

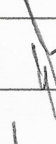
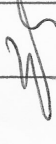
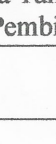







**PROGRAM STUDI STATISTIKA**  
**SK BAN-PT No. 1765/SK/BAN-PT/AK-PPJ/S/III/2022**  
**FAKULTAS SAINS DAN TEKNOLOGI**  
**UNIVERSITAS PGRI ADI BUANA SURABAYA**

**FORM F.SK05**  
**BUKTI BIMBINGAN SKRIPSI**

Nama : Yohanita Uniyatri Aprilia  
NIM : 202400013  
Judul Skripsi : Pemodelan Faktor-Faktor yang Mempengaruhi Keterlibatan Perempuan Indonesia dalam Parlemen Tahun 2022 Menggunakan *Geographically Weighted Regression (GWR)*  
Dosen Pembimbing : Alfisyahrina Hapsery, S.Si., M.Si

Materi Pembimbingan Skripsi	Tanda Tangan Dosen Pembimbing
1. Bimbingan Statistika Deskriptif	
2. Bimbingan Uji Asumsi Klasik	
3. Bimbingan GWR	
4. Bimbingan Peta Variabel Signifikan	
5. Revisi Statistika Deskriptif	
6. Revisi uji asumsi klasik	
7. Revisi GWR	
8. Revisi Peta Signifikan dan Tata Bahasa	

Catatan: \*) Coret yang tidak sesuai



**PROGRAM STUDI STATISTIKA**  
**SK BAN-PT No. 1765/SK/BAN-PT/AK-PPJ/S/III/2022**  
**FAKULTAS SAINS DAN TEKNOLOGI**  
**UNIVERSITAS PGRI ADI BUANA SURABAYA**

**FORM F.SK08**  
**PERBAIKAN/REVISI SEMINAR DAN UJIAN SKRIPSI**

Nama : Yohanita Uniyatri Aprilia  
NIM : 202400013  
Judul Skripsi : Pemodelan Faktor-Faktor yang Mempengaruhi Keterlibatan Perempuan Indonesia dalam Parlemen Tahun 2022 Menggunakan *Geographically Weighted Regression* (GWR)  
Dosen Pembimbing : Alfisyahrina Hapsery, S.Si., M.Si.

Materi Revisi Seminar dan Ujian Skripsi	Tanda Tangan Dosen Penguji
1. Mengubah Warna peta Variabel Signifikan	
2. Menambah Penjelasan hubungan antar Peta deskriptif dengan Peta Signifikan	
3. Penambahan rumus R Square di Bab II	
4. Menambah uji Signifikansi pada Koefisien Korelasi	
5. Menambah Interpretasi model GWR	
6. Revisi Kesalahan penulisan	

Surabaya, 12 Juli 2024  
Pembimbing,

Alfisyahrina Hapsery, S.Si., M.Si  
NPH. 1804856/DY

## LAMPIRAN

**Lampiran 1.** Data Penelitian

Provinsi	Y	X1	X2	X3	X4	X5	X6	X7	X8	X9	U	V
Aceh	11,11	46,15	72,16	0,22	42,91	80,82	34,87	30,48	54,08	4,21	96,74939930	4,69513500
Bali	16,36	69,62	74,53	0,21	43,18	83,21	39,08	36,38	51,25	4,84	115,09195090	-8,34053890
Banten	17,65	47,17	72,36	0,26	40,14	78,75	31,71	35,76	42,25	5,03	106,06401790	-6,40581720
Bengkulu	15,56	54,36	71,68	0,32	38,72	73,23	35,26	23,2	53,33	4,31	102,26076410	-3,79284510
Di.yogyakarta	20,00	63,38	76,93	0,15	47,12	85,62	41,37	32,87	53,09	5,15	110,36472000	-7,80139000
Dki.jakarta	20,75	46,62	75,22	0,14	64,51	82,13	38,34	37,21	48,6	5,25	106,84559900	-6,20876340
Gorontalo	26,67	52,64	70,53	0,35	34,65	73,74	27,12	40,84	59,25	4,04	123,05676930	0,54354420
Jambi	16,36	48,97	73,49	0,33	35,28	77,19	30,25	45,68	52,07	5,13	103,61312030	-1,61012290
Jawa barat	21,85	48,01	75,48	0,30	35,36	83,34	30	27,44	42,91	5,45	107,66888700	-7,09091100
Jawa tengah	20,00	58,31	76,53	0,26	28,79	84,79	34,59	32,58	50,72	5,31	110,14025940	-7,15097500
Jawa timur	19,17	57,28	73,71	0,27	30,95	84,92	35,81	29,19	49,41	5,34	112,23840170	-7,53606390
Kalimantan barat	18,46	52,51	73,00	0,32	29,03	81,48	35,31	26,09	45,26	5,07	106,61314050	0,47734750
Kalimantan selatan	20,00	51,90	71,13	0,32	31,02	80,86	36,72	27,07	50,97	5,11	115,28375850	-3,09264150
Kalimantan tengah	33,33	47,68	72,02	0,37	30,30	79,3	33,37	30,84	43,8	6,45	113,38235450	-1,68148780
Kalimantan timur	20,00	45,17	76,52	0,27	50,12	83,58	24,02	34,18	49,78	4,48	116,41938900	0,53865860

Provinsi	Y	X1	X2	X3	X4	X5	X6	X7	X8	X9	U	V
Kalimantan utara	11,43	49,30	74,54	0,29	41,48	78,79	26,91	27,9	43,18	5,34	116,04138890	3,07309290
Kep, bangka belitung	8,89	47,55	72,97	0,33	36,08	76,65	26,92	24,09	51,7	4,4	106,44058720	-2,74105130
Kep, riau	8,89	50,68	72,47	0,13	58,40	78,77	28,64	38,96	44,14	5,09	108,14286690	3,94565140
Lampung	18,82	53,54	72,97	0,27	30,44	78,32	29,26	33,76	53,06	4,28	105,40680790	-4,55858490
Maluku	22,22	52,47	68,43	0,21	48,71	75,26	37,08	37,5	51	5,11	130,14527340	-3,23846160
Maluku utara	28,89	46,87	70,79	0,32	40,03	62,93	36,65	26,54	47,59	22,94	127,80876930	1,57099930
Nusa tenggara barat	1,59	59,16	69,07	0,30	29,68	73,38	33,06	30,59	47,46	6,95	117,36164760	-8,65293340
Nusa tenggara timur	20,00	67,87	69,43	0,21	28,45	77,83	43,93	36,06	50,85	3,05	121,07937050	-8,65738190
Papua barat	14,29	54,63	68,44	0,30	49,02	64,02	28,22	31,93	41,61	2,01	141,34701590	-5,01222020
Papua	15,94	69,09	68,16	0,28	30,80	66,65	36,86	35,1	34,91	8,97	133,17471620	-1,33611540
Riau	21,54	43,28	73,90	0,23	43,24	73,64	28,03	30,36	52,25	4,55	101,70682940	0,29334690
Sulawesi barat	11,36	58,22	67,60	0,37	32,75	74,03	36,51	35,67	54,82	2,3	119,23207840	-2,84413710
Sulawesi selatan	27,06	50,46	72,96	0,29	38,38	80,09	32,43	37,65	52,99	5,09	119,97405340	-3,66879940
Sulawesi tengah	28,89	53,71	70,95	0,36	34,48	80,92	31,11	38,44	51,58	15,17	121,44561790	-1,43002540
Sulawesi tenggara	20,00	54,94	73,47	0,34	38,11	80,35	36,25	25,85	52,44	5,53	122,17460500	-4,14491000
Sulawesi utara	29,55	44,79	74,04	0,31	46,79	78,22	32,08	46,09	55,39	5,42	123,97499800	0,62469300
Sumatera barat	10,77	56,28	71,89	0,17	48,52	77,35	37,58	38,7	60,1	4,36	100,80000510	-0,73993970
Sumatera selatan	21,33	53,32	72,29	0,30	35,75	80,59	34,68	31,66	53,05	5,23	103,91439900	-3,31943740

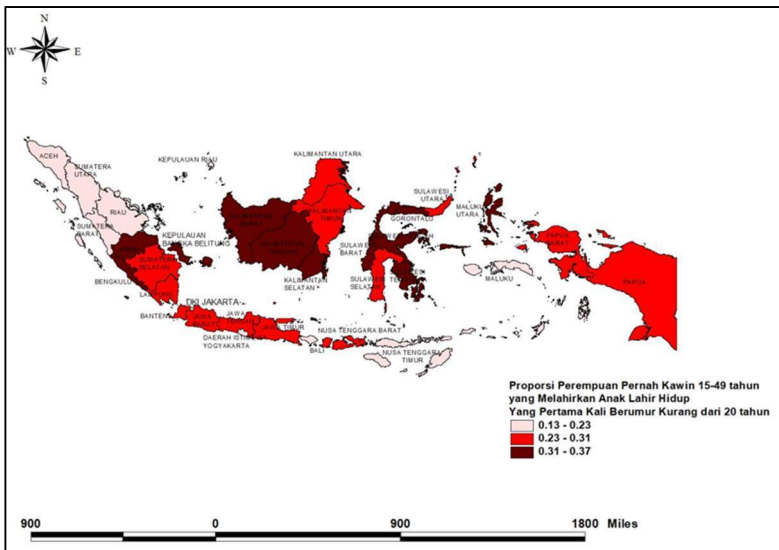
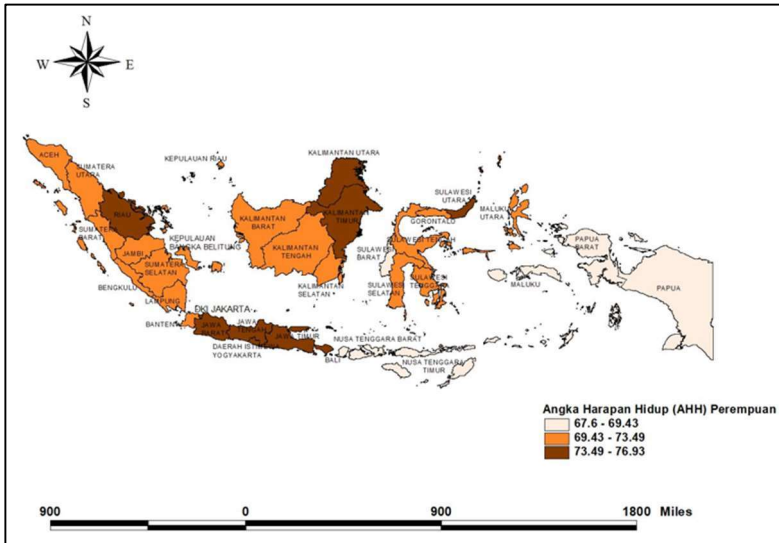


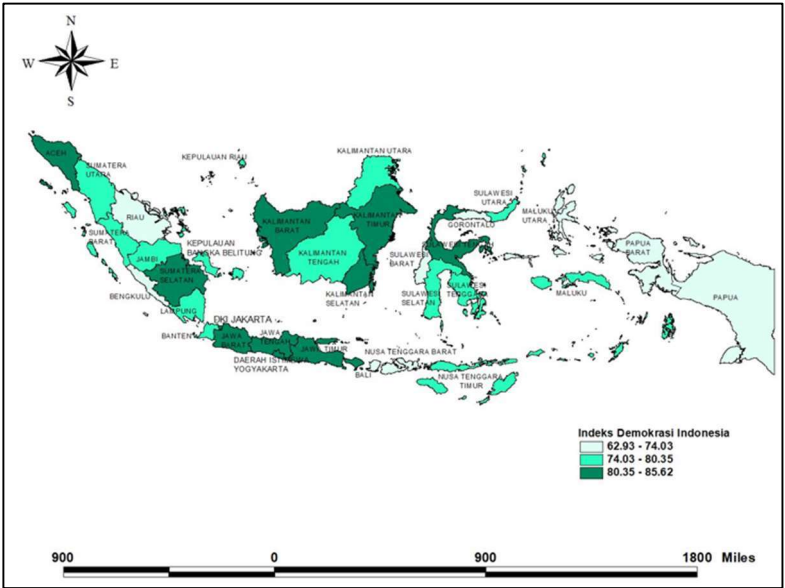
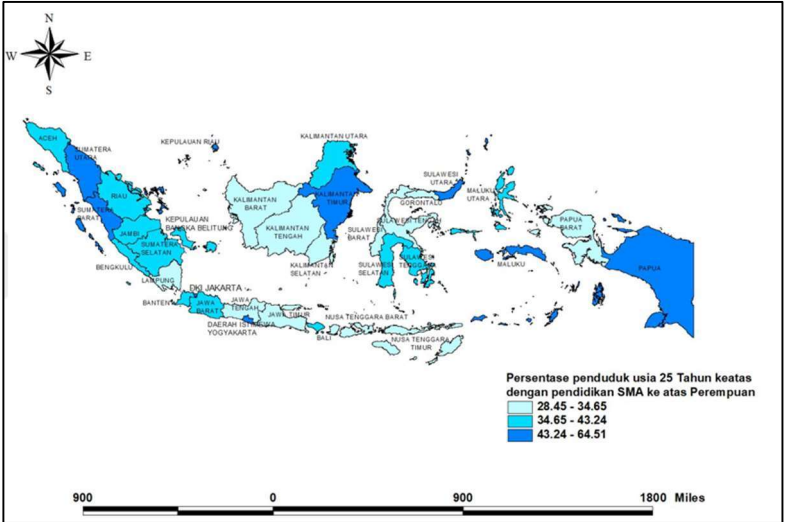
Provinsi	Y	X1	X2	X3	X4	X5	X6	X7	X8	X9	U	V
Sumatera utara	14,14	55,37	71,60	0,16	49,82	79,53	35,98	29,52	48,85	4,73	99,54509740	2,11535470

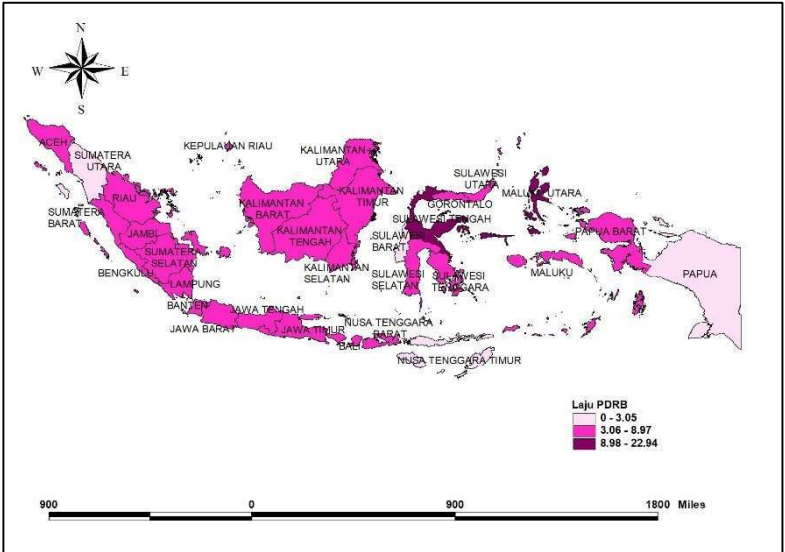
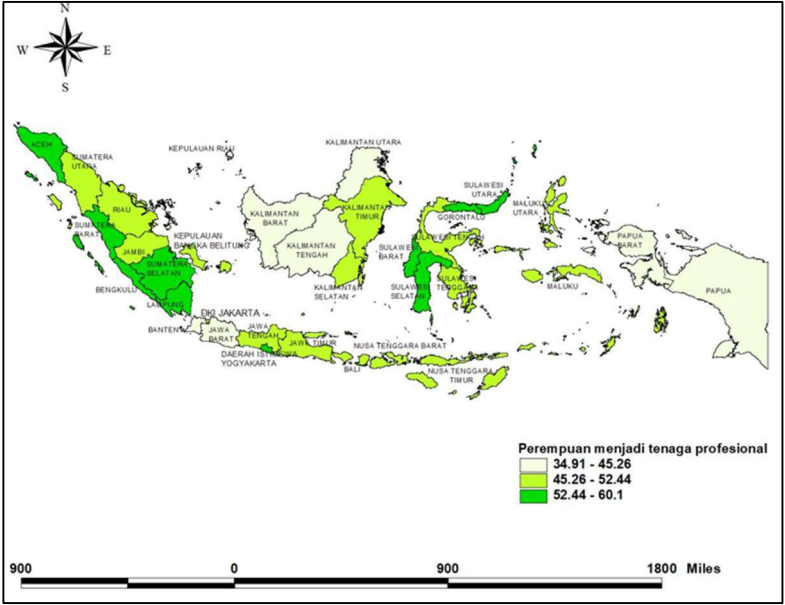
Keterangan:

- Y : Keterlibatan perempuan di parlemen
- X<sub>1</sub> : Tingkat Partisipasi Angkatan Kerja Perempuan
- X<sub>2</sub> : Angka Harapan Hidup (AHH) Perempuan
- X<sub>3</sub> : Proporsi Perempuan Pernah Kawin 15-49 tahun yang Melahirkan Anak Lahir Hidup Yang Pertama Kali Berumur Kurang dari 20 tahun
- X<sub>4</sub> : Persentase penduduk usia 25 Tahun keatas dengan pendidikan SMA ke atas Perempuan (Persen)
- X<sub>5</sub> : Indeks Demokrasi Indonesia
- X<sub>6</sub> : Sumbangan pendapatan perempuan
- X<sub>7</sub> : Perempuan di posisi managerial
- X<sub>8</sub> : Perempuan menjadi tenaga profesional
- X<sub>9</sub> : Laju PDRB

## Lampiran 2. Statistik Deskriptif







**Lampiran 3. Matriks Jarak *Euclidean***

	1	2	3	4	5	6	7	8	9	10
1	0	22,503	14,491	10,120	18,481	14,860	26,633	9,320	16,067	17,879
2	22,503	0	9,233	13,613	4,758	8,517	11,932	13,306	7,528	5,093
3	14,491	9,233	0	4,614	4,521	0,806	18,359	5,386	1,745	4,144
4	10,120	13,613	4,614	0	9,041	5,182	21,243	2,568	6,334	8,565
5	18,481	4,758	4,521	9,041	0	3,863	15,190	9,161	2,788	0,688
6	14,860	8,517	0,806	5,182	3,863	0	17,561	5,621	1,207	3,427
7	26,633	11,932	18,359	21,243	15,190	17,561	0	19,563	17,178	15,035
8	9,320	13,306	5,386	2,568	9,161	5,621	19,563	0	6,818	8,562
9	16,067	7,528	1,745	6,334	2,788	1,207	17,178	6,818	0	2,472
10	17,879	5,093	4,144	8,565	0,688	3,427	15,035	8,562	2,472	0
11	19,736	2,965	6,277	10,657	1,892	5,554	13,502	10,465	4,591	2,133
12	10,728	12,233	6,905	6,097	9,089	6,690	16,444	3,655	7,642	8,404
13	20,104	5,251	9,797	13,042	6,809	8,995	8,581	11,764	8,601	6,552
14	17,813	6,875	8,711	11,320	6,823	7,951	9,927	9,769	7,868	6,358
15	20,104	8,978	12,468	14,806	10,306	11,713	6,637	12,985	11,610	9,928
16	19,360	11,453	13,762	15,396	12,267	13,066	7,457	13,281	13,168	11,805
17	12,215	10,305	3,684	4,310	6,404	3,491	16,938	3,045	4,520	5,756
18	11,418	14,115	10,558	9,720	11,955	10,237	15,297	7,168	11,047	11,275
19	12,672	10,397	1,961	3,238	5,924	2,189	18,373	3,451	3,396	5,397
20	34,325	15,894	24,289	27,890	20,300	23,488	8,034	26,582	22,804	20,384
21	31,216	16,123	23,162	26,105	19,802	22,360	4,862	24,404	21,924	19,704
22	24,557	2,291	11,519	15,864	7,049	10,796	10,817	15,447	9,818	7,376
23	27,753	5,996	15,183	19,437	10,749	14,443	9,411	18,834	13,502	11,042
24	45,642	26,465	35,311	39,105	31,108	34,522	19,115	37,887	33,742	31,280
25	36,921	19,392	27,581	31,011	23,709	26,776	10,291	29,563	26,147	23,757
26	6,630	15,928	7,991	4,124	11,853	8,288	21,351	2,694	9,491	11,249
27	23,713	6,881	13,641	16,998	10,159	12,835	5,109	15,668	12,318	10,060
28	24,685	6,757	14,177	17,714	10,460	13,372	5,220	16,490	12,772	10,432
29	25,444	9,387	16,166	19,330	12,782	15,362	2,548	17,833	14,894	12,670
30	26,918	8,232	16,268	19,917	12,363	15,467	4,771	18,734	14,802	12,404
31	27,528	12,621	19,241	22,159	16,007	18,442	0,922	20,484	18,039	15,870
32	6,778	16,187	7,734	3,384	11,889	8,152	22,294	2,945	9,355	11,329

33	10,750	12,254	3,761	1,720	7,855	4,116	19,528	1,736	5,322	7,310
34	3,804	18,736	10,729	6,502	14,677	11,072	23,564	5,516	12,278	14,076

	11	12	13	14	15	16	17	18	19	20
1	19,736	10,728	20,104	17,813	20,104	19,360	12,215	11,418	12,672	34,325
2	2,965	12,233	5,251	6,875	8,978	11,453	10,305	14,115	10,397	15,894
3	6,277	6,905	9,797	8,711	12,468	13,762	3,684	10,558	1,961	24,289
4	10,657	6,097	13,042	11,320	14,806	15,396	4,310	9,720	3,238	27,890
5	1,892	9,089	6,809	6,823	10,306	12,267	6,404	11,955	5,924	20,300
6	5,554	6,690	8,995	7,951	11,713	13,066	3,491	10,237	2,189	23,488
7	13,502	16,444	8,581	9,927	6,637	7,457	16,938	15,297	18,373	8,034
8	10,465	3,655	11,764	9,769	12,985	13,281	3,045	7,168	3,451	26,582
9	4,591	7,642	8,601	7,868	11,610	13,168	4,520	11,047	3,396	22,804
10	2,133	8,404	6,552	6,358	9,928	11,805	5,756	11,275	5,397	20,384
11	0	9,791	5,387	5,965	9,093	11,270	7,524	12,190	7,452	18,415
12	9,791	0	9,377	7,105	9,806	9,779	3,223	3,791	5,178	23,824
13	5,387	9,377	0	2,368	3,805	6,212	8,850	10,026	9,985	14,862
14	5,965	7,105	2,368	0	3,762	5,448	7,022	7,689	8,479	16,835
15	9,093	9,806	3,805	3,762	0	2,562	10,504	8,950	12,135	14,236
16	11,270	9,779	6,212	5,448	2,562	0	11,224	7,947	13,090	15,452
17	7,524	3,223	8,850	7,022	10,504	11,224	0	6,900	2,091	23,710
18	12,190	3,791	10,026	7,689	8,950	7,947	6,900	0	8,934	23,146
19	7,452	5,178	9,985	8,479	12,135	13,090	2,091	8,934	0	24,774
20	18,415	23,824	14,862	16,835	14,236	15,452	23,710	23,146	24,774	0
21	18,038	21,224	13,365	14,789	11,436	11,863	21,799	19,809	23,225	5,347
22	5,244	14,103	5,936	8,027	9,240	11,800	12,419	15,611	12,637	13,883
23	8,912	17,109	8,035	10,388	10,309	12,767	15,789	18,061	16,200	10,562
24	29,218	35,165	26,134	28,162	25,538	26,566	34,980	34,391	35,943	11,341
25	21,835	26,623	17,977	19,795	16,860	17,692	26,771	25,583	27,954	3,577
26	13,123	4,910	13,993	11,841	14,715	14,602	5,623	7,400	6,102	28,657
27	8,422	13,049	3,956	5,964	4,399	6,723	12,792	13,003	13,931	10,920
28	8,648	13,989	4,726	6,885	5,508	7,805	13,565	14,070	14,594	10,180
29	11,048	14,955	6,382	8,067	5,398	7,034	15,062	14,348	16,341	8,886
30	10,499	16,233	6,971	9,131	7,420	9,472	15,797	16,197	16,773	8,022

31	14,295	17,362	9,453	10,841	7,556	8,303	17,855	16,177	19,278	7,280
32	13,305	5,939	14,674	12,618	15,672	15,711	5,985	8,710	5,984	29,451
33	9,331	4,658	11,372	9,609	13,087	13,709	2,592	8,406	1,940	26,231
34	15,946	7,255	16,578	14,349	16,948	16,524	8,434	8,790	8,883	31,065

	21	22	23	24	25	26	27	28	29	30
1	31,216	24,557	27,753	45,642	36,921	6,630	23,713	24,685	25,444	26,918
2	16,123	2,291	5,996	26,465	19,392	15,928	6,881	6,757	9,387	8,232
3	23,162	11,519	15,183	35,311	27,581	7,991	13,641	14,177	16,166	16,268
4	26,105	15,864	19,437	39,105	31,011	4,124	16,998	17,714	19,330	19,917
5	19,802	7,049	10,749	31,108	23,709	11,853	10,159	10,460	12,782	12,363
6	22,360	10,796	14,443	34,522	26,776	8,288	12,835	13,372	15,362	15,467
7	4,862	10,817	9,411	19,115	10,291	21,351	5,109	5,220	2,548	4,771
8	24,404	15,447	18,834	37,887	29,563	2,694	15,668	16,490	17,833	18,734
9	21,924	9,818	13,502	33,742	26,147	9,491	12,318	12,772	14,894	14,802
10	19,704	7,376	11,042	31,280	23,757	11,249	10,060	10,432	12,670	12,404
11	18,038	5,244	8,912	29,218	21,835	13,123	8,422	8,648	11,048	10,499
12	21,224	14,103	17,109	35,165	26,623	4,910	13,049	13,989	14,955	16,233
13	13,365	5,936	8,035	26,134	17,977	13,993	3,956	4,726	6,382	6,971
14	14,789	8,027	10,388	28,162	19,795	11,841	5,964	6,885	8,067	9,131
15	11,436	9,240	10,309	25,538	16,860	14,715	4,399	5,508	5,398	7,420
16	11,863	11,800	12,767	26,566	17,692	14,602	6,723	7,805	7,034	9,472
17	21,799	12,419	15,789	34,980	26,771	5,623	12,792	13,565	15,062	15,797
18	19,809	15,611	18,061	34,391	25,583	7,400	13,003	14,070	14,348	16,197
19	23,225	12,637	16,200	35,943	27,954	6,102	13,931	14,594	16,341	16,773
20	5,347	13,883	10,562	11,341	3,577	28,657	10,920	10,180	8,886	8,022
21	0	14,617	12,244	15,054	6,103	26,133	9,646	9,425	7,035	8,026
22	14,617	0	3,718	24,260	17,424	18,031	6,103	5,627	8,298	6,594
23	12,244	3,718	0	20,593	14,139	21,340	6,100	5,110	7,237	4,643
24	15,054	24,260	20,593	0	8,961	39,994	22,221	21,415	20,221	19,192
25	6,103	17,424	14,139	8,961	0	31,510	14,024	13,405	11,729	11,353
26	26,133	18,031	21,340	39,994	31,510	0	17,804	18,692	19,814	20,943
27	9,646	6,103	6,100	22,221	14,024	17,804	0	1,109	2,627	3,217
28	9,425	5,627	5,110	21,415	13,405	18,692	1,109	0	2,679	2,251



29	7,035	8,298	7,237	20,221	11,729	19,814	2,627	2,679	0	2,811
30	8,026	6,594	4,643	19,192	11,353	20,943	3,217	2,251	2,811	0
31	3,949	11,393	9,723	18,264	9,406	22,271	5,876	5,869	3,259	5,098
32	27,107	18,355	21,770	40,771	32,380	1,375	18,552	19,396	20,657	21,644
33	24,390	14,466	17,976	37,471	29,327	4,234	15,325	16,063	17,633	18,279
34	28,269	20,818	24,079	42,405	33,806	2,827	20,302	21,232	22,186	23,479

	31	32	33	34
1	27,528	6,778	10,750	3,804
2	12,621	16,187	12,254	18,736
3	19,241	7,734	3,761	10,729
4	22,159	3,384	1,720	6,502
5	16,007	11,889	7,855	14,677
6	18,442	8,152	4,116	11,072
7	0,922	22,294	19,528	23,564
8	20,484	2,945	1,736	5,516
9	18,039	9,355	5,322	12,278
10	15,870	11,329	7,310	14,076
11	14,295	13,305	9,331	15,946
12	17,362	5,939	4,658	7,255
13	9,453	14,674	11,372	16,578
14	10,841	12,618	9,609	14,349
15	7,556	15,672	13,087	16,948
16	8,303	15,711	13,709	16,524
17	17,855	5,985	2,592	8,434
18	16,177	8,710	8,406	8,790
19	19,278	5,984	1,940	8,883
20	7,280	29,451	26,231	31,065
21	3,949	27,107	24,390	28,269
22	11,393	18,355	14,466	20,818
23	9,723	21,770	17,976	24,079
24	18,264	40,771	37,471	42,405
25	9,406	32,380	29,327	33,806
26	22,271	1,375	4,234	2,827

27	5,876	18,552	15,325	20,302
28	5,869	19,396	16,063	21,232
29	3,259	20,657	17,633	22,186
30	5,098	21,644	18,279	23,479
31	0	23,215	20,445	24,475
32	23,215	0	4,044	3,119
33	20,445	4,044	0	6,973
34	24,475	3,119	6,973	0

**Lampiran 4.** Nilai *Bandwidth* Per Wilayah

NO	PROVINSI	BANDWIDTH
1	ACEH	25,4446
2	BALI	14,1154
3	BANTEN	15,1833
4	BENGKULU	19,3298
5	DI YOGYAKARTA	12,7822
6	DKI JAKARTA	14,8603
7	GORONTALO	18,3727
8	JAMBI	17,8335
9	JAWA BARAT	14,8019
10	JAWA TENGAH	12,6706
11	JAWA TIMUR	13,3051
12	KALIMANTAN BARAT	14,9548
13	KALIMANTAN SELATAN	13,0418
14	KALIMANTAN TENGAH	11,3203
15	KALIMANTAN TIMUR	13,0867
16	KALIMANTAN UTARA	13,7623
17	KEP, BANGKA BELITUNG	15,0623
18	KEP, RIAU	15,2971
19	LAMPUNG	16,1997
20	MALUKU	24,2887
21	MALUKU UTARA	23,1617
22	NUSA TENGGARA BARAT	15,4475
23	NUSA TENGGARA TIMUR	17,9758
24	PAPUA BARAT	35,3106
25	PAPUA	27,5807
26	RIAU	19,8140

NO	PROVINSI	BANDWIDTH
27	SULAWESI BARAT	14,0241
28	SULAWESI SELATAN	14,5946
29	SULAWESI TENGAH	16,3412
30	SULAWESI TENGGARA	16,7731
31	SULAWESI UTARA	19,2414
32	SUMATERA BARAT	20,6573
33	SUMATERA SELATAN	17,6328
34	SUMATERA UTARA	22,1858

**Lampiran 5. Matriks Pembobot Setiap Wilayah**

	1	2	3	4	5	6	7	8	9	10
1	1,000	0,029	0,542	0,823	0,235	0,514	0,000	0,860	0,419	0,279
2	0,000	1,000	0,373	0,001	0,889	0,475	0,062	0,004	0,611	0,866
3	0,002	0,466	1,000	0,918	0,923	1,000	0,000	0,872	0,995	0,940
4	0,628	0,276	0,960	1,000	0,723	0,943	0,000	0,993	0,898	0,761
5	0,000	0,853	0,873	0,270	1,000	0,919	0,000	0,252	0,969	1,000
6	0,000	0,535	1,000	0,878	0,948	1,000	0,000	0,846	0,998	0,964
7	0,000	0,383	0,000	0,000	0,082	0,002	1,000	0,000	0,006	0,092
8	0,630	0,200	0,920	0,991	0,646	0,909	0,000	1,000	0,842	0,703
9	0,000	0,655	0,995	0,783	0,980	0,998	0,000	0,735	1,000	0,986
10	0,000	0,818	0,899	0,330	1,000	0,942	0,000	0,331	0,978	1,000
11	0,000	0,967	0,717	0,115	0,991	0,797	0,000	0,135	0,882	0,988
12	0,251	0,093	0,733	0,810	0,466	0,755	0,000	0,957	0,651	0,556
13	0,000	0,817	0,191	0,000	0,631	0,303	0,366	0,019	0,363	0,666
14	0,000	0,467	0,161	0,000	0,476	0,279	0,035	0,046	0,293	0,557
15	0,000	0,310	0,002	0,000	0,134	0,023	0,657	0,000	0,028	0,179
16	0,000	0,076	0,000	0,000	0,025	0,003	0,595	0,001	0,002	0,050
17	0,102	0,314	0,957	0,931	0,787	0,963	0,000	0,975	0,921	0,842
18	0,199	0,010	0,302	0,411	0,143	0,343	0,000	0,722	0,242	0,216
19	0,142	0,398	0,995	0,976	0,860	0,993	0,000	0,971	0,973	0,893
20	0,000	0,373	0,000	0,000	0,072	0,001	0,895	0,000	0,005	0,068
21	0,000	0,291	0,000	0,000	0,053	0,001	0,973	0,000	0,004	0,057
22	0,000	0,990	0,201	0,000	0,741	0,286	0,283	0,000	0,411	0,708
23	0,000	0,893	0,063	0,000	0,486	0,112	0,628	0,000	0,191	0,453
24	0,000	0,194	0,000	0,000	0,032	0,000	0,596	0,000	0,002	0,028
25	0,000	0,278	0,000	0,000	0,049	0,001	0,852	0,000	0,003	0,047
26	0,892	0,111	0,816	0,973	0,485	0,796	0,000	0,992	0,705	0,545
27	0,000	0,686	0,001	0,000	0,238	0,013	0,862	0,000	0,033	0,251
28	0,000	0,731	0,001	0,000	0,252	0,012	0,869	0,000	0,036	0,256
29	0,000	0,532	0,000	0,000	0,142	0,005	0,989	0,000	0,014	0,152

30	0,000	0,686	0,001	0,000	0,216	0,010	0,933	0,000	0,031	0,211
31	0,000	0,370	0,000	0,000	0,076	0,002	1,000	0,000	0,005	0,085
32	0,898	0,140	0,851	0,987	0,530	0,827	0,000	0,991	0,746	0,582
33	0,463	0,293	0,971	0,997	0,758	0,962	0,000	0,997	0,920	0,801
34	0,985	0,063	0,698	0,926	0,359	0,672	0,000	0,955	0,573	0,413

	11	12	13	14	15	16	17	18	19	20
1	0,152	0,792	0,130	0,283	0,130	0,175	0,703	0,753	0,673	0,000
2	0,972	0,043	0,853	0,692	0,410	0,101	0,228	0,000	0,216	0,000
3	0,803	0,744	0,391	0,534	0,089	0,017	0,958	0,292	0,994	0,000
4	0,577	0,909	0,333	0,510	0,167	0,121	0,967	0,665	0,986	0,000
5	0,990	0,263	0,612	0,610	0,108	0,002	0,668	0,006	0,730	0,000
6	0,851	0,750	0,471	0,607	0,133	0,033	0,962	0,305	0,990	0,000
7	0,219	0,023	0,724	0,598	0,865	0,812	0,010	0,076	0,000	0,770
8	0,508	0,974	0,362	0,583	0,231	0,202	0,985	0,818	0,978	0,000
9	0,913	0,641	0,519	0,614	0,139	0,026	0,917	0,200	0,964	0,000
10	0,986	0,355	0,640	0,667	0,140	0,007	0,744	0,026	0,786	0,000
11	1,000	0,218	0,814	0,753	0,316	0,060	0,550	0,012	0,560	0,000
12	0,372	1,000	0,428	0,712	0,370	0,374	0,970	0,952	0,881	0,000
13	0,803	0,248	1,000	0,982	0,927	0,710	0,325	0,162	0,167	0,000
14	0,622	0,427	0,973	1,000	0,894	0,702	0,441	0,324	0,195	0,000
15	0,293	0,194	0,928	0,930	1,000	0,978	0,113	0,315	0,008	0,000
16	0,092	0,264	0,749	0,825	0,981	1,000	0,096	0,527	0,003	0,000
17	0,671	0,971	0,507	0,726	0,289	0,201	1,000	0,738	0,992	0,000
18	0,120	0,955	0,371	0,665	0,511	0,636	0,749	1,000	0,514	0,000
19	0,735	0,905	0,449	0,629	0,195	0,105	0,994	0,577	1,000	0,000
20	0,180	0,000	0,458	0,297	0,509	0,409	0,000	0,002	0,000	1,000
21	0,147	0,012	0,527	0,405	0,681	0,649	0,005	0,053	0,000	0,964
22	0,887	0,014	0,839	0,635	0,486	0,170	0,111	0,000	0,093	0,021
23	0,677	0,003	0,755	0,526	0,534	0,264	0,033	0,000	0,019	0,507
24	0,081	0,000	0,210	0,120	0,240	0,189	0,000	0,000	0,000	0,904

25	0,128	0,001	0,378	0,250	0,459	0,399	0,001	0,008	0,000	0,993
26	0,357	0,955	0,272	0,487	0,206	0,216	0,933	0,852	0,915	0,000
27	0,481	0,007	0,934	0,787	0,910	0,705	0,014	0,008	0,000	0,147
28	0,497	0,002	0,902	0,717	0,847	0,608	0,008	0,001	0,000	0,288
29	0,330	0,013	0,832	0,681	0,896	0,779	0,010	0,034	0,000	0,591
30	0,430	0,001	0,800	0,590	0,762	0,551	0,004	0,001	0,000	0,706
31	0,205	0,019	0,685	0,554	0,829	0,778	0,008	0,067	0,000	0,846
32	0,394	0,930	0,264	0,460	0,179	0,176	0,929	0,792	0,929	0,000
33	0,618	0,946	0,392	0,589	0,207	0,149	0,991	0,709	0,996	0,000
34	0,249	0,899	0,198	0,388	0,170	0,202	0,844	0,825	0,820	0,000

	21	22	23	24	25	26	27	28	29	30
1	c	0,001	0,000	0,000	0,000	0,948	0,007	0,001	0,000	0,000
2	0,000	0,987	0,787	0,000	0,000	0,000	0,691	0,706	0,352	0,515
3	0,000	0,179	0,000	0,000	0,000	0,623	0,021	0,006	0,000	0,000
4	0,000	0,089	0,000	0,000	0,000	0,971	0,033	0,012	0,000	0,000
5	0,000	0,577	0,067	0,000	0,000	0,008	0,123	0,092	0,000	0,001
6	0,000	0,234	0,001	0,000	0,000	0,565	0,045	0,020	0,000	0,000
7	0,945	0,504	0,649	0,000	0,560	0,000	0,937	0,933	0,992	0,948
8	0,000	0,043	0,000	0,000	0,000	0,990	0,033	0,009	0,000	0,000
9	0,000	0,355	0,014	0,000	0,000	0,399	0,076	0,046	0,000	0,000
10	0,000	0,517	0,039	0,000	0,000	0,027	0,125	0,086	0,000	0,000
11	0,000	0,827	0,342	0,000	0,000	0,000	0,416	0,382	0,078	0,132
12	0,000	0,004	0,000	0,000	0,000	0,898	0,038	0,006	0,000	0,000
13	0,000	0,743	0,450	0,000	0,000	0,000	0,919	0,864	0,688	0,608
14	0,000	0,266	0,012	0,000	0,000	0,000	0,622	0,466	0,260	0,107
15	0,037	0,272	0,134	0,000	0,000	0,000	0,890	0,793	0,804	0,547
16	0,046	0,051	0,008	0,000	0,000	0,000	0,689	0,547	0,650	0,306
17	0,000	0,085	0,000	0,000	0,000	0,852	0,058	0,020	0,000	0,000
18	0,000	0,000	0,000	0,000	0,000	0,697	0,057	0,011	0,005	0,000
19	0,000	0,145	0,000	0,000	0,000	0,848	0,048	0,019	0,000	0,000



20	0,968	0,538	0,773	0,725	0,990	0,000	0,751	0,795	0,860	0,896
21	1,000	0,420	0,619	0,382	0,946	0,000	0,799	0,811	0,918	0,880
22	0,004	1,000	0,959	0,000	0,000	0,000	0,826	0,862	0,603	0,784
23	0,320	0,974	1,000	0,000	0,135	0,000	0,887	0,933	0,817	0,949
24	0,785	0,308	0,515	1,000	0,952	0,000	0,423	0,469	0,536	0,592
25	0,968	0,418	0,648	0,901	1,000	0,000	0,655	0,694	0,787	0,805
26	0,000	0,015	0,000	0,000	0,000	1,000	0,021	0,004	0,000	0,000
27	0,307	0,773	0,773	0,000	0,000	0,000	1,000	0,999	0,980	0,964
28	0,390	0,838	0,877	0,000	0,011	0,000	0,999	1,000	0,982	0,989
29	0,779	0,656	0,761	0,000	0,250	0,000	0,988	0,987	1,000	0,985
30	0,706	0,829	0,938	0,000	0,328	0,000	0,979	0,993	0,986	1,000
31	0,974	0,498	0,661	0,003	0,689	0,000	0,917	0,917	0,985	0,945
32	0,000	0,027	0,000	0,000	0,000	0,999	0,021	0,005	0,000	0,000
33	0,000	0,090	0,000	0,000	0,000	0,959	0,041	0,015	0,000	0,000
34	0,000	0,005	0,000	0,000	0,000	0,994	0,013	0,002	0,000	0,000

	31	32	33	34
1	0,000	0,944	0,790	0,990
2	0,023	0,000	0,041	0,000
3	0,000	0,654	0,955	0,271
4	0,000	0,984	0,998	0,890
5	0,000	0,007	0,453	0,000
6	0,000	0,582	0,938	0,202
7	1,000	0,000	0,000	0,000
8	0,000	0,987	0,997	0,914
9	0,000	0,418	0,867	0,079
10	0,000	0,023	0,527	0,000
11	0,000	0,000	0,281	0,000
12	0,000	0,824	0,912	0,695
13	0,237	0,000	0,038	0,000
14	0,002	0,000	0,059	0,000

15	0,527	0,000	0,000	0,000
16	0,475	0,000	0,000	0,000
17	0,000	0,823	0,985	0,560
18	0,000	0,542	0,580	0,532
19	0,000	0,856	0,995	0,582
20	0,921	0,000	0,000	0,000
21	0,985	0,000	0,000	0,000
22	0,215	0,000	0,006	0,000
23	0,596	0,000	0,000	0,000
24	0,640	0,000	0,000	0,000
25	0,886	0,000	0,000	0,000
26	0,000	0,999	0,971	0,991
27	0,795	0,000	0,000	0,000
28	0,817	0,000	0,000	0,000
29	0,976	0,000	0,000	0,000
30	0,918	0,000	0,000	0,000
31	1,000	0,000	0,000	0,000
32	0,000	1,000	0,978	0,990
33	0,000	0,964	1,000	0,826
34	0,000	0,992	0,910	1,000

**Lampiran 6.** Estimasi Parameter Model GWR Setiap Wilayah

PROVINSI	KONS.	X1	X2	X3	X4	X5	X6	X7	X8	X9
Aceh	-42,6918	-0,4262	1,4489	35,3068	-0,4335	-0,7615	0,5909	-0,1311	0,1282	8,3288
Bali	-185,5637	-0,7902	1,1584	70,4585	-0,2322	0,9374	1,3215	1,0980	-0,1103	0,2136
Banten	-57,4982	-0,6469	1,1218	-0,2260	-0,2951	0,0251	0,9192	0,0709	-0,0639	1,3423
Bengkulu	-59,6525	-0,4615	1,4353	-6,7566	-0,2879	-0,3883	0,7309	0,0065	-0,0733	3,8678
Di.yogyakarta	-145,4503	-0,5748	1,1273	69,4661	-0,0704	0,6759	1,1346	0,4037	-0,1137	-0,9084
Dki.jakarta	-67,9337	-0,6449	1,1009	8,8495	-0,2507	0,1396	0,9244	0,0999	-0,0641	0,8446
Gorontalo	-66,6043	-0,7196	1,0188	3,6159	-0,3967	0,1153	0,7587	0,8093	0,0193	0,6318
Jambi	-53,8017	-0,4597	1,3093	11,0368	-0,3027	-0,4277	0,6692	-0,0236	0,0143	5,2491
Jawa barat	-83,6451	-0,6402	1,0997	21,9814	-0,2049	0,2947	0,9802	0,1563	-0,0836	-0,1229
Jawa tengah	-137,4313	-0,5669	1,0473	64,2008	-0,0658	0,6755	1,0682	0,3588	-0,0954	-0,6127
Jawa timur	-163,9003	-0,6619	1,0069	69,3301	-0,1226	0,8884	1,1283	0,6653	-0,0336	0,0466
Kalimantan barat	-47,9596	-0,5820	0,9843	14,3181	-0,3188	-0,2285	0,6178	-0,0441	0,1818	6,0748
Kalimantan selatan	-167,5012	-0,7570	1,1477	62,3415	-0,2383	0,8499	1,0360	1,0320	-0,0632	0,2896
Kalimantan tengah	-174,8321	-0,7722	1,1391	77,2424	-0,0903	0,9082	1,1049	0,9242	-0,1912	0,5637

Kalimantan timur	-135,6564	-0,7964	1,5780	35,0650	-0,5147	0,3786	0,7792	0,9234	0,0587	0,5426
Kalimantan utara	-75,9688	-0,9421	1,3186	9,0080	-0,7441	0,2506	0,5478	0,9216	0,0706	0,6214
Kep. bangka belitung	-55,8978	-0,5991	1,0630	-2,3964	-0,2730	-0,0797	0,7591	0,0234	0,0343	3,4242
Kep. riau	-49,5062	-0,7726	0,7893	-4,7901	-0,2889	0,0986	0,7057	0,0336	0,1721	4,2442
Lampung	-60,8783	-0,5929	1,2074	-0,1105	-0,2706	-0,0811	0,8198	0,0422	-0,0457	2,3684
Maluku	-46,5422	-0,5323	0,7640	9,8451	-0,1016	-0,0266	0,5623	0,6898	-0,0192	0,4849
Maluku utara	-42,8083	-0,5822	0,7449	9,4070	-0,2087	-0,0018	0,5917	0,7125	-0,0070	0,5139
Nusa tenggara barat	-170,1573	-0,7896	1,0395	58,9966	-0,2572	0,9163	1,1988	1,0817	-0,0317	0,2467
Nusa tenggara timur	-108,1649	-0,8209	1,1119	22,8405	-0,2492	0,2884	1,0842	0,8761	0,0485	0,6332
Papua barat	-41,2846	-0,4297	0,6936	5,3328	-0,0469	-0,0648	0,4166	0,6195	0,0573	0,4901
Papua	-39,5474	-0,4976	0,6856	8,5941	-0,0962	-0,0432	0,4934	0,6558	0,0155	0,4836
Riau	-48,2450	-0,4292	1,3463	20,5501	-0,3486	-0,5830	0,6181	-0,0665	0,0658	6,7157
Sulawesi barat	-130,4568	-0,8604	1,5329	18,4280	-0,4609	0,2718	0,9579	0,7845	0,2804	0,6584
Sulawesi selatan	-111,1183	-0,8910	1,2453	10,4870	-0,3961	0,3110	0,9661	0,7590	0,2911	0,6753

Sulawesi tengah	-81,1591	-0,7772	1,1050	6,7678	-0,3841	0,1706	0,8380	0,8027	0,0774	0,6464
Sulawesi tenggara	-83,3459	-0,7651	1,0582	9,7989	-0,3009	0,1817	0,8914	0,8304	0,0238	0,6335
Sulawesi utara	-63,1514	-0,7016	0,9783	2,9228	-0,3797	0,1066	0,7413	0,8067	0,0093	0,6270
Sumatera barat	-49,4416	-0,4236	1,3967	18,9530	-0,3424	-0,5835	0,6441	-0,0532	0,0234	6,1914
Sumatera selatan	-59,2962	-0,4957	1,3361	-4,7818	-0,2792	-0,3053	0,7367	0,0109	-0,0449	3,7758
Sumatera utara	-44,6718	-0,4266	1,3899	28,1892	-0,3913	-0,6792	0,6003	-0,0991	0,0997	7,5928

**Lampiran 7.** Nilai t Hitung GWR

PROVINSI	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>
Aceh	-1,3203	1,6188	-0,9453	-1,6685	-1,3553	1,3830	-0,5731	-0,5731	2,3972
Bali	-2,6574	0,8717	1,9369	-1,0137	1,1425	2,9555	3,4748	3,4748	0,4135
Banten	-2,3952	1,2470	-0,0065	-1,1376	0,0450	2,1185	0,3294	0,3294	0,6222
Bengkulu	-1,8119	1,7348	-0,2049	-1,1842	-0,7564	1,8032	0,0304	0,0304	1,6608
Di yogyakarta	-1,8321	0,9325	1,6707	-0,2610	0,9928	2,4225	1,7486	1,7486	-0,6197
Dki jakarta	-2,4424	1,2369	0,2632	-1,0049	0,2596	2,2550	0,4716	0,4716	0,4326
Gorontalo	-2,8677	1,3669	0,1035	-1,4207	0,3312	2,1169	3,2197	3,2197	2,1094
Jambi	-1,7261	1,5762	-0,3370	-1,2717	-0,8467	1,6748	-0,1107	-0,1107	2,0363
Jawa barat	-2,4203	1,1966	0,6496	-0,8304	0,5473	2,4263	0,7455	0,7455	-0,0717
Jawa tengah	-1,8573	0,9199	1,5775	-0,2468	1,0563	2,4261	1,6126	1,6126	-0,4041
Jawa timur	-2,2482	0,8486	1,9362	-0,5501	1,2727	2,6497	2,6899	2,6899	0,0717
Kalimantan barat	-1,9575	1,1787	-0,4410	-1,3640	-0,4632	1,5561	-0,2055	-0,2055	2,1411
Kalimantan selatan	-2,7620	1,1215	1,8881	-1,1098	1,2384	2,9149	3,9798	3,9798	0,5776
Kalimantan tengah	-2,7227	1,0415	2,2185	-0,3932	1,2204	2,9199	3,0685	3,0685	1,1065
Kalimantan timur	-2,5472	1,7861	0,9601	-1,8827	0,7862	2,2188	3,2752	3,2752	1,4851
Kalimantan utara	-2,5708	1,3987	0,2064	-2,0881	0,4988	1,4576	3,1196	3,1196	1,8185
Kep, bangka belitung	-2,2426	1,2779	-0,0763	-1,1781	-0,1591	1,9764	0,1122	0,1122	1,5338
Kep, riau	-2,3860	0,9277	-0,1526	-1,2281	0,2012	1,9040	0,1606	0,1606	2,3591

PROVINSI	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>
Lampung	-2,3326	1,4471	-0,0034	-1,1325	-0,1587	2,0834	0,2014	0,2014	1,1398
Maluku	-2,1875	0,9859	0,2755	-0,4015	-0,0782	1,5243	2,7773	2,7773	1,7697
Maluku utara	-2,3462	0,9652	0,2694	-0,8047	-0,0053	1,6282	2,8708	2,8708	1,8644
Nusa tenggara barat	-2,7653	0,9324	1,5907	-1,1306	1,2862	3,0518	3,7391	3,7391	0,5100
Nusa tenggara timur	-3,3525	1,6119	0,6760	-1,0871	0,8354	3,1017	3,4707	3,4707	2,1079
Papua barat	-1,7311	0,8742	0,1454	-0,1808	-0,1875	1,0861	2,4185	2,4185	1,7686
Papua	-2,0183	0,8737	0,2384	-0,3729	-0,1265	1,3242	2,6146	2,6146	1,7654
Riau	-1,4852	1,5795	-0,5988	-1,4264	-1,1130	1,5066	-0,3041	-0,3041	2,2803
Sulawesi barat	-2,9979	1,8752	0,4935	-1,8111	0,7037	2,7241	2,7647	2,7647	2,1327
Sulawesi selatan	-3,2164	1,6519	0,2884	-1,5782	0,8324	2,7303	2,7174	2,7174	2,2022
Sulawesi tengah	-3,1184	1,5142	0,1945	-1,4447	0,4887	2,3558	3,1790	3,1790	2,1565
Sulawesi tenggara	-3,1160	1,4565	0,2818	-1,1689	0,5241	2,4916	3,3070	3,3070	2,1167
Sulawesi utara	-2,7908	1,2976	0,0832	-1,3529	0,3058	2,0594	3,2029	3,2029	2,0962
Sumatera barat	-1,4984	1,6450	-0,5524	-1,3913	-1,1065	1,5628	-0,2443	-0,2443	2,1843
Sumatera selatan	-1,9667	1,6243	-0,1482	-1,1729	-0,6071	1,8582	0,0515	0,0515	1,6543
Sumatera utara	-1,3935	1,5934	-0,7874	-1,5552	-1,2528	1,4331	-0,4433	-0,4433	2,3644

- Kolom warna kuning : Signifikan



## Lampiran 8. *Syntax* beserta *Output* Program R

```
#PANGGIL LIBRARY
library(car)
library(lmtest)
library(spgwr)
library(fBasics)
library(unmarked)
library(AICcmodavg)
library(foreign)
library(lattice)
library(zoo)
library(ape)
library(Matrix)
library(mvtnorm)
library(emulator)
library(MLmetrics)
library(GWmodel)
library(sp)
library(readxl)
library(MASS)
library(skedastic)
```

```
#INPUT DATA
dt <- read_excel("Data Keterlibatan Parlemen.xlsx",
  col_types = c("text", "numeric", "numeric",
    "numeric", "numeric", "numeric",
    "numeric", "numeric", "numeric",
    "numeric", "numeric", "numeric", "numeric"))
head(dt, 5)
```

```
> head(dt,5)
# A tibble: 5 × 13
  Provinsi Y X1 X2 X3 X4 X5 X6 X7 X8 X9 U V
<chr> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
1 ACEH 11.1 46.2 72.2 0.216 42.9 80.8 34.9 30.5 54.1 4.21 96.7 4.70
2 BALI 16.4 69.6 74.5 0.209 43.2 83.2 39.1 36.4 51.2 4.84 115. -8.34
3 BANTEN 17.6 47.2 72.4 0.261 40.1 78.8 31.7 35.8 42.2 5.03 106. -6.41
4 BENGKULU 15.6 54.4 71.7 0.318 38.7 73.2 35.3 23.2 53.3 4.31 102. -3.79
5 DI YOGYAKARTA 20 63.4 76.9 0.146 47.1 85.6 41.4 32.9 53.1 5.15 110. -7.80
```

```
#ANALISIS DESKRIPTIF
summary(dt)
```

```
> summary(dt)
  Provinsi Y X1 X2 X3 X4 X5
Length:34 Min. : 1.59 Min. :43.28 Min. :67.60 Min. :0.1250 Min. :28.45 Min. :62.99
Class :character 1st Qu.:14.61 1st Qu.:47.76 1st Qu.:71.00 1st Qu.:0.2200 1st Qu.:31.45 1st Qu.:75.61
Mode :character Median :19.59 Median :52.58 Median :72.42 Median :0.2925 Median :38.24 Median :78.78
Mean :18.61 Mean :53.27 Mean :72.39 Mean :0.2718 Mean :39.50 Mean :77.95
3rd Qu.:21.49 3rd Qu.:56.05 3rd Qu.:73.85 3rd Qu.:0.3187 3rd Qu.:45.90 3rd Qu.:80.91
Max. :33.33 Max. :69.62 Max. :76.93 Max. :0.3720 Max. :64.51 Max. :85.62

  X6 X7 X8 X9 U V
Min. :24.02 Min. :23.20 Min. :34.91 Min. : 2.010 Min. : 96.75 Min. : -8.6574
1st Qu.:30.06 1st Qu.:29.27 1st Qu.:47.49 1st Qu.: 4.420 1st Qu.:106.16 1st Qu.: -5.9096
Median :34.63 Median :32.73 Median :50.98 Median : 5.100 Median :112.81 Median : -2.9684
Mean :33.53 Mean :33.12 Mean :49.82 Mean : 5.756 Mean :113.69 Mean : -2.7405
3rd Qu.:36.62 3rd Qu.:37.00 3rd Qu.:53.03 3rd Qu.: 5.340 3rd Qu.:120.80 3rd Qu.: 0.4313
Max. :43.93 Max. :46.09 Max. :60.10 Max. :22.940 Max. :141.35 Max. : 4.6951
```

```
#ANALISIS KORELASI
###Koefisien Korelasi
cor(dt[, c('Y', 'X1', 'X2', 'X3', 'X4', 'X5', 'X6', 'X7', 'X8', 'X9')], method = "pearson")
```

```
Y 1.00000000 -0.24858241 0.17171824 0.29320341 -0.10399604 0.08900075 0.04653719 0.20006167 0.10580147 0.37921574
X1 -0.24858241 1.00000000 -0.27760197 -0.18558056 -0.30193126 -0.01506270 0.11184361 0.04472090 -0.06810660 -0.10042386
X2 0.17171824 -0.2776020 1.00000000 -0.25607724 0.23714719 0.70720906 -0.17415531 -0.05754627 0.11851171 -0.10572309
X3 0.29320341 -0.1855887 -0.25607724 1.00000000 -0.66991810 -0.26435243 -0.32724760 -0.17755430 -0.00819224 0.21340540
X4 -0.10399604 -0.3019313 0.23714719 -0.66991810 1.00000000 0.02549913 -0.07372075 0.26094261 0.03542823 -0.09276755
X5 0.08900075 -0.0150627 0.70720906 -0.26435243 0.02549913 1.00000000 0.11135428 0.03533943 0.23941806 -0.33595281
X6 0.04653719 0.1118436 -0.17415531 -0.32724760 -0.07372075 0.11135428 1.00000000 -0.03587022 0.11692101 0.08274470
X7 0.20006167 0.0447209 -0.05754627 -0.17755430 0.26094261 0.03533943 -0.03587022 1.00000000 0.25512511 -0.10284370
X8 0.10580147 -0.0681066 0.11851171 -0.00819224 0.03542823 0.23941806 0.11692101 0.25512511 1.00000000 -0.17626715
X9 0.37921574 -0.1004239 -0.10572309 0.21340540 -0.09276755 -0.33595281 0.08274470 -0.10284370 -0.17626715 1.00000000
```

```
##Uji Korelasi
```

```
uji_korelasi <-data.frame("Variabel" =  
c("X1","X2","X3","X4","X5","X6","X7","X8","X9"),  
  "thitung"= c(CorX1=cor.test(X1,Y)$statistic,  
    CorX2=cor.test(X2,Y)$statistic,  
    CorX3=cor.test(X3,Y)$statistic,  
    CorX4=cor.test(X4,Y)$statistic,  
    CorX5=cor.test(X5,Y)$statistic,  
    CorX6=cor.test(X6,Y)$statistic,  
    CorX7=cor.test(X7,Y)$statistic,  
    CorX8=cor.test(X8,Y)$statistic,  
    CorX9=cor.test(dt$X9,dt$Y)$statistic),  
  "pvalue"=c(CorX1=cor.test(X1,Y)$p.value,  
    CorX2=cor.test(X2,Y)$p.value,  
    CorX3=cor.test(X3,Y)$p.value,  
    CorX4=cor.test(X4,Y)$p.value,  
    CorX5=cor.test(X5,Y)$p.value,  
    CorX6=cor.test(X6,Y)$p.value,  
    CorX7=cor.test(X7,Y)$p.value,  
    CorX8=cor.test(X8,Y)$p.value,  
    CorX9=cor.test(dt$X9,dt$Y)$p.value))  
  
print(uji_korelasi)
```

Variabel <chr>	thitung <dbl>	pvalue <dbl>
X1	4.5267602	1.270631e-04
X2	6.0151381	2.777377e-06
X3	1.2649173	2.175653e-01
X4	4.9010792	4.814883e-05
X5	-0.1799614	8.586336e-01
X6	-0.9913060	3.310345e-01
X7	1.3511808	1.887397e-01
X8	4.1268086	3.575143e-04
X9	2.3183281	2.697824e-02

## #REGRESI OLS

### #ESTIMASI PARAMETER

```
regols<-lm(formula=Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,  
data=dt)
```

```
regols
```

```
> regols
```

```
Call:  
lm(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,  
    data = dt)  
Coefficients:  
(Intercept)          X1          X2          X3          X4          X5          X6          X7          X8  
-78.690812   -0.355268    0.883846   46.969398  -0.006726    0.030332    0.698648    0.454253   -0.079448  
          X9  
  0.499061
```

### #DETEKSI MULTIKOLINEARITAS

```
vif(regols,type="term")
```

```
          X1          X2          X3          X4          X5          X6          X7          X8          X9  
2.452860  2.971849  3.391220  3.368722  3.171753  2.353510  1.287569  1.266185  1.438108
```

### #UJI SIMULTAN, UJI PARSIAL, DAN KOEFISIEN DETERMINASI

```
summary(regols)
```

```

Call:
lm(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
    data = dt)

Residuals:
    Min       1Q   Median       3Q      Max
-12.7444  -2.5029   0.5354   2.7229   8.5691

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -78.690812  48.434030  -1.625  0.1173
X1           -0.355268   0.230638  -1.540  0.1366
X2            0.883846   0.705468   1.253  0.2223
X3           46.969398  27.046646   1.737  0.0953
X4           -0.006726   0.205704  -0.033  0.9742
X5            0.030332   0.326297   0.093  0.9267
X6            0.698648   0.337124   2.072  0.0491 *
X7            0.454253   0.199861   2.273  0.0323 *
X8           -0.079448   0.215048  -0.369  0.7150
X9            0.499061   0.322301   1.548  0.1346
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 5.718 on 24 degrees of freedom
Multiple R-squared:  0.4792,    Adjusted R-squared:  0.2839
F-statistic: 2.454 on 9 and 24 DF,  p-value: 0.03828

```

```
#UJI ASUMSI IIDN
```

```

#UJI NORMALITAS RESIDUAL
resid<-abs(regols$residuals)
res=regols$residual
ks.test(res,"pnorm",mean(res),sd(res),alternative=c("two.sided"))

```

```

Exact one-sample Kolmogorov-Smirnov test

data:  res
D = 0.12762, p-value = 0.5924
alternative hypothesis: two-sided

```

```

#UJI RESIDUAL IDENTIK

glejser(regols, auxdesign = NA, sigmaest = c("main", "auxiliary"),
statonly = FALSE)

```

statistic <dbl>	p.value <dbl>	parameter <dbl>	alternative <chr>
16.94465	0.04958982	9	greater

```
#UJI RESIDUAL INDEPENDEN
```

```
dwtest(lm(regols$residuals~X1+X2+X3+X4+X5+X6+X7+X8+X9,
data = dt))
```

```
Durbin-Watson test
```

```
data: lm(regols$residuals ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9, data = dt)
DW = 2.3748, p-value = 0.8495
alternative hypothesis: true autocorrelation is greater than 0
```

```
#GWR
```

```
#MENCARI JARAK EUCLIDEAN
```

```
V=dt[12]
```

```
U=dt[13]
```

```
V<-as.matrix(V)
```

```
U<-as.matrix(U)
```

```
j<-nrow(V)
```

```
i<-nrow(U)
```

```
dij<-matrix(0,34,34)
```

```
for (i in 1:34) {
```

```
  for (j in 1:34) {
```

```
    dij[i,j]<-sqrt((U[i,]-U[j,])**2+(V[i,]-V[j,])**2)
```

```
  }
```

```
}
```

```
options(max.print=10000)
```

```
dij
```



	[,26]	[,27]	[,28]	[,29]	[,30]	[,31]	[,32]	[,33]	[,34]
[1,]	6.629619	23.713108	24.684812	25.444465	26.918163	27.5281987	6.778454	10.750376	3.804102
[2,]	15.928134	6.881213	6.757224	9.387453	8.232089	12.6207729	16.187304	12.253535	18.735804
[3,]	7.991489	13.641238	14.176754	16.166389	16.268458	19.2413950	7.733822	3.761197	10.728779
[4,]	4.123567	16.997810	17.713724	19.329809	19.916953	22.1590297	3.384383	1.720065	6.502436
[5,]	11.852588	10.158957	10.460286	12.782042	12.362978	16.0074527	11.888980	7.854587	14.676718
[6,]	8.287605	12.835326	13.371901	15.362190	15.467318	18.4421375	8.152131	4.115840	11.071959
[7,]	21.351406	5.109271	5.219864	2.547702	4.770725	0.9218075	22.293741	19.528261	23.564153
[8,]	2.693908	15.667630	16.489945	17.833407	18.733763	20.4841516	2.944628	1.735663	5.516158
[9,]	9.490700	12.318380	12.772156	14.894426	14.801850	18.0393958	9.355019	5.321672	12.278082
[10,]	11.249030	10.060319	10.432116	12.670454	12.404108	15.8701293	11.328801	7.310405	14.075593
[11,]	13.123021	8.421739	8.648470	11.047920	10.498955	14.2949518	13.305045	9.331075	15.945841
[12,]	4.909760	13.048749	13.989443	14.954613	16.233436	17.3624827	5.939220	4.658195	7.255364
[13,]	13.992781	3.956133	4.725550	6.382226	6.970727	9.4528419	14.673593	11.371621	16.577958
[14,]	11.841362	5.964145	6.884759	8.067184	9.130833	10.8407825	12.617529	9.608593	14.348718
[15,]	14.714605	4.399378	5.508025	5.398027	7.420130	7.5560988	15.671629	13.086622	16.947793
[16,]	14.601595	6.722656	7.805060	7.034470	9.471848	8.3028197	15.711111	13.708695	16.534006
[17,]	5.622814	12.791907	13.565278	15.062196	15.796523	17.8545175	5.985033	2.591555	8.434006
[18,]	7.400129	13.002763	14.069713	14.347860	16.197125	16.1766851	8.710475	8.406037	8.790428
[19,]	6.101728	13.931168	14.594395	16.341093	16.772899	19.2780718	5.983701	1.939786	8.882630
[20,]	28.656915	10.920317	10.180320	8.885632	8.022045	7.2798532	29.451441	26.230999	31.064998
[21,]	26.133191	9.646401	9.425405	7.035328	8.025922	3.9488350	27.107449	24.389697	28.268914
[22,]	18.030787	6.102510	5.627278	8.297543	6.594455	11.3934523	18.354930	14.466329	20.817913
[23,]	21.340358	6.099697	5.109568	7.236630	4.643484	9.7232491	21.770130	17.975814	24.078554
[24,]	39.993667	22.220960	21.415142	20.221221	19.192018	18.2636742	40.771466	37.470873	42.405220
[25,]	31.510047	14.023954	13.405182	11.729474	11.353051	9.4063587	32.380200	29.327457	33.806270
[26,]	0.000000	17.803880	18.691979	19.813879	20.943447	22.2706336	1.374777	4.233860	2.827154
[27,]	17.803880	0.000000	1.109322	2.626684	3.217215	5.8760589	18.551792	15.325052	20.302063
[28,]	18.691979	1.109322	0.000000	2.679106	2.251468	5.8686996	19.396452	16.063454	21.232020
[29,]	19.813879	2.626684	2.679106	0.000000	2.811053	3.2587776	20.657143	17.632740	22.185638
[30,]	20.943447	3.217215	2.251468	2.811053	0.000000	5.0980906	21.644106	18.278855	23.479470
[31,]	22.270634	5.876059	5.868700	3.258778	5.098091	0.0000000	23.215136	20.444652	24.475337
[32,]	1.374777	18.551792	19.396452	20.657143	21.644106	23.2151355	0.000000	4.043916	3.118894
[33,]	4.233860	15.325052	16.063454	17.632740	18.278855	20.4446520	4.043916	0.000000	6.973361
[34,]	2.827154	20.302063	21.232020	22.185638	23.479470	24.4753369	3.118894	6.973361	0.000000



```
#FUNGSI FIX KERNEL GAUSSIAN
```

```
fixgauss=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data =  
dt,adapt=FALSE,coords=cbind(dt$U,dt$V),gweight=gwr.Gauss)
```

```
gwr.fixgauss=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data =  
dt,bandwidth = fixgauss,coords = cbind(dt$U,dt$V),hatmatrix =  
TRUE,gweight = gwr.Gauss)
```

```
gwr.fixgauss
```

```
gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,  
data = dt, coords = cbind(dt$U, dt$V), bandwidth = fixgauss,  
weight = gwr.Gauss, hatmatrix = TRUE)  
Kernel function: gwr.Gauss  
Fixed bandwidth: 46.55353  
Summary of GWR coefficient estimates at data points:  
              Min.      1st Qu.      Median      3rd Qu.      Max.      Global  
X.Intercept. -80.9565895 -80.2495585 -79.5745884 -78.8208449 -76.4951375 -78.6908  
X1            -0.3748687 -0.3678794 -0.3657101 -0.3628304 -0.3577212 -0.3553  
X2            0.8514134  0.8802183  0.8908698  0.9005885  0.9102256  0.8838  
X3            45.6927992  45.8635848  46.1262317  46.3681656  46.7869549  46.9694  
X4            -0.0219146 -0.0191788 -0.0167561 -0.0139609 -0.0065683 -0.0067  
X5            0.0248618  0.0372090  0.0418139  0.0453648  0.0496980  0.0303  
X6            0.6965678  0.7036128  0.7068687  0.7083427  0.7127779  0.6986  
X7            0.4350619  0.4478114  0.4561445  0.4660880  0.4804843  0.4543  
X8            -0.0748276 -0.0745516 -0.0739661 -0.0735256 -0.0728425 -0.0794  
X9            0.4808922  0.5030303  0.5112083  0.5192751  0.5317468  0.4991  
Number of data points: 34  
Effective number of parameters (residual: 2traces - traces'S): 10.68946  
Effective degrees of freedom (residual: 2traces - traces'S): 23.31054  
Sigma (residual: 2traces - traces'S): 5.716141  
Effective number of parameters (model: traces): 10.35658  
Effective degrees of freedom (model: traces): 23.64342  
Sigma (model: traces): 5.675759  
Sigma (ML): 4.733034  
AICc (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 237.8788  
AIC (GWR p. 96, eq. 4.22): 212.5549  
Residual sum of squares: 761.6547  
Quasi-global R2: 0.4945612
```

```
#FUNGSI KERNEL BISQUARE
```

```
fixbisquare=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data  
=dt,adapt=FALSE,coords=cbind(dt$U,dt$V),gweight=gwr.bisquare  
)
```

```
gwr.fixbisquare=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data  
=dt,bandwidth=fixbisquare,coords=cbind(dt$U,dt$V),hatmatrix=TR  
UE,gweight=gwr.bisquare)
```

```
gwr.fixbisquare
```

```

gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
     data = dt, coords = cbind(dt$U, dt$V), bandwidth = fixbisure,
     gweight = gwr.bisure, hatmatrix = TRUE)
Kernel function: gwr.bisure
Fixed bandwidth: 30.42591
Summary of GWR coefficient estimates at data points:
      Min.    1st Qu.    Median    3rd Qu.    Max.    Global
X.Intercept. -97.514770 -95.682537 -88.567038 -81.355573 -50.451920 -78.6908
X1           -0.545677  -0.520235  -0.504786  -0.477606  -0.190034  -0.3553
X2            0.754430   0.858315   0.891543   0.976328   1.534980   0.8838
X3           -7.922637  33.738407  34.593887  36.650200  37.678140  46.9694
X4           -0.172654  -0.129728  -0.116816  -0.108685   0.026920  -0.0067
X5           -0.242636   0.091746   0.188607   0.252535   0.299402   0.0303
X6            0.160005   0.727090   0.770271   0.797073   0.837672   0.6986
X7            0.116528   0.338581   0.462065   0.570735   0.703635   0.4543
X8           -0.154704  -0.018103   0.026403   0.053506   0.246078  -0.0794
X9            0.440104   0.577994   0.688723   0.734435   1.528344   0.4991
Number of data points: 34
Effective number of parameters (residual: 2traces - traces'S): 16.18015
Effective degrees of freedom (residual: 2traces - traces'S): 17.81985
Sigma (residual: 2traces - traces'S): 5.524377
Effective number of parameters (model: traces): 14.21005
Effective degrees of freedom (model: traces): 19.78995
Sigma (model: traces): 5.242193
Sigma (ML): 3.99941
AICc (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 248.8844
AIC (GWR p. 96, eq. 4.22): 204.9559
Residual sum of squares: 543.8394

```

### #FUNGSI KERNEL TRICUBE

```

fixtricube=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data =
dt,adapt = FALSE,coords = cbind(dt$U,dt$V),gweight = gwr.tricube)

```

```

gwr.fixtricube=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data =
dt,bandwidth = fixtricube,coords = cbind(dt$U,dt$V),hatmatrix =
TRUE,gweight = gwr.tricube)

```

```

gwr.fixtricube

```

```

gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
     data = dt, coords = cbind(dt$U, dt$V), bandwidth = fixtricube,
     gweight = gwr.tricube, hatmatrix = TRUE)
Kernel function: gwr.tricube
Fixed bandwidth: 30.7559
Summary of GWR coefficient estimates at data points:

```

	Min.	1st Qu.	Median	3rd Qu.	Max.	Global
X.Intercept.	-102.717637	-99.595544	-85.003928	-78.353709	-52.167621	-78.6908
X1	-0.542803	-0.522800	-0.496891	-0.478668	-0.067161	-0.3553
X2	0.790104	0.836750	0.896391	1.006808	1.492972	0.8838
X3	-14.199210	33.749820	35.659422	37.243646	39.235395	46.9694
X4	-0.186182	-0.128268	-0.112264	-0.099804	0.064932	-0.0067
X5	-0.223962	0.091224	0.191441	0.259477	0.298042	0.0303
X6	0.049868	0.742121	0.770317	0.795428	0.813551	0.6986
X7	0.110142	0.358822	0.455103	0.545814	0.732443	0.4543
X8	-0.150205	-0.018645	0.028104	0.066500	0.334051	-0.0794
X9	0.431968	0.573650	0.689090	0.726681	1.633159	0.4991

```

Number of data points: 34
Effective number of parameters (residual: 2traces - traces'S): 15.00143
Effective degrees of freedom (residual: 2traces - traces'S): 18.99857
Sigma (residual: 2traces - traces'S): 5.51417
Effective number of parameters (model: traces): 13.51718
Effective degrees of freedom (model: traces): 20.48282
Sigma (model: traces): 5.310626
Sigma (ML): 4.121935
AICC (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 246.2078
AIC (GWR p. 96, eq. 4.22): 206.3149
Residual sum of squares: 577.6719
Quasi-global R2: 0.6166078

```

```
# KERNEL ADAPTIF GAUSSIAN
```

```
adaptgauss=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data=
dt,adapt=TRUE,coords=cbind(dt$U,dt$V),gweight=gwr.Gauss)
```

```
gwr.adaptgauss=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data=
dt,adapt=adaptgauss,coords=cbind(dt$U,dt$V),hatmatrix=TRUE,gw
eight=gwr.Gauss)
```

```
gwr.adaptgauss
```

```

gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
     data = dt, coords = cbind(dt$U, dt$V), gweight = gwr.Gauss,
     adapt = adaptgauss, hatmatrix = TRUE)
Kernel function: gwr.Gauss
Adaptive quantile: 0.9118003 (about 31 of 34 data points)
Summary of GWR coefficient estimates at data points:
      Min.      1st Qu.      Median      3rd Qu.      Max.      Global
X.Intercept. -85.392298 -84.589382 -84.050843 -80.122707 -75.630628 -78.6908
X1            -0.447248 -0.425135 -0.402780 -0.389826 -0.361372 -0.3553
X2             0.837440  0.874903  0.917716  0.938008  0.943219  0.8838
X3            41.220909  42.089125  42.699219  43.705343  46.599611  46.9694
X4            -0.077738 -0.062478 -0.053216 -0.042007 -0.006660 -0.0067
X5             0.021998  0.064704  0.092216  0.106397  0.129697  0.0303
X6             0.691893  0.714827  0.729350  0.750209  0.773977  0.6986
X7             0.409058  0.419744  0.464445  0.511241  0.519609  0.4543
X8            -0.071722 -0.058372 -0.051164 -0.043029 -0.022153 -0.0794
X9             0.474865  0.523472  0.577833  0.581880  0.607300  0.4991
Number of data points: 34
Effective number of parameters (residual: 2traces - traces'S): 12.49439
Effective degrees of freedom (residual: 2traces - traces'S): 21.50561
Sigma (residual: 2traces - traces'S): 5.667285
Effective number of parameters (model: traces): 11.37384
Effective degrees of freedom (model: traces): 22.62616
Sigma (model: traces): 5.525168
Sigma (ML): 4.507248
AICc (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 239.6684
AIC (GWR p. 96, eq. 4.22): 210.2484
Residual sum of squares: 690.7196
Quasi-global R2: 0.5415797

```

```
# KERNEL ADAPTIF BISQUARE
```

```

adaptbisquare=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,
data=dt,adapt=TRUE,coords=cbind(dt$U,dt$V),gweight=gwr.bisqua
re)

```

```

gwr.adaptbisquare=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,da
ta=dt,adapt=adaptbisquare,coords=cbind(dt$U,dt$V),hatmatrix=TRU
E,gweight=gwr.bisquare)

```

```
gwr.adaptbisquare gwr.adaptgauss
```

```

gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
     data = dt, coords = cbind(dt$U, dt$V), gweight = gwr.bisquare,
     adapt = adaptbisquare, hatmatrix = TRUE)
Kernel function: gwr.bisquare
Adaptive quantile: 0.9999339 (about 33 of 34 data points)
Summary of GWR coefficient estimates at data points:

```

	Min.	1st Qu.	Median	3rd Qu.	Max.	Global
X.Intercept.	-97.1149567	-92.9212327	-92.1761749	-85.9838722	-62.6186198	-78.6908
X1	-0.6509312	-0.5561572	-0.5028933	-0.4589013	-0.3990034	-0.3553
X2	0.7854804	0.8627844	0.9082723	0.9569625	1.0316919	0.8838
X3	29.4286414	33.1342566	35.0872445	36.4720963	37.9588201	46.9694
X4	-0.2087662	-0.1554174	-0.1233001	-0.1055358	-0.0354919	-0.0067
X5	-0.0398335	0.1400112	0.2134936	0.2531758	0.3199241	0.0303
X6	0.6802737	0.7286519	0.7699071	0.8204320	0.9278051	0.6986
X7	0.3359096	0.3797292	0.4591850	0.6507715	0.6759271	0.4543
X8	-0.0467145	-0.0041127	0.0260731	0.0649211	0.1095509	-0.0794
X9	0.4162402	0.6076615	0.7012915	0.7074956	0.7133849	0.4991

```

Number of data points: 34
Effective number of parameters (residual: 2traces - traces'S): 15.62996
Effective degrees of freedom (residual: 2traces - traces'S): 18.37004
Sigma (residual: 2traces - traces'S): 5.526557
Effective number of parameters (model: traces): 13.67229
Effective degrees of freedom (model: traces): 20.32771
Sigma (model: traces): 5.253703
Sigma (ML): 4.062284
AICc (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 246.2441
AIC (GWR p. 96, eq. 4.22): 205.4788
Residual sum of squares: 561.0731
Quasi-global R2: 0.6276242

```

```
# KERNEL ADAPTIF TRICUBE
```

```
adapttricube=gwr.sel(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data
=dt,adapt=TRUE,coords=cbind(dt$U,dt$V),gweight=gwr.tricube)
```

```
gwr.adapttricube=gwr(Y~X1+X2+X3+X4+X5+X6+X7+X8+X9,data
=dt,adapt=adapttricube,coords=cbind(dt$U,dt$V),hatmatrix=TRUE,g
weight=gwr.tricube)
```

```
gwr.adapttricube
```

```

gwr(formula = Y ~ X1 + X2 + X3 + X4 + X5 + X6 + X7 + X8 + X9,
     data = dt, coords = cbind(dt$U, dt$V), gweight = gwr.tricube,
     adapt = adapttricube, hatmatrix = TRUE)
Kernel function: gwr.tricube
Adaptive quantile: 0.764709 (about 26 of 34 data points)
Summary of GWR coefficient estimates at data points:

```

	Min.	1st Qu.	Median	3rd Qu.	Max.	Global
X.Intercept.	-185.563717	-125.622154	-64.877809	-49.457780	-39.547398	-78.6908
X1	-0.942090	-0.772502	-0.642528	-0.506269	-0.423634	-0.3553
X2	0.685626	1.024000	1.116870	1.316233	1.578010	0.8838
X3	-35.306797	-4.185411	8.721806	22.625720	77.242440	46.9694
X4	-0.744130	-0.371944	-0.283558	-0.214602	-0.046949	-0.0067
X5	-0.761511	-0.080738	0.110986	0.306911	0.937421	0.0303
X6	0.416614	0.624612	0.769132	0.976651	1.321482	0.6986
X7	-0.131090	0.025942	0.637661	0.808623	1.097991	0.4543
X8	-0.191178	-0.058835	0.014883	0.063985	0.291089	-0.0794
X9	-0.908432	0.486177	0.633369	3.687884	8.328752	0.4991

```

Number of data points: 34
Effective number of parameters (residual: 2traces - traces'S): 23.81159
Effective degrees of freedom (residual: 2traces - traces'S): 10.18841
Sigma (residual: 2traces - traces'S): 4.796469
Effective number of parameters (model: traces): 21.33158
Effective degrees of freedom (model: traces): 12.66842
Sigma (model: traces): 4.301437
Sigma (ML): 2.625641
AICc (GWR p. 61, eq 2.33; p. 96, eq. 4.21): 304.4704
AIC (GWR p. 96, eq. 4.22): 183.4615
Residual sum of squares: 234.3956
Quasi-global R2: 0.8444351

```

```
# BANDWIDTH OPTIMAL
```

```
fixgauss
```

```
fixbisphere
```

```
fixtricube
```

```
adaptgauss
```

```
adaptbisphere
```

```
adapttricube
```

```

> fixgauss
[1] 46.55353
> fixbisphere
[1] 30.42591
> fixtricube
[1] 30.7559
> adaptgauss
[1] 0.9118003
> adaptbisphere
[1] 0.9999339
> adapttricube
[1] 0.764709

```

```

# FUNGSI KERNEL TERBAIK
R1 <- (1 - (gwr.fixgauss$results$rss/gwr.fixgauss$gTSS))
R2 <- (1 - (gwr.fixbisphere$results$rss/gwr.fixbisphere$gTSS))
R3 <- (1 - (gwr.fixtricube$results$rss/gwr.fixtricube$gTSS))
R4 <- (1 - (gwr.adaptgauss$results$rss/gwr.adaptgauss$gTSS))
R5 <- (1 - (gwr.adaptbisphere$results$rss/gwr.adaptbisphere$gTSS))
R6 <- (1 - (gwr.adapttricube$results$rss/gwr.adapttricube$gTSS))

Kernel_Optimal <-data.frame("KERNEL" =
c("fixgauss", "fixbisphere", "fixtricube", "adaptgauss", "adaptbisphere",
"adapttricube"),

      "AIC" = c(gwr.fixgauss[["results"]][["AICh"]],
                gwr.fixbisphere[["results"]][["AICh"]],
                gwr.fixtricube[["results"]][["AICh"]],
                gwr.adaptgauss[["results"]][["AICh"]],
                gwr.adaptbisphere[["results"]][["AICh"]],
                gwr.adapttricube[["results"]][["AICh"]]),

      "R2" = c(R1,R2,R3,R4,R5,R6))

Kernel_Optimal

```

KERNEL <chr>	AIC <dbl>	R2 <dbl>
fixgauss	212.5549	0.4945012
fixbisphere	204.9559	0.6390619
fixtricube	206.3149	0.6166078
adaptgauss	210.2484	0.5415797
adaptbisphere	205.4788	0.6276242
adapttricube	183.4615	0.8444351

```
# UJI KESESUAIN MODEL  
BFC02.gwr.test(gwr.adaptttrcube)
```

```
Brunsdon, Fotheringham & Charlton (2002, pp. 91-2) ANOVA  
data: gwr.adaptttrcube  
F = 3.3476, df1 = 24.000, df2 = 10.188, p-value = 0.02442  
alternative hypothesis: greater  
sample estimates:  
SS OLS residuals SS GWR residuals  
784.6649 234.3956
```

```
#Bandwidth per wilayah  
bi <-as.matrix(gwr.adaptttrcube$bandwidth)
```

[ ,1]	[19,]	16.19969	
[1,]	25.44459	[20,]	24.28871
[2,]	14.11543	[21,]	23.16170
[3,]	15.18333	[22,]	15.44745
[4,]	19.32982	[23,]	17.97582
[5,]	12.78224	[24,]	35.31058
[6,]	14.86034	[25,]	27.58068
[7,]	18.37269	[26,]	19.81400
[8,]	17.83350	[27,]	14.02409
[9,]	14.80186	[28,]	14.59455
[10,]	12.67060	[29,]	16.34123
[11,]	13.30507	[30,]	16.77306
[12,]	14.95475	[31,]	19.24140
[13,]	13.04184	[32,]	20.65725
[14,]	11.32028	[33,]	17.63278
[15,]	13.08674	[34,]	22.18577
[16,]	13.76227		
[17,]	15.06227		
[18,]	15.29705		



```
# MENCARI PEMBOBOT SETIAP WILAYAH
```

```
i<-nrow(h)
```

```
W<-matrix(0,34,34)
```

```
for (i in 1:34) {
```

```
  for (j in 1:34) {
```

```
    W[i,j]<-(1-(jarak[i,j]/h[i,])**3)**3
```

```
    W[i,j]<-ifelse(jarak[i,j]<h[i,],W[i,j],0)
```

```
  }
```

```
}
```

```
options(max.print=100000)
```

```
W
```

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]
[1,]	1.00000000	0.026265600	5.418949e-01	8.292781e-01	0.22796818	0.5133968987	0.000000e+00	8.959054e-01	0.418887247
[2,]	0.00000000	1.00000000	3.589307e-01	5.401126e-04	0.88711550	0.4593736227	0.414933e-02	0.000000e+00	0.596471108
[3,]	0.00222885	0.451387399	1.000000e+00	9.151716e-01	0.91871543	0.9995530489	0.000000e+00	8.167713e-01	0.995452899
[4,]	0.64055401	0.264991938	9.582629e-01	1.000000e+00	0.71422107	0.9423028955	0.000000e+00	9.961873e-01	0.896087218
[5,]	0.00000000	0.850061482	8.663386e-01	2.536281e-01	1.00000000	0.9141390471	0.000000e+00	1.158034e-01	0.966527562
[6,]	0.00000000	0.520201283	9.995233e-01	8.760021e-01	0.94476395	1.0000000000	0.000000e+00	7.730197e-01	0.998401671
[7,]	0.00000000	0.413875464	5.475521e-04	0.000000e+00	0.11121400	0.0078620478	1.000000e+00	0.000000e+00	0.015297503
[8,]	0.71812800	0.098232995	8.840094e-01	9.951465e-01	0.53392048	0.8639362116	0.000000e+00	1.000000e+00	0.780036538
[9,]	0.00000000	0.642230822	9.950928e-01	7.787432e-01	0.97836389	0.9983826609	0.000000e+00	6.383166e-01	1.000000000
[10,]	0.00000000	0.806398302	8.986920e-01	3.287325e-01	0.99930352	0.9418400854	0.000000e+00	1.854457e-01	0.977884440
[11,]	0.00000000	0.963347166	7.169105e-01	1.151347e-01	0.99203888	0.7973224834	7.369931e-05	4.334650e-02	0.881732203
[12,]	0.00000000	0.486437433	5.856984e-01	3.835233e-01	0.64756780	0.6643385286	2.164417e-01	4.625928e-01	0.631459673
[13,]	0.00000000	0.810106657	1.912058e-01	1.032954e-05	0.62984915	0.3031236313	4.389399e-01	1.051796e-05	0.362763085
[14,]	0.00000000	0.451133558	1.613330e-01	3.317867e-05	0.46937894	0.2786978300	0.093443e-02	8.828694e-04	0.293079486
[15,]	0.00000000	0.302401695	2.465964e-03	0.000000e+00	0.13120718	0.0226002427	7.343547e-01	0.000000e+00	0.027501576
[16,]	0.00000000	0.071141949	6.952085e-15	0.000000e+00	0.02322562	0.0029747323	6.761933e-01	0.000000e+00	0.001904700
[17,]	0.10158718	0.298769190	9.567426e-01	9.372940e-01	0.77778594	0.9630186087	0.000000e+00	9.365826e-01	0.921102430
[18,]	0.19930998	0.007549772	3.023735e-01	4.401328e-01	0.13458356	0.3430771923	1.662249e-03	6.438263e-01	0.242272304
[19,]	0.14169909	0.383766651	9.946907e-01	9.767003e-01	0.85406877	0.9925946822	0.000000e+00	9.459455e-01	0.972627015
[20,]	0.00000000	0.37859596	2.439412e-16	0.000000e+00	0.07403265	0.0008725414	8.796315e-01	0.000000e+00	0.005122725
[21,]	0.00000000	0.293803135	6.379938e-19	0.000000e+00	0.05351459	0.0010028546	6.617919e-01	0.000000e+00	0.003508072
[22,]	0.00000000	0.991518743	2.005755e-01	0.000000e+00	0.74808858	0.2856990287	3.043881e-01	0.000000e+00	0.410622320

## #ESTIMASI PARAMETER

```
result <- as.data.frame(gwr.adapttricube$SDF)
```

```
coefresult <- data.frame(result$X.Intercept., result$X1, result$X2,  
result$X3, result$X4, result$X5, result$X6, result$X7, result$X8,  
result$X9)
```

```
coefresult
```

resultX.Intercept.	resultX1	resultX2	resultX3	resultX4	resultX5	resultX6	resultX7	resultX8	resultX9
-42.69183	-0.4261803	1.4488742	-35.3067975	-0.43348018	-0.761510869	0.5909013	-0.13108990	0.12822369	8.32875237
-185.56372	-0.7901746	1.1584198	70.4584861	-0.23223625	0.937421187	1.3214817	1.02979145	-0.110308658	0.21361981
57.49820	0.6468809	1.1218242	-0.2260153	-0.29512004	0.625069489	0.9191915	0.07091011	-0.063945804	1.34234477
59.65252	-0.4613300	1.4352085	-6.7566137	-0.28799037	-0.388278379	0.7308992	0.00645945	-0.077282708	3.86783718
-145.45025	-0.3747824	1.1272836	69.4660588	-0.07036477	0.675932919	1.1346411	0.40367377	-0.113686989	-0.90841916
67.93368	0.6448622	1.1009307	8.8494913	-0.25069606	1.139626069	0.9244426	0.09992336	-0.064070870	0.84464338
-66.60425	-0.7195954	1.0188354	3.6158691	-0.19666128	0.115345611	0.7587379	0.80925630	-0.011932526	0.61175229
53.80166	0.4597075	1.3092794	-11.0188357	-0.30265817	-0.427650840	0.6682293	-0.02368086	0.014262250	5.24914417
83.64507	-0.401947	1.0996728	21.9814284	-0.20490303	0.294713169	0.9801821	0.15629684	-0.085352506	-0.1286335
-137.43128	-0.5668674	1.0473208	64.2007980	-0.06577162	0.675509253	1.0681812	0.33880687	-0.095408799	-0.61266348
-183.90027	-0.6619113	1.0006908	69.3101400	-0.12250809	0.888381376	1.1283462	0.66528221	-0.0318613748	0.046959708
-47.95961	-0.5818822	0.9842766	-14.3180277	-0.31884113	-0.228467109	0.6177906	-0.04410855	0.181821901	6.07482352
-167.50115	-0.7569936	1.1477496	62.3415269	-0.23813825	0.849861075	1.0360364	1.020202413	-0.063211727	0.28858586
174.83206	-0.7221602	1.1391189	77.2424404	-0.09030963	0.908187264	1.1048766	0.92416632	-0.191117576	0.56374817
-135.65637	-0.7963754	1.5780105	35.0649748	-0.51469884	0.378612919	0.7791701	0.92344542	0.058671654	0.54259433
-75.96827	-0.9429901	1.3185509	9.0097629	-0.74413036	-0.250614378	0.5477984	0.92156574	-0.070556687	0.621144739
-55.89784	-0.5990547	1.0629843	-2.1963817	-0.27309957	-0.079700781	0.7590934	0.02338568	0.034315431	3.42423131
49.50623	-0.7226153	0.7893114	-4.7901469	-0.28894107	0.098591889	0.7056954	0.03360917	0.120294764	4.24415315
-68.87829	-0.5928553	1.2074065	-0.1105068	-0.27064902	-0.08108412	0.8198240	0.04219230	-0.045705831	2.30840226
-46.54220	-0.5324248	0.7640906	9.8451411	-0.10155166	-0.026580661	0.5622757	0.68976386	-0.019163447	0.48486789
-42.80830	-0.5822322	0.7449408	9.4069975	-0.20872438	-0.001795442	0.5917343	0.71251292	-0.0096968800	0.51386180
170.15726	-0.7895981	1.0394940	58.9966319	-0.25717801	0.916293864	1.1988403	1.08189622	-0.031651342	0.24672331
-108.16494	-0.8209023	1.1119153	22.8404843	-0.24923698	0.288337006	1.0842120	0.87608235	0.048507098	0.63319022
-41.28460	-0.4297292	0.9392253	5.3327523	-0.04649496	-0.064765356	0.4166138	0.051953773	0.057266048	0.49010267
-39.54740	-0.4975772	0.8665259	8.5941214	-0.09621356	-0.043152909	0.4934344	0.65578337	0.015498960	0.48355688
-48.24501	-0.4292402	1.1464345	-20.5500720	-0.34864067	-0.582990450	0.61818241	-0.06650801	0.065756645	6.71571574
-136.45677	-0.8604170	1.5228980	18.4279546	-0.46085833	0.271830590	0.9579487	0.78451338	0.280455839	0.65840583

-111.1832	-0.8910482	1.2452521	10.4869532	-0.39609533	0.310976781	0.9660954	0.75896368	0.291088662	0.67527626
-81.15905	-0.7771577	1.1050430	6.678180	-0.38410507	0.170603798	0.8379741	0.80269941	0.077381380	0.64638839
-83.34586	-0.7650996	1.0581892	9.7988836	-0.30092685	0.181738206	0.8914186	0.83042212	0.023838515	0.63351124
-63.15137	-0.7015543	0.9782741	2.9227779	-0.37971155	0.106627169	0.7412626	0.80607438	0.009394289	0.62704250
-49.84163	-0.4236337	1.3966537	-18.929547	-0.34240825	-0.583510855	0.6440739	-0.05318112	0.023380736	6.19130002
-59.29623	-0.4957110	1.3361096	-4.7817543	-0.27922542	-0.305285281	0.7367013	0.01086042	0.044867040	3.75767607
-46.67179	-0.4266065	1.3899186	-28.1892102	-0.39125921	-0.679244648	0.6003110	-0.09908167	0.099739016	7.59286602

# MENCARI T HITUNG

t\_X1=gwr.adapttricube\$SDF\$X1/gwr.adapttricube\$SDF\$X1\_se

t\_X1

```
[1] -1.320330 -2.657423 -2.395182 -1.811856 -1.832140 -2.442359 -2.867705 -1.726100 -2.420334 -1.857283
[11] -2.248161 -1.957503 -2.761954 -2.722717 -2.547186 -2.570814 -2.242619 -2.385973 -2.332625 -2.187533
[21] -2.346168 -2.765299 -3.352492 -1.731078 -2.018308 -1.485170 -2.997933 -3.216409 -3.118362 -3.116010
[31] -2.790761 -1.498444 -1.966675 -1.393460
```

t\_X2=gwr.adapttricube\$SDF\$X2/gwr.adapttricube\$SDF\$X2\_se

t\_X2

```
[1] 1.6187649 0.8717242 1.2470418 1.7347550 0.9324836 1.2368872 1.3668978 1.5761752 1.1966149 0.9198568
[11] 0.8485960 1.1786889 1.1214830 1.0415096 1.7860547 1.3987098 1.2779449 0.9277335 1.4470586 0.9859028
[21] 0.9651953 0.9323997 1.6119362 0.8741837 0.8737244 1.5794617 1.8751648 1.6519449 1.5141605 1.4564860
[31] 1.2975546 1.6450111 1.6243289 1.5934496
```

t\_X3=gwr.adapttricube\$SDF\$X3/gwr.adapttricube\$SDF\$X3\_se

t\_X3

```
[1] -0.945343456 1.936897177 -0.006498236 -0.204890883 1.670679241 0.263189765 0.103542128
[8] -0.337020831 0.649562099 1.577513912 1.936183221 -0.440966478 1.888081299 2.218548149
[15] 0.960120147 0.206355573 -0.076344593 -0.152553186 -0.003437101 0.275470270 0.269375907
[22] 1.590655041 0.675993802 0.145432830 0.238351033 -0.598787426 0.493469379 0.288389054
[29] 0.194526639 0.281819489 0.083174556 -0.552407651 -0.148221229 -0.787362353
```

t\_X4=gwr.adapttricube\$SDF\$X4/gwr.adapttricube\$SDF\$X4\_se

t\_X4

```
[1] -1.355332784 1.142512196 0.044968484 -0.756370042 0.992775360 0.259585793 0.331219192
[8] -0.846695100 0.547309524 1.056338280 1.272660747 -0.463176016 1.238385888 1.220424583
[15] 0.786238736 0.498758458 -0.159060127 0.201222550 -0.158676442 -0.078239603 -0.005289545
[22] 1.286153759 0.835386315 -0.187530853 -0.126509872 -1.113006987 0.703734724 0.832377381
[29] 0.488729786 0.524099627 0.305765807 -1.106526444 -0.607105159 -1.252789536
```

t\_X5=gwr.adapttricube\$SDF\$X5/gwr.adapttricube\$SDF\$X5\_se

t\_X5

```
[1] -1.355332784 1.142512196 0.044968484 -0.756370042 0.992775360 0.259585793 0.331219192
[8] -0.846695100 0.547309524 1.056338280 1.272660747 -0.463176016 1.238385888 1.220424583
[15] 0.786238736 0.498758458 -0.159060127 0.201222550 -0.158676442 -0.078239603 -0.005289545
[22] 1.286153759 0.835386315 -0.187530853 -0.126509872 -1.113006987 0.703734724 0.832377381
[29] 0.488729786 0.524099627 0.305765807 -1.106526444 -0.607105159 -1.252789536
```

t\_X6=gwr.adapttricube\$SDF\$X6/gwr.adapttricube\$SDF\$X6\_se

t\_X6

[1]	-0.57308174	3.47482437	0.32942728	0.03041568	1.74860239	0.47160643	3.21970808	-0.11065992
[9]	0.74547087	1.61262211	2.68994454	-0.20552697	3.97979492	3.06853115	3.27521047	3.11964645
[17]	0.11220250	0.16055590	0.20135742	2.77728795	2.87083309	3.73913414	3.47074383	2.41854093
[25]	2.61457731	-0.30407106	2.76465576	2.71737596	3.17896517	3.30699131	3.20288842	-0.24425540
[33]	0.05151504	-0.44325551						

t\_X7=gwr.adapttricube\$SDF\$X7/gwr.adapttricube\$SDF\$X7\_se

t\_X7

[1]	-0.57308174	3.47482437	0.32942728	0.03041568	1.74860239	0.47160643	3.21970808	-0.11065992
[9]	0.74547087	1.61262211	2.68994454	-0.20552697	3.97979492	3.06853115	3.27521047	3.11964645
[17]	0.11220250	0.16055590	0.20135742	2.77728795	2.87083309	3.73913414	3.47074383	2.41854093
[25]	2.61457731	-0.30407106	2.76465576	2.71737596	3.17896517	3.30699131	3.20288842	-0.24425540
[33]	0.05151504	-0.44325551						

t\_X8=gwr.adapttricube\$SDF\$X8/gwr.adapttricube\$SDF\$X8\_se

t\_X8

[1]	0.33019618	-0.32256219	-0.17454841	-0.20965467	-0.29142812	-0.17934684	0.07364616	0.04061253
[9]	-0.23765550	-0.24703789	-0.10185368	0.51304796	-0.19915789	-0.58285974	0.15419672	0.17561991
[17]	0.10041370	0.54905505	-0.13218921	-0.07060009	-0.02621320	-0.09217690	0.18600403	0.20136848
[25]	0.05662360	0.18047472	0.71382885	0.76955869	0.28280482	0.09040228	0.03554619	0.06460995
[33]	-0.12976814	0.26535006						

t\_X9=gwr.adapttricube\$SDF\$X9/gwr.adapttricube\$SDF\$X9\_se

t\_X9

[1]	2.39715404	0.41353575	0.62220856	1.66077729	-0.61972206	0.43258820	2.10935375	2.03629314
[9]	-0.07169628	-0.40410397	0.07171798	2.14111180	0.57759648	1.10646438	1.48508775	1.81848562
[17]	1.53383677	2.35914192	1.13982180	1.76971975	1.86443998	0.50996788	2.10794848	1.76863170
[25]	1.76535792	2.28027919	2.13269102	2.20220078	2.15652376	2.11673682	2.09617551	2.18430317
[33]	1.65434705	2.36437781						

```
#MENAMPILKAN R-SQUARE LOKAL
gwr.adaptrcube.R2=gwr.adaptrcube$SDF$localR2

gwr.adaptrcube.R2
```

```
[1] 0.7457221 0.8817407 0.7251348 0.7488002 0.8039641 0.7413272 0.8536168 0.7570469 0.7555950 0.7937815 0.8486656 0.7706386
[13] 0.8738387 0.8736180 0.8643053 0.8635137 0.7593481 0.8028899 0.7508645 0.8580441 0.8510684 0.8802780 0.8729260 0.8591545
[25] 0.8549244 0.7538407 0.8632856 0.8642741 0.8573194 0.8631240 0.8531578 0.7494797 0.7542202 0.7493626
```

```
#PERBANDINGAN GWR DAN OLS
AIC_OLS <-AIC(regols)

R2_GWR <- (1 -
(gwr.adaptrcube$results$rss/gwr.adaptrcube$gTSS))

R2_OLS <-summary(regols)$r.squared

data.frame("MODEL" = c("GWR","OLS"),
           "AIC" = c(gwr.adaptrcube[["results"]][["AICh"]],
                    AIC_OLS),
           "R2"=c(R2_GWR,R2_OLS))%>% arrange(AIC)
```

MODEL <chr>	AIC <dbl>	R2 <dbl>
GWR	183.4615	0.8444351
OLS	225.2103	0.4792296



## BIODATA PENULIS

Yohanita Uniyatri Aprilia adalah mahasiswa statistika Fakultas Sains dan Teknologi di Universitas PGRI Adi Buana Surabaya (UNIPA). Penulis lahir di Lempe, Kota Ruteng Provinsi Nusa Tenggara Timur pada tanggal 7 April 2002. Ia merupakan anak kedua dari dua bersaudara.

Penulis mulai kuliah di UNIPA pada tahun 2020. Alasannya masuk program studi statistika adalah karena penulis tertarik mempelajari bagaimana data dianalisis untuk mendapatkan *insight* yang bisa digunakan sebagai solusi dari berbagai permasalahan. Selain itu, ia juga bercita-cita menjadi *data analyst* dan *data scientist*. Saat ini, ia aktif sebagai ketua divisi Pendidikan dan penalaran IHMSI (Ikatan Himpunan Mahasiswa Statistika Indonesia).

Skripsi ini adalah karya penulis pertama dalam mengkaji tentang politik Perempuan di Indonesia. Diharapkan skripsi ini dapat menjadi acuan dan bahan diskusi kedepannya dalam partisipasi politik Perempuan dan penerapan *Geographically Weighted Regression (GWR)*.