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LAMPIRAN

Lampiran 1 Tabulasi Data Curah Hujan dan Presipitasi GCM Periode 1996-2017

No	Waktu	Y	X1	X2	X3	...	X62	X63	X64
1	Jan-96	710	3.78	6.37	8.09		9.92	11.19	12.51
2	Feb-96	928	4.90	7.52	9.18		10.51	11.18	11.60
3	Mar-96	322	5.40	7.09	8.09		9.37	9.61	9.80
4	Apr-96	100	4.65	6.18	6.40		9.13	8.19	8.14
5	May-96	6	3.59	4.85	5.56		7.38	6.47	6.82
6	Jun-96	4	3.04	3.83	4.33		8.59	7.68	7.67
7	Jul-96	43	1.71	2.34	2.66		7.71	7.71	7.95
8	Aug-96	31	1.01	1.24	1.63		6.55	7.01	6.94
9	Sep-96	139	0.62	1.16	1.79		6.05	6.06	6.19
10	Oct-96	122	0.75	1.38	2.02		5.39	5.83	6.79
11	Nov-96	133	0.97	1.78	2.97		5.88	6.23	7.29
12	Dec-96	648	2.25	3.75	5.06		8.64	8.80	10.78
13	Jan-97	593	4.35	6.62	7.64		10.45	10.90	11.46
14	Feb-97	401	5.31	7.34	8.84		9.63	9.96	10.21
15	Mar-97	28	5.84	6.85	8.00		9.90	9.67	9.18
16	Apr-97	62	4.87	6.30	7.35		9.23	8.33	8.16
17	May-97	38	4.27	5.54	5.68		7.51	6.36	6.47
18	Jun-97	33	2.85	3.14	3.64		8.81	7.76	7.41
19	Jul-97	0	1.57	1.96	2.57		8.14	8.19	7.48
20	Aug-97	0	1.19	1.38	1.60		7.68	7.52	7.17
∴	∴	∴	∴	∴	∴	...	∴	∴	∴
252	Dec-16	554	2.65	4.18	5.58		7.64	7.76	9.05
253	Jan-17	563	4.14	6.07	7.03		10.05	11.06	12.16
254	Feb-17	476	5.21	7.60	9.12		9.75	9.34	10.03
255	Mar-17	391	5.66	7.17	7.99		9.76	9.74	9.35
256	Apr-17	274	5.39	6.22	6.50		8.47	7.57	7.34
257	May-17	107	3.60	4.93	5.52		8.30	7.42	7.75
258	Jun-17	89	2.61	3.09	3.48		8.37	7.90	7.65
259	Jul-17	44	1.68	2.18	2.54		8.48	7.85	7.20
260	Aug-17	10	1.01	1.39	1.74		6.92	6.66	6.72
261	Sep-17	47	0.70	1.15	1.70		6.30	5.87	5.99
262	Oct-17	199	0.78	1.46	2.22		5.31	5.22	6.12
263	Nov-17	474	0.98	1.85	3.03		4.90	5.60	7.00
264	Dec-17	844	2.42	4.07	5.33	...	7.84	8.31	9.94

Lampiran 2 Nilai VIF Pada Data GCM Kabupaten Pangkep

No	Prediktor	VIF	No	Prediktor	VIF
1	X1	470.27	33	X33	2251.01
2	X2	578.24	34	X34	2840.25
3	X3	721.1	35	X35	1427.23
4	X4	740.34	36	X36	1390.77
5	X5	259.85	37	X37	446.32
6	X6	78.23	38	X38	110.54
7	X7	102.11	39	X39	116.82
8	X8	105.01	40	X40	163.04
9	X9	941.96	41	X41	1992.59
10	X10	640.94	42	X42	3121.77
11	X11	990.62	43	X43	1505.17
12	X12	1039.72	44	X44	1705.04
13	X13	399.32	45	X45	412.32
14	X14	82.19	46	X46	115.69
15	X15	81.69	47	X47	114.58
16	X16	73.55	48	X48	109.26
17	X17	1157.51	49	X49	2250.67
18	X18	1231.43	50	X50	3399.57
19	X19	907.49	51	X51	1761.03
20	X20	1089.01	52	X52	1926.12
21	X21	251.79	53	X53	456.7
22	X22	20.57	54	X54	122.79
23	X23	26.22	55	X55	102.3
24	X24	24.73	56	X56	153.93
25	X25	1839.12	57	X57	1043.54
26	X26	2340.6	58	X58	1741.89
27	X27	1504.76	59	X59	1170.13
28	X28	1203.92	60	X60	1055.52
29	X29	378.01	61	X61	276.88
30	X30	89.78	62	X62	104.71
31	X31	18.01	63	X63	88.94
32	X32	68.87	64	X64	132.32

Lampiran 3. Variabel *Dummy K-means*

No	Waktu	Y	D1	D2	D3	D4
1	Jan-96	710	1	0	0	0
2	Feb-96	928	0	1	0	0
3	Mar-96	322	0	0	0	1
4	Apr-96	100	0	0	0	0
5	May-96	6	0	0	0	0
6	Jun-96	4	0	0	0	0
7	Jul-96	43	0	0	0	0
8	Aug-96	31	0	0	0	0
9	Sep-96	139	0	0	0	0
10	Oct-96	122	0	0	0	0
11	Nov-96	133	0	0	0	0
12	Dec-96	648	1	0	0	0
13	Jan-97	593	1	0	0	0
14	Feb-97	401	0	0	0	1
15	Mar-97	28	0	0	0	0
16	Apr-97	62	0	0	0	0
17	May-97	38	0	0	0	0
18	Jun-97	33	0	0	0	0
19	Jul-97	0	0	0	0	0
20	Aug-97	0	0	0	0	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮
252	Dec-16	554	1	0	0	0
253	Jan-17	563	1	0	0	0
254	Feb-17	476	0	0	1	0
255	Mar-17	391	0	0	1	0
256	Apr-17	274	0	0	0	1
257	May-17	107	0	0	0	0
258	Jun-17	89	0	0	0	0
259	Jul-17	44	0	0	0	0
260	Aug-17	10	0	0	0	0
261	Sep-17	47	0	0	0	0
262	Oct-17	199	0	0	0	1
263	Nov-17	474	0	0	1	0
264	Dec-17	844	0	1	0	0

Lampiran 4. Variabel *Dummy Average Linkage*

No	Waktu	Y	D1	D2	D3	D4
1	Jan-96	710	1	0	0	0
2	Feb-96	928	1	0	0	0
3	Mar-96	322	0	1	0	0
4	Apr-96	100	0	0	1	0
5	May-96	6	0	0	1	0
6	Jun-96	4	0	0	1	0
7	Jul-96	43	0	0	1	0
8	Aug-96	31	0	0	1	0
9	Sep-96	139	0	0	1	0
10	Oct-96	122	0	0	1	0
11	Nov-96	133	0	0	1	0
12	Dec-96	648	0	0	0	1
13	Jan-97	593	0	0	0	1
14	Feb-97	401	0	1	0	0
15	Mar-97	28	0	0	1	0
16	Apr-97	62	0	0	1	0
17	May-97	38	0	0	1	0
18	Jun-97	33	0	0	1	0
19	Jul-97	0	0	0	1	0
20	Aug-97	0	0	0	1	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮
252	Dec-16	554	0	0	0	1
253	Jan-17	563	1	0	0	0
254	Feb-17	476	0	1	0	0
255	Mar-17	391	0	1	0	0
256	Apr-17	274	0	0	1	0
257	May-17	107	0	0	0	1
258	Jun-17	89	0	0	0	1
259	Jul-17	44	0	0	0	1
260	Aug-17	10	0	0	0	1
261	Sep-17	47	0	0	0	1
262	Oct-17	199	0	0	1	0
263	Nov-17	474	0	1	0	0
264	Dec-17	844	0	0	0	0

Lampiran 5. Nilai RMSE, R dan Estimasi Parameter

PARAMETER	LIU	PARAMETER	LIU	PARAMETER	LIU	PARAMETER	LIU
B_0	-75.55	$\hat{\beta}_{17}$	8.72	$\hat{\beta}_{34}$	64.64	$\hat{\beta}_{51}$	-19.24
$\hat{\beta}_1$	89.47	$\hat{\beta}_{18}$	208.71	$\hat{\beta}_{35}$	19.91	$\hat{\beta}_{52}$	-26.06
$\hat{\beta}_2$	-68.96	$\hat{\beta}_{19}$	-65.27	$\hat{\beta}_{36}$	-11.21	$\hat{\beta}_{53}$	-92.54
$\hat{\beta}_3$	73.52	$\hat{\beta}_{20}$	144.89	$\hat{\beta}_{37}$	-148.59	$\hat{\beta}_{54}$	18.40
$\hat{\beta}_4$	-9.18	$\hat{\beta}_{21}$	-68.94	$\hat{\beta}_{38}$	42.50	$\hat{\beta}_{55}$	41.77
$\hat{\beta}_5$	98.00	$\hat{\beta}_{22}$	95.27	$\hat{\beta}_{39}$	-65.84	$\hat{\beta}_{56}$	-70.79
$\hat{\beta}_6$	95.65	$\hat{\beta}_{23}$	-111.73	$\hat{\beta}_{40}$	35.03	$\hat{\beta}_{57}$	-42.35
$\hat{\beta}_7$	-72.29	$\hat{\beta}_{24}$	-10.34	$\hat{\beta}_{41}$	38.28	$\hat{\beta}_{58}$	95.21
$\hat{\beta}_8$	22.02	$\hat{\beta}_{25}$	-76.14	$\hat{\beta}_{42}$	-95.45	$\hat{\beta}_{59}$	-51.39
$\hat{\beta}_9$	9.25	$\hat{\beta}_{26}$	-221.04	$\hat{\beta}_{43}$	94.46	$\hat{\beta}_{60}$	56.25
$\hat{\beta}_{10}$	-133.93	$\hat{\beta}_{27}$	7.66	$\hat{\beta}_{44}$	-79.22	$\hat{\beta}_{61}$	105.92
$\hat{\beta}_{11}$	55.24	$\hat{\beta}_{28}$	19.43	$\hat{\beta}_{45}$	119.87	$\hat{\beta}_{62}$	-141.99
$\hat{\beta}_{12}$	-132.17	$\hat{\beta}_{29}$	82.32	$\hat{\beta}_{46}$	-43.01	$\hat{\beta}_{63}$	33.18
$\hat{\beta}_{13}$	-65.32	$\hat{\beta}_{30}$	12.12	$\hat{\beta}_{47}$	163.79	$\hat{\beta}_{64}$	-24.90
$\hat{\beta}_{14}$	-201.24	$\hat{\beta}_{31}$	16.41	$\hat{\beta}_{48}$	-2.02		
$\hat{\beta}_{15}$	152.86	$\hat{\beta}_{32}$	-23.39	$\hat{\beta}_{49}$	-10.52		
$\hat{\beta}_{16}$	30.62	$\hat{\beta}_{33}$	77.95	$\hat{\beta}_{50}$	57.24		
R^2				64.68%			
RMSE				176.34			

Lampiran 6. Uji Levene

Levene's Test for Homogeneity of Variance (center = median)

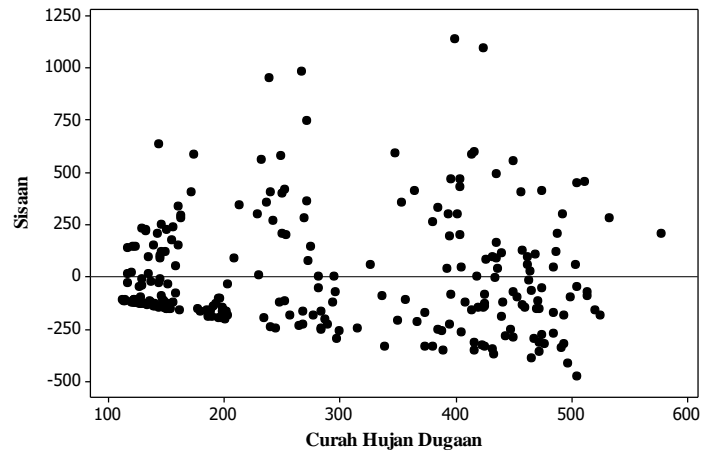
	Df	F value	Pr(>F)
group	63	95.799	< 2.2e-16 ***
	16832		

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

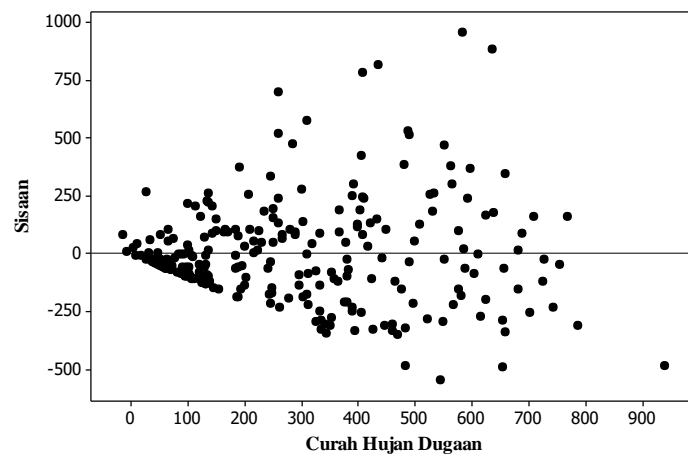
Lampiran 7. Hasil Transformasi X_j ke bentuk baku Z_j

NO	WAKTU	X1	X2	X3	...	X62	X63	X64
1	Jan-96	0.45767	0.99368	1.26048		1.19285	1.96301	2.24848
2	Feb-96	1.05282	1.48216	1.68889		1.57679	1.96011	1.75795
3	Mar-96	1.32154	1.29935	1.25885		0.83892	0.99745	0.78115
4	Apr-96	0.91872	0.91109	0.59604		0.68241	0.12199	-0.1187
5	May-96	0.35442	0.34244	0.26756		-0.4514	-0.9335	-0.8351
6	Jun-96	0.05758	-0.0908	-0.2144		0.33646	-0.1889	-0.3765
7	Jul-96	-0.6499	-0.7251	-0.8712		-0.2328	-0.1733	-0.2235
8	Aug-96	-1.0244	-1.1982	-1.2773		-0.9861	-0.601	-0.7716
9	Sep-96	-1.2342	-1.2323	-1.2148		-1.3081	-1.1845	-1.1775
10	Oct-96	-1.1672	-1.1372	-1.1252		-1.7362	-1.3234	-0.8548
11	Nov-96	-1.049	-0.9667	-0.7497		-1.4213	-1.0805	-0.5799
12	Dec-96	-0.3629	-0.124	0.07101		0.3666	0.4972	1.31005
13	Jan-97	0.76139	1.10074	1.08324		1.53383	1.78472	1.67807
14	Feb-97	1.27607	1.40594	1.55311		1.00865	1.2087	1.00009
15	Mar-97	1.55934	1.19648	1.22349		1.18211	1.02889	0.44429
16	Apr-97	1.03817	0.96312	0.96798		0.74657	0.20698	-0.1117
17	May-97	0.71886	0.64015	0.31297		-0.3646	-0.9995	-1.025
18	Jun-97	-0.0437	-0.3851	-0.4865		0.47541	-0.1384	-0.5187
19	Jul-97	-0.7273	-0.8907	-0.9063		0.04492	0.12148	-0.4788
20	Aug-97	-0.9293	-1.1368	-1.2897		-0.2544	-0.2867	-0.6458
⋮	⋮	⋮	⋮	⋮	...	⋮	⋮	⋮
252	16-Dec	-0.1493	0.05926	0.2746		-0.2793	-0.1428	0.37086
253	17-Jan	0.64822	0.86631	0.84255		1.27695	1.88619	2.06132
254	17-Feb	1.21952	1.51921	1.66634		1.0828	0.82755	0.90374
255	17-Mar	1.4615	1.33398	1.22232		1.09039	1.07593	0.53461
256	17-Apr	1.31626	0.92736	0.63514		0.25906	-0.2574	-0.5558
257	17-May	0.35858	0.38007	0.25137		0.14423	-0.3512	-0.3348
258	17-Jun	-0.1709	-0.4074	-0.5498		0.19165	-0.0558	-0.3876
259	17-Jul	-0.6674	-0.7946	-0.9199		0.26183	-0.0854	-0.6312
260	17-Aug	-1.0257	-1.1316	-1.2339		-0.7454	-0.8129	-0.889
261	17-Sep	-1.1917	-1.234	-1.2503		-1.1477	-1.3017	-1.289
262	17-Oct	-1.1485	-1.1025	-1.0434		-1.7872	-1.7006	-1.2144
263	17-Nov	-1.0429	-0.9362	-0.7276		-2.0545	-1.4649	-0.7412
264	17-Dec	-0.2738	0.0121	0.17814	...	-0.1502	0.19463	0.85824

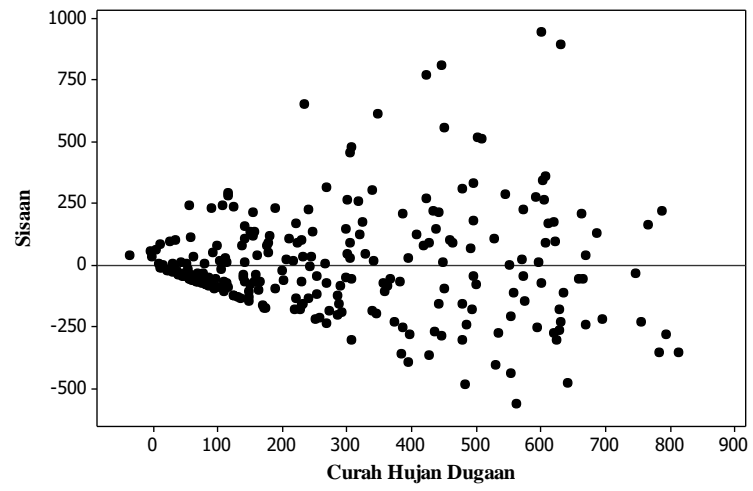
Lampiran 8 Diagnostik sisaan model awal RKU



a. Model RKU_1

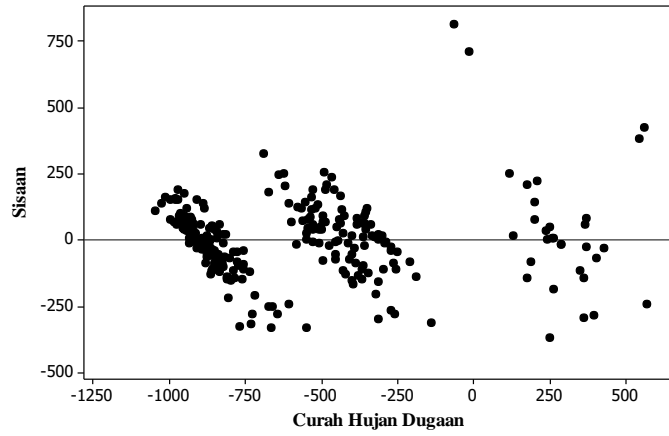


b. Model RKU_2



c. Model RKU_3

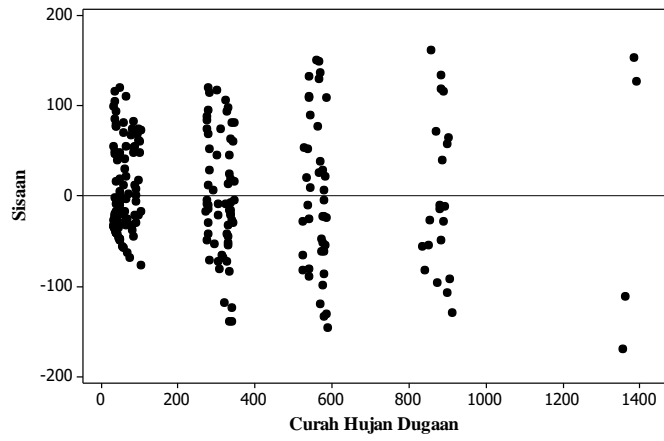
Lampiran 9 Diagnostik sisaan Model Estimasi Parameter Model Regresi LIU
Average Linkage



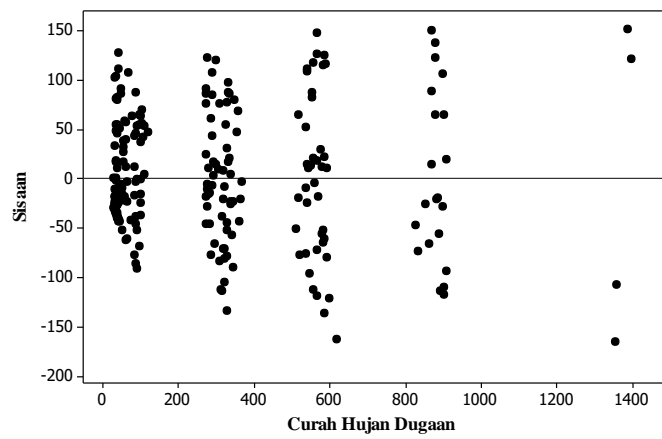
Model Estimasi Parameter Model Regresi Liu-*Dummy*

Lampiran 10. Diagnostik sisaan model *RKU-Dummy*

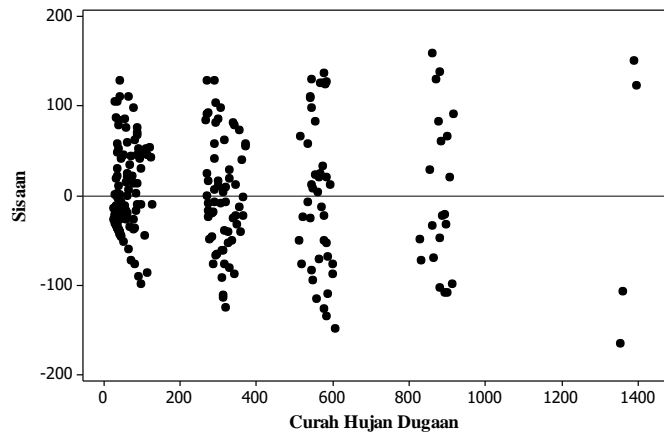
1. *RKU* K-means



a. Model RKU_1

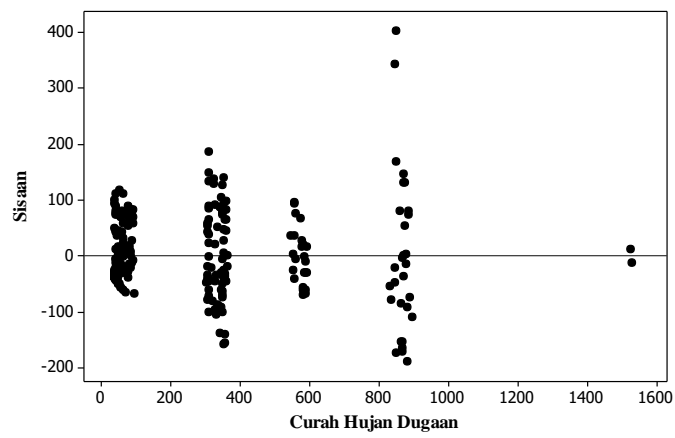


b. Model RKU_2

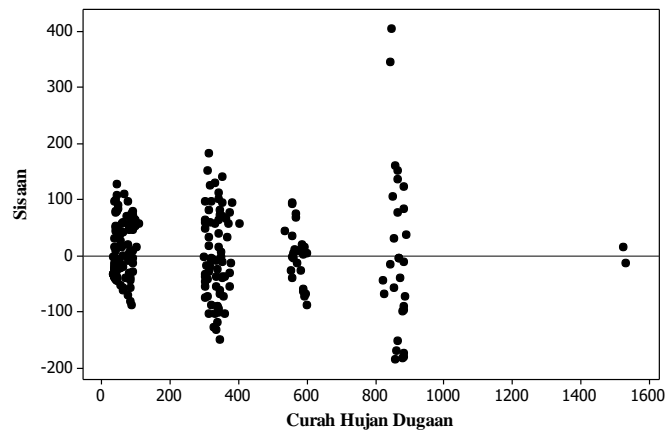


c. Model RKU_3

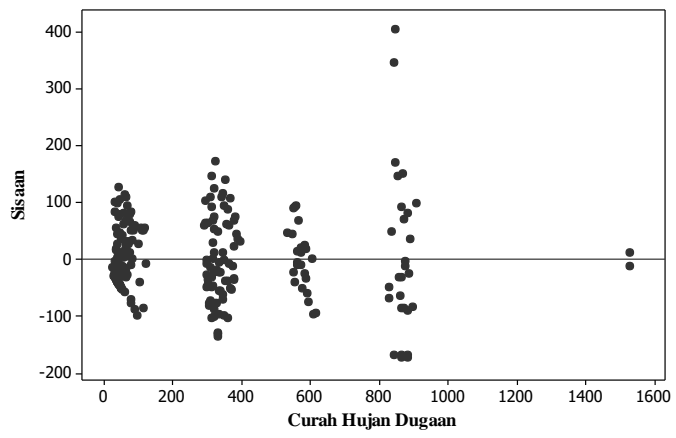
2 Diagnostik sisaan model *RKU Average Linkage*



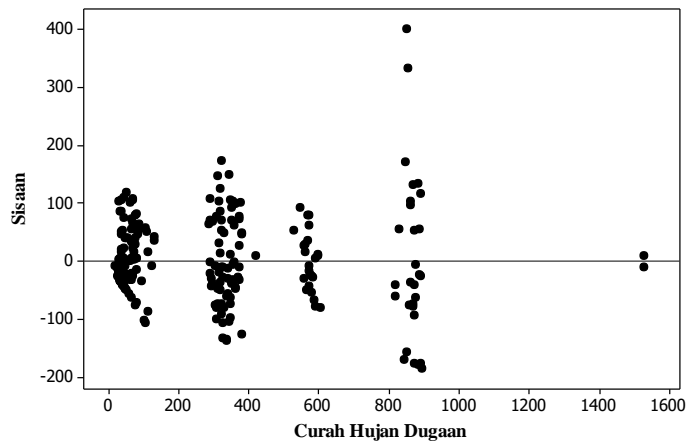
a. Model RKU_1



b. Model RKU_2



c. Model RKU_3



d. Model RKU_4