonesia's Food Security Strategy. *Jejaring Administrasi Publik*, 13(1), 35–48.
- Shrestha, A., dan Luo, W. (2017). Analysis of Groundwater nitrate contamination in the Central valley: Comparison of the Geodetector method, Principal Component Analysis and Geographically Weighted Regression. *ISPRS International Journal of Geo-Information*, 6(10). <https://doi.org/10.3390/ijgi6100297>
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42. <https://doi.org/10.12691/ajams-8-2-1>
- Song, Y., Wang, J., Ge, Y., dan Xu, C. (2020). An optimal parameters-based geographical detector model enhances geographic characteristics of explanatory variables for spatial heterogeneity analysis: cases with different types of spatial data. *GIScience and Remote Sensing*, 57(5), 593–610. <https://doi.org/10.1080/15481603.2020.1760434>
- Sulaiman, M. S., Abood, M. M., Sinnakaudan, S. K., Shukor, M. R., You, G. Q., dan Chung, X. Z. (2021). Assessing and solving multicollinearity in sediment transport prediction models using principal component analysis. *ISH Journal of Hydraulic Engineering*, 27(S1), 343–353. <https://doi.org/10.1080/09715010.2019.1653799>
- Supianti, F. (2023). Poverty Modeling in Indonesia using Geographically and Temporally Weighted Regression (GTWR). *JSDS: Journal of Statistics and Data Science*, 2(2), 62–69. <https://ejournal.unib.ac.id/index.php/jsds/index>
- Wagner, H. H. (2013). Rethinking the linear regression model for spatial ecological data. *Ecological Society of America*.
- Wheeler, D. C. (2021). Geographically Weighted Regression. Dalam *Handbook of Regional Science* (hlm. 1895–1921).

- Yang, Z., Dai, W., Santerre, R., Kuang, C., dan Shi, Q. (2019). A Spatiotemporal Deformation Modelling Method Based on Geographically and Temporally Weighted Regression. *Mathematical Problems in Engineering*, 2019. <https://doi.org/10.1155/2019/4352396>
- Yektiningsih, E. (2018). Analisis Indeks Pembangunan Manusia (IPM) Kabupaten Pacitan Tahun 2018. *Jurnal Ilmiah Sosio Agribisnis*, 18(2), 32–50.
- Yulianti, R. D., dan Ratnasari, V. (2020). Pemodelan Faktor-Faktor yang Memengaruhi Ketahanan Pangan di Indonesia Menurut Kabupaten dan Kota Menggunakan Regresi Probit Ordinal. *Jurnal Sains dan Seni ITS*, 9(2), 2337–3520.
- Yulianto, S., dan Putriana, U. (2019). Analisis Komponen Utama (AKU) untuk Pengelompokan Area Pelayanan dan Jaringan (APJ) Daerah Jawa Tengah dan D.I. Yogyakarta. *Journal of Applied Statistics and Data Mining*, 1(1), 7–11.
- Yusuf, M. A., Herman, H, T., Abraham, A., dan Rukmana, H. (2024). Analisis Regresi Linier Sederhana dan Berganda Beserta Penerapannya. *Journal on Education*, 06(02), 13331–13344.
- Zhu, Z., Li, B., Zhao, Y., Zhao, Z., dan Chen, L. (2021). Socio-economic impact mechanism of ecosystem services value, a pca-gwr approach. *Polish Journal of Environmental Studies*, 30(1), 977–986. <https://doi.org/10.15244/pjoes/120774>
- Zulaika, Cipta, H., dan Siregar, M. A. P. (2024). Pendekatan Regresi Spline Multivariabel untuk Pemodelan Indeks Ketahanan Pangan Provinsi Sumatera Utara. *Proximal: Jurnal Penelitian Matematika dan Pendidikan Matematika*, 7(1), 387–400. <https://doi.org/10.30605/proximal.v5i2.3666>

LAMPIRAN

Lampiran 1. Data

Wilayah	Tahun	Y	x_1	x_2	x_3	x_4	x_5	x_6
Kepulauan Selayar	2021	71.01	67.76	68.52	9060	12.45	34.88	14.03
Bulukumba	2021	82.1	69.62	68.1	10632	7.43	42.97	23.78
Bantaeng	2021	85.41	68.99	70.6	11829	9.41	41.9	9.98
Jeneponto		78.55	64.56	66.49	9215	14.28	43.2	16.24
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Toraja Utara	2022	83.81	82.66	72.13	17097	4.82	12.07	1.36
Kota Makassar	2021	79.8	78.21	71.31	13786	5.4	10.01	10.75
Kota Palopo	2021	75.48	78.38	70.92	13117	8.14	14.47	4.96
Kepulauan Selayar	2022	75.26	68.35	68.81	9446	12.24	38.39	12.58
Bulukumba	2022	82.5	70.34	68.51	10941	7.39	36.84	21.18
Bantaeng	2022	82.77	69.69	70.88	12133	9.07	35.91	23.74
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Toraja Utara	2022	83.86	83.12	72.4	17406	4.58	8.2	1.26
Kota Makassar	2022	79.1	78.54	71.57	14027	5.41	7.33	7.76
Kota Palopo	2022	73.41	78.91	71.18	13404	7.78	14.07	5.02
Kepulauan Selayar	2023	71.87	69.2	69.04	9830	12.27	36.15	10.94
Bulukumba	2023	83.03	71.21	68.84	11392	7.22	35.74	26.9
Bantaeng	2023	85.38	70.57	71.11	12304	9.18	29.36	16.62
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Toraja Utara	2023	89.28	83.52	72.6	17889	5.07	11.3	4.31
Kota Makassar	2023	83.07	79.03	71.78	14495	5.34	10.1	7.01
Kota Palopo	2023	82.93	79.45	71.39	13892	7.69	15.81	4.33

Lampiran 2. Standardisasi Data

Wilayah	Tahun	z_1	z_2	z_3	z_4	z_5	z_6
Kepulauan Selayar	2021	-0.9539	-0.6983	-1.0953	1.1024	0.9349	-0.8657
Bulukumba	2021	-0.4779	-0.9161	-0.3349	-0.6960	1.7535	-0.0490
Bantaeng	2021	-0.6391	0.3803	0.2441	0.0133	1.6452	-1.2049
Jeneponto	2021	-1.7728	-1.7510	-1.0203	1.7580	1.7768	-0.6806
Takalar	2021	-0.9641	-1.3310	-0.3779	-0.4023	-0.0951	-0.6596
Sinjai	2021	-0.3064	0.3025	-0.8805	-0.6566	0.3926	0.3363
Sidenreng Rappang	2021	-0.9564	-1.2895	-0.8800	-0.1909	-0.2175	-0.4770
Bone	2021	-0.2757	-0.4287	-0.1414	0.0706	-0.4452	0.3137
Gowa	2021	-0.5828	-1.6006	0.0942	1.7580	0.3815	-0.3673
Pangkajene dan Kepulauan	2021	-0.0915	-0.4131	-0.1487	-0.2482	0.5211	0.2710
Maros	2021	-1.3019	-1.3776	-1.1098	0.4109	0.4644	-0.9059
Enrekang	2021	-0.6391	-0.0294	-0.8544	-0.6602	-0.0091	1.9270
Barru	2021	-0.4779	-1.2376	0.5711	-1.0435	0.3299	0.4603
Tana Toraja	2021	0.0135	0.0743	0.4240	-1.5523	-0.2965	0.9235
Soppeng	2021	-0.0096	-0.0501	0.3055	-0.2017	0.4847	0.2576
Luwu	2021	0.3641	0.5514	-0.1700	1.1095	2.0965	0.3807
Wajo	2021	-0.1631	0.2973	-0.5845	1.1310	0.3420	0.8506
Kota Pare-Pare	2021	-0.5111	1.8322	-1.8818	1.0379	1.8992	2.9732
Pinrang	2021	-0.3755	-0.6205	0.1991	1.5108	1.4570	1.3256
Luwu Utara	2021	0.4741	0.3958	0.7554	-0.8716	-0.8874	0.3707
Luwu Timur	2021	-0.4446	1.8374	-1.5432	0.9376	1.5198	1.1949
Toraja Utara	2021	2.8592	1.1737	2.7923	-1.6311	-1.3731	-1.9270
Kota Makassar	2021	1.7204	0.7485	1.1907	-1.4233	-1.5815	-1.1404
Kota Palopo	2021	1.7639	0.5462	0.8671	-0.4417	-1.1302	-1.6254

Lampiran 2. Standardisasi Data (Lanjutan)

Wilayah	Tahun	z_1	z_2	z_3	z_4	z_5	z_6
Kepulauan Selayar	2022	-0.8029	-0.5479	-0.9086	1.0271	1.2901	-0.9872
Bulukumba	2022	-0.2936	-0.7035	-0.1854	-0.7104	1.1333	-0.2668
Bantaeng	2022	-0.4600	0.5255	0.3912	-0.1085	1.0392	-0.0524
Jeneponto	2022	-1.6269	-1.5851	-0.9187	1.5609	0.6972	-0.8062
Takalar	2022	-0.8131	-1.1547	-0.2798	-0.4023	-0.3299	0.1788
Sinjai	2022	-0.1273	0.4321	-0.7315	-0.7211	0.1133	0.7593
Sidenreng Rappang	2022	-0.8080	-1.1339	-0.7731	-0.2052	0.0901	-0.1713
Bone	2022	-0.1247	-0.3042	0.0380	0.0205	-1.2152	0.4142
Gowa	2022	-0.4344	-1.4243	0.2383	1.6290	-0.4118	0.2525
Pangkajene dan Kepulauan	2022	0.0109	-0.2679	-0.0239	-0.3485	-0.1042	-0.0490
Maros	2022	-1.1458	-1.1910	-0.9903	0.4324	-0.2904	-0.5859
Enrekang	2022	-0.4574	0.1729	-0.7586	-0.6746	-0.9511	0.3623
Barru	2022	-0.3141	-1.0613	0.6794	-1.0041	0.1700	-0.5432
Tana Toraja	2022	0.1465	0.2817	0.5101	-1.5272	-0.6203	0.3799
Soppeng	2022	0.1235	0.1469	0.3762	-0.2088	-0.5818	-0.0364
Luwu	2022	0.4869	0.6759	-0.0684	1.0809	1.1434	0.6948
Wajo	2022	-0.0326	0.4581	-0.4916	1.1167	0.1477	0.8531
Kota Pare-Pare	2022	-0.4113	1.9982	-1.8093	1.0056	1.2658	2.4446
Pinrang	2022	-0.2501	-0.4339	0.3776	1.3782	1.0715	0.4636
Luwu Utara	2022	0.6225	0.5566	0.8386	-0.9182	-1.0897	0.2425
Luwu Timur	2022	-0.2885	1.9619	-1.3691	0.8158	0.8661	1.0592
Toraja Utara	2022	2.9769	1.3137	2.9418	-1.7171	-1.7646	-1.9354
Kota Makassar	2022	1.8048	0.8833	1.3073	-1.4197	-1.8527	-1.3909
Kota Palopo	2022	1.8995	0.6810	1.0060	-0.5707	-1.1707	-1.6204

Lampiran 2. Standardisasi Data (Lanjutan)

Wilayah	Tahun	z_1	z_2	z_3	z_4	z_5	z_6
Kepulauan Selayar	2023	-0.5854	-0.4287	-0.7228	1.0379	1.0634	-1.1245
Bulukumba	2023	-0.0710	-0.5324	0.0327	-0.7713	1.0220	0.2123
Bantaeng	2023	-0.2348	0.6447	0.4739	-0.0691	0.3764	-0.6487
Jeneponto	2023	-1.4299	-1.4917	-0.7465	1.3209	0.8105	-0.5482
Takalar	2023	-0.6621	-1.0198	-0.0413	-0.3880	-1.1484	-0.6186
Sinjai	2023	0.0211	0.5307	-0.5279	-0.6996	-0.0840	-0.1855
Sidenreng Rappang	2023	-0.6570	-1.0095	-0.5535	-0.2948	-0.7670	0.0674
Bone	2023	0.0365	-0.2161	0.2277	0.0993	-1.4267	0.3908
Gowa	2023	-0.2296	-1.2998	0.4434	1.4427	-0.5059	-0.0038
Pangkajene dan Kepulauan	2023	0.2233	-0.1642	0.1875	-0.3271	0.2388	-0.1143
Maros	2023	-0.9411	-1.0458	-0.7944	0.4145	-0.4654	-0.4176
Enrekang	2023	-0.2322	0.3284	-0.5932	-0.6781	-0.9076	0.3556
Barru	2023	-0.0991	-0.9161	0.9034	-0.9468	0.0526	0.2576
Tana Toraja	2023	0.3129	0.4529	0.6843	-1.5164	-0.9784	0.2810
Soppeng	2023	0.3462	0.3232	0.5972	-0.1694	-0.6779	-0.0289
Luwu	2023	0.6149	0.7640	0.1508	1.1883	0.0283	0.3640
Wajo	2023	0.1721	0.5877	-0.3064	1.1955	0.3137	1.3624
Kota Pare-Pare	2023	-0.1938	2.1382	-1.5998	1.1131	-0.0921	2.4212
Pinrang	2023	-0.0377	-0.2627	0.5750	1.1776	-0.8418	0.0532
Luwu Utara	2023	0.7326	0.6862	1.0287	-0.8752	-1.4125	0.0348
Luwu Timur	2023	-0.0659	2.0552	-1.1867	0.9841	0.8115	1.3599
Toraja Utara	2023	3.0793	1.4174	3.1754	-1.5415	-1.4510	-1.6799
Kota Makassar	2023	1.9302	0.9922	1.5337	-1.4448	-1.5724	-1.4537
Kota Palopo	2023	2.0377	0.7899	1.2420	-0.6029	-0.9946	-1.6782

Lampiran 3. Nilai Komponen Utama

Wilayah	Tahun	C_1	C_2	C_3	C_4	C_5	C_6
Kepulauan Selayar	2021	-1.7220	1.0793	0.8212	0.0818	-0.7888	0.0504
Bulukumba	2021	-1.0142	0.7170	0.0099	1.7059	0.3923	0.3673
Bantaeng	2021	-0.4533	0.4323	1.2630	1.4396	-0.3908	-0.7476
Jeneponto	2021	-2.9733	1.9654	1.0939	0.2070	-0.0862	-0.0991
Takalar	2021	-0.4601	1.6423	-0.6225	0.2598	-0.2900	-0.0415
Sinjai	2021	-0.5447	-0.4448	-0.6300	0.7004	-0.4953	0.1780
Sidenreng Rappang	2021	-0.7960	1.4629	-0.7461	0.0009	-0.5439	0.1932
Bone	2021	-0.2188	0.2616	-0.5097	-0.4338	0.1263	0.0343
Gowa	2021	-1.2995	1.5681	0.9701	-0.9065	0.6014	0.0960
Pangkajene dan Kepulauan	2021	-0.4021	0.1500	-0.1778	0.4772	0.3083	0.2629
Maros	2021	-1.5057	1.7752	-0.0405	0.1767	-0.7575	0.0680
Enrekang	2021	-1.1030	-0.9183	-1.7208	0.1622	0.4520	0.1920
Barru	2021	-0.0175	0.9027	-0.9424	0.8070	1.0683	0.0049
Tana Toraja	2021	0.7091	-0.4711	-1.4000	0.6780	0.6200	-0.0823
Soppeng	2021	-0.0728	-0.1000	0.0425	0.4461	0.4674	-0.0575
Luwu	2021	-1.3217	-0.9358	1.6505	0.7473	0.4943	0.2956
Wajo	2021	-1.2305	-0.7510	0.3176	-0.6059	0.1352	0.1093
Kota Pare-Pare	2021	-3.1332	-3.2558	-0.1464	0.3780	0.2378	0.2131
Pinrang	2021	-1.9053	-0.2406	0.7989	-0.1643	1.5391	0.0775
Luwu Utara	2021	1.3104	-0.4828	-0.7150	-0.1195	0.3600	-0.1768
Luwu Timur	2021	-2.1326	-2.2505	0.5499	0.4416	-0.6677	-0.1259
Toraja Utara	2021	4.9301	-0.2571	1.0505	0.3152	0.1797	0.0300
Kota Makassar	2021	3.2397	-0.1842	-0.1085	-0.0712	-0.4236	0.1990
Kota Palopo	2021	2.6148	0.1407	0.8273	-0.3376	-0.6692	0.4156

Lampiran 3. Nilai Komponen Utama (Lanjutan)

Wilayah	Tahun	C_1	C_2	C_3	C_4	C_5	C_6
Kepulauan Selayar	2022	-1.6119	0.9782	1.1168	0.4118	-0.7011	0.0299
Bulukumba	2022	-0.4634	0.6805	-0.0519	1.3029	0.1623	0.2669
Bantaeng	2022	-0.3332	-0.2910	0.4874	0.9026	0.2021	-0.6680
Jeneponto	2022	-2.2262	1.9596	0.6317	-0.4248	-0.3973	-0.2062
Takalar	2022	-0.4824	1.0369	-1.0193	-0.0359	0.1638	0.0202
Sinjai	2022	-0.3511	-0.7872	-0.8806	0.4746	-0.2450	0.2096
Sidenreng Rappang	2022	-0.8728	1.1217	-0.6537	0.1901	-0.2673	0.2471
Bone	2022	0.2904	0.1465	-0.8310	-0.9749	0.0964	-0.0458
Gowa	2022	-0.9292	1.1315	0.3475	-1.4890	0.8217	0.0676
Pangkajene dan Kepulauan	2022	0.1569	0.2437	-0.2910	0.1431	0.0111	0.1339
Maros	2022	-1.1229	1.4828	-0.4147	-0.4311	-0.7133	0.0170
Enrekang	2022	0.0053	-0.1981	-1.3187	-0.2684	-0.6726	-0.0529
Barru	2022	0.5334	1.2847	-0.4138	0.8227	0.4698	-0.1233
Tana Toraja	2022	1.1642	-0.3429	-1.1802	0.5169	0.2229	-0.1994
Soppeng	2022	0.6278	-0.0425	-0.2243	-0.2733	0.0399	-0.1980
Luwu	2022	-0.8652	-1.1528	1.1300	0.0267	0.4947	0.2391
Wajo	2022	-1.0024	-0.8898	0.3106	-0.7339	0.1069	0.0786
Kota Pare-Pare	2022	-2.5540	-3.0707	-0.1338	0.0262	-0.2216	0.0728
Pinrang	2022	-1.2124	0.0948	1.0581	-0.2171	0.9986	-0.1144
Luwu Utara	2022	1.6030	-0.5558	-0.6812	-0.2130	0.2467	-0.2027
Luwu Timur	2022	-1.5657	-2.2478	0.3492	0.0686	-0.8177	-0.2117
Toraja Utara	2022	5.2966	-0.3480	0.9189	0.0926	0.1394	-0.0443
Kota Makassar	2022	3.5624	-0.1448	-0.0356	-0.2269	-0.5960	0.0980
Kota Palopo	2022	2.8443	0.0140	0.8281	-0.2798	-0.6283	0.3957

Lampiran 3. Nilai Komponen Utama (Lanjutan)

Wilayah	Tahun	C_1	C_2	C_3	C_4	C_5	C_6
Kepulauan Selayar	2023	-1.2516	0.9348	1.2175	0.2581	-0.7294	0.0169
Bulukumba	2023	-0.3003	0.2573	-0.2104	1.1891	0.5189	0.3001
Bantaeng	2023	0.3101	-0.0657	0.5951	0.4820	-0.2596	-0.7130
Jeneponto	2023	-2.0610	1.7045	0.5373	-0.2267	-0.1358	-0.1332
Takalar	2023	0.3500	1.4084	-0.8882	-0.5156	-0.3640	-0.1975
Sinjai	2023	0.2309	-0.3587	-0.4039	0.4622	-0.7276	0.0594
Sidenreng Rappang	2023	-0.3347	0.9434	-1.0945	-0.4093	-0.2120	0.1566
Bone	2023	0.5463	0.0799	-0.7573	-1.1791	0.1510	-0.0794
Gowa	2023	-0.4999	1.1468	0.4460	-1.3962	0.7492	0.0411
Pangkajene dan Kepulauan	2023	0.2475	0.1334	0.0487	0.3850	0.1772	0.1673
Maros	2023	-0.8714	1.2549	-0.4472	-0.5729	-0.5573	0.0174
Enrekang	2023	0.2101	-0.3655	-1.1582	-0.2344	-0.5906	-0.0273
Barru	2023	0.5372	0.7092	-0.6587	0.5753	1.0349	-0.0592
Tana Toraja	2023	1.5468	-0.4243	-1.1679	0.2680	0.1539	-0.2738
Soppeng	2023	0.9007	-0.2171	-0.0925	-0.3695	0.1304	-0.2228
Luwu	2023	-0.1264	-0.9712	0.9422	-0.8042	0.1822	0.0537
Wajo	2023	-1.0616	-1.3189	0.3310	-0.7453	0.5457	0.1524
Kota Pare-Pare	2023	-1.7630	-3.1034	-0.5425	-1.0305	-0.4246	-0.0500
Pinrang	2023	0.0763	0.2948	0.3847	-1.4119	0.4008	-0.3233
Luwu Utara	2023	1.9659	-0.5316	-0.6033	-0.4401	0.1441	-0.3201
Luwu Timur	2023	-1.4960	-2.5252	0.4178	-0.1341	-0.5309	-0.1536
Toraja Utara	2023	5.1854	-0.5985	1.1604	0.1683	0.4997	-0.0795
Kota Makassar	2023	3.6647	-0.2288	0.2225	0.0054	-0.4481	0.0537
Kota Palopo	2023	3.0046	-0.0672	1.0375	-0.1201	-0.4936	0.3482

Lampiran 4. Parameter Model GTWR

Wilayah	Tahun	Intersep	β_1	β_2	β_3	β_4	β_5	β_6
Kepulauan Selayar	2021	0.0031	0.1254	0.1410	0.0023	-0.0833	0.7549	0.5124
Bulukumba	2021	0.0071	0.4532	0.4997	0.0011	0.1219	0.0481	0.0517
Bantaeng	2021	0.0094	0.6935	0.5736	-0.0002	-0.0003	0.0232	-0.1936
Jeneponto	2021	0.0106	0.6371	0.6680	-0.0006	-0.0077	-0.0045	-0.0308
Takalar	2021	0.0172	0.7313	0.9551	-0.0033	0.7071	-0.1160	-0.0433
Sinjai	2021	0.0083	0.5854	0.6597	0.0000	0.0449	-0.0078	-0.1808
Sidenreng Rappang	2021	0.0116	0.6483	0.6894	0.0002	-0.4982	-0.0798	-0.2081
Bone	2021	0.0089	0.5860	0.6486	0.0002	-0.1216	-0.0356	-0.1747
Gowa	2021	0.0172	0.6736	0.8722	-0.0027	0.9431	-0.0783	-0.0898
Pangkajene dan Kepulauan	2021	0.0180	0.4546	0.7335	-0.0007	1.2936	0.0778	-0.3516
Maros	2021	0.0189	0.5937	0.8460	-0.0020	1.1770	-0.0677	-0.2342
Enrekang	2021	0.0106	0.6697	0.7209	-0.0006	-0.2658	-0.1526	-0.0841
Barru	2021	0.0074	0.5021	0.5451	0.0011	0.1490	0.0592	-0.2032
Tana Toraja	2021	0.0086	0.4387	0.6044	0.0005	-0.0618	-0.4119	0.4298
Soppeng	2021	0.0099	0.5861	0.6388	0.0004	0.1013	-0.0645	-0.2455
Luwu	2021	0.0049	0.2887	0.3404	0.0021	0.1272	-0.0374	0.3404
Wajo	2021	0.0103	0.5965	0.6608	0.0002	0.0594	-0.1205	-0.1912
Kota Pare-Pare	2021	0.0108	0.6349	0.6783	0.0003	-0.4372	-0.0698	-0.2311
Pinrang	2021	0.0108	0.6448	0.6628	0.0003	-0.5407	-0.0656	-0.1920
Luwu Utara	2021	0.0055	0.2423	0.3708	0.0024	0.0372	-0.2025	0.5237
Luwu Timur	2021	0.0068	0.4179	0.5555	0.0009	0.0766	-0.1219	0.1133
Toraja Utara	2021	0.0071	0.3355	0.4846	0.0014	-0.0328	-0.2721	0.5069
Kota Makassar	2021	0.0174	0.6343	0.8545	-0.0024	1.0028	-0.0356	-0.1226
Kota Palopo	2021	0.0050	0.2148	0.3233	0.0026	0.0200	-0.0790	0.5150

Lampiran 4. Parameter Model GTWR (Lanjutan)

Wilayah	Tahun	Intersep	β_1	β_2	β_3	β_4	β_5	β_6
Kepulauan Selayar	2022	0.0033	0.1193	0.1548	0.0018	-0.0921	0.8487	0.5707
Bulukumba	2022	0.0072	0.4610	0.5122	0.0011	0.1206	0.0373	0.0365
Bantaeng	2022	0.0095	0.7089	0.5688	-0.0002	0.0026	0.0123	-0.1994
Jeneponto	2022	0.0106	0.6338	0.6657	-0.0006	-0.0002	0.0015	-0.0250
Takalar	2022	0.0187	0.7153	0.9952	-0.0034	0.8360	-0.1979	-0.0459
Sinjai	2022	0.0082	0.5939	0.6565	0.0000	0.0321	-0.0143	-0.1939
Sidenreng Rappang	2022	0.0116	0.6529	0.6856	0.0002	-0.5103	-0.0773	-0.2085
Bone	2022	0.0088	0.5738	0.6368	0.0004	-0.1200	-0.0278	-0.1760
Gowa	2022	0.0173	0.6717	0.8727	-0.0027	0.9438	-0.0799	-0.0983
Pangkajene dan Kepulauan	2022	0.0184	0.4645	0.7365	-0.0008	1.3187	0.0707	-0.3405
Maros	2022	0.0194	0.6002	0.8645	-0.0022	1.2032	-0.1046	-0.2154
Enrekang	2022	0.0107	0.6757	0.7303	-0.0006	-0.2606	-0.1550	-0.0975
Barru	2022	0.0077	0.5099	0.5564	0.0010	0.1414	0.0594	-0.2162
Tana Toraja	2022	0.0085	0.4216	0.5982	0.0006	-0.0718	-0.4149	0.4557
Soppeng	2022	0.0099	0.5838	0.6389	0.0004	0.0940	-0.0656	-0.2425
Luwu	2022	0.0052	0.3108	0.3639	0.0020	0.1438	-0.0756	0.3286
Wajo	2022	0.0103	0.5924	0.6643	0.0002	0.0516	-0.1198	-0.1915
Kota Pare-Pare	2022	0.0109	0.6392	0.6786	0.0003	-0.4566	-0.0592	-0.2340
Pinrang	2022	0.0111	0.6551	0.6615	0.0003	-0.5533	-0.0570	-0.2009
Luwu Utara	2022	0.0055	0.2424	0.3740	0.0024	0.0398	-0.2162	0.5217
Luwu Timur	2022	0.0068	0.4194	0.5593	0.0009	0.0753	-0.1227	0.1082
Toraja Utara	2022	0.0069	0.3123	0.4638	0.0016	-0.0388	-0.2187	0.5175
Kota Makassar	2022	0.0172	0.6270	0.8379	-0.0023	0.9880	-0.0154	-0.1234
Kota Palopo	2022	0.0044	0.1865	0.2904	0.0029	0.0238	-0.0259	0.5019

Lampiran 4. Parameter Model GTWR (Lanjutan)

Wilayah	Tahun	Intersep	β_1	β_2	β_3	β_4	β_5	β_6
Kepulauan Selayar	2023	0.0039	0.1459	0.1910	0.0016	-0.0828	0.7734	0.6189
Bulukumba	2023	0.0073	0.4627	0.5229	0.0010	0.1222	0.0239	0.0291
Bantaeng	2023	0.0095	0.6915	0.5745	-0.0001	0.0202	0.0051	-0.1888
Jeneponto	2023	0.0106	0.6355	0.6619	-0.0006	0.0052	0.0059	-0.0200
Takalar	2023	0.0203	0.6992	1.0452	-0.0035	0.8999	-0.2776	-0.0272
Sinjai	2023	0.0080	0.5991	0.6533	0.0001	0.0174	-0.0208	-0.1936
Sidenreng Rappang	2023	0.0117	0.6568	0.6862	0.0002	-0.5123	-0.0773	-0.2103
Bone	2023	0.0089	0.5759	0.6383	0.0004	-0.1162	-0.0480	-0.1717
Gowa	2023	0.0177	0.6624	0.8724	-0.0026	1.0012	-0.1141	-0.0911
Pangkajene dan Kepulauan	2023	0.0187	0.4810	0.7506	-0.0009	1.3071	0.0325	-0.3079
Maros	2023	0.0199	0.6236	0.8891	-0.0024	1.2145	-0.1514	-0.1914
Enrekang	2023	0.0107	0.6826	0.7346	-0.0007	-0.2646	-0.1549	-0.1066
Barru	2023	0.0078	0.5113	0.5567	0.0010	0.1403	0.0445	-0.2058
Tana Toraja	2023	0.0084	0.4069	0.5900	0.0008	-0.0776	-0.4201	0.4715
Soppeng	2023	0.0099	0.5845	0.6401	0.0004	0.0878	-0.0774	-0.2397
Luwu	2023	0.0053	0.3043	0.3686	0.0020	0.1587	-0.1163	0.3728
Wajo	2023	0.0104	0.5912	0.6737	0.0002	0.0298	-0.1198	-0.1895
Kota Pare-Pare	2023	0.0110	0.6435	0.6775	0.0003	-0.4686	-0.0511	-0.2369
Pinrang	2023	0.0111	0.6622	0.6645	0.0002	-0.5543	-0.0546	-0.2064
Luwu Utara	2023	0.0057	0.2444	0.3823	0.0023	0.0456	-0.2351	0.5233
Luwu Timur	2023	0.0068	0.4192	0.5590	0.0009	0.0745	-0.1215	0.1073
Toraja Utara	2023	0.0068	0.2941	0.4538	0.0017	-0.0583	-0.2278	0.5310
Kota Makassar	2023	0.0173	0.6250	0.8331	-0.0022	1.0062	-0.0318	-0.1473
Kota Palopo	2023	0.0048	0.2254	0.3165	0.0026	0.0361	-0.0191	0.4361

Lampiran 5. Hasil Uji Parsial Model GTWR

Wilayah	Tahun	$t_{hit\beta_0}$	$t_{hit\beta_1}$	$t_{hit\beta_2}$	$t_{hit\beta_3}$	$t_{hit\beta_4}$	$t_{hit\beta_5}$	$t_{hit\beta_6}$	Variabel Signifikan
Kepulauan Selayar	2021	1.1619	0.7920	0.7787	1.0648	-1.0949	1.6150	1.9511	Tidak Ada
Bulukumba	2021	7.9981	9.0387	7.1186	1.5476	3.3110	0.3484	0.4708	X1, X2, X4
Bantaeng	2021	7.3723	4.2499	8.7345	-0.2006	-0.0013	0.2210	-1.1556	X1, X2
Jeneponto	2021	6.7865	10.2781	10.9671	-1.1585	-0.0379	-0.0391	-0.2836	X1, X2
Takalar	2021	12.1827	12.6254	13.1507	-5.0699	2.4482	-0.8952	-0.3539	X1, X2, X3, X4
Sinjai	2021	6.5517	6.5130	6.2656	0.0157	4.1925	-0.0898	-1.0149	X1, X2, X4
Sidenreng Rappang	2021	11.6792	14.2904	15.0993	0.4185	-2.2297	-0.9611	-2.5387	X1, X2, X4, X6
Bone	2021	7.8409	7.5899	7.7724	0.2688	-4.4922	-0.2275	-1.9106	X1, X2, X4
Gowa	2021	13.7551	12.2087	13.4816	-4.5264	4.2854	-0.6504	-0.8418	X1, X2, X3, X4
Pangkajene dan Kepulauan	2021	12.6107	8.8432	16.1406	-1.5620	5.9189	0.7932	-4.3041	X1, X2, X4, X6
Maros	2021	13.3541	11.0184	15.3844	-3.9053	5.6765	-0.6116	-2.3294	X1, X2, X3, X4, X6
Enrekang	2021	14.1206	13.8356	14.8052	-1.4332	-1.0622	-1.6493	-0.9676	X1, X2
Barru	2021	9.9748	10.6444	11.0927	2.2985	10.6339	0.7183	-2.3133	X1, X2, X3, X4, X6
Tana Toraja	2021	9.5254	7.0267	8.9974	0.9799	-1.7143	-3.2779	5.3309	X1, X2, X5, X6
Soppeng	2021	14.1072	12.8919	13.2517	0.9485	9.5779	-0.4651	-3.8583	X1, X2, X4, X6
Luwu	2021	5.8347	4.7366	5.9338	4.0213	7.0559	-0.3125	3.0856	X1, X2, X3, X4, X6
Wajo	2021	9.0613	10.1404	10.2835	0.3102	8.3802	-1.3718	-1.9544	X1, X2, X4
Kota Pare-Pare	2021	12.4286	15.0339	15.9744	0.7757	-1.8203	-0.7773	-3.1257	X1, X2, X6
Pinrang	2021	11.4972	13.6083	14.0365	0.7614	-2.2364	-0.7347	-2.4680	X1, X2, X4, X6
Luwu Utara	2021	4.5110	3.0141	4.3822	3.4483	2.6616	-1.1339	7.2022	X1, X2, X3, X4, X6
Luwu Timur	2021	1.0851	1.2395	1.1677	0.2933	1.6390	-0.2565	0.1990	Tidak Ada
Toraja Utara	2021	7.6411	6.0035	7.2589	2.8459	-0.8575	-1.5136	6.4120	Tidak Ada
Kota Makassar	2021	13.2252	11.6070	13.8929	-4.2660	4.5786	-0.3038	-1.1935	X1, X2, X4
Kota Palopo	2021	5.1213	3.2202	5.1636	4.4416	1.4678	-0.9973	9.0062	X1, X2

Lampiran 5. Hasil Uji Parsial Model GTWR (Lanjutan)

Wilayah	Tahun	$t_{hit}\beta_0$	$t_{hit}\beta_1$	$t_{hit}\beta_2$	$t_{hit}\beta_3$	$t_{hit}\beta_4$	$t_{hit}\beta_5$	$t_{hit}\beta_6$	Variabel Signifikan
Kepulauan Selayar	2022	1.2952	0.7685	0.9013	0.8233	-1.1403	1.6194	2.0574	X6
Bulukumba	2022	6.8907	8.0791	6.3338	1.3380	3.0398	0.3056	0.2899	X1, X2, X4
Bantaeng	2022	7.5649	3.8987	8.3812	-0.2172	0.0094	0.1026	-1.1333	X1, X2
Jeneponto	2022	6.1074	9.8512	10.0739	-1.1026	-0.0007	0.0136	-0.1978	X1, X2
Takalar	2022	9.8810	11.5489	11.9186	-4.7127	2.6982	-1.4432	-0.3518	X1, X2, X3, X4
Sinjai	2022	7.0721	6.7704	6.6121	0.0452	4.5463	-0.1555	-0.9936	X1, X2, X4
Sidenreng Rappang	2022	11.7461	14.6477	15.8415	0.4391	-2.2469	-0.8637	-2.6280	X1, X2, X4, X6
Bone	2022	6.9382	6.8115	6.9411	0.4044	-4.2450	-0.1875	-1.9647	X1, X2, X4
Gowa	2022	13.4638	12.7902	14.1391	-4.6734	4.3022	-0.6829	-0.9365	X1, X2, X3, X4
Pangkajene dan Kepulauan	2022	13.0941	8.6444	15.6067	-1.7104	6.1640	0.7190	-4.2075	X1, X2, X4, X6
Maros	2022	13.0026	10.5503	14.4665	-3.8425	5.8231	-0.9526	-2.3410	X1, X2, X3, X4, X6
Enrekang	2022	13.6299	13.2857	14.4273	-1.5075	-1.0800	-1.6318	-1.1917	X1, X2
Barru	2022	10.4190	12.0133	12.2913	2.2796	12.5622	0.6271	-2.2700	X1, X2, X3, X4, X6
Tana Toraja	2022	9.8276	7.4862	9.2856	1.3090	-1.7854	-2.9435	6.0000	X1, X2, X5, X6
Soppeng	2022	13.7747	13.4758	13.7848	1.0153	11.4096	-0.5126	-3.7239	X1, X2, X4, X6
Luwu	2022	5.2035	4.2813	5.2973	3.0525	6.0279	-0.6303	2.9067	X1, X2, X3, X4, X6
Wajo	2022	7.8834	8.8636	8.9250	0.3017	8.4316	-1.4846	-1.6955	X1, X2, X4
Kota Pare-Pare	2022	12.3073	14.8431	15.8137	0.6717	-1.9357	-0.6356	-3.0614	X1, X2, X6
Pinrang	2022	11.8942	14.4183	15.1814	0.7084	-2.1782	-0.5966	-2.5582	X1, X2, X4, X6
Luwu Utara	2022	4.6658	3.2615	4.5559	3.6740	2.8344	-1.1518	7.5707	X1, X2, X3, X4, X6
Luwu Timur	2022	1.0758	1.2365	1.1599	0.2847	1.5581	-0.2579	0.1877	Tidak Ada
Toraja Utara	2022	6.3648	4.9403	6.0693	2.8341	-0.9599	-1.1510	7.0280	X1, X2, X3, X6
Kota Makassar	2022	12.5553	11.3602	13.2326	-3.9731	4.5810	-0.1265	-1.1990	X1, X2, X3, X4
Kota Palopo	2022	4.6505	2.9135	4.7135	5.0986	1.8207	-0.3032	8.8420	X1, X2, X3, X6

Lampiran 5. Hasil Uji Parsial Model GTWR (Lanjutan)

Wilayah	Tahun	$t_{hit}\beta_0$	$t_{hit}\beta_1$	$t_{hit}\beta_2$	$t_{hit}\beta_3$	$t_{hit}\beta_4$	$t_{hit}\beta_5$	$t_{hit}\beta_6$	Variabel Signifikan
Kepulauan Selayar	2023	1.7632	1.0736	1.2687	0.7043	-1.1041	1.6427	2.1398	X6
Bulukumba	2023	6.1815	7.4560	5.6827	1.2044	2.7846	0.2215	0.2124	X1, X2, X4
Bantaeng	2023	7.7275	4.1646	8.8012	-0.1576	0.0755	0.0408	-1.1292	X1, X2
Jeneponto	2023	6.8631	10.6007	11.2312	-1.1723	0.0246	0.0648	-0.1634	X1, X2
Takalar	2023	8.5840	10.3137	10.3066	-4.2765	2.9454	-1.8104	-0.2303	X1, X2, X3, X4
Sinjai	2023	7.3055	6.6830	6.6076	0.0721	6.7409	-0.2228	-1.0014	X1, X2, X4
Sidenreng Rappang	2023	12.3091	14.8374	16.0068	0.3970	-2.2766	-0.8499	-2.7787	X1, X2, X4, X6
Bone	2023	7.5402	7.5364	7.6162	0.4499	-4.1931	-0.3897	-1.9556	X1, X2, X4
Gowa	2023	13.4599	12.4101	14.0291	-4.4694	4.4817	-1.0594	-0.9341	X1, X2, X3, X4
Pangkajene dan Kepulauan	2023	12.8428	9.2829	15.4591	-2.0082	6.2475	0.3183	-4.2678	X1, X2, X4, X6
Maros	2023	13.2404	10.8115	14.6452	-4.1824	5.9140	-1.4002	-2.2443	X1, X2, X3, X4, X6
Enrekang	2023	14.0529	13.3022	15.3774	-1.6613	-1.1273	-1.6505	-1.4017	X1, X2
Barru	2023	9.7262	11.2699	11.5227	2.0312	11.5622	0.5033	-2.2465	X1, X2, X3, X4, X6
Tana Toraja	2023	9.8865	7.8436	9.3126	1.6521	-1.6259	-2.5853	5.7729	X1, X2, X5, X6
Soppeng	2023	13.3266	14.5276	14.8221	1.0270	13.8031	-0.6598	-3.5729	X1, X2, X4, X6
Luwu	2023	4.8775	4.1165	4.9299	2.9721	5.2742	-0.8993	3.8308	X1, X2, X3, X4, X6
Wajo	2023	7.3495	8.5051	8.4748	0.2508	3.4308	-1.6268	-1.4563	X1, X2, X4
Kota Pare-Pare	2023	12.5522	15.2816	16.4917	0.6451	-1.9949	-0.5220	-3.0134	X1, X2, X6
Pinrang	2023	12.1522	14.4179	16.0406	0.5844	-2.1019	-0.5562	-2.7877	X1, X2, X4, X6
Luwu Utara	2023	4.9314	3.5623	4.8285	3.9772	3.2819	-1.1469	7.8680	X1, X2, X3, X4, X6
Luwu Timur	2023	1.0795	1.2429	1.1651	0.2873	1.5179	-0.2575	0.1861	Tidak Ada
Toraja Utara	2023	5.5949	4.1293	5.4015	2.7147	-1.5239	-1.3432	7.5110	X1, X2, X3, X6
Kota Makassar	2023	12.4016	11.1855	12.9035	-3.5961	4.7082	-0.2712	-1.4708	X1, X2, X3, X4
Kota Palopo	2023	5.3970	3.8235	5.5000	5.0097	2.5730	-0.2182	6.8688	X1, X2, X3, X4, X6

Lampiran 6. Nilai R^2 Lokal Model GTWR

Wilayah	Tahun	Variabel Signifikan	Nilai R^2 Lokal
Kepulauan Selayar	2021	Tidak Ada	96.8069%
Bulukumba	2021	X1, X2, X4	98.0654%
Bantaeng	2021	X1, X2	98.0090%
Jeneponto	2021	X1, X2	94.8630%
Takalar	2021	X1, X2, X3, X4	56.4178%
Sinjai	2021	X1, X2, X4	96.9793%
Sidenreng Rappang	2021	X1, X2, X4, X6	98.6873%
Bone	2021	X1, X2, X4	87.4381%
Gowa	2021	X1, X2, X3, X4	72.1836%
Pangkajene dan Kepulauan	2021	X1, X2, X4, X6	81.1474%
Maros	2021	X1, X2, X3, X4, X6	83.8799%
Enrekang	2021	X1, X2	97.1621%
Barru	2021	X1, X2, X3, X4, X6	92.8362%
Tana Toraja	2021	X1, X2, X5, X6	83.1169%
Soppeng	2021	X1, X2, X4, X6	97.4354%
Luwu	2021	X1, X2, X3, X4, X6	66.7571%
Wajo	2021	X1, X2, X4	97.1909%
Kota Pare-Pare	2021	X1, X2, X6	98.9661%
Pinrang	2021	X1, X2, X4, X6	98.8658%
Luwu Utara	2021	X1, X2, X3, X4, X6	91.8647%
Luwu Timur	2021	Tidak Ada	99.7914%
Toraja Utara	2021	Tidak Ada	84.8070%
Kota Makassar	2021	X1, X2, X4	71.4078%
Kota Palopo	2021	X1, X2	80.8929%

Lampiran 6. Nilai R^2 Lokal Model GTWR (Lanjutan)

Wilayah	Tahun	Variabel Signifikan	Nilai R^2
Kepulauan Selayar	2022	X6	95.6963%
Bulukumba	2022	X1, X2, X4	97.8625%
Bantaeng	2022	X1, X2	97.7677%
Jeneponto	2022	X1, X2	94.9657%
Takalar	2022	X1, X2, X3, X4	62.9668%
Sinjai	2022	X1, X2, X4	97.4772%
Sidenreng Rappang	2022	X1, X2, X4, X6	98.6547%
Bone	2022	X1, X2, X4	84.3129%
Gowa	2022	X1, X2, X3, X4	69.1213%
Pangkajene dan Kepulauan	2022	X1, X2, X4, X6	80.2338%
Maros	2022	X1, X2, X3, X4, X6	82.4741%
Enrekang	2022	X1, X2	97.0677%
Barru	2022	X1, X2, X3, X4, X6	93.9606%
Tana Toraja	2022	X1, X2, X5, X6	82.7897%
Soppeng	2022	X1, X2, X4, X6	97.4670%
Luwu	2022	X1, X2, X3, X4, X6	63.5689%
Wajo	2022	X1, X2, X4	97.0351%
Kota Pare-Pare	2022	X1, X2, X6	98.9440%
Pinrang	2022	X1, X2, X4, X6	98.8323%
Luwu Utara	2022	X1, X2, X3, X4, X6	91.5072%
Luwu Timur	2022	Tidak Ada	99.7854%
Toraja Utara	2022	X1, X2, X3, X6	82.9581%
Kota Makassar	2022	X1, X2, X3, X4	67.0697%
Kota Palopo	2022	X1, X2, X3, X6	75.0234%

Lampiran 6. Nilai R^2 Lokal Model GTWR (Lanjutan)

Wilayah	Tahun	Variabel Signifikan	Nilai R^2
Kepulauan Selayar	2023	X6	96.1907%
Bulukumba	2023	X1, X2, X4	97.6610%
Bantaeng	2023	X1, X2	97.7999%
Jeneponto	2023	X1, X2	94.7488%
Takalar	2023	X1, X2, X3, X4	62.0714%
Sinjai	2023	X1, X2, X4	97.9031%
Sidenreng Rappang	2023	X1, X2, X4, X6	98.5269%
Bone	2023	X1, X2, X4	85.8777%
Gowa	2023	X1, X2, X3, X4	68.1399%
Pangkajene dan Kepulauan	2023	X1, X2, X4, X6	79.4062%
Maros	2023	X1, X2, X3, X4, X6	80.2206%
Enrekang	2023	X1, X2	96.5819%
Barru	2023	X1, X2, X3, X4, X6	94.0586%
Tana Toraja	2023	X1, X2, X5, X6	84.8929%
Soppeng	2023	X1, X2, X4, X6	97.6781%
Luwu	2023	X1, X2, X3, X4, X6	71.3623%
Wajo	2023	X1, X2, X4	97.2867%
Kota Pare-Pare	2023	X1, X2, X6	98.8420%
Pinrang	2023	X1, X2, X4, X6	98.8378%
Luwu Utara	2023	X1, X2, X3, X4, X6	91.2623%
Luwu Timur	2023	Tidak Ada	99.7739%
Toraja Utara	2023	X1, X2, X3, X6	84.9707%
Kota Makassar	2023	X1, X2, X3, X4	64.2324%
Kota Palopo	2023	X1, X2, X3, X4, X6	67.3525%

Lampiran 7. Parameter Model GTWR-PCA

Wilayah	Tahun	β_0	β_1	β_2
Kepulauan Selayar	2021	102.9569	-15.6269	-54.1133
Bulukumba	2021	83.5980	1.4803	-0.5209
Bantaeng	2021	84.6414	3.6960	2.0710
Jeneponto	2021	83.9433	1.4371	-0.6276
Takalar	2021	76.6565	1.2748	4.8090
Sinjai	2021	84.8133	3.3581	1.8277
Sidenreng Rappang	2021	84.0336	2.9903	0.1372
Bone	2021	81.7089	1.7610	-2.3510
Gowa	2021	77.5471	0.8523	4.6097
Pangkajene dan Kepulauan	2021	77.1367	1.1640	6.2320
Maros	2021	77.6574	1.0328	5.7219
Enrekang	2021	85.0824	3.4161	-0.2677
Barru	2021	83.0830	2.1339	0.8499
Tana Toraja	2021	83.0539	-0.3229	-9.5673
Soppeng	2021	83.6933	2.7260	-0.2713
Luwu	2021	79.1554	0.5903	-0.1469
Wajo	2021	84.1590	2.4425	-0.1472
Kota Pare-Pare	2021	83.6250	2.7369	0.1021
Pinrang	2021	84.0339	3.1483	0.0100
Luwu Utara	2021	76.5954	0.9896	-15.0352
Luwu Timur	2021	74.0118	2.3532	-3.9386
Toraja Utara	2021	79.6806	-0.3257	-17.4939
Kota Makassar	2021	78.0033	0.5944	4.2090
Kota Palopo	2021	68.3962	2.1882	-16.0637

Lampiran 7. Parameter Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	β_0	β_1	β_2
Kepulauan Selayar	2022	104.9899	-13.3341	-52.7307
Bulukumba	2022	83.9420	1.6910	-0.1968
Bantaeng	2022	86.0303	5.2398	3.7292
Jeneponto	2022	84.7485	1.4865	-0.9069
Takalar	2022	78.2268	0.6239	3.3182
Sinjai	2022	83.9303	1.1503	1.0210
Sidenreng Rappang	2022	84.8598	3.5940	0.0335
Bone	2022	81.9088	0.7700	-1.1062
Gowa	2022	78.2712	0.6317	3.6653
Pangkajene dan Kepulauan	2022	77.2383	1.0709	5.5327
Maros	2022	77.3175	1.0121	5.3601
Enrekang	2022	84.7158	3.1795	-0.2537
Barru	2022	82.5623	2.5168	0.4257
Tana Toraja	2022	83.2863	-0.0564	-3.5294
Soppeng	2022	83.6899	2.5374	0.0132
Luwu	2022	77.8177	-0.4656	-0.6652
Wajo	2022	83.9865	2.2416	-0.0478
Kota Pare-Pare	2022	84.5008	3.5624	-0.0530
Pinrang	2022	85.3356	4.2474	-0.3865
Luwu Utara	2022	80.4966	-0.9671	-14.1040
Luwu Timur	2022	74.2348	2.3557	-3.8431
Toraja Utara	2022	79.1777	0.2581	-12.6635
Kota Makassar	2022	78.0938	0.7270	3.9434
Kota Palopo	2022	73.5208	1.1770	-9.2111

Lampiran 7. Parameter Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	β_0	β_1	β_2
Kepulauan Selayar	2023	91.3246	-13.5044	-38.8843
Bulukumba	2023	83.9820	3.2848	0.1985
Bantaeng	2023	84.3943	3.4065	1.3696
Jeneponto	2023	84.0766	1.7135	-0.4842
Takalar	2023	78.4789	1.1332	3.9183
Sinjai	2023	84.5379	4.3800	0.9057
Sidenreng Rappang	2023	83.5053	2.7330	0.1822
Bone	2023	81.5666	4.7903	-4.5048
Gowa	2023	80.1106	0.8053	3.4454
Pangkajene dan Kepulauan	2023	78.1664	1.2274	7.0517
Maros	2023	78.2819	1.3302	7.8308
Enrekang	2023	85.1576	3.4559	-0.8086
Barru	2023	82.8918	1.6989	0.8449
Tana Toraja	2023	81.0697	-0.3460	-16.3106
Soppeng	2023	83.9602	3.3654	-0.6538
Luwu	2023	71.6154	3.9848	-11.0895
Wajo	2023	84.2588	2.7659	-0.2224
Kota Pare-Pare	2023	83.0290	2.2140	0.4351
Pinrang	2023	82.9865	2.4255	0.2116
Luwu Utara	2023	69.3526	3.4281	-21.9514
Luwu Timur	2023	74.1358	2.4019	-3.9194
Toraja Utara	2023	79.7795	-0.4103	-19.3834
Kota Makassar	2023	79.5828	1.1026	4.0490
Kota Palopo	2023	73.7973	2.5166	-11.8638

Lampiran 8. Hasil Uji Parsial Model GTWR-PCA

Wilayah	Tahun	$t_{hit}\beta_0$	$t_{hit}\beta_1$	$t_{hit}\beta_2$	Komponen Utama Signifikan
Kepulauan Selayar	2021	6.6864	-1.6047	-1.9781	Tidak Ada
Bulukumba	2021	58.1317	0.5036	-0.1061	Tidak Ada
Bantaeng	2021	56.3729	2.1181	1.2655	C1
Jeneponto	2021	79.5702	0.7535	-0.3736	Tidak Ada
Takalar	2021	24.1026	0.5444	1.0857	Tidak Ada
Sinjai	2021	95.3452	0.3306	0.6647	Tidak Ada
Sidenreng Rappang	2021	102.6229	4.5478	0.0530	C1
Bone	2021	92.9991	0.2499	-0.3642	Tidak Ada
Gowa	2021	41.6503	0.9649	2.1739	C2
Pangkajene dan Kepulauan	2021	53.7315	1.4500	3.4632	C2
Maros	2021	58.9461	1.7792	3.4862	C2
Enrekang	2021	88.2087	4.2991	-0.2736	C1
Barru	2021	118.1075	1.7157	0.3708	Tidak Ada
Tana Toraja	2021	41.1012	-0.1568	-0.6814	Tidak Ada
Soppeng	2021	61.5926	2.4196	0.0174	C1
Luwu	2021	17.6043	-0.2800	-0.1145	Tidak Ada
Wajo	2021	111.9888	1.4982	-0.0642	Tidak Ada
Kota Pare-Pare	2021	67.0394	3.2716	-0.0927	C1
Pinrang	2021	58.6742	2.9241	-0.4775	C1
Luwu Utara	2021	8.4859	-0.2958	-1.6401	Tidak Ada
Luwu Timur	2021	3.1870	0.6135	-0.4762	Tidak Ada
Toraja Utara	2021	42.0511	0.6997	-2.9768	C2
Kota Makassar	2021	47.7363	1.3302	2.5573	C2
Kota Palopo	2021	32.5755	2.1791	-2.7687	C1, C2

Lampiran 8. Hasil Uji Parsial Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	$t_{hit}\beta_0$	$t_{hit}\beta_1$	$t_{hit}\beta_2$	Komponen Utama Signifikan
Kepulauan Selayar	2022	6.9424	-1.8328	-2.1688	C2
Bulukumba	2022	72.2995	0.4962	-0.1865	Tidak Ada
Bantaeng	2022	98.4722	1.8519	0.8491	Tidak Ada
Jeneponto	2022	87.0753	0.7804	-0.2388	Tidak Ada
Takalar	2022	22.3070	1.2278	1.8003	Tidak Ada
Sinjai	2022	62.9770	1.4321	0.7113	Tidak Ada
Sidenreng Rappang	2022	118.6946	3.4614	0.2114	C1
Bone	2022	79.5314	0.7391	-1.0181	Tidak Ada
Gowa	2022	26.6360	0.8591	1.9492	Tidak Ada
Pangkajene dan Kepulauan	2022	48.8331	2.5743	4.3478	C1, C2
Maros	2022	64.5855	2.1076	3.7098	C1, C2
Enrekang	2022	65.7179	3.7859	-0.4877	C1
Barru	2022	107.4620	2.0652	0.9076	Tidak Ada
Tana Toraja	2022	26.8053	-0.7976	-1.9083	Tidak Ada
Soppeng	2022	93.7397	2.5534	-0.4152	C1
Luwu	2022	16.4258	0.4147	-0.0245	Tidak Ada
Wajo	2022	94.5381	2.7724	-0.1837	C1
Kota Pare-Pare	2022	95.8918	3.3784	0.1976	C1
Pinrang	2022	92.0891	3.6321	0.0167	C1
Luwu Utara	2022	10.8775	0.4314	-1.7866	Tidak Ada
Luwu Timur	2022	3.0596	0.6114	-0.4674	Tidak Ada
Toraja Utara	2022	40.7872	-0.7794	-4.4036	C2
Kota Makassar	2022	37.2554	0.7249	2.3325	C2
Kota Palopo	2022	38.5452	6.0054	-7.4615	C1, C2

Lampiran 8. Hasil Uji Parsial Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	$t_{hit}\beta_0$	$t_{hit}\beta_1$	$t_{hit}\beta_2$	Komponen Utama Signifikan
Kepulauan Selayar	2023	20.3063	-1.7917	-2.7958	C2
Bulukumba	2023	53.2216	1.7159	0.0735	Tidak Ada
Bantaeng	2023	75.8850	1.4346	0.5489	Tidak Ada
Jeneponto	2023	70.3416	1.4901	-0.3406	Tidak Ada
Takalar	2023	26.3650	1.1498	1.3960	Tidak Ada
Sinjai	2023	74.4715	1.5621	0.5595	Tidak Ada
Sidenreng Rappang	2023	72.5010	3.2134	0.3118	C1
Bone	2023	71.5269	1.1693	-1.1081	Tidak Ada
Gowa	2023	35.5224	1.0897	1.8586	Tidak Ada
Pangkajene dan Kepulauan	2023	43.4388	1.9664	3.5735	C2
Maros	2023	52.2083	2.2188	4.2339	C1, C2
Enrekang	2023	83.9876	3.7269	-0.9680	C1
Barru	2023	71.7787	1.1100	0.8651	Tidak Ada
Tana Toraja	2023	33.8140	-0.6968	-3.1674	C2
Soppeng	2023	149.3712	2.5969	-0.6426	C1
Luwu	2023	19.6236	2.1594	-2.1613	C1, C2
Wajo	2023	124.8042	3.2771	-0.1772	C1
Kota Pare-Pare	2023	79.5002	1.9779	0.5761	Tidak Ada
Pinrang	2023	59.9464	1.9381	0.3683	Tidak Ada
Luwu Utara	2023	6.9435	0.9373	-2.8091	C2
Luwu Timur	2023	3.1295	0.6536	-0.4691	Tidak Ada
Toraja Utara	2023	31.1020	-0.9619	-3.5593	C2
Kota Makassar	2023	51.0530	1.9720	2.7749	C2
Kota Palopo	2023	45.3482	6.9107	-6.5190	C1, C2

Lampiran 9. Nilai R^2 Lokal Model GTWR-PCA

Wilayah	Tahun	Komponen Utama Signifikan	Nilai R^2
Kepulauan Selayar	2021	Tidak Ada	99.9399%
Bulukumba	2021	Tidak Ada	99.7281%
Bantaeng	2021	C1	99.0194%
Jeneponto	2021	Tidak Ada	99.9571%
Takalar	2021	Tidak Ada	99.4065%
Sinjai	2021	Tidak Ada	96.4664%
Sidenreng Rappang	2021	C1	99.8965%
Bone	2021	Tidak Ada	95.0831%
Gowa	2021	C2	99.4494%
Pangkajene dan Kepulauan	2021	C2	99.9047%
Maros	2021	C2	99.8874%
Enrekang	2021	C1	99.7753%
Barru	2021	Tidak Ada	99.5147%
Tana Toraja	2021	Tidak Ada	97.7317%
Soppeng	2021	C1	99.8106%
Luwu	2021	Tidak Ada	96.5340%
Wajo	2021	Tidak Ada	99.8739%
Kota Pare-Pare	2021	C1	99.9255%
Pinrang	2021	C1	99.7863%
Luwu Utara	2021	Tidak Ada	99.0993%
Luwu Timur	2021	Tidak Ada	99.9999%
Toraja Utara	2021	C2	98.7167%
Kota Makassar	2021	C2	99.4382%
Kota Palopo	2021	C1, C2	96.3053%

Lampiran 9. Nilai R^2 Lokal Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	Komponen Utama Signifikan	Nilai R^2
Kepulauan Selayar	2022	C2	99.9035%
Bulukumba	2022	Tidak Ada	98.9503%
Bantaeng	2022	Tidak Ada	99.7961%
Jeneponto	2022	Tidak Ada	99.9455%
Takalar	2022	Tidak Ada	98.3403%
Sinjai	2022	Tidak Ada	99.4391%
Sidenreng Rappang	2022	C1	99.8597%
Bone	2022	Tidak Ada	91.2476%
Gowa	2022	Tidak Ada	97.9962%
Pangkajene dan Kepulauan	2022	C1, C2	99.3199%
Maros	2022	C1, C2	99.3389%
Enrekang	2022	C1	99.5792%
Barru	2022	Tidak Ada	99.3019%
Tana Toraja	2022	Tidak Ada	97.4727%
Soppeng	2022	C1	99.3992%
Luwu	2022	Tidak Ada	93.8976%
Wajo	2022	C1	99.7689%
Kota Pare-Pare	2022	C1	99.5252%
Pinrang	2022	C1	99.8096%
Luwu Utara	2022	Tidak Ada	96.1692%
Luwu Timur	2022	Tidak Ada	99.9998%
Toraja Utara	2022	C2	98.8737%
Kota Makassar	2022	C2	97.1905%
Kota Palopo	2022	C1, C2	91.6135%

Lampiran 9. Nilai R^2 Lokal Model GTWR-PCA (Lanjutan)

Wilayah	Tahun	Komponen Utama Signifikan	Nilai R^2
Kepulauan Selayar	2023	C2	99.9759%
Bulukumba	2023	Tidak Ada	99.7709%
Bantaeng	2023	Tidak Ada	99.9531%
Jeneponto	2023	Tidak Ada	99.8669%
Takalar	2023	Tidak Ada	99.2453%
Sinjai	2023	Tidak Ada	99.9212%
Sidenreng Rappang	2023	C1	99.8277%
Bone	2023	Tidak Ada	98.9536%
Gowa	2023	Tidak Ada	97.1275%
Pangkajene dan Kepulauan	2023	C2	99.1015%
Maros	2023	C1, C2	95.7623%
Enrekang	2023	C1	98.7026%
Barru	2023	Tidak Ada	99.6902%
Tana Toraja	2023	C2	99.2635%
Soppeng	2023	C1	99.7564%
Luwu	2023	C1, C2	95.0230%
Wajo	2023	C1	99.9452%
Kota Pare-Pare	2023	Tidak Ada	99.8556%
Pinrang	2023	Tidak Ada	99.0945%
Luwu Utara	2023	C2	98.6377%
Luwu Timur	2023	Tidak Ada	99.9998%
Toraja Utara	2023	C2	99.6376%
Kota Makassar	2023	C2	94.4992%
Kota Palopo	2023	C1, C2	92.0162%