

LAMPIRAN

1. Berita Acara Bimbingan Skripsi



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 Mahasiswa : Elisabeth Woli Wadan
NIM : 19240008
Judul Skripsi : Analisis Regresi Data Panel Terhadap
Faktor-Faktor Yang Mempengaruhi
Angka Partisipasi Sekolah Usia 16 – 18
tahun Di Nusa Tenggara Timur Tahun
2017 - 2021
Dosen Pembimbing 1 : Fenny Fitriani, S.Si.M.Si
Dosen Pembimbing 2 : Artanti Idrasetianingsih, S.Si.,M.Si

Materi Pembimbingan Skripsi	Tanda Tangan Dosen Pembimbing
1. Perbaikan statistika deskriptif dan grafik	
2. perbaikan uji regresi stepwise dan penulisan model	
3. perbaikan kalimat penjelasan pada pemodelan	
4. perbaikan penulisan model dan hipotesis	
5. perbaikan penjelasan pada uji asumsi klasik	
6. perbaikan typo kalimat dan perbaikan interpretasi model	
7. perbaikan interpretasi model	
8. perbaikan penulisan model	

2. Format Revisi Skripsi














PROGRAM STUDI STATISTIKA
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FORM F.SK08

PERBAIKAN/REVISI SEMINAR DAN UJIAN SKRIPSI

Nama Mahasiswa : Elisabeth Woli Wadan
NIM : 192400008
Judul Skripsi : Analisis Regresi Data Panel Terhadap Faktor-
Faktor Yang Mempengaruhi Angka Partisipasi
Sekolah Usia 16 – 18 Tahun Di Nusa Tenggara
Timur Tahun 2017 - 2021
Dosen Pembimbing : Fenny Fitriani, S.Si., M.Si

Materi Revisi Seminar dan Ujian Skripsi	Tanda Tangan Dosen Penguji
1. perbaikan diagram alir	
2. perbaikan pada uji regresi stepwise	 
3. perbaikan uji asumsi klasik	 
4. perbaikan artikel skripsi	 
5. menambahkan materi metode estimasi parameter OLS, LSDV dan GLS di bab 2	 
6. perbaikan hipotesis uji parsial dan uji simultan	 

Surabaya, 29 Mei 2023

Dosen Pembimbing,



Fenny Fitriani, S.Si., M.Si
NIP/NPP : 1503717/DY

Catatan: *) Coret yang tidak sesuai

3. Data Penelitian

Kabupaten	Tahun	Y	X1	X2	X3	X4	X5	X6	X7
Sumba Barat	2017	82.81	29.28	10375	82.33	16	499	6.51	6997
Sumba Barat	2018	77.27	28.51	10722	80.79	16	535	6.52	7275
Sumba Barat	2019	79.47	28.29	11102	82.32	16	535	6.53	7586
Sumba Barat	2020	78.93	28.17	9971	83.41	16	566	6.6	7321
Sumba Barat	2021	80.06	28.39	9796	85.82	17	569	6.84	7307
Sumba Timur	2017	68.73	31.03	14318	90.65	31	798	6.73	9093
Sumba Timur	2018	70.17	30.13	14890	89.52	31	857	6.74	9351
Sumba Timur	2019	71.06	30.02	15456	90.46	31	909	6.86	9640
Sumba Timur	2020	70	29.65	16234	93.87	31	948	7.12	9406
Sumba Timur	2021	70.87	29.68	16258	94.39	33	914	7.32	9354
Kupang	2017	77.31	22.91	11728	91.84	81	1538	7.1	7301
Kupang	2018	78.76	23.1	11860	90.4	82	1601	7.11	7472
Kupang	2019	80.17	23.03	12540	92.04	82	1691	7.37	7698
Kupang	2020	80.86	22.77	13057	92.94	82	1855	7.38	7526
Kupang	2021	80.94	22.98	13128	92.03	89	1798	7.39	7476
TTS	2017	68.88	29.44	9311	86.79	58	1226	6.39	6676
TTS	2018	68.34	28.06	9744	86.97	62	1327	6.47	6855
TTS	2019	70.79	27.87	10179	87.13	69	1486	6.72	6955
TTS	2020	71.29	27.49	10479	88.77	69	1632	6.73	6861
TTS	2021	71.58	26.64	10677	87.76	79	1578	6.74	6839
TTU	2017	68.66	23.52	10520	90.96	49	1052	7.14	6164
TTU	2018	74.37	22.31	10949	92.75	50	1081	7.26	6357
TTU	2019	73.56	22.45	11405	97.65	50	1102	7.51	6479
TTU	2020	74.05	22.28	11127	95.28	50	1189	7.81	6364
TTU	2021	74.33	22.62	11227	95.35	50	1143	7.96	6324
Belu	2017	65.05	15.95	12440	88.53	31	874	7.07	7251

Belu	2018	59.3	15.7	12942	86.89	33	938	7.08	7403
Belu	2019	60.35	15.54	13423	93.46	35	925	7.11	7677
Belu	2020	61.93	15.37	13666	92.02	35	1059	7.35	7479
Belu	2021	61.59	15.68	13681	92.56	36	1010	7.36	7431
Alor	2017	74.72	21.67	8959	95.57	53	1087	7.77	6553
Alor	2018	67.66	21.63	9344	96.61	53	1080	7.81	6750
Alor	2019	67.51	21.59	9757	97.33	53	1163	8.09	6958
Alor	2020	67.42	21.09	9445	96.26	53	1336	8.41	6786
Alor	2021	67.1	21.09	9561	95.76	56	1403	8.42	6751
Lembata	2017	68.59	26.48	7677	96.86	22	510	7.58	7084
Lembata	2018	70.78	26.45	7910	96.12	27	597	7.95	7253
Lembata	2019	70.53	26.3	8153	95.54	27	574	8.21	7474
Lembata	2020	70.88	26.14	8582	93.57	27	644	8.22	7305
Lembata	2021	70.42	26.21	8576	95.57	26	680	8.23	7257
Flores Timur	2017	79.41	10.75	12648	93.71	42	996	7.12	7442
Flores Timur	2018	71.52	11.05	13133	95.78	43	1081	7.42	7573
Flores Timur	2019	72.15	10.9	13649	94.86	44	1080	7.7	7770
Flores Timur	2020	72.51	10.84	12687	94.45	44	1206	7.71	7631
Flores Timur	2021	73.06	11.14	12519	95.31	47	1192	7.72	7578
Sikka	2017	73.53	14.2	9490	90.11	38	1075	6.56	7855
Sikka	2018	71.11	13.82	9939	92.72	40	1168	6.69	7958
Sikka	2019	71.33	13.53	10404	93.22	42	1225	6.71	8313
Sikka	2020	73.31	13.12	10285	92.61	44	1312	6.94	8081
Sikka	2021	74.53	13.35	10397	94.75	47	1325	6.95	8021
Ende	2017	72.12	23.95	13772	96.86	42	1287	7.63	8841
Ende	2018	74.36	24.2	14402	95.45	42	1348	7.79	8995
Ende	2019	74.01	23.18	15085	96.97	43	1300	7.8	9315
Ende	2020	76.41	23.76	15067	95.89	43	1441	7.81	9094
Ende	2021	76.5	24.13	15301	98.2	46	1458	8.03	9027

Ngada	2017	71.58	12.77	13167	98.19	25	613	7.85	8649
Ngada	2018	65.55	12.94	13644	98.66	27	641	8.07	8857
Ngada	2019	65.86	12.48	14139	98.47	28	665	8.37	8961
Ngada	2020	66.18	12.51	14030	97.62	28	705	8.52	8865
Ngada	2021	66.72	12.58	13954	98.44	34	744	8.53	8819
Manggarai	2017	80.79	21.91	8309	94.38	40	1228	6.98	7056
Manggarai	2018	82.85	20.83	8609	95.18	41	1313	7.26	7175
Manggarai	2019	82.11	20.55	8906	95.98	42	1353	7.27	7276
Manggarai	2020	81.95	20.34	9599	95.33	42	1479	7.37	7203
Manggarai	2021	82.23	20.48	9605	96.05	43	1469	7.61	7133
Rote Ndao	2017	83.98	28.81	10886	90.29	17	515	6.98	6320
Rote Ndao	2018	76.9	28.08	11047	90.6	18	505	7.24	6484
Rote Ndao	2019	76.66	27.95	11166	93.16	19	535	7.29	6720
Rote Ndao	2020	75.61	27.54	13495	91.36	19	561	7.59	6539
Rote Ndao	2021	75.76	28.08	13507	94.99	20	554	7.71	6503
Manggarai Barat	2017	66.98	18.86	7689	95.28	38	878	7.14	7269
Manggarai Barat	2018	74.72	18.14	7916	96.37	42	981	7.18	7426
Manggarai Barat	2019	73.98	18.01	8167	96.79	41	1020	7.19	7602
Manggarai Barat	2020	73.48	17.71	8877	95.89	41	1230	7.3	7468
Manggarai Barat	2021	74.84	17.92	8848	97.31	49	1186	7.56	7410
sumba Tengah	2017	78.14	36.01	9625	81.92	8	249	5.51	5946
sumba Tengah	2018	78.57	34.85	9949	86.02	8	257	5.76	6093
sumba Tengah	2019	77.66	34.62	10330	88.67	8	255	5.96	6198
sumba Tengah	2020	75.65	34.49	8920	86.86	8	278	6.25	6108
sumba Tengah	2021	78.25	34.27	8756	90.75	8	254	6.47	6061
Sumba Barat Daya	2017	68.74	30.13	6295	78.17	58	817	6.31	6134
Sumba Barat Daya	2018	74.11	28.88	6483	79.24	59	1099	6.32	6298
Sumba Barat Daya	2019	73.28	28.06	6676	81.06	63	1155	6.33	6594
Sumba Barat Daya	2020	72.99	28	7609	86.3	62	1299	6.34	6372

Sumba Barat Daya	2021	73.12	28.18	7704	84.38	64	1233	6.35	6355
Nagekeo	2017	72.97	13.48	8781	95.03	18	755	7.52	8119
Nagekeo	2018	70.8	12.98	9095	95.04	22	648	7.82	8219
Nagekeo	2019	71.48	12.85	9413	95.66	22	648	7.83	8469
Nagekeo	2020	67.38	12.61	8679	95.8	22	703	7.89	8309
Nagekeo	2021	72.47	12.91	8656	97.28	23	687	7.9	8254
Manggarai Timur	2017	75.99	26.8	6555	95.34	62	1184	6.45	5643
Manggarai Timur	2018	75.92	26.5	6805	94.56	62	1200	6.65	5809
Manggarai Timur	2019	75.66	26.49	7080	96.95	63	1308	6.87	5919
Manggarai Timur	2020	74.44	26.52	7417	97.37	63	1412	7.08	5818
Manggarai Timur	2021	77.58	26.5	7509	96.9	62	1412	7.35	5780
Sabu Raijua	2017	80.18	31.07	7779	88.8	9	284	6.02	5120
Sabu Raijua	2018	80.98	30.83	7928	89.99	9	289	6.06	5245
Sabu Raijua	2019	80.61	30.52	8082	89.11	9	287	6.33	5354
Sabu Raijua	2020	81.17	30.18	8698	90.08	9	323	6.65	5265
Sabu Raijua	2021	81	30.13	8643	90.89	10	326	6.66	5256
Malaka	2017	75.12	16.52	9057	85.11	30	757	6.32	5726
Malaka	2018	77.68	16.34	9373	85.88	37	796	6.6	5894
Malaka	2019	76.12	16.12	9683	88.36	38	867	6.86	5998
Malaka	2020	74.07	16.04	10247	86.5	38	959	6.87	5901
Malaka	2021	77.39	16.33	10309	87.06	40	914	7.1	5861
Kota Kupang	2017	87.32	9.81	35788	98.98	60	1904	11.5	13028
Kota Kupang	2018	89.11	9.61	37149	98.06	64	1984	11.5	13199
Kota Kupang	2019	89.57	9.22	38327	98.94	66	2003	11.5	13592
Kota Kupang	2020	88.74	8.96	37179	98.81	65	2150	11.6	13337
Kota Kupang	2021	89.32	9.17	36521	99.13	66	2127	11.6	13218

4. Deteksi Multikolinearitas

#multikolinearitas			
> vif(OLS)			
X1	X2	X3	X4
1.754530	7.608759	2.546870	8.657914
X5	X6	X7	
11.477776	7.006452	5.537147	

5. Regresi Stepwise

		Correlations							
		Y	X1	X2	X3	X4	X5	X6	X7
Y	Pearson Correlation	1	.085	.399**	-.011	.077	.233*	.252**	.201*
	Sig. (2-tailed)		.378	.000	.913	.427	.014	.008	.036
	N	110	110	110	110	110	110	110	110
X1	Pearson Correlation	.085	1	-.427**	-.520**	-.227*	-.407**	-.591**	-.525**
	Sig. (2-tailed)	.378		.000	.000	.017	.000	.000	.000
	N	110	110	110	110	110	110	110	110
X2	Pearson Correlation	.399**	-.427**	1	.345**	.239*	.507**	.829**	.878**
	Sig. (2-tailed)	.000	.000		.000	.012	.000	.000	.000
	N	110	110	110	110	110	110	110	110
X3	Pearson Correlation	-.011	-.520**	.345**	1	.164	.348**	.656**	.460**
	Sig. (2-tailed)	.913	.000	.000		.087	.000	.000	.000
	N	110	110	110	110	110	110	110	110
X4	Pearson Correlation	.077	-.227*	.239*	.164	1	.894**	.281**	.211*
	Sig. (2-tailed)	.427	.017	.012	.087		.000	.003	.027
	N	110	110	110	110	110	110	110	110
X5	Pearson Correlation	.233*	-.407**	.507**	.348**	.894**	1	.521**	.500**
	Sig. (2-tailed)	.014	.000	.000	.000	.000		.000	.000
	N	110	110	110	110	110	110	110	110

X6	Pearson Correlation	.252**	-.591**	.829**	.656**	.281**	.521**	1	.809**
	Sig. (2-tailed)	.008	.000	.000	.000	.003	.000		.000
	N	110	110	110	110	110	110	110	110
X7	Pearson Correlation	.201*	-.525**	.878**	.460**	.211*	.500**	.809**	1
	Sig. (2-tailed)	.036	.000	.000	.000	.027	.000	.000	
	N	110	110	110	110	110	110	110	110
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

Stepwise Selection: Step 1 +X2

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.348	1.157		49.567	.000
	X2	.000	.000	.399	4.521	.000

a. Dependent Variable: Y

Correlations									
Control Variables			Y	X1	X3	X4	X5	X6	X7
X2	Y	Correlation	1.000	.308	-.172	-.021	.039	-.153	-.340
		Significance (2-tailed)	.	.001	.073	.829	.690	.113	.000
		df	0	107	107	107	107	107	107
	X1	Correlation	.308	1.000	-.439	-.143	-.245	-.469	-.346
		Significance (2-tailed)	.001	.	.000	.138	.010	.000	.000
		df	107	0	107	107	107	107	107
X3	Correlation	-.172	-.439	1.000	.089	.213	.705	.348	
	Significance (2-tailed)	.073	.000	.	.356	.026	.000	.000	

	df	107	107	0	107	107	107	107
X4	Correlation	-.021	-.143	.089	1.000	.923	.152	.003
	Significance (2-tailed)	.829	.138	.356	.	.000	.113	.974
	df	107	107	107	0	107	107	107
X5	Correlation	.039	-.245	.213	.923	1.000	.210	.134
	Significance (2-tailed)	.690	.010	.026	.000	.	.028	.166
	df	107	107	107	107	0	107	107
X6	Correlation	-.153	-.469	.705	.152	.210	1.000	.303
	Significance (2-tailed)	.113	.000	.000	.113	.028	.	.001
	df	107	107	107	107	107	0	107
X7	Correlation	-.340	-.346	.348	.003	.134	.303	1.000
	Significance (2-tailed)	.000	.000	.000	.974	.166	.001	.
	df	107	107	107	107	107	107	0

Stepwise selection: step 2
+X7

		8				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	68.288	3.120		21.884	.000
	X2	.001	.000	.970	5.579	.000
	X7	-.002	.001	-.651	-3.743	.000

a. Dependent Variable: Y

		Correlations					
Control Variables		Y	X1	X3	X4	X5	X6
X2 & X7	Y	1.000	.215	-.061	-.021	.090	-.055
		.	.025	.530	.829	.353	.571

	df	0	106	106	106	106	106
X1	Correlation	.215	1.000	-.363	-.151	-.214	-.407
	Significance (2-tailed)	.025	.	.000	.119	.026	.000
	df	106	0	106	106	106	106
X3	Correlation	-.061	-.363	1.000	.094	.180	.671
	Significance (2-tailed)	.530	.000	.	.333	.063	.000
	df	106	106	0	106	106	106
X4	Correlation	-.021	-.151	.094	1.000	.931	.159
	Significance (2-tailed)	.829	.119	.333	.	.000	.100
	df	106	106	106	0	106	106
X5	Correlation	.090	-.214	.180	.931	1.000	.180
	Significance (2-tailed)	.353	.026	.063	.000	.	.063
	df	106	106	106	106	0	106
X6	Correlation	-.055	-.407	.671	.159	.180	1.000
	Significance (2-tailed)	.571	.000	.000	.100	.063	.
	df	106	106	106	106	106	0

**Stepwise selection: step 3
+X3**

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	61.332	4.330		14.164	.000
	X2	.001	.000	.938	5.480	.000
	X7	-.002	.001	-.508	-2.792	.006
	X1	.183	.081	.219	2.271	.025

a. Dependent Variable: Y

Correlations							
Control Variables			Y	X3	X4	X5	X6
X2 & X7 & X1	Y	Correlation	1.000	.019	.012	.143	.036
		Significance (2-tailed)	.	.848	.903	.142	.709
		df	0	105	105	105	105
	X3	Correlation	.019	1.000	.043	.112	.615
		Significance (2-tailed)	.848	.	.662	.250	.000
		df	105	0	105	105	105
	X4	Correlation	.012	.043	1.000	.931	.108
		Significance (2-tailed)	.903	.662	.	.000	.268
		df	105	105	0	105	105
	X5	Correlation	.143	.112	.931	1.000	.104
		Significance (2-tailed)	.142	.250	.000	.	.287
		df	105	105	105	0	105
X6	Correlation	.036	.615	.108	.104	1.000	
	Significance (2-tailed)	.709	.000	.268	.287	.	
	df	105	105	105	105	0	

Stepwise selection: step 4
+X5

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	59.804	4.428		13.505	.000
	X2	.001	.000	.891	5.144	.000
	X7	-.002	.001	-.522	-2.883	.005
	X1	.209	.082	.250	2.547	.012

	X5	.002	.001	.144	1.479	.142
a. Dependent Variable: Y						

Correlations						
Control Variables			Y	X3	X4	X6
X2 & X7 & X1	Y	Correlation	1.000	.019	.012	.036
		Significance (2-tailed)	.	.848	.903	.709
		df	0	105	105	105
	X3	Correlation	.019	1.000	.043	.615
		Significance (2-tailed)	.848	.	.662	.000
		df	105	0	105	105
	X4	Correlation	.012	.043	1.000	.108
		Significance (2-tailed)	.903	.662	.	.268
		df	105	105	0	105
	X6	Correlation	.036	.615	.108	1.000
		Significance (2-tailed)	.709	.000	.268	.
		df	105	105	105	0

**Stepwise selection: step 5
+X6**

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	61.556	4.389		14.025	.000
	X2	.001	.000	.903	4.612	.000
	X7	-.002	.001	-.520	-2.803	.006
	X1	.197	.089	.235	2.219	.029
	X6	.341	.912	.063	.374	.709

a. Dependent Variable: Y

Correlations					
Control Variables			Y	X3	X4
X2 & X7 & X1	Y	Correlation	1.000	.019	.012
		Significance (2-tailed)	.	.848	.903
		df	0	105	105
	X3	Correlation	.019	1.000	.043
		Significance (2-tailed)	.848	.	.662
		df	105	0	105
	X4	Correlation	.012	.043	1.000
		Significance (2-tailed)	.903	.662	.
		df	105	105	0

Stepwise selection: step 6
+X3

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	59.680	9.656		6.180	.000
	X2	.001	.000	.942	5.441	.000
	X7	-.002	.001	-.516	-2.747	.007
	X1	.189	.087	.226	2.177	.032
	X3	.023	.122	.019	.192	.848

a. Dependent Variable: Y

Correlations				
Control Variables			Y	X4
X2 & X7 & X1	Y	Correlation	1.000	.012
		Significance (2-tailed)	.	.903
		df	0	105
	X4	Correlation	.012	1.000
		Significance (2-tailed)	.903	.
		df	105	0

Stepwise selection: step 7
+X4

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	61.183	4.518		13.541	.000
	X2	.001	.000	.935	5.394	.000
	X7	-.002	.001	-.507	-2.769	.007
	X1	.185	.082	.221	2.253	.026
	X4	.003	.026	.010	.122	.903

a. Dependent Variable: Y

Stepwise selection: Final Output

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		

1	(Constant)	61.332	4.330		14.164	.000
	X2	.001	.000	.938	5.480	.000
	X7	-.002	.001	-.508	-2.792	.006
	X1	.183	.081	.219	2.271	.025

a. Dependent Variable: Y

6. Estimasi Parameter Model CEM

```

> #estimasi regresi data panel
> #model estimasi CEM
> CEM<-plm(Y~X1+X2+X7, data=Dataskripsi,model="pooling")
> summary(CEM)

Pooling Model
Call:
plm(formula = Y ~ X1 + X2 + X7, data = Dataskripsi, model = "pooling")
Balanced Panel: n = 22, T = 5, N = 110

Residuals:
Min.      1st Qu.      Median      3rd Qu.      Max.
-15.20329  -3.18591   0.55012   3.78697  11.02670
Coefficients:
              Estimate      Std. Error      t-value
(Intercept)  61.33160130    4.33023096    14.1636
X1            0.18310594    0.08061122     2.2715
X2            0.00093210    0.00017010     5.4797
X7           -0.00183968    0.00065897    -2.7917

Pr(>|t|)
< 2.2e-16 ***
0.02514 *
2.899e-07 ***
0.00622 **
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares:    3921.2
Residual Sum of Squares: 2780.2
R-Squared:               0.29098
Adj. R-Squared:         0.27092
F-statistic: 14.5009 on 3 and 106 DF, p-value: 5.5447e-08

```

7. Estimasi Parameter Model FEM (Cross-Section)

```
> #model estimasi FEM
> FEM<-plm(Y~X1+X2+X7,data=Dataskripsi,model="within",effect="individual",index = c("Kabupaten","Tahun"))
> summary(FEM)
```

Oneway (individual) effect within Model

Call:

```
plm(formula = Y ~ X1 + X2 + X7, data = Dataskripsi,
     effect = "individual",
     model = "within", index = c("Kabupaten", "Tahun"))
```

Balanced Panel: n = 22, T = 5, N = 110

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-5.525366	-1.028439	0.021592	0.947548	6.445368

Coefficients:

	Estimate	Std. Error	t-value	Pr(> t)
X1	-1.04602496	0.58331587	-1.7932	0.07649
X2	0.00010516	0.00043194	0.2435	0.80824
X7	-0.00322436	0.00195132	-1.6524	0.10214

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares: 371.79

Residual Sum of Squares: 353.54

R-Squared: 0.049076

Adj. R-Squared: -0.21942

F-statistic: 1.46224 on 3 and 85 DF, p-value: 0.23063

```
> fixef(FEM)
```

Alor	Belu	Ende	Flores Timur
96.467	85.016	111.647	92.691
Kota Kupang	Kupang	Lembata	Malaka
121.889	110.857	104.743	95.397
Manggarai	M.B	M.T	Nagekeo
110.313	99.243	106.020	94.702
Ngada	Rote Ndao	Sabu Raijua	Sikka
91.818	111.284	113.176	96.251
Sumba Barat	SBD	Sumba Tengah	Sumba Timur
116.365	106.542	117.093	114.619
TTS	TTU		
104.726	100.325		

8. Estimasi Model FEM (*Time-Series*)

```
FEM1<-plm(Y~X1+X2+X7,data=Dataskripsi,model="within",effect="time",index = c("Kabupaten","Tahun"))
> summary(FEM1)
Oneway (time) effect within Model

Call:
plm(formula = Y ~ X1 + X2 + X7, data = Dataskripsi, effect = "time", model = "within", index = c("Kabupaten", "Tahun"))

Balanced Panel: n = 22, T = 5, N = 110

Residuals:
    Min.    1st Qu.    Median    3rd Qu.    Max.
-15.07021  -3.27236    0.70244    3.65077   11.16481

Coefficients:
            Estimate Std. Error t-value Pr(>|t|)
X1  0.18245800  0.08208971  2.2227  0.02845 *
X2  0.00093233  0.00017385  5.3628 5.131e-07 ***
X7 -0.00183661  0.00067435 -2.7235  0.00760 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Total Sum of Squares:    3908
Residual Sum of Squares: 2769.3
R-Squared:                0.29139
Adj. R-Squared:           0.24275
F-statistic: 13.9809 on 3 and 102 DF, p-value: 1.0529e-07

fixef(FEM1)
 2017  2018  2019  2020  2021
61.645 61.181 61.357 60.790 61.618
```

9. Estimasi Parameter Model REM

```
#Model estimasi REM
> REM<-plm(Y~X1+X2+X7,data=Dataskripsi,model="random",effect="individual",index = c("Kabupaten","Tahun"))
> summary(REM)
Oneway (individual) effect Random Effect Model
(Swamy-Arora's transformation)

Call:
```

```
plm(formula = Y ~ X1 + X2 + X7, data = Dataskripsi,
     effect = "individual",
     model = "random", index = c("Kabupaten", "Tahun
"))
```

Balanced Panel: n = 22, T = 5, N = 110

Effects:

	var	std.dev	share
idiosyncratic	4.159	2.039	0.139
individual	25.826	5.082	0.861

theta: 0.8234

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-5.49991	-1.48297	0.28369	1.28976	6.85060

Coefficients:

	Estimate	Std.Error	z-value
(Intercept)	63.08980596	8.36431683	7.5427
X1	0.09498199	0.17439361	0.5446
X2	0.00071314	0.00028134	2.5348
X7	-0.00150770	0.00112270	-1.3429

Pr(>|z|)

4.602e-14 ***

0.58600

0.01125 *

0.17930

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares: 482.55

Residual Sum of Squares: 451.79

R-Squared: 0.063748

Adj. R-Squared: 0.03725

Chisq: 7.2174 on 3 DF, p-value: 0.065282

ranef(REM)

Alor	Belu	Ende
-4.7320698	-12.8450616	0.3432020
Flores Timur	Kota Kupang	Kupang
-0.2731683	6.1479336	4.4839503
Lembata	Malaka	Manggarai
-2.2630082	1.1986485	8.8965037
Manggarai Barat	Manggarai Timur	Nagekeo
1.1220717	1.8166265	0.6660260
Ngada	Rote Ndao	Sabu Raijua

-5.5742146	1.1146696	4.5743814
Sikka	Sumba Barat	Sumba Barat Daya
1.1473469	5.2096691	-0.8411644
sumba Tengah	Sumba Timur	TTS
1.4680959	-4.6341819	-4.4212307
TTU		
-2.6050258		

10. Uji Chow

```
#pemilihan model terbaik
> #Uji Chow
> common=plm(Y~X1+X2+X7,data=Dataskripsi,model="pooling")
> fixed=plm(Y~X1+X2+X7,data=Dataskripsi,model="within")
> pooltest(common,fixed)

F statistic

data: Y ~ X1 + X2 + X7
F = 27.782, df1 = 21, df2 = 85, p-value < 2.2e-16
alternative hypothesis: unstability
```

11. Uji Hausman

```
> #Uji Hausman
> #membuat model regresi panel
> fixed=plm(Y~X1+X2+X7,data=Dataskripsi,model="within",index = c("Kabupaten","Tahun"))
> random=plm(Y~X1+X2+X7,data=Dataskripsi,model="random",index = c("Kabupaten","Tahun"))
> #menguji Hausman
> phptest(fixed,random)

Hausman Test

data: Y ~ X1 + X2 + X7
chisq = 5.6453, df = 3, p-value = 0.1302
alternative hypothesis: one model is inconsistent
```

12. Uji Breusch Pagan (Uji LM)

```
> #Uji Breusch Pagan/uji LM
> LM=plm(Y~X1+X2+X7,data=Dataskripsi,model="random")
> #efek dua arah
> plmtest(LM, effect="twoways", type="bp")
```

Lagrange Multiplier Test - two-ways effects (Breusch-Pagan)

```
data: Y ~ X1 + X2 + X7
chisq = 153.31, df = 2, p-value < 2.2e-16
alternative hypothesis: significant effects
```

```
> #efek individu/cross section
> plmtest(LM, effect="individual", type="bp")
```

Lagrange Multiplier Test - (Breusch-Pagan)

```
data: Y ~ X1 + X2 + X7
chisq = 151.12, df = 1, p-value < 2.2e-16
alternative hypothesis: significant effects
```

```
> #efek waktu/time series
> plmtest(LM, effect="time", type="bp")
```

Lagrange Multiplier Test - time effects (Breusch-Pagan)

```
data: Y ~ X1 + X2 + X7
chisq = 2.1876, df = 1, p-value = 0.1391
alternative hypothesis: significant effects
```

13. Uji F

```
> #tabel ANOVA MANUAL
> #SSreg=SStot-SSres
> SStot=482.55
> SSres=451.79
> SSreg=SStot-SSres
> SSreg
[1] 30.76
> #MSreg=SSreg/df.reg
> #MSres=SSres/df.res
> df.res=df.residual(MODELREM)
> df.res
[1] 106
> df.reg=nrow(Dataskripsi)-1-df.res
> df.reg
[1] 3
> MSreg=SSreg/df.reg
> MSreg
[1] 10.25333
> MSres=SSres/df.res
> MSres
[1] 4.26217
> Fstat =MSreg/MSres
```

```
[1] 2.40566
> pval=pf(2.40566,3,106,lower.tail = FALSE)
> pval
[1] 0.07143602
```

14. Model Terbaik

```
> MODELREM=plm(Y~X1+X2+X7,data=Dataskripsi,model="r
andom", effect="individual",index = c("Kabupaten","
Tahun"))
> summary(MODELREM)

Oneway (individual) effect Random Effect Model
(Swamy-Arora's transformation)

Call:
plm(formula = Y ~ X1 + X2 + X7, data = Dataskripsi,
effect = "individual",
model = "random", index = c("Kabupaten","Tahun"))

Balanced Panel: n = 22, T = 5, N = 110

Effects:
              var      std.dev   share
idiosyncratic 4.159      2.039    0.139
individual     25.826     5.082    0.861
theta: 0.8234

Residuals:
   Min.   1st Qu.   Median     3rd Qu.    Max.
-5.49991 -1.48297  0.28369  1.28976   6.85060

Coefficients:
              Estimate      Std. Error  z-value
(Intercept) 63.08980596    8.36431683   7.5427
X1           0.09498199    0.17439361   0.5446
X2           0.00071314    0.00028134   2.5348
X7          -0.00150770    0.00112270  -1.3429

Pr(>|z|)
4.602e-14 ***
0.58600
0.01125 *
0.17930
---
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Total Sum of Squares: 482.55
Residual Sum of Squares: 451.79
R-Squared: 0.063748
```

Adj. R-Squared: 0.03725
 Chisq: 7.2174 on 3 DF, p-value: 0.065282

ranef(MODELREM)

Alor	Belu	Ende
-4.7320698	-12.8450616	0.3432020
Flores Timur	Kota Kupang	Kupang
-0.2731683	6.1479336	4.4839503
Lembata	Malaka	Manggarai
-2.2630082	1.1986485	8.8965037
Manggarai Barat	Manggarai Timur	Nagekeo
1.1220717	1.8166265	0.6660260
Ngada	Rote Ndao	Sabu Raijua
-5.5742146	1.1146696	4.5743814
Sikka	Sumba Barat	Sumba Barat Daya
1.1473469	5.2096691	-0.8411644
sumba Tengah	Sumba Timur	TTS
1.4680959	-4.6341819	-4.4212307
TTU		
-2.6050258		

vif(MODELREM)

	x1	x2	x7
	1.385014	2.897168	3.259153

15. Pendugaan model estimasi dengan *Random Effect Model* untuk masing-masing kabupaten/kota di provinsi NTT

1. Penduga model untuk kabupaten Alor

$$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 4,7321$$

Atau dapat dituliskan sebagai berikut:

$$\hat{Y}_{it} = 58,3577 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$$

2. Penduga model untuk kabupaten Belu

$$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 12,8451$$

Atau dapat dituliskan sebagai berikut:

$$\hat{Y}_{it} = 50,2447 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$$

3. Penduga model untuk kabupaten Ende

$$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 0,3432$$

Atau dapat dituliskan sebagai berikut:

$$\hat{Y}_{it} = 63,433 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$$

4. Penduga model untuk kabupaten Flores Timur

	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 0,2732$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 62,8166 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
5. Penduga model untuk kota Kupang	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 6,1479$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 69,2377 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
6. Penduga model untuk kabupaten Kupang	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 4,4840$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 67,5738 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
7. Penduga model untuk kabupaten Lembata	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 2,2630$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 60,8268 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
8. Penduga model untuk kabupaten Malaka	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,1986$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 64,2884 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
9. Penduga model untuk kabupaten Manggarai	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 8,8965$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 71,9863 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
10. Penduga model untuk kabupaten Manggarai Barat	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,1221$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 64,2119 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
11. Penduga model untuk kabupaten Manggarai Timur	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,8166$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 64,9064 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
12. Penduga model untuk kabupaten Nagekeo	

	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 0,6660$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 63,7558 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
13. Penduga model untuk kabupaten Ngada	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 5,5742$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 57,5156 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
14. Penduga model untuk kabupaten Rote Ndao	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,1147$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 64,2045 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
15. Penduga model untuk kabupaten Sabu Raijua	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 4,5744$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 67,6642 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
16. Penduga model untuk kabupaten Sikka	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,1473$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 64,2371 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
17. Penduga model untuk kabupaten Sumba Barat	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 5,2097$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 68,2995 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
18. Penduga model untuk kabupaten Sumba Barat Daya	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 0,8412$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 62,2486 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
19. Penduga model untuk kabupaten Sumba Tengah	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} + 1,4681$ Atau dapat dituliskan sebagai berikut: $\hat{Y}_{it} = 64,5579 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
20. Penduga model untuk kabupaten Sumba Timur	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 4,6342$

	<p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 58,4556 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
21. Penduga model untuk kabupaten TTS	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 4,4212$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 58,6686 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$
22. Penduga model untuk kabupaten TTU	$\hat{Y}_{it} = 63,0898 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it} - 2,6050$ <p>Atau dapat dituliskan sebagai berikut:</p> $\hat{Y}_{it} = 60,4848 + 0,0949X_{1it} + 0,0007X_{2it} + 0,0015X_{7it}$