

LAMPIRAN

Lampiran 1 Daftar Riwayat Hidup

Zilma Juwita

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Latar Belakang

Mahasiswa Manajemen Universitas Pembangunan Jaya dengan pengalaman organisasi di bidang administrasi. Menyusun laporan kerja, mengelola database, dan dokumen secara sistematis. Memiliki kemampuan interpersonal yang kuat, termasuk komunikasi efektif, perhatian terhadap detail, dan kerja tim lintas fungsi, yang dikembangkan melalui pengalaman organisasi dan magang. Bersemangat untuk menerapkan keterampilan dan pengalaman guna berkontribusi pada pertumbuhan perusahaan yang progresif.

Pendidikan

- Manajemen, Universitas Pembangunan Jaya | Tangerang Selatan, Indonesia
Agustus 2021 – Sekarang
IPK : 3.54/4.00
- SMA Negeri 3 Kota Tangerang Selatan, Sosial Tangerang Selatan, Indonesia
Juli 2018 – Mei 2021

Pengalaman Bekerja

PT Integra Kresitama Solusindo | Procurement Staff | Magang Maret 2025 – Sekarang

- Mendukung proses pengadaan barang dan jasa, termasuk pengelolaan permintaan pembelian, dokumen pembelian, kontrak, dan pencatatan transaksi.
- Membuat *Purchase Order* melalui sistem ERP sesuai dengan penawaran vendor, kebutuhan pembelian, dan spesifikasi yang ditentukan.
- Melakukan *Stock Opname* Inventoris secara berkala.
- Menjalin komunikasi dan negosiasi harga dengan vendor untuk mendapatkan harga terbaik.
- Membantu penyusunan laporan efisiensi dan analisis pembelian untuk mendukung pengambilan Keputusan strategis.

PT Integra Kresitama Solusindo | Procurement Staff | Magang Juli – Desember 2024

- Mendukung proses pengadaan barang dan jasa, termasuk pengelolaan permintaan pembelian, dokumen pembelian, kontrak, dan pencatatan transaksi.
- Membuat *Purchase Order* melalui sistem ERP sesuai dengan penawaran vendor, kebutuhan pembelian, dan spesifikasi yang ditentukan.
- Membantu penyusunan laporan efisiensi dan analisis pembelian untuk mendukung pengambilan Keputusan strategis.

Manajemen Universitas Pembangunan Jaya | Asistensi Dosen | Magang Maret – Agustus 2023

- Mengorganisir rencana pembelajaran dan menyiapkan modul terkait dengan materi perkuliahan selama satu semester.
- Melakukan administrasi akademik sesuai dengan RPS dan CPMK.

Pengalaman Organisasi dan Kepanitiaan

UKM Bulutangkis | Universitas Pembangunan Jaya Agustus 2023 – Juni 2024
Bendahara

- Bertanggung jawab terhadap keuangan UKM Bulutangkis UPJ.
- Membuat dan memelihara catatan keuangan yang akurat dan teratur, termasuk mencatat pemasukan,

Lampiran 2 Formulir Pengajuan Sidang Skripsi

 Universitas Pembangunan Jaya	FORMULIR PENGAJUAN SIDANG SKRIPSI/TA	SPT-I/04/SOP-06/F-01
		No. Rekaman

Nama Mahasiswa : Zilma Juwita
 Prodi/NIM : Manajemen / 2021021044
 Judul Skripsi/TA : PENGARUH RETURN ON ASSET, DEBT TO EQUITY RATIO, CURRENT RATIO, DAN SALES GROWTH TERHADAP PRICE TO BOOK VALUE PADA PERUSAHAAN TELEKOMUNIKASI YANG TERDAFTAR DI BEI

Dosen Pembimbing : Zulkifli, S.E., M.M. JAD :

Dosen Penguji : 1. Dr Chajar Matari Fath Mala, S.E., M.M. JAD :

2. Dalzanolo Hulu, S.E., M.E., C.R.M., C.R.P. JAD :

Jadwal Sidang :

Telah memenuhi syarat Sidang Skripsi/TA: (mohon beri tanda V untuk syarat yang relevan)

No	Syarat	Ya	Tidak
1	IPK minimal 2.00	√	
2	Tidak ada nilai D untuk mata kuliah mayor/inti Prodi	√	
3	MK Skripsi/TA tercantum di BRS semester berjalan	√	
4	Lulus minimal 1 mata kuliah KOTA untuk tiap rumpun	√	
5	SPT-I/03/SOP-28/F-03 Formulir Pembimbingan Skripsi (minimal 8 x)	√	
6	Poin JSDP (minimal 75% persen dari syarat kelulusan)	√	
7	Mengumpulkan dokumen Skripsi/TA (sesuai ketentuan Prodi)	√	

Tangerang Selatan,

Mengajukan	Mengetahui	Memeriksa	Menyetujui
			
Zilma Juwita	Zulkifli, S.E., M.M.	Dr. Yusuf Iskandar, S.Si., M.M.,	Dr. Dede Suleman, S.E., M.M., CMA.

Lampiran 3 Formulir Pembimbingan Skripsi

	FORMULIR PEMBIMBINGAN SKRIPSI/TA	SPT-I/03/SOP-28/F-03
		No. Rekaman

Nama Mahasiswa : Zilma Juwita
 Prodi/NIM : Manajemen / 2021021044
 Judul Skripsi/TA yang diajukan : Pengaruh *Return on Assets, Debt to Equity Ratio, Current Ratio, Sales Growth Terhadap Price Book Value* Pada Perusahaan Telekomunikasi yang Terdaftar di Bursa Efek Indonesia

No	Tanggal	Materi Pembimbingan	Paraf Mahasiswa	Paraf Dosen Pembimbing
1	26/02/2025	diskusi Bab 1 : Judul, latar belakang, Laporan Keuangan, grafik penelitian		
2	05/02/2025	Revisi Bab 1 dan diskusi Bab 2		
3	12/03/2025	Revisi Bab 2 dan diskusi Bab 3		
4	19/03/2025	Revisi Bab 1 - III		
5	04/06/2025	olah data		
6	11/06/2025	diskusi mengenai bab 4 dan 5		
7	18/06/2025	revisi bab 4 dan bab 5		
8	24/06/2025	Pengajuan bab 4 dan bab 5		

* Jika pembimbingan lebih dari minimal 8 kali, mohon membuat salinan formulir ini

	
Zilma Juwita	Zulkifli, S.E., M.M.

Lampiran 4 Formulir Persetujuan Penulisan Skripsi

 Universitas Pembangunan Jaya	FORMULIR PERSETUJUAN PENULISAN SKRIPSI/TA	SPT-1/03/SOP-28/F-02
		No. Revisi

Nama Mahasiswa : Zilma Juwita
 Prodi/NIM : Manajemen / 2021021044
 Judul Skripsi/TA yang :
 Diajukan :

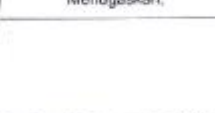
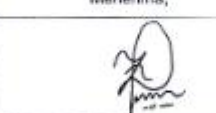
Pengaruh Return on Assets, Debt to Equity Ratio, Current Ratio, Sales Growth Terhadap Price Book Value Pada Perusahaan Telekomunikasi yang Terdaftar di Bursa Efek Indonesia

Telah disetujui untuk menulis Skripsi/TA.

Dosen Pembimbing Skripsi/TA yang ditugaskan Prodi adalah:

No	Nama	NIDN	JAD
1	Zulkifli, S.E., M.M.	0911128203	Lektor

Tangerang Selatan, 25 April 2025

Menugaskan,	Menyetujui,	Menerima,
		
Dr. Yusuf Iskandar, S.Si., M.M.	Dr. Dede Suleman, S.E., M.M., CMA	Zulkifli, S.E., M.M

Lampiran 5 Formulir Persetujuan Dosen Pembimbing Skripsi

PERSETUJUAN DOSEN PEMBIMBING SKRIPSI

PENGARUH RETURN ON ASSET, DEBT TO EQUITY RATIO, CURRENT RATIO, DAN SALES GROWTH TERHADAP PRICE TO BOOK VALUE PADA PERUSAHAAN TELEKOMUNIKASI YANG TERDAFTAR DI BEI

Nama : Zilma Juwita
NIM : 2021021044
Program Studi : Manajemen

Telah diperiksa dan disetujui untuk diajukan dan dipertahankan dalam Sidang Skripsi guna memperoleh gelar Sarjana Manajemen Strata Satu pada Program Studi Manajemen, Fakultas Humaniora Dan Bisnis, Universitas Pembangunan Jaya.

Tangerang Selatan, 16 Juni 2025

Menyetujui,

Pembimbing Utama



Zulkifli, S.E., M.M.

Kepala Program Studi Manajemen



Dr. Dede Suleman, M.M., CMA.

Lampiran 6 Formulir Revisi Skripsi Penguji 1

 Universitas Pembangunan Jaya	FORMULIR REVISI SKRIPSI / TA	SPT-I/04/SOP-06/F-05
		No. Revisi

Nama Mahasiswa : Zilma Juwita
Program Studi/NIM : Manajemen / 2021021044
Judul Skripsi : Pengaruh Return on Asset (ROA), Debt to Equity Ratio (DER), Current Ratio (CR), dan Sales Growth (SG) terhadap Price to Book Value (PBV) pada Perusahaan Telekomunikasi yang Terdaftar di BEI
Jadwal Sidang : Kamis, 03 Juli 2025
Dosen Penguji 1 : Dr. Chajar Matari Fath Mala, S.E., M.M.

Berdasarkan hasil evaluasi pada Sidang Skripsi, maka Skripsi yang disusun oleh mahasiswa tersebut perlu dilakukan revisi, dengan rincian sebagai berikut:

- ① Dari 22 → 17 dijelaskan prosesnya (sampingnya)
- ② Statistik deskriptifnya diperhatikan data-datanya yg nilainya yg ekstrem
- ③ Pembahasan diperluas lagi

Tangerang Selatan, 03 Juli 2025



Dr. Chajar Matari Fath Mala, S.E., M.M.

*Ditandatangani setelah mahasiswa menyelesaikan revisi

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Lampiran 7 Formulir Revisi Skripsi Penguji 2

 Universitas Pembangunan Jaya	FORMULIR REVISI SKRIPSI / TA	SPT-I/04/SOP-06/F-05
		No. Revisi

Nama Mahasiswa : Zilma Juwita
Program Studi/NIM : Manajemen / 2021021044
Judul Skripsi : Pengaruh Return on Asset (ROA), Debt to Equity Ratio (DER), Current Ratio (CR), dan Sales Growth (SG) terhadap Price to Book Value (PBV) pada Perusahaan Telekomunikasi yang terdaftar di BEI
Jadwal Sidang : Kamis, 03 Juli 2025
Dosen Penguji 2 : Dalizanolu Hulu, S.E., M.E., CRM., CRP.

Berdasarkan hasil evaluasi pada Sidang Skripsi, maka Skripsi yang disusun oleh mahasiswa tersebut perlu dilakukan revisi, dengan rincian sebagai berikut:

Ada di Catatan (Cover Skripsi)

Tangerang Selatan, 03 Juli 2025



Dalizanolu Hulu, S.E., M.E., CRM., CRP.

**Ditandatangani setelah mahasiswa menyelesaikan revisi*

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Lampiran 8 Formulir Revisi Skripsi Pembimbing

 Universitas Pembangunan Jaya	FORMULIR REVISI SKRIPSI / TA	SPT-I/04/SOP-06/F-05
		No. Dokumen

Nama Mahasiswa : Zilma Juwita
 Program Studi/NIM : Manajemen / 2021021044
 Judul Skripsi : Pengaruh Return on Asset (ROA), Debt to Equity Ratio (DER), Current Ratio (CR), dan Sales Growth (SG) terhadap Price to Book Value (PBV) pada Perusahaan Telekomunikasi yang Terdaftar di BEI
 Jadwal Sidang : Kamis, 03 Juli 2025
 Dosen Pembimbing : Zulkifli, S.E., M.M.

Berdasarkan hasil evaluasi pada Sidang Skripsi, maka Skripsi yang disusun oleh mahasiswa tersebut perlu dilakukan revisi, dengan rincian sebagai berikut:

- 1) Dalam isi Penelitian menggunakan minimal tahun 2019 untuk Sumber / Referensi, Lebih baik lagi disarankan minimal 5 Tahun terakhir.
- 2) Penulisan rumusan hipotesis pada uji pemilihan model di Bab III diperbaiki
- 3) Penjelasan konstanta pada persamaan regresi diperbaiki
- 4) Pada uji t (parsial), Penjelasan H_0 dan H_a diperbaiki
- 5) Pembahasan diperbaiki dengan penjelasan yang lebih relevan dengan hasil Penelitian dan dilengkapi dengan Sumber / referensi.
- 6) Kesimpulan dan saran diperbaiki.

Tangerang Selatan, 03 Juli 2025



Zulkifli, S.E., M.M.

*Ditandatangani setelah mahasiswa menyelesaikan revisi

Lampiran 9 Hasil perhitungan PBV pada perusahaan telekomunikasi sebelum outlier

NO	NAMA	TAHUN	HARGA SAHAM	BVPS	PBV
1.	BALI	2023	Rp 825,00	639	1,2906141
	BALI	2022	Rp 845,00	621	1,360518
	BALI	2021	Rp 875,00	598	1,4639354
	BALI	2020	Rp 800,00	554	1,4439904
	BALI	2019	Rp 1.000,00	482	2,0726747
2.	BTEL	2023	Rp 50,00	-160	-0,312884
	BTEL	2022	Rp 50,00	-159	-0,314325
	BTEL	2021	Rp 50,00	-156	-0,320985
	BTEL	2020	Rp 50,00	-307	-0,162881
	BTEL	2019	Rp 50,00	-406	-0,123134
3	CENT	2023	Rp 55,00	690	0,0797462
	CENT	2022	Rp 112,00	664	0,1687753
	CENT	2021	Rp 232,00	569	0,4078004
	CENT	2020	Rp 142,00	165	0,8585799
	CENT	2019	Rp 73,00	87	0,8386997
4	EXCL	2023	Rp 2.000,00	2.476	0,8078553
	EXCL	2022	Rp 2.140,00	2.407	0,8889061
	EXCL	2021	Rp 3.170,00	1.876	1,6894067
	EXCL	2020	Rp 2.730,00	1.788	1,5272433
	EXCL	2019	Rp 3.150,00	1.786	1,763623
5	FREN	2023	Rp 50,00	47	1,0699785
	FREN	2022	Rp 66,00	47	1,4045875
	FREN	2021	Rp 87,00	38	2,3059941
	FREN	2020	Rp 67,00	37	1,81717
	FREN	2019	Rp 138,00	38	3,6342196
6	GHON	2023	Rp 1.910,00	1.518	1,2580162
	GHON	2022	Rp 1.920,00	1.420	1,3524411
	GHON	2021	Rp 2.390,00	1.307	1,8281841
	GHON	2020	Rp 1.765,00	1.218	1,449213
	GHON	2019	Rp 1.650,00	1.093	1,5092084
7	GOLD	2023	Rp 286,00	293	0,9758855
	GOLD	2022	Rp 320,00	288	1,1093927

	GOLD	2021	Rp	400,00	256	1,5651287
	GOLD	2020	Rp	230,00	242	0,9484645
	GOLD	2019	Rp	222,00	232	0,9556882
8	IBST	2023	Rp	5.600,00	4.648	1,2047372
	IBST	2022	Rp	5.775,00	4.361	1,3242457
	IBST	2021	Rp	5.825,00	4.874	1,1950151
	IBST	2020	Rp	7.250,00	4.591	1,5792159
	IBST	2019	Rp	6.525,00	4.295	1,519056
9	ISAT	2023	Rp	9.375,00	6.203	1,5112712
	ISAT	2022	Rp	6.175,00	5.773	1,0696859
	ISAT	2021	Rp	6.200,00	1.896	3,2700219
	ISAT	2020	Rp	5.050,00	2.376	2,1250308
	ISAT	2019	Rp	2.910,00	2.523	1,1536094
10.	KBLV	2023	Rp	72,00	-337	-0,213916
	KBLV	2022	Rp	99,00	-233	-0,424547
	KBLV	2021	Rp	570,00	17	32,674247
	KBLV	2020	Rp	410,00	531	0,7715194
	KBLV	2019	Rp	274,00	543	0,5047407
11	LCKM	2023	Rp	286,00	136	2,101561
	LCKM	2022	Rp	310,00	136	2,2850218
	LCKM	2021	Rp	294,00	135	2,1749873
	LCKM	2020	Rp	366,00	134	2,7307009
	LCKM	2019	Rp	262,00	130	2,0198027
12	LINK	2023	Rp	1.325,00	1.507	0,8789715
	LINK	2022	Rp	2.620,00	1.735	1,5099661
	LINK	2021	Rp	4.000,00	1.833	2,1817557
	LINK	2020	Rp	2.410,00	1.615	1,4926948
	LINK	2019	Rp	3.960,00	1.626	2,434975
13	SUPR	2023	Rp	39.900,00	5.021	7,9468171
	SUPR	2022	Rp	34.000,00	4.027	8,4429331
	SUPR	2021	Rp	15.475,00	2.822	5,4831972
	SUPR	2020	Rp	4.100,00	3.206	1,2789547
	SUPR	2019	Rp	3.280,00	2.614	1,2548315
14	TBIG	2023	Rp	2.090,00	546	3,830841

	TBIG	2022	Rp	2.300,00	482	4,7719113
	TBIG	2021	Rp	2.950,00	432	6,8277172
	TBIG	2020	Rp	1.630,00	411	3,9694274
	TBIG	2019	Rp	1.230,00	244	5,0455688
15	TLKM	2023	Rp	3.950,00	1.580	2,4993022
	TLKM	2022	Rp	3.750,00	1.507	2,4888003
	TLKM	2021	Rp	4.040,00	1.468	2,7525042
	TLKM	2020	Rp	3.310,00	1.220	2,712372
	TLKM	2019	Rp	3.970,00	1.184	3,3541748
16	TOWR	2023	Rp	990,00	324	3,0587153
	TOWR	2022	Rp	1.100,00	283	3,8882198
	TOWR	2021	Rp	1.125,00	236	4,7580316
	TOWR	2020	Rp	960,00	200	4,8088972
	TOWR	2019	Rp	805,00	172	4,6876555
17	OASA	2023	Rp	137,00	1.859	0,0736953
	OASA	2022	Rp	695,00	220	3,1653098
	OASA	2021	Rp	845,00	61	13,841432
	OASA	2020	Rp	368,00	129	2,8433991
	OASA	2019	Rp	420,00	129	3,2437312

Lampiran 10 Hasil perhitungan ROA pada perusahaan telekomunikasi sebelum outlier

NAM A	TAH UN	LABA BERSIH	TOTAL ASET	ROA
BALI	2023	Rp 150.502.043.188,00	Rp 5.518.615.852.434,00	2,7%
BALI	2022	Rp 212.090.007.799,00	Rp 5.196.995.589.938,00	4,1%
BALI	2021	Rp 188.536.504.140,00	Rp 5.001.398.828.957,00	3,8%
BALI	2020	Rp 84.403.215.805,00	Rp 4.651.939.975.688,00	1,8%
BALI	2019	Rp 46.024.437.201,00	Rp 4.147.689.322.753,00	1,1%

BTE L	2023	-Rp 51.539.000.000,00	Rp 60.270.000.000,00	-85,5%
BTE L	2022	-Rp 117.926.000.000,00	Rp 33.275.000.000,00	-354,4%
BTE L	2021	-Rp 94.976.000.000,00	Rp 20.758.000.000,00	-457,5%
BTE L	2020	-Rp 108.137.000.000,00	Rp 3.266.000.000,00	- 3311,0%
BTE L	2019	Rp 7.280.000.000,00	Rp 11.234.000.000,00	64,8%
CEN T	2023	-Rp 844.398.000.000,00	Rp 20.040.897.000.00 0,00	-4,2%
CEN T	2022	-Rp 2.146.381.000.000,00	Rp 20.101.049.000.00 0,00	-10,7%
CEN T	2021	-Rp 314.231.000.000,00	Rp 19.798.329.000.00 0,00	-1,6%
CEN T	2020	-Rp 509.181.000.000,00	Rp 7.629.153.000.000, 00	-6,7%
CEN T	2019	Rp 8.912.000.000,00	Rp 5.729.085.000.000, 00	0,2%
EXC L	2023	Rp 1.284.448.000.000,00	Rp 87.688.084.000.00 0,00	1,5%
EXC L	2022	Rp 1.121.188.000.000,00	Rp 87.277.780.000.00 0,00	1,3%
EXC L	2021	Rp 1.287.807.000.000,00	Rp 72.753.282.000.00 0,00	1,8%
EXC L	2020	Rp 84.403.215.805,00	Rp 67.744.797.000.00 0,00	0,1%
EXC L	2019	Rp 46.024.437.201,00	Rp 62.725.242.000.00 0,00	0,1%
FRE N	2023	-Rp 108.952.000.000,00	Rp 45.044.801.000.00 0,00	-0,2%

FRE N	2022	Rp 1.064.305.000.000,00	Rp 46.492.367.000.000,00	2,3%
FRE N	2021	-Rp 435.325.081.365,00	Rp 3.357.849.742.875,00	-13,0%
FRE N	2020	-Rp 1.523.602.951.388,00	Rp 38.684.276.546.076,00	-3,9%
FRE N	2019	-Rp 2.187.771.846.923,00	Rp 27.650.462.178.339,00	-7,9%
GHO N	2023	Rp 100.226.779.000,00	Rp 1.359.147.579.000,00	7,4%
GHO N	2022	Rp 90.728.112.000,00	Rp 1.156.622.811.000,00	7,8%
GHO N	2021	Rp 89.855.831.000,00	Rp 1.021.478.602.000,00	8,8%
GHO N	2020	Rp 77.752.839.000,00	Rp 827.628.586.000,00	9,4%
GHO N	2019	Rp 63.509.234.000,00	Rp 740.433.237.000,00	8,6%
GOL D	2023	Rp 16.198.134.000,00	Rp 411.987.779.000,00	3,9%
GOL D	2022	Rp 15.998.575.000,00	Rp 400.972.660.000,00	4,0%
GOL D	2021	Rp 14.604.362.000,00	Rp 360.871.363.000,00	4,0%
GOL D	2020	Rp 13.159.949.000,00	Rp 338.352.250.000,00	3,9%
GOL D	2019	Rp 7.054.944.000,00	Rp 329.963.071.000,00	2,1%

IBST	2023	Rp 38.295.115.803,00	Rp 9.912.420.503.106,00	0,4%
IBST	2022	Rp 41.526.767.474,00	Rp 9.431.928.852.947,00	0,4%
IBST	2021	Rp 63.351.210.259,00	Rp 9.547.133.662.297,00	0,7%
IBST	2020	Rp 67.204.167.744,00	Rp 10.412.826.253.217,00	0,6%
IBST	2019	Rp 128.831.147.635,00	Rp 8.893.030.992.719,00	1,4%
ISAT	2023	Rp 4.775.741.000.000,00	Rp 114.722.249.000.000,00	4,2%
ISAT	2022	Rp 5.370.203.000.000,00	Rp 113.657.346.000.000,00	4,7%
ISAT	2021	Rp 6.860.121.000.000,00	Rp 51.897.709.000.000,00	13,2%
ISAT	2020	-Rp 630.160.000.000,00	Rp 62.778.740.000.000,00	-1,0%
ISAT	2019	Rp 1.630.372.000.000,00	Rp 62.813.000.000.000,00	2,6%
KBL V	2023	-Rp 78.124.000.000,00	Rp 1.029.445.000.000,00	-7,6%
KBL V	2022	-Rp 281.170.000.000,00	Rp 1.271.090.000.000,00	-22,1%
KBL V	2021	-Rp 1.265.864.000.000,00	Rp 4.585.222.000.000,00	-27,6%
KBL V	2020	-Rp 21.478.000.000,00	Rp 6.606.047.000.000,00	-0,3%
KBL V	2019	-Rp 256.057.000.000,00	Rp 7.174.495.000.000,00	-3,6%

LCK M	2023	Rp 71.468.852,00	Rp 141.372.543.538,0 0	0,1%
LCK M	2022	Rp 702.210.466,00	Rp 145.557.220.841,0 0	0,5%
LCK M	2021	Rp 1.647.206.699,00	Rp 147.143.541.262,0 0	1,1%
LCK M	2020	Rp 4.817.922.834,00	Rp 146.610.616.333,0 0	3,3%
LCK M	2019	Rp 2.295.609.020,00	Rp 143.904.158.664,0 0	1,6%
LIN K	2023	-Rp 532.983.000.000,00	Rp 12.636.281.000.00 0,00	-4,2%
LIN K	2022	Rp 240.718.000.000,00	Rp 11.644.794.000.00 0,00	2,1%
LIN K	2021	Rp 885.319.000.000,00	Rp 9.746.894.000.000, 00	9,1%
LIN K	2020	Rp 941.707.000.000,00	Rp 7.799.803.000.000, 00	12,1%
LIN K	2019	Rp 894.531.000.000,00	Rp 6.652.974.000.000, 00	13,4%
SUP R	2023	Rp 1.128.341.000.000,00	Rp 9.885.582.000.000, 00	11,4%
SUP R	2022	Rp 936.343.000.000,00	Rp 9.601.515.000.000, 00	9,8%
SUP R	2021	-Rp 69.075.000.000,00	Rp 11.635.100.000.00 0,00	-0,6%
SUP R	2020	Rp 708.883.000.000,00	Rp 12.044.736.000.00 0,00	5,9%

SUP R	2019	Rp 228.382.000.000,00	Rp 11.164.825.000.00 0,00	2,0%
TBIG	2023	Rp 1.621.694.000.000,00	Rp 46.966.466.000.00 0,00	3,5%
TBIG	2022	Rp 1.689.441.000.000,00	Rp 43.139.968.000.00 0,00	3,9%
TBIG	2021	Rp 1.601.353.000.000,00	Rp 41.870.435.000.00 0,00	3,8%
TBIG	2020	Rp 1.066.576.000.000,00	Rp 36.521.303.000.00 0,00	2,9%
TBIG	2019	Rp 866.121.000.000,00	Rp 30.871.710.000.00 0,00	2,8%
TLK M	2023	Rp 32.208.000.000.000,00	Rp 287.042.000.000.0 00,00	11,2%
TLK M	2022	Rp 27.680.000.000.000,00	Rp 275.192.000.000.0 00,00	10,1%
TLK M	2021	Rp 33.948.000.000.000,00	Rp 277.184.000.000.0 00,00	12,2%
TLK M	2020	Rp 29.563.000.000.000,00	Rp 246.943.000.000.0 00,00	12,0%
TLK M	2019	Rp 27.592.000.000.000,00	Rp 221.208.000.000.0 00,00	12,5%
TOW R	2023	Rp 3.303.642.000.000,00	Rp 68.418.946.000.00 0,00	4,8%
TOW R	2022	Rp 3.496.535.000.000,00	Rp 65.625.136.000.00 0,00	5,3%
TOW R	2021	Rp 3.447.875.000.000,00	Rp 65.828.670.000.00 0,00	5,2%

TOW R	2020	Rp 2.853.617.000.000,00	Rp 34.249.550.000.000,00	8,3%
TOW R	2019	Rp 2.353.089.000.000,00	Rp 27.665.695.000.000,00	8,5%
OAS A	2023	Rp 2.562.783.819,00	Rp 760.388.312.170,00	0,3%
OAS A	2022	Rp 4.401.681.342,00	Rp 293.778.141.690,00	1,5%
OAS A	2021	Rp 1.300.803.896,00	Rp 223.532.020.006,00	0,6%
OAS A	2020	-468.118.875	Rp 46.840.047.799,00	-1,0%
OAS A	2019	-Rp 1.671.122.556,00	Rp 47.359.872.599,00	-3,5%

Lampiran 11 Hasil perhitungan DER pada perusahaan telekomunikasi sebelum outlier

N O	NAM A	TAH UN	LIABILITAS	EQUITAS	DER
1.	BALI	2023	Rp 3.003.504.092.237,00	Rp 2.515.111.760.197,00	119,42 %
	BALI	2022	Rp 2.753.271.517.109,00	Rp 2.443.724.072.829,00	112,67 %
	BALI	2021	Rp 2.649.677.296.449,00	Rp 2.351.721.532.508,00	112,67 %
	BALI	2020	Rp 2.472.095.850.875,00	Rp 2.179.844.124.813,00	113,41 %
	BALI	2019	Rp 2.249.372.866.307,00	Rp 1.898.316.456.446,00	118,49 %
2.	BTE L	2023	Rp 5.944.673.000.000,00	-Rp 5.884.403.000.000,00	- 101,02 %
	BTE L	2022	Rp 5.890.102.000.000,00	-Rp 5.857.427.000.000,00	- 100,56 %
	BTE L	2021	Rp 5.756.644.000.000,00	-Rp 5.735.886.000.000,00	- 100,36 %

	BTE L	2020	Rp 11.306.819.000.000,0 0	-Rp 11.303.553.000.000,0 0	- 100,03 %
	BTE L	2019	Rp 14.963.526.000.000,0 0	-Rp 14.952.292.000.000,0 0	- 100,08 %
3	CEN T	2023	Rp 21.506.856.000.000,0 0	-Rp 21.506.855.997.977,0 0	- 1467,08 %
	CEN T	2022	Rp 20.693.476.000.000,0 0	-Rp 20.693.475.997.978,0 0	- 3493,00 %
	CEN T	2021	Rp 17.740.454.000.000,0 0	-Rp 17.740.453.997.979,0 0	- 862,08 %
	CEN T	2020	Rp 5.157.414.000.000,00	Rp 2.471.739.000.000,00	208,66 %
	CEN T	2019	Rp 2.714.193.000.000,00	Rp 3.014.892.000.000,00	90,03%
4	EXC L	2023	Rp 61.183.308.000.000,0 0	Rp 26.504.776.000.000,0 0	230,84 %
	EXC L	2022	Rp 61.503.554.000.000,0 0	Rp 25.774.226.000.000,0 0	238,62 %
	EXC L	2021	Rp 52.664.537.000.000,0 0	Rp 20.088.745.000.000,0 0	262,16 %
	EXC L	2020	Rp 48.607.431.000.000,0 0	Rp 19.137.366.000.000,0 0	253,99 %
	EXC L	2019	Rp 43.603.276.000.000,0 0	Rp 19.121.966.000.000,0 0	228,03 %
5	FRE N	2023	Rp 29.372.146.000.000,0 0	Rp 15.672.655.000.000,0 0	187,41 %
	FRE N	2022	Rp 30.732.855.000.000,0 0	Rp 15.759.512.000.000,0 0	195,01 %
	FRE N	2021	Rp 30.704.407.248.908,0 0	Rp 12.653.442.493.967,0 0	242,66 %

	FRE N	2020	Rp 26.318.344.155.226,0 0	Rp 12.365.932.390.850,0 0	212,83 %
	FRE N	2019	Rp 14.914.975.380.320,0 0	Rp 12.735.486.798.019,0 0	117,11 %
6	GHO N	2023	Rp 524.102.658.000,00	Rp 835.044.921.000,00	62,76%
	GHO N	2022	Rp 375.812.491.000,00	Rp 780.810.320.000,00	48,13%
	GHO N	2021	Rp 302.459.113.000,00	Rp 719.019.489.000,00	42,07%
	GHO N	2020	Rp 157.782.245.000,00	Rp 669.846.341.000,00	23,55%
	GHO N	2019	Rp 139.124.612.000,00	Rp 601.308.625.000,00	23,14%
7	GOL D	2023	Rp 37.660.112.000,00	Rp 374.327.667.000,00	10,06%
	GOL D	2022	Rp 32.547.385.000,00	Rp 368.425.275.000,00	8,83%
	GOL D	2021	Rp 34.437.898.000,00	Rp 326.433.465.000,00	10,55%
	GOL D	2020	Rp 28.616.385.000,00	Rp 309.735.865.000,00	9,24%
	GOL D	2019	Rp 33.260.378.000,00	Rp 296.702.693.000,00	11,21%
8	IBST	2023	Rp 3.632.986.426.917,00	Rp 6.279.434.076.189,00	57,86%
	IBST	2022	Rp 3.540.668.594.029,00	Rp 5.891.260.258.918,00	60,10%
	IBST	2021	Rp 2.962.262.142.191,00	Rp 6.584.871.520.106,00	44,99%
	IBST	2020	Rp 4.210.975.933.401,00	Rp 6.201.850.319.816,00	67,90%
	IBST	2019	Rp 3.090.312.252.257,00	Rp 5.802.718.740.462,00	53,26%
9	ISAT	2023	Rp 81.013.457.000.000,0 0	Rp 33.708.792.000.000,0 0	240,33 %
	ISAT	2022	Rp 82.288.756.000.000,0 0	Rp 31.368.590.000.000,0 0	262,33 %

	ISAT	2021	Rp 53.094.346.000.000,0 0	Rp 10.302.802.000.000,0 0	515,34 %
	ISAT	2020	Rp 49.865.344.000.000,0 0	Rp 12.913.396.000.000,0 0	386,15 %
	ISAT	2019	Rp 49.105.807.000.000,0 0	Rp 13.707.193.000.000,0 0	358,25 %
10	KBL V	2023	Rp 1.615.824.000.000,00	-Rp 586.379.000.000,00	- 275,56 %
	KBL V	2022	Rp 1.677.346.000.000,00	-Rp 406.256.000.000,00	- 412,88 %
	KBL V	2021	Rp 4.554.830.000.000,00	Rp 30.392.000.000,00	14986,9 4%
	KBL V	2020	Rp 5.680.226.000.000,00	Rp 925.821.000.000,00	613,53 %
	KBL V	2019	Rp 6.228.754.000.000,00	Rp 945.741.000.000,00	658,61 %
11	LCK M	2023	Rp 5.283.224.124,00	Rp 136.089.319.414,00	3,88%
	LCK M	2022	Rp 9.891.118.345,00	Rp 135.666.102.496,00	7,29%
	LCK M	2021	Rp 11.970.337.380,00	Rp 135.173.203.882,00	8,86%
	LCK M	2020	Rp 12.579.094.626,00	Rp 134.031.521.707,00	9,39%
	LCK M	2019	Rp 14.188.519.810,00	Rp 129.715.638.854,00	10,94%
12	LIN K	2023	Rp 8.320.175.000.000,00	Rp 4.316.106.000.000,00	192,77 %
	LIN K	2022	Rp 6.676.754.000.000,00	Rp 4.968.040.000.000,00	134,39 %
	LIN K	2021	Rp 4.497.552.000.000,00	Rp 5.249.342.000.000,00	85,68%
	LIN K	2020	Rp 3.177.089.000.000,00	Rp 4.622.714.000.000,00	68,73%
	LIN K	2019	Rp 1.996.559.000.000,00	Rp 4.656.415.000.000,00	42,88%
13	SUP R	2023	Rp 4.173.933.000.000,00	Rp 5.711.649.000.000,00	73,08%

	SUP R	2022	Rp 5.020.440.000.000,00	Rp 4.581.075.000.000,00	109,59 %
	SUP R	2021	Rp 8.424.556.000.000,00	Rp 3.210.544.000.000,00	262,40 %
	SUP R	2020	Rp 8.397.948.000.000,00	Rp 3.646.788.000.000,00	230,28 %
	SUP R	2019	Rp 8.191.309.000.000,00	Rp 2.973.516.000.000,00	275,48 %
14	TBIG	2023	Rp 34.605.439.000.000,00	Rp 12.361.027.000.000,00	279,96 %
	TBIG	2022	Rp 32.219.585.000.000,00	Rp 10.920.383.000.000,00	295,04 %
	TBIG	2021	Rp 32.081.197.000.000,00	Rp 9.789.238.000.000,00	327,72 %
	TBIG	2020	Rp 27.217.465.000.000,00	Rp 9.303.838.000.000,00	292,54 %
	TBIG	2019	Rp 25.348.426.000.000,00	Rp 5.523.284.000.000,00	458,94 %
15	TLK M	2023	Rp 130.480.000.000.000,00	Rp 156.562.000.000.000,00	83,34%
	TLK M	2022	Rp 125.930.000.000.000,00	Rp 149.262.000.000.000,00	84,37%
	TLK M	2021	Rp 131.785.000.000.000,00	Rp 145.399.000.000.000,00	90,64%
	TLK M	2020	Rp 126.054.000.000.000,00	Rp 120.889.000.000.000,00	104,27 %
	TLK M	2019	Rp 103.958.000.000.000,00	Rp 117.250.000.000.000,00	88,66%
16	TOW R	2023	Rp 51.907.282.000.000,00	Rp 16.511.664.000.000,00	314,37 %
	TOW R	2022	Rp 51.192.802.000.000,00	Rp 14.432.334.000.000,00	354,71 %

	TOW R	2021	Rp 53.766.654.000.000,0 0	Rp 12.062.016.000.000,0 0	445,75 %
	TOW R	2020	Rp 24.065.502.000.000,0 0	Rp 10.184.048.000.000,0 0	236,31 %
	TOW R	2019	Rp 18.905.074.000.000,0 0	Rp 8.760.621.000.000,00	215,80 %
17	OAS A	2023	Rp 93.749.162.248,00	Rp 666.639.149.922,00	14,06%
	OAS A	2022	Rp 215.041.141.249,00	Rp 78.737.000.441,00	273,11 %
	OAS A	2021	Rp 209.339.992.736,00	Rp 21.892.027.270,00	956,24 %
	OAS A	2020	Rp 429.116.050,00	Rp 46.410.931.749,00	0,92%
	OAS A	2019	Rp 928.158.975,00	Rp 46.431.713.624,00	2,00%

Lampiran 12 Hasil perhitungan CR pada perusahaan telekomunikasi sebelum outlier

N O	NAM A	TAH UN	ASET LANCAR	UTANG LANCAR	CR
1.	BALI	2023	Rp 438.853.219.332,00	Rp 1.330.831.106.530,00	32,98%
	BALI	2022	Rp 514.604.194.596,00	Rp 781.927.018.201,00	65,81%
	BALI	2021	Rp 459.258.299.276,00	Rp 645.813.931.744,00	71,11%
	BALI	2020	Rp 401.196.606.179,00	Rp 642.283.365.635,00	62,46%
	BALI	2019	Rp 355.757.344.382,00	Rp 1.091.568.985.440,00	32,59%
2.	BTE L	2023	Rp 34.345.000.000,00	Rp 805.115.000.000,00	4,27%
	BTE L	2022	Rp 11.425.000.000,00	Rp 958.161.000.000,00	1,19%
	BTE L	2021	Rp 13.796.000.000,00	Rp 914.501.000.000,00	1,51%
	BTE L	2020	Rp 2.134.000.000,00	Rp 881.184.000.000,00	0,24%

	BTE L	2019	Rp 3.980.000.000,00	Rp 9.240.180.000.000,00	0,04%
3	CEN T	2023	Rp 1.494.832.000.000,00	Rp 2.077.028.000.000,00	71,97%
	CEN T	2022	Rp 2.376.921.000.000,00	Rp 1.290.244.000.000,00	184,22%
	CEN T	2021	Rp 1.279.833.000.000,00	Rp 6.004.704.000.000,00	21,31%
	CEN T	2020	Rp 1.116.644.000.000,00	Rp 4.983.388.000.000,00	22,41%
	CEN T	2019	Rp 1.285.023.000.000,00	Rp 1.255.977.000.000,00	102,31%
4	EXC L	2023	Rp 7.173.511.000.000,00	Rp 20.141.984.000.000,00	35,61%
	EXC L	2022	Rp 10.408.358.000.000,00	Rp 26.350.500.000.000,00	39,50%
	EXC L	2021	Rp 7.733.191.000.000,00	Rp 20.953.921.000.000,00	36,91%
	EXC L	2020	Rp 7.571.123.000.000,00	Rp 18.857.026.000.000,00	40,15%
	EXC L	2019	Rp 7.145.648.000.000,00	Rp 21.292.684.000.000,00	33,56%
5	FRE N	2023	Rp 4.336.479.000.000,00	Rp 6.620.255.000.000,00	65,50%
	FRE N	2022	Rp 4.790.496.000.000,00	Rp 8.658.869.000.000,00	55,32%
	FRE N	2021	Rp 2.322.497.796.081,00	Rp 9.603.232.140.323,00	24,18%
	FRE N	2020	Rp 2.646.319.224.796,00	Rp 8.417.955.655.404,00	31,44%
	FRE N	2019	Rp 1.774.596.661.176,00	Rp 6.119.936.082.173,00	29,00%
6	GHO N	2023	Rp 125.773.181.000,00	Rp 403.995.326.000,00	31,13%
	GHO N	2022	Rp 96.533.792.000,00	Rp 306.363.017.000,00	31,51%
	GHO N	2021	Rp 75.858.670.000,00	Rp 250.140.903.000,00	30,33%

	GHO N	2020	Rp 37.262.521.000,00	Rp 112.293.182.000,00	33,18%
	GHO N	2019	Rp 41.885.488.000,00	Rp 62.828.314.000,00	66,67%
7	GOL D	2023	Rp 60.648.835.000,00	Rp 33.764.002.000,00	179,63%
	GOL D	2022	Rp 88.045.362.000,00	Rp 29.098.404.000,00	302,58%
	GOL D	2021	Rp 112.647.222.000,00	Rp 31.756.190.000,00	354,73%
	GOL D	2020	Rp 110.339.347.000,00	Rp 25.792.856.000,00	427,79%
	GOL D	2019	Rp 114.100.749.000,00	Rp 31.386.202.000,00	363,54%
8	IBST	2023	Rp 1.947.126.925.497,00	Rp 1.086.320.262.504,00	179,24%
	IBST	2022	Rp 1.893.120.295.382,00	Rp 973.196.711.688,00	194,53%
	IBST	2021	Rp 2.296.081.016.362,00	Rp 817.505.939.412,00	280,86%
	IBST	2020	Rp 1.380.008.830.013,00	Rp 1.194.454.114.708,00	115,53%
	IBST	2019	Rp 1.463.644.955.334,00	Rp 993.021.427.528,00	147,39%
9	ISAT	2023	Rp 15.479.659.000.000,00	Rp 34.134.343.000.000,00	45,35%
	ISAT	2022	Rp 18.683.115.000.000,00	Rp 35.874.074.000.000,00	52,08%
	ISAT	2021	Rp 11.499.439.000.000,00	Rp 28.658.152.000.000,00	40,13%
	ISAT	2020	Rp 9.594.951.000.000,00	Rp 22.658.094.000.000,00	42,35%
	ISAT	2019	Rp 12.444.795.000.000,00	Rp 22.129.440.000.000,00	56,24%
10	KBL V	2023	Rp 349.524.000.000,00	Rp 1.588.997.000.000,00	22,00%
	KBL V	2022	Rp 571.881.000.000,00	Rp 1.652.441.000.000,00	34,61%

	KBL V	2021	Rp 141.582.000.000,00	Rp 4.404.354.000.000,00	3,21%
	KBL V	2020	Rp 133.685.000.000,00	Rp 4.920.800.000.000,00	2,72%
	KBL V	2019	Rp 344.763.000.000,00	Rp 4.069.059.000.000,00	8,47%
11	LCK M	2023	Rp 134.178.503.129,00	Rp 5.283.224.124,00	2539,71 %
	LCK M	2022	Rp 136.689.695.364,00	Rp 9.405.947.345,00	1453,23 %
	LCK M	2021	Rp 135.624.679.109,00	Rp 11.555.188.045,00	1173,71 %
	LCK M	2020	Rp 129.473.203.351,00	Rp 12.156.902.355,00	1065,02 %
	LCK M	2019	Rp 126.517.364.372,00	Rp 13.911.019.974,00	909,48%
12	LINK	2023	Rp 804.156.000.000,00	Rp 3.289.121.000.000,00	24,45%
	LINK	2022	Rp 895.066.000.000,00	Rp 4.648.427.000.000,00	19,26%
	LINK	2021	Rp 860.648.000.000,00	Rp 1.964.255.000.000,00	43,82%
	LINK	2020	Rp 774.438.000.000,00	Rp 2.818.011.000.000,00	27,48%
	LINK	2019	Rp 898.564.000.000,00	Rp 1.813.323.000.000,00	49,55%
13	SUP R	2023	Rp 946.200.000.000,00	Rp 3.363.726.000.000,00	28,13%
	SUP R	2022	Rp 727.964.000.000,00	Rp 2.145.801.000.000,00	33,93%
	SUP R	2021	Rp 1.932.729.000.000,00	Rp 2.700.564.000.000,00	71,57%
	SUP R	2020	Rp 1.444.271.000.000,00	Rp 1.721.016.000.000,00	83,92%
	SUP R	2019	Rp 1.764.606.000.000,00	Rp 1.566.989.000.000,00	112,61%
14	TBIG	2023	Rp 5.257.597.000.000,00	Rp 15.257.626.000.000,00	34,46%
	TBIG	2022	Rp 3.565.804.000.000,00	Rp 8.728.182.000.000,00	40,85%
	TBIG	2021	Rp 3.021.253.000.000,00	Rp 8.432.425.000.000,00	35,83%

	TBIG	2020	Rp 3.227.394.000.000,00	Rp 13.777.876.000.000,00	23,42%
	TBIG	2019	Rp 2.376.740.000.000,00	Rp 4.513.623.000.000,00	52,66%
15	TLK M	2023	Rp 55.613.000.000.000,00	Rp 71.568.000.000.000,00	77,71%
	TLK M	2022	Rp 55.057.000.000.000,00	Rp 70.388.000.000.000,00	78,22%
	TLK M	2021	Rp 61.277.000.000.000,00	Rp 69.131.000.000.000,00	88,64%
	TLK M	2020	Rp 46.503.000.000.000,00	Rp 69.093.000.000.000,00	67,30%
	TLK M	2019	Rp 41.722.000.000.000,00	Rp 58.369.000.000.000,00	71,48%
16	TOW R	2023	Rp 4.426.883.000.000,00	Rp 24.298.953.000.000,00	18,22%
	TOW R	2022	Rp 3.651.134.000.000,00	Rp 14.446.084.000.000,00	25,27%
	TOW R	2021	Rp 7.398.138.000.000,00	Rp 21.880.264.000.000,00	33,81%
	TOW R	2020	Rp 3.002.332.000.000,00	Rp 7.225.188.000.000,00	41,55%
	TOW R	2019	Rp 2.474.389.000.000,00	Rp 4.565.104.000.000,00	54,20%
17	OAS A	2023	Rp 364.404.973.026,00	Rp 44.586.468.709,00	817,30%
	OAS A	2022	Rp 18.996.386.438,00	Rp 136.704.742.314	13,90%
	OAS A	2021	Rp 187.913.347.810,00	Rp 26.550.031.279,00	707,77%
	OAS A	2020	Rp 46.434.428.090,00	Rp 113.188.050,00	41024,14%
	OAS A	2019	Rp 46.929.335.290,00	Rp 292.435.975,00	16047,73%

Lampiran 13 Hasil perhitungan SG pada perusahaan telekomunikasi sebelum outlier

NO	NAMA	TAHUN	PENDAPATAN	SG
1.	BALI	2023	Rp 955.261.616.145,00	-2,36%
	BALI	2022	Rp 978.378.536.736,00	3,35%
	BALI	2021	Rp 946.633.191.563,00	21,54%
	BALI	2020	Rp 778.896.099.135,00	26,13%
	BALI	2019	Rp 617.522.982.196,00	33,04%
		2018	Rp 464.175.762.884,00	
2.	BTEL	2023	Rp 21.016.000.000,00	-56,08%
	BTEL	2022	Rp 47.850.000.000,00	-8,18%
	BTEL	2021	Rp 52.110.000.000,00	394,54%
	BTEL	2020	Rp 10.537.000.000,00	2,55%
	BTEL	2019	Rp 10.275.000.000,00	20,51%
		2018	Rp 8.526.000.000,00	
3	CENT	2023	Rp 2.522.944.000.000,00	8,74%
	CENT	2022	Rp 2.320.072.000.000,00	32,80%
	CENT	2021	Rp 1.747.039.000.000,00	59,39%
	CENT	2020	Rp 1.096.044.000.000,00	31,77%
	CENT	2019	Rp 831.777.000.000,00	3,82%
		2018	Rp 801.161.000.000,00	
4	EXCL	2023	Rp 32.322.651.000.000,00	10,91%
	EXCL	2022	Rp 29.141.994.000.000,00	8,93%
	EXCL	2021	Rp 26.754.050.000.000,00	2,86%
	EXCL	2020	Rp 26.009.095.000.000,00	3,49%
	EXCL	2019	Rp 25.132.628.000.000,00	9,56%
		2018	Rp 22.938.812.000.000,00	
5	FREN	2023	Rp 11.655.708.000.000,00	4,04%
	FREN	2022	Rp 11.202.579.000.000,00	7,13%
	FREN	2021	Rp 10.456.828.821.565,00	11,15%
	FREN	2020	Rp 9.407.882.876.396,00	34,63%
	FREN	2019	Rp 6.987.804.620.572,00	27,28%
		2018	Rp 5.490.311.128.559,00	
6	GHON	2023	Rp 203.637.725.000,00	9,31%
	GHON	2022	Rp 186.301.175.000,00	12,96%
	GHON	2021	Rp 164.920.511.000,00	15,28%

	GHON	2020	Rp	143.056.438.000,00	23,39%
	GHON	2019	Rp	115.935.417.000,00	6,66%
		2018	Rp	108.699.906.000,00	
7	GOLD	2023	Rp	47.726.683.000,00	0,64%
	GOLD	2022	Rp	47.421.904.000,00	7,14%
	GOLD	2021	Rp	44.260.335.000,00	11,20%
	GOLD	2020	Rp	39.803.327.000,00	10,48%
	GOLD	2019	Rp	36.026.980.000,00	4,08%
		2018	Rp	34.614.253.000,00	
8	IBST	2023	Rp	1.109.755.968.980,00	1,98%
	IBST	2022	Rp	1.088.236.706.064,00	11,59%
	IBST	2021	Rp	975.211.333.352,00	-13,10%
	IBST	2020	Rp	1.122.276.247.134,00	3,15%
	IBST	2019	Rp	1.087.963.086.355,00	21,21%
		2018	Rp	897.612.636.308,00	
9	ISAT	2023	Rp	51.228.782.000.000,00	9,57%
	ISAT	2022	Rp	46.752.319.000.000,00	48,95%
	ISAT	2021	Rp	31.388.311.000.000,00	12,40%
	ISAT	2020	Rp	27.925.661.000.000,00	6,92%
	ISAT	2019	Rp	26.117.533.000.000,00	44,88%
		2018	Rp	18.026.934.000.000,00	
10.	KBLV	2023	Rp	113.520.000.000,00	-19,15%
	KBLV	2022	Rp	140.413.000.000,00	-7,50%
	KBLV	2021	Rp	151.800.000.000,00	-19,55%
	KBLV	2020	Rp	188.697.000.000,00	-24,19%
	KBLV	2019	Rp	248.909.000.000,00	-74,69%
		2018	Rp	983.271.000.000,00	
11	LCKM	2023	Rp	14.685.856.864,00	-49,91%
	LCKM	2022	Rp	29.316.490.133,00	-35,85%
	LCKM	2021	Rp	45.700.880.268,00	7,86%
	LCKM	2020	Rp	42.370.902.184,00	2,40%
	LCKM	2019	Rp	41.376.896.578,00	-47,29%
		2018	Rp	78.503.927.811,00	
12	LINK	2023	Rp	3.925.581.000.000,00	-10,19%
	LINK	2022	Rp	4.370.781.000.000,00	-2,11%

	LINK	2021	Rp	4.464.900.000.000,00	10,30%
	LINK	2020	Rp	4.047.964.000.000,00	7,79%
	LINK	2019	Rp	3.755.262.000.000,00	0,72%
		2018	Rp	3.728.364.000.000,00	
13	SUPR	2023	Rp	1.892.085.000.000,00	0,20%
	SUPR	2022	Rp	1.888.257.000.000,00	-9,04%
	SUPR	2021	Rp	2.075.965.000.000,00	8,00%
	SUPR	2020	Rp	1.922.151.000.000,00	8,78%
	SUPR	2019	Rp	1.767.050.000.000,00	-6,99%
		2018	Rp	1.899.775.000.000,00	
14	TBIG	2023	Rp	6.640.645.000.000,00	1,78%
	TBIG	2022	Rp	6.524.369.000.000,00	5,58%
	TBIG	2021	Rp	6.179.584.000.000,00	15,99%
	TBIG	2020	Rp	5.327.689.000.000,00	13,39%
	TBIG	2019	Rp	4.698.742.000.000,00	8,81%
		2018	Rp	4.318.137.000.000,00	
15	TLKM	2023	Rp	149.216.000.000.000,00	1,30%
	TLKM	2022	Rp	147.306.000.000.000,00	2,86%
	TLKM	2021	Rp	143.210.000.000.000,00	4,94%
	TLKM	2020	Rp	136.462.000.000.000,00	0,66%
	TLKM	2019	Rp	135.567.000.000.000,00	3,66%
		2018	Rp	130.784.000.000.000,00	
16	TOWR	2023	Rp	11.740.345.000.000,00	6,39%
	TOWR	2022	Rp	11.035.650.000.000,00	27,80%
	TOWR	2021	Rp	8.635.346.000.000,00	15,98%
	TOWR	2020	Rp	7.445.426.000.000,00	15,36%
	TOWR	2019	Rp	6.454.302.000.000,00	9,99%
		2018	Rp	5.867.860.000.000,00	
17	OASA	2023	Rp	44.151.348.251,00	8,19%
	OASA	2022	Rp	40.808.504.420,00	1096,46%
	OASA	2021	Rp	3.410.781.850,00	181,48%
	OASA	2020	Rp	1.211.712.320,00	-92,82%
	OASA	2019	Rp	16.875.355.000,00	-26,08%
		2018	Rp	22.829.336.499,00	

Lampiran 14 Hasil perhitungan PBV perusahaan telekomunikasi setelah outlier

NO	NAMA	TAHUN	HARGA SAHAM	BVPS	PBV
1.	BALI	2023	Rp 825,00	639	1,290614144
	BALI	2022	Rp 845,00	621	1,36051803
	BALI	2021	Rp 875,00	598	1,463935415
	BALI	2020	Rp 800,00	554	1,443990405
	BALI	2019	Rp 1.000,00	482	2,072674704
2.	BTEL	2023	Rp 50,00	-160	-0,312883616
	BTEL	2022	Rp 50,00	-159	-0,314324581
	BTEL	2021	Rp 50,00	-156	-0,320984986
	BTEL	2020	Rp 50,00	-307	-0,162880936
	BTEL	2019	Rp 50,00	-406	-0,12313385
3	CENT	2021	Rp 232,00	569	0,407800379
	CENT	2020	Rp 142,00	165	0,858579904
	CENT	2019	Rp 73,00	87	0,838699731
4	EXCL	2023	Rp 2.000,00	2.476	0,807855349
	EXCL	2022	Rp 2.140,00	2.407	0,888906104
	EXCL	2021	Rp 3.170,00	1.876	1,689406666
	EXCL	2020	Rp 2.730,00	1.788	1,527243311
	EXCL	2019	Rp 3.150,00	1.786	1,763623022
5	FREN	2023	Rp 50,00	47	1,069978519
	FREN	2022	Rp 66,00	47	1,404587497
	FREN	2021	Rp 87,00	38	2,305994064
	FREN	2020	Rp 67,00	37	1,817170019
	FREN	2019	Rp 138,00	38	3,634219585
6	GHON	2023	Rp 1.910,00	1.518	1,258016154
	GHON	2022	Rp 1.920,00	1.420	1,352441141
	GHON	2021	Rp 2.390,00	1.307	1,828184104
	GHON	2020	Rp 1.765,00	1.218	1,449212962
	GHON	2019	Rp 1.650,00	1.093	1,509208354
7	GOLD	2023	Rp 286,00	293	0,975885483
	GOLD	2022	Rp 320,00	288	1,109392726
	GOLD	2021	Rp 400,00	256	1,565128747
	GOLD	2020	Rp 230,00	242	0,948464525

	GOLD	2019	Rp	222,00	232	0,955688232
8	IBST	2023	Rp	5.600,00	4.648	1,204737163
	IBST	2022	Rp	5.775,00	4.361	1,324245681
	IBST	2021	Rp	5.825,00	4.874	1,195015146
	IBST	2020	Rp	7.250,00	4.591	1,579215914
	IBST	2019	Rp	6.525,00	4.295	1,519055988
9	ISAT	2023	Rp	9.375,00	6.203	1,511271201
	ISAT	2022	Rp	6.175,00	5.773	1,06968593
	ISAT	2021	Rp	6.200,00	1.896	3,270021854
	ISAT	2020	Rp	5.050,00	2.376	2,125030796
	ISAT	2019	Rp	2.910,00	2.523	1,153609385
10	KBLV	2023	Rp	72,00	-337	-0,213916408
	KBLV	2022	Rp	99,00	-233	-0,424546647
	KBLV	2020	Rp	410,00	531	0,771519378
	KBLV	2019	Rp	274,00	543	0,504740734
11	LCKM	2023	Rp	286,00	136	2,101560954
	LCKM	2022	Rp	310,00	136	2,285021787
	LCKM	2021	Rp	294,00	135	2,174987287
	LCKM	2020	Rp	366,00	134	2,730700923
	LCKM	2019	Rp	262,00	130	2,019802719
12	LINK	2023	Rp	1.325,00	1.507	0,878971466
	LINK	2022	Rp	2.620,00	1.735	1,509966137
	LINK	2021	Rp	4.000,00	1.833	2,18175572
	LINK	2020	Rp	2.410,00	1.615	1,492694793
	LINK	2019	Rp	3.960,00	1.626	2,434975
13	SUPR	2023	Rp	39.900,00	5.021	7,946817101
	SUPR	2022	Rp	34.000,00	4.027	8,442933096
	SUPR	2021	Rp	15.475,00	2.822	5,483197186
	SUPR	2020	Rp	4.100,00	3.206	1,27895473
	SUPR	2019	Rp	3.280,00	2.614	1,254831455
14	TBIG	2023	Rp	2.090,00	546	3,830840984
	TBIG	2022	Rp	2.300,00	482	4,771911271
	TBIG	2021	Rp	2.950,00	432	6,827717169
	TBIG	2020	Rp	1.630,00	411	3,969427358

	TBIG	2019	Rp	1.230,00	244	5,045568781
15	TLKM	2023	Rp	3.950,00	1.580	2,499302229
	TLKM	2022	Rp	3.750,00	1.507	2,488800313
	TLKM	2021	Rp	4.040,00	1.468	2,752504179
	TLKM	2020	Rp	3.310,00	1.220	2,712371985
	TLKM	2019	Rp	3.970,00	1.184	3,354174839
16	TOWR	2023	Rp	990,00	324	3,058715266
	TOWR	2022	Rp	1.100,00	283	3,888219847
	TOWR	2021	Rp	1.125,00	236	4,758031587
	TOWR	2020	Rp	960,00	200	4,808897209
	TOWR	2019	Rp	805,00	172	4,68765549
17	OASA	2023	Rp	137,00	1.859	0,073695342
	OASA	2022	Rp	695,00	220	3,165309811
	OASA	2021	Rp	845,00	61	13,84143169

Lampiran 15 Hasil perhitungan ROA perusahaan telekomunikasi setelah outlier

N O	NA MA	TAH UN	LABA BERSIH	TOTAL ASET	ROA
1.	BAL I	2023	Rp 150.502.043.188,00	Rp 5.518.615.852.434,00	2,7%
	BAL I	2022	Rp 212.090.007.799,00	Rp 5.196.995.589.938,00	4,1%
	BAL I	2021	Rp 188.536.504.140,00	Rp 5.001.398.828.957,00	3,8%
	BAL I	2020	Rp 84.403.215.805,00	Rp 4.651.939.975.688,00	1,8%
	BAL I	2019	Rp 46.024.437.201,00	Rp 4.147.689.322.753,00	1,1%
2.	BTE L	2023	-Rp 51.539.000.000,00	Rp 60.270.000.000,00	- 85,5%
	BTE L	2022	-Rp 117.926.000.000,00	Rp 33.275.000.000,00	- 354,4 %
	BTE L	2021	-Rp 94.976.000.000,00	Rp 20.758.000.000,00	- 457,5 %
	BTE L	2020	-Rp 108.137.000.000,00	Rp 3.266.000.000,00	- 3311,0 %

	BTE L	2019	Rp 7.280.000.000,00	Rp 11.234.000.000,00	64,8%
3	CEN T	2021	-Rp 314.231.000.000,00	Rp 19.798.329.000.000,00	-1,6%
	CEN T	2020	-Rp 509.181.000.000,00	Rp 7.629.153.000.000,00	-6,7%
	CEN T	2019	Rp 8.912.000.000,00	Rp 5.729.085.000.000,00	0,2%
4	EXC L	2023	Rp 1.284.448.000.000,00	Rp 87.688.084.000.000,00	1,5%
	EXC L	2022	Rp 1.121.188.000.000,00	Rp 87.277.780.000.000,00	1,3%
	EXC L	2021	Rp 1.287.807.000.000,00	Rp 72.753.282.000.000,00	1,8%
	EXC L	2020	Rp 84.403.215.805,00	Rp 67.744.797.000.000,00	0,1%
	EXC L	2019	Rp 46.024.437.201,00	Rp 62.725.242.000.000,00	0,1%
5	FRE N	2023	-Rp 108.952.000.000,00	Rp 45.044.801.000.000,00	-0,2%
	FRE N	2022	Rp 1.064.305.000.000,00	Rp 46.492.367.000.000,00	2,3%
	FRE N	2021	-Rp 435.325.081.365,00	Rp 3.357.849.742.875,00	13,0%
	FRE N	2020	-Rp 1.523.602.951.388,00	Rp 38.684.276.546.076,00	-3,9%
	FRE N	2019	-Rp 2.187.771.846.923,00	Rp 27.650.462.178.339,00	-7,9%
6	GHO N	2023	Rp 100.226.779.000,00	Rp 1.359.147.579.000,00	7,4%
	GHO N	2022	Rp 90.728.112.000,00	Rp 1.156.622.811.000,00	7,8%
	GHO N	2021	Rp 89.855.831.000,00	Rp 1.021.478.602.000,00	8,8%
	GHO N	2020	Rp 77.752.839.000,00	Rp 827.628.586.000,00	9,4%
	GHO N	2019	Rp 63.509.234.000,00	Rp 740.433.237.000,00	8,6%
7	GOL D	2023	Rp 16.198.134.000,00	Rp 411.987.779.000,00	3,9%
	GOL D	2022	Rp 15.998.575.000,00	Rp 400.972.660.000,00	4,0%

	GOL D	2021	Rp 14.604.362.000,00	Rp 360.871.363.000,00	4,0%
	GOL D	2020	Rp 13.159.949.000,00	Rp 338.352.250.000,00	3,9%
	GOL D	2019	Rp 7.054.944.000,00	Rp 329.963.071.000,00	2,1%
8	IBST	2023	Rp 38.295.115.803,00	Rp 9.912.420.503.106,00	0,4%
	IBST	2022	Rp 41.526.767.474,00	Rp 9.431.928.852.947,00	0,4%
	IBST	2021	Rp 63.351.210.259,00	Rp 9.547.133.662.297,00	0,7%
	IBST	2020	Rp 67.204.167.744,00	Rp 10.412.826.253.217,00	0,6%
	IBST	2019	Rp 128.831.147.635,00	Rp 8.893.030.992.719,00	1,4%
9	ISA T	2023	Rp 4.775.741.000.000,00	Rp 114.722.249.000.000,00	4,2%
	ISA T	2022	Rp 5.370.203.000.000,00	Rp 113.657.346.000.000,00	4,7%
	ISA T	2021	Rp 6.860.121.000.000,00	Rp 51.897.709.000.000,00	13,2%
	ISA T	2020	-Rp 630.160.000.000,00	Rp 62.778.740.000.000,00	-1,0%
	ISA T	2019	Rp 1.630.372.000.000,00	Rp 62.813.000.000.000,00	2,6%
10	KBL V	2023	-Rp 78.124.000.000,00	Rp 1.029.445.000.000,00	-7,6%
	KBL V	2022	-Rp 281.170.000.000,00	Rp 1.271.090.000.000,00	-22,1%
	KBL V	2020	-Rp 21.478.000.000,00	Rp 6.606.047.000.000,00	-0,3%
	KBL V	2019	-Rp 256.057.000.000,00	Rp 7.174.495.000.000,00	-3,6%
11	LCK M	2023	Rp 71.468.852,00	Rp 141.372.543.538,00	0,1%
	LCK M	2022	Rp 702.210.466,00	Rp 145.557.220.841,00	0,5%
	LCK M	2021	Rp 1.647.206.699,00	Rp 147.143.541.262,00	1,1%

	LCK M	2020	Rp 4.817.922.834,00	Rp 146.610.616.333,00	3,3%
	LCK M	2019	Rp 2.295.609.020,00	Rp 143.904.158.664,00	1,6%
12	LIN K	2023	-Rp 532.983.000.000,00	Rp 12.636.281.000.000,00	-4,2%
	LIN K	2022	Rp 240.718.000.000,00	Rp 11.644.794.000.000,00	2,1%
	LIN K	2021	Rp 885.319.000.000,00	Rp 9.746.894.000.000,00	9,1%
	LIN K	2020	Rp 941.707.000.000,00	Rp 7.799.803.000.000,00	12,1%
	LIN K	2019	Rp 894.531.000.000,00	Rp 6.652.974.000.000,00	13,4%
13	SUP R	2023	Rp 1.128.341.000.000,00	Rp 9.885.582.000.000,00	11,4%
	SUP R	2022	Rp 936.343.000.000,00	Rp 9.601.515.000.000,00	9,8%
	SUP R	2021	-Rp 69.075.000.000,00	Rp 11.635.100.000.000,00	-0,6%
	SUP R	2020	Rp 708.883.000.000,00	Rp 12.044.736.000.000,00	5,9%
	SUP R	2019	Rp 228.382.000.000,00	Rp 11.164.825.000.000,00	2,0%
14	TBI G	2023	Rp 1.621.694.000.000,00	Rp 46.966.466.000.000,00	3,5%
	TBI G	2022	Rp 1.689.441.000.000,00	Rp 43.139.968.000.000,00	3,9%
	TBI G	2021	Rp 1.601.353.000.000,00	Rp 41.870.435.000.000,00	3,8%
	TBI G	2020	Rp 1.066.576.000.000,00	Rp 36.521.303.000.000,00	2,9%
	TBI G	2019	Rp 866.121.000.000,00	Rp 30.871.710.000.000,00	2,8%
15	TLK M	2023	Rp 32.208.000.000.000,00	Rp 287.042.000.000.000,00	11,2%
	TLK M	2022	Rp 27.680.000.000.000,00	Rp 275.192.000.000.000,00	10,1%
	TLK M	2021	Rp 33.948.000.000.000,00	Rp 277.184.000.000.000,00	12,2%

	TLK M	2020	Rp 29.563.000.000.000,00	Rp 246.943.000.000.000,00	12,0%
	TLK M	2019	Rp 27.592.000.000.000,00	Rp 221.208.000.000.000,00	12,5%
16	TO WR	2023	Rp 3.303.642.000.000,00	Rp 68.418.946.000.000,00	4,8%
	TO WR	2022	Rp 3.496.535.000.000,00	Rp 65.625.136.000.000,00	5,3%
	TO WR	2021	Rp 3.447.875.000.000,00	Rp 65.828.670.000.000,00	5,2%
	TO WR	2020	Rp 2.853.617.000.000,00	Rp 34.249.550.000.000,00	8,3%
	TO WR	2019	Rp 2.353.089.000.000,00	Rp 27.665.695.000.000,00	8,5%
17	OAS A	2023	Rp 2.562.783.819,00	Rp 760.388.312.170,00	0,3%
	OAS A	2022	Rp 4.401.681.342,00	Rp 293.778.141.690,00	1,5%
	OAS A	2021	Rp 1.300.803.896,00	Rp 223.532.020.006,00	0,6%

Lampiran 16 Hasil perhitungan DER perusahaan telekomunikasi setelah outlier

N O	NAM A	TAH UN	LIABILITAS	EQUITAS	DER
1.	BALI	2023	Rp 3.003.504.092.237,00	Rp 2.515.111.760.197,00	119,42 %
	BALI	2022	Rp 2.753.271.517.109,00	Rp 2.443.724.072.829,00	112,67 %
	BALI	2021	Rp 2.649.677.296.449,00	Rp 2.351.721.532.508,00	112,67 %
	BALI	2020	Rp 2.472.095.850.875,00	Rp 2.179.844.124.813,00	113,41 %
	BALI	2019	Rp 2.249.372.866.307,00	Rp 1.898.316.456.446,00	118,49 %
2.	BTE L	2023	Rp 5.944.673.000.000,00	-Rp 5.884.403.000.000,00	- 101,02 %
	BTE L	2022	Rp 5.890.102.000.000,00	-Rp 5.857.427.000.000,00	- 100,56 %

	BTE L	2021	Rp 5.756.644.000.000,00	-Rp 5.735.886.000.000,00	- 100,36 %
	BTE L	2020	Rp 11.306.819.000.000,0 0	-Rp 11.303.553.000.000,0 0	- 100,03 %
	BTE L	2019	Rp 14.963.526.000.000,0 0	-Rp 14.952.292.000.000,0 0	- 100,08 %
3	CEN T	2021	Rp 17.740.454.000.000,0 0	-Rp 17.740.453.997.979,0 0	862,08 %
	CEN T	2020	Rp 5.157.414.000.000,00	Rp 2.471.739.000.000,00	208,66 %
	CEN T	2019	Rp 2.714.193.000.000,00	Rp 3.014.892.000.000,00	90,03%
4	EXC L	2023	Rp 61.183.308.000.000,0 0	Rp 26.504.776.000.000,0 0	230,84 %
	EXC L	2022	Rp 61.503.554.000.000,0 0	Rp 25.774.226.000.000,0 0	238,62 %
	EXC L	2021	Rp 52.664.537.000.000,0 0	Rp 20.088.745.000.000,0 0	262,16 %
	EXC L	2020	Rp 48.607.431.000.000,0 0	Rp 19.137.366.000.000,0 0	253,99 %
	EXC L	2019	Rp 43.603.276.000.000,0 0	Rp 19.121.966.000.000,0 0	228,03 %
5	FRE N	2023	Rp 29.372.146.000.000,0 0	Rp 15.672.655.000.000,0 0	187,41 %
	FRE N	2022	Rp 30.732.855.000.000,0 0	Rp 15.759.512.000.000,0 0	195,01 %
	FRE N	2021	Rp 30.704.407.248.908,0 0	Rp 12.653.442.493.967,0 0	242,66 %
	FRE N	2020	Rp 26.318.344.155.226,0 0	Rp 12.365.932.390.850,0 0	212,83 %

	FRE N	2019	Rp 14.914.975.380.320,0 0	Rp 12.735.486.798.019,0 0	117,11 %
6	GHO N	2023	Rp 524.102.658.000,00	Rp 835.044.921.000,00	62,76%
	GHO N	2022	Rp 375.812.491.000,00	Rp 780.810.320.000,00	48,13%
	GHO N	2021	Rp 302.459.113.000,00	Rp 719.019.489.000,00	42,07%
	GHO N	2020	Rp 157.782.245.000,00	Rp 669.846.341.000,00	23,55%
	GHO N	2019	Rp 139.124.612.000,00	Rp 601.308.625.000,00	23,14%
7	GOL D	2023	Rp 37.660.112.000,00	Rp 374.327.667.000,00	10,06%
	GOL D	2022	Rp 32.547.385.000,00	Rp 368.425.275.000,00	8,83%
	GOL D	2021	Rp 34.437.898.000,00	Rp 326.433.465.000,00	10,55%
	GOL D	2020	Rp 28.616.385.000,00	Rp 309.735.865.000,00	9,24%
	GOL D	2019	Rp 33.260.378.000,00	Rp 296.702.693.000,00	11,21%
8	IBST	2023	Rp 3.632.986.426.917,00	Rp 6.279.434.076.189,00	57,86%
	IBST	2022	Rp 3.540.668.594.029,00	Rp 5.891.260.258.918,00	60,10%
	IBST	2021	Rp 2.962.262.142.191,00	Rp 6.584.871.520.106,00	44,99%
	IBST	2020	Rp 4.210.975.933.401,00	Rp 6.201.850.319.816,00	67,90%
	IBST	2019	Rp 3.090.312.252.257,00	Rp 5.802.718.740.462,00	53,26%
9	ISAT	2023	Rp 81.013.457.000.000,0 0	Rp 33.708.792.000.000,0 0	240,33 %
	ISAT	2022	Rp 82.288.756.000.000,0 0	Rp 31.368.590.000.000,0 0	262,33 %
	ISAT	2021	Rp 53.094.346.000.000,0 0	Rp 10.302.802.000.000,0 0	515,34 %

	ISAT	2020	Rp 49.865.344.000.000,0 0	Rp 12.913.396.000.000,0 0	386,15 %
	ISAT	2019	Rp 49.105.807.000.000,0 0	Rp 13.707.193.000.000,0 0	358,25 %
10	KBL V	2023	Rp 1.615.824.000.000,00	-Rp 586.379.000.000,00	- 275,56 %
	KBL V	2022	Rp 1.677.346.000.000,00	-Rp 406.256.000.000,00	- 412,88 %
	KBL V	2020	Rp 5.680.226.000.000,00	Rp 925.821.000.000,00	613,53 %
	KBL V	2019	Rp 6.228.754.000.000,00	Rp 945.741.000.000,00	658,61 %
11	LCK M	2023	Rp 5.283.224.124,00	Rp 136.089.319.414,00	3,88%
	LCK M	2022	Rp 9.891.118.345,00	Rp 135.666.102.496,00	7,29%
	LCK M	2021	Rp 11.970.337.380,00	Rp 135.173.203.882,00	8,86%
	LCK M	2020	Rp 12.579.094.626,00	Rp 134.031.521.707,00	9,39%
	LCK M	2019	Rp 14.188.519.810,00	Rp 129.715.638.854,00	10,94%
12	LINK	2023	Rp 8.320.175.000.000,00	Rp 4.316.106.000.000,00	192,77 %
	LINK	2022	Rp 6.676.754.000.000,00	Rp 4.968.040.000.000,00	134,39 %
	LINK	2021	Rp 4.497.552.000.000,00	Rp 5.249.342.000.000,00	85,68%
	LINK	2020	Rp 3.177.089.000.000,00	Rp 4.622.714.000.000,00	68,73%
	LINK	2019	Rp 1.996.559.000.000,00	Rp 4.656.415.000.000,00	42,88%
13	SUP R	2023	Rp 4.173.933.000.000,00	Rp 5.711.649.000.000,00	73,08%
	SUP R	2022	Rp 5.020.440.000.000,00	Rp 4.581.075.000.000,00	109,59 %
	SUP R	2021	Rp 8.424.556.000.000,00	Rp 3.210.544.000.000,00	262,40 %

	SUP R	2020	Rp 8.397.948.000.000,00	Rp 3.646.788.000.000,00	230,28 %
	SUP R	2019	Rp 8.191.309.000.000,00	Rp 2.973.516.000.000,00	275,48 %
14	TBIG	2023	Rp 34.605.439.000.000,00	Rp 12.361.027.000.000,00	279,96 %
	TBIG	2022	Rp 32.219.585.000.000,00	Rp 10.920.383.000.000,00	295,04 %
	TBIG	2021	Rp 32.081.197.000.000,00	Rp 9.789.238.000.000,00	327,72 %
	TBIG	2020	Rp 27.217.465.000.000,00	Rp 9.303.838.000.000,00	292,54 %
	TBIG	2019	Rp 25.348.426.000.000,00	Rp 5.523.284.000.000,00	458,94 %
15	TLK M	2023	Rp 130.480.000.000.000,00	Rp 156.562.000.000.000,00	83,34%
	TLK M	2022	Rp 125.930.000.000.000,00	Rp 149.262.000.000.000,00	84,37%
	TLK M	2021	Rp 131.785.000.000.000,00	Rp 145.399.000.000.000,00	90,64%
	TLK M	2020	Rp 126.054.000.000.000,00	Rp 120.889.000.000.000,00	104,27 %
	TLK M	2019	Rp 103.958.000.000.000,00	Rp 117.250.000.000.000,00	88,66%
16	TOW R	2023	Rp 51.907.282.000.000,00	Rp 16.511.664.000.000,00	314,37 %
	TOW R	2022	Rp 51.192.802.000.000,00	Rp 14.432.334.000.000,00	354,71 %
	TOW R	2021	Rp 53.766.654.000.000,00	Rp 12.062.016.000.000,00	445,75 %

	TOW R	2020	Rp 24.065.502.000.000,0 0	Rp 10.184.048.000.000,0 0	236,31 %
	TOW R	2019	Rp 18.905.074.000.000,0 0	Rp 8.760.621.000.000,00	215,80 %
17	OAS A	2023	Rp 93.749.162.248,00	Rp 666.639.149.922,00	14,06%
	OAS A	2022	Rp 215.041.141.249,00	Rp 78.737.000.441,00	273,11 %
	OAS A	2021	Rp 209.339.992.736,00	Rp 21.892.027.270,00	956,24 %

Lampiran 17 Hasil perhitungan CR perusahaan telekomunikasi setelah outlier

N O	NA MA	TAH UN	ASET LANCAR	UTANG LANCAR	CR
1.	BAL I	2023	Rp 438.853.219.332,00	Rp 1.330.831.106.530,00	32,98 %
	BAL I	2022	Rp 514.604.194.596,00	Rp 781.927.018.201,00	65,81 %
	BAL I	2021	Rp 459.258.299.276,00	Rp 645.813.931.744,00	71,11 %
	BAL I	2020	Rp 401.196.606.179,00	Rp 642.283.365.635,00	62,46 %
	BAL I	2019	Rp 355.757.344.382,00	Rp 1.091.568.985.440,00	32,59 %
2.	BTE L	2023	Rp 34.345.000.000,00	Rp 805.115.000.000,00	4,27%
	BTE L	2022	Rp 11.425.000.000,00	Rp 958.161.000.000,00	1,19%
	BTE L	2021	Rp 13.796.000.000,00	Rp 914.501.000.000,00	1,51%
	BTE L	2020	Rp 2.134.000.000,00	Rp 881.184.000.000,00	0,24%
	BTE L	2019	Rp 3.980.000.000,00	Rp 9.240.180.000.000,00	0,04%
3	CEN T	2021	Rp 1.279.833.000.000,00	Rp 6.004.704.000.000,00	21,31 %
	CEN T	2020	Rp 1.116.644.000.000,00	Rp 4.983.388.000.000,00	22,41 %
	CEN T	2019	Rp 1.285.023.000.000,00	Rp 1.255.977.000.000,00	102,31 %

4	EXC L	2023	Rp 7.173.511.000.000,00	Rp 20.141.984.000.000,00	35,61 %
	EXC L	2022	Rp 10.408.358.000.000,00	Rp 26.350.500.000.000,00	39,50 %
	EXC L	2021	Rp 7.733.191.000.000,00	Rp 20.953.921.000.000,00	36,91 %
	EXC L	2020	Rp 7.571.123.000.000,00	Rp 18.857.026.000.000,00	40,15 %
	EXC L	2019	Rp 7.145.648.000.000,00	Rp 21.292.684.000.000,00	33,56 %
5	FRE N	2023	Rp 4.336.479.000.000,00	Rp 6.620.255.000.000,00	65,50 %
	FRE N	2022	Rp 4.790.496.000.000,00	Rp 8.658.869.000.000,00	55,32 %
	FRE N	2021	Rp 2.322.497.796.081,00	Rp 9.603.232.140.323,00	24,18 %
	FRE N	2020	Rp 2.646.319.224.796,00	Rp 8.417.955.655.404,00	31,44 %
	FRE N	2019	Rp 1.774.596.661.176,00	Rp 6.119.936.082.173,00	29,00 %
6	GHO N	2023	Rp 125.773.181.000,00	Rp 403.995.326.000,00	31,13 %
	GHO N	2022	Rp 96.533.792.000,00	Rp 306.363.017.000,00	31,51 %
	GHO N	2021	Rp 75.858.670.000,00	Rp 250.140.903.000,00	30,33 %
	GHO N	2020	Rp 37.262.521.000,00	Rp 112.293.182.000,00	33,18 %
	GHO N	2019	Rp 41.885.488.000,00	Rp 62.828.314.000,00	66,67 %
7	GOL D	2023	Rp 60.648.835.000,00	Rp 33.764.002.000,00	179,63 %
	GOL D	2022	Rp 88.045.362.000,00	Rp 29.098.404.000,00	302,58 %
	GOL D	2021	Rp 112.647.222.000,00	Rp 31.756.190.000,00	354,73 %
	GOL D	2020	Rp 110.339.347.000,00	Rp 25.792.856.000,00	427,79 %
	GOL D	2019	Rp 114.100.749.000,00	Rp 31.386.202.000,00	363,54 %
8	IBST	2023	Rp 1.947.126.925.497,00	Rp 1.086.320.262.504,00	179,24 %

	IBST	2022	Rp 1.893.120.295.382,00	Rp 973.196.711.688,00	194,53 %
	IBST	2021	Rp 2.296.081.016.362,00	Rp 817.505.939.412,00	280,86 %
	IBST	2020	Rp 1.380.008.830.013,00	Rp 1.194.454.114.708,00	115,53 %
	IBST	2019	Rp 1.463.644.955.334,00	Rp 993.021.427.528,00	147,39 %
9	ISA T	2023	Rp 15.479.659.000.000,00	Rp 34.134.343.000.000,00	45,35 %
	ISA T	2022	Rp 18.683.115.000.000,00	Rp 35.874.074.000.000,00	52,08 %
	ISA T	2021	Rp 11.499.439.000.000,00	Rp 28.658.152.000.000,00	40,13 %
	ISA T	2020	Rp 9.594.951.000.000,00	Rp 22.658.094.000.000,00	42,35 %
	ISA T	2019	Rp 12.444.795.000.000,00	Rp 22.129.440.000.000,00	56,24 %
10	KBL V	2023	Rp 349.524.000.000,00	Rp 1.588.997.000.000,00	22,00 %
	KBL V	2022	Rp 571.881.000.000,00	Rp 1.652.441.000.000,00	34,61 %
	KBL V	2020	Rp 133.685.000.000,00	Rp 4.920.800.000.000,00	2,72%
	KBL V	2019	Rp 344.763.000.000,00	Rp 4.069.059.000.000,00	8,47%
11	LCK M	2023	Rp 134.178.503.129,00	Rp 5.283.224.124,00	2539,7 1%
	LCK M	2022	Rp 136.689.695.364,00	Rp 9.405.947.345,00	1453,2 3%
	LCK M	2021	Rp 135.624.679.109,00	Rp 11.555.188.045,00	1173,7 1%
	LCK M	2020	Rp 129.473.203.351,00	Rp 12.156.902.355,00	1065,0 2%
	LCK M	2019	Rp 126.517.364.372,00	Rp 13.911.019.974,00	909,48 %
12	LIN K	2023	Rp 804.156.000.000,00	Rp 3.289.121.000.000,00	24,45 %
	LIN K	2022	Rp 895.066.000.000,00	Rp 4.648.427.000.000,00	19,26 %
	LIN K	2021	Rp 860.648.000.000,00	Rp 1.964.255.000.000,00	43,82 %

	LIN K	2020	Rp 774.438.000.000,00	Rp 2.818.011.000.000,00	27,48 %
	LIN K	2019	Rp 898.564.000.000,00	Rp 1.813.323.000.000,00	49,55 %
13	SUP R	2023	Rp 946.200.000.000,00	Rp 3.363.726.000.000,00	28,13 %
	SUP R	2022	Rp 727.964.000.000,00	Rp 2.145.801.000.000,00	33,93 %
	SUP R	2021	Rp 1.932.729.000.000,00	Rp 2.700.564.000.000,00	71,57 %
	SUP R	2020	Rp 1.444.271.000.000,00	Rp 1.721.016.000.000,00	83,92 %
	SUP R	2019	Rp 1.764.606.000.000,00	Rp 1.566.989.000.000,00	112,61 %
14	TBI G	2023	Rp 5.257.597.000.000,00	Rp 15.257.626.000.000,00	34,46 %
	TBI G	2022	Rp 3.565.804.000.000,00	Rp 8.728.182.000.000,00	40,85 %
	TBI G	2021	Rp 3.021.253.000.000,00	Rp 8.432.425.000.000,00	35,83 %
	TBI G	2020	Rp 3.227.394.000.000,00	Rp 13.777.876.000.000,00	23,42 %
	TBI G	2019	Rp 2.376.740.000.000,00	Rp 4.513.623.000.000,00	52,66 %
15	TLK M	2023	Rp 55.613.000.000.000,00	Rp 71.568.000.000.000,00	77,71 %
	TLK M	2022	Rp 55.057.000.000.000,00	Rp 70.388.000.000.000,00	78,22 %
	TLK M	2021	Rp 61.277.000.000.000,00	Rp 69.131.000.000.000,00	88,64 %
	TLK M	2020	Rp 46.503.000.000.000,00	Rp 69.093.000.000.000,00	67,30 %
	TLK M	2019	Rp 41.722.000.000.000,00	Rp 58.369.000.000.000,00	71,48 %
16	TO WR	2023	Rp 4.426.883.000.000,00	Rp 24.298.953.000.000,00	18,22 %
	TO WR	2022	Rp 3.651.134.000.000,00	Rp 14.446.084.000.000,00	25,27 %
	TO WR	2021	Rp 7.398.138.000.000,00	Rp 21.880.264.000.000,00	33,81 %
	TO WR	2020	Rp 3.002.332.000.000,00	Rp 7.225.188.000.000,00	41,55 %

	TO WR	2019	Rp 2.474.389.000.000,00	Rp 4.565.104.000.000,00	54,20 %
17	OAS A	2023	Rp 364.404.973.026,00	Rp 44.586.468.709,00	817,30 %
	OAS A	2022	Rp 18.996.386.438,00	Rp 136.704.742.314	13,90 %
	OAS A	2021	Rp 187.913.347.810,00	Rp 26.550.031.279,00	707,77 %

Lampiran 18 Hasil perhitungan SG perusahaan telekomunikasi setelah outlier

NO	NAMA	TAHUN	PENDAPATAN	SG
1.	BALI	2023	Rp 955.261.616.145,00	-2,36%
	BALI	2022	Rp 978.378.536.736,00	3,35%
	BALI	2021	Rp 946.633.191.563,00	21,54%
	BALI	2020	Rp 778.896.099.135,00	26,13%
	BALI	2019	Rp 617.522.982.196,00	33,04%
		2018	Rp 464.175.762.884,00	
2.	BTEL	2023	Rp 21.016.000.000,00	-56,08%
	BTEL	2022	Rp 47.850.000.000,00	-8,18%
	BTEL	2021	Rp 52.110.000.000,00	394,54%
	BTEL	2020	Rp 10.537.000.000,00	2,55%
	BTEL	2019	Rp 10.275.000.000,00	20,51%
		2018	Rp 8.526.000.000,00	
3	CENT	2021	Rp 1.747.039.000.000,00	59,39%
	CENT	2020	Rp 1.096.044.000.000,00	31,77%
	CENT	2019	Rp 831.777.000.000,00	3,82%
		2018	Rp 801.161.000.000,00	
4	EXCL	2023	Rp 32.322.651.000.000,00	10,91%
	EXCL	2022	Rp 29.141.994.000.000,00	8,93%
	EXCL	2021	Rp 26.754.050.000.000,00	2,86%
	EXCL	2020	Rp 26.009.095.000.000,00	3,49%
	EXCL	2019	Rp 25.132.628.000.000,00	9,56%
		2018	Rp 22.938.812.000.000,00	
5	FREN	2023	Rp 11.655.708.000.000,00	4,04%
	FREN	2022	Rp 11.202.579.000.000,00	7,13%
	FREN	2021	Rp 10.456.828.821.565,00	11,15%
	FREN	2020	Rp 9.407.882.876.396,00	34,63%
	FREN	2019	Rp 6.987.804.620.572,00	27,28%
		2018	Rp 5.490.311.128.559,00	

6	GHON	2023	Rp	203.637.725.000,00	9,31%
	GHON	2022	Rp	186.301.175.000,00	12,96%
	GHON	2021	Rp	164.920.511.000,00	15,28%
	GHON	2020	Rp	143.056.438.000,00	23,39%
	GHON	2019	Rp	115.935.417.000,00	6,66%
		2018	Rp	108.699.906.000,00	
7	GOLD	2023	Rp	47.726.683.000,00	0,64%
	GOLD	2022	Rp	47.421.904.000,00	7,14%
	GOLD	2021	Rp	44.260.335.000,00	11,20%
	GOLD	2020	Rp	39.803.327.000,00	10,48%
	GOLD	2019	Rp	36.026.980.000,00	4,08%
		2018	Rp	34.614.253.000,00	
8	IBST	2023	Rp	1.109.755.968.980,00	1,98%
	IBST	2022	Rp	1.088.236.706.064,00	11,59%
	IBST	2021	Rp	975.211.333.352,00	-13,10%
	IBST	2020	Rp	1.122.276.247.134,00	3,15%
	IBST	2019	Rp	1.087.963.086.355,00	21,21%
		2018	Rp	897.612.636.308,00	
9	ISAT	2023	Rp	51.228.782.000.000,00	9,57%
	ISAT	2022	Rp	46.752.319.000.000,00	48,95%
	ISAT	2021	Rp	31.388.311.000.000,00	12,40%
	ISAT	2020	Rp	27.925.661.000.000,00	6,92%
	ISAT	2019	Rp	26.117.533.000.000,00	44,88%
		2018	Rp	18.026.934.000.000,00	
10	KBLV	2023	Rp	113.520.000.000,00	-19,15%
	KBLV	2022	Rp	140.413.000.000,00	-7,50%
	KBLV	2021	Rp	151.800.000.000,00	-19,55%
	KBLV	2020	Rp	188.697.000.000,00	-24,19%
	KBLV	2019	Rp	248.909.000.000,00	-74,69%
		2018	Rp	983.271.000.000,00	
11	LCKM	2023	Rp	14.685.856.864,00	-49,91%
	LCKM	2022	Rp	29.316.490.133,00	-35,85%
	LCKM	2021	Rp	45.700.880.268,00	7,86%
	LCKM	2020	Rp	42.370.902.184,00	2,40%
	LCKM	2019	Rp	41.376.896.578,00	-47,29%
		2018	Rp	78.503.927.811,00	
12	LINK	2023	Rp	3.925.581.000.000,00	-10,19%
	LINK	2022	Rp	4.370.781.000.000,00	-2,11%
	LINK	2021	Rp	4.464.900.000.000,00	10,30%
	LINK	2020	Rp	4.047.964.000.000,00	7,79%

	LINK	2019	Rp	3.755.262.000.000,00	0,72%
		2018	Rp	3.728.364.000.000,00	
13	SUPR	2023	Rp	1.892.085.000.000,00	0,20%
	SUPR	2022	Rp	1.888.257.000.000,00	-9,04%
	SUPR	2021	Rp	2.075.965.000.000,00	8,00%
	SUPR	2020	Rp	1.922.151.000.000,00	8,78%
	SUPR	2019	Rp	1.767.050.000.000,00	-6,99%
		2018	Rp	1.899.775.000.000,00	
14	TBIG	2023	Rp	6.640.645.000.000,00	1,78%
	TBIG	2022	Rp	6.524.369.000.000,00	5,58%
	TBIG	2021	Rp	6.179.584.000.000,00	15,99%
	TBIG	2020	Rp	5.327.689.000.000,00	13,39%
	TBIG	2019	Rp	4.698.742.000.000,00	8,81%
		2018	Rp	4.318.137.000.000,00	
15	TLKM	2023	Rp	149.216.000.000.000,00	1,30%
	TLKM	2022	Rp	147.306.000.000.000,00	2,86%
	TLKM	2021	Rp	143.210.000.000.000,00	4,94%
	TLKM	2020	Rp	136.462.000.000.000,00	0,66%
	TLKM	2019	Rp	135.567.000.000.000,00	3,66%
		2018	Rp	130.784.000.000.000,00	
16	TOWR	2023	Rp	11.740.345.000.000,00	6,39%
	TOWR	2022	Rp	11.035.650.000.000,00	27,80%
	TOWR	2021	Rp	8.635.346.000.000,00	15,98%
	TOWR	2020	Rp	7.445.426.000.000,00	15,36%
	TOWR	2019	Rp	6.454.302.000.000,00	9,99%
		2018	Rp	5.867.860.000.000,00	
17	OASA	2023	Rp	44.151.348.251,00	8,19%
	OASA	2022	Rp	40.808.504.420,00	1096,46%
	OASA	2021	Rp	3.410.781.850,00	181,48%

Lampiran 19 Uji Statistik Deskriptif

	PBV	ROA	DER	CR	SALES_GR...
Mean	2.196308	-0.490700	1.589404	1.721304	0.259812
Median	1.515164	0.022137	1.126684	0.419502	0.074688
Maximum	13.84143	0.648033	9.562385	25.39709	10.96456
Minimum	-0.424547	-33.10992	-4.128791	0.000431	-0.746856
Std. Dev.	2.187822	3.751745	2.116585	3.830329	1.317767
Skewness	2.552176	-8.392249	1.087066	4.032228	7.108595
Kurtosis	12.41884	73.27232	6.172593	21.63931	56.63977
Jarque-Bera	382.5631	17399.73	49.30733	1374.864	10264.51
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	175.7046	-39.25603	127.1523	137.7043	20.78497
Sum Sq. Dev.	378.1387	1111.972	353.9146	1159.042	137.1842
Observations	80	80	80	80	80

Lampiran 20 Hasil Uji Chow

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.420474	(16,59)	0.0003
Cross-section Chi-square	52.501486	16	0.0000

Lampiran 21 Hasil Uji Hausman

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.877263	4	0.4229

Lampiran 22 Hasil Uji Lagrange Multiplier

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided
(all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	10.73413 (0.0011)	1.084062 (0.2978)	11.81819 (0.0006)

Lampiran 23 Analisis Regresi Data Panel

Common Effect Model

Dependent Variable: PBV

Method: Panel Least Squares

Date: 06/21/25 Time: 15:38

Sample: 2019 2023

Periods included: 5

Cross-sections included: 17

Total panel (unbalanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.278918	0.309381	4.133797	0.0001
ROA	0.040537	0.059578	0.680416	0.4983
DER	0.483861	0.106942	4.524536	0.0000
CR	0.079925	0.058232	1.372519	0.1740
SALES_GROWTH	0.117992	0.167887	0.702804	0.4844
R-squared	0.247071	Mean dependent var		2.196308
Adjusted R-squared	0.206915	S.D. dependent var		2.187822
S.E. of regression	1.948372	Akaike info criterion		4.232327
Sum squared resid	284.7115	Schwarz criterion		4.381203
Log likelihood	-164.2931	Hannan-Quinn criter.		4.292016
F-statistic	6.152756	Durbin-Watson stat		0.688000
Prob(F-statistic)	0.000245			

Fixed Effect Model

Dependent Variable: PBV
Method: Panel Least Squares
Date: 06/21/25 Time: 15:33
Sample: 2019 2023
Periods included: 5
Cross-sections included: 17
Total panel (unbalanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.713165	0.346823	4.939600	0.0000
ROA	-6.74E-05	0.056446	-0.001194	0.9991
DER	0.347143	0.113399	3.061243	0.0033
CR	-0.017944	0.118395	-0.151562	0.8800
SALES_GROWTH	-0.145308	0.190924	-0.761077	0.4496

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.609393	Mean dependent var	2.196308
Adjusted R-squared	0.476984	S.D. dependent var	2.187822
S.E. of regression	1.582230	Akaike info criterion	3.976058
Sum squared resid	147.7036	Schwarz criterion	4.601340
Log likelihood	-138.0423	Hannan-Quinn criter.	4.226752
F-statistic	4.602348	Durbin-Watson stat	1.142671
Prob(F-statistic)	0.000002		

Random Effect Model

Dependent Variable: PBV

Method: Panel EGLS (Cross-section random effects)

Date: 06/21/25 Time: 15:36

Sample: 2019 2023

Periods included: 5

Cross-sections included: 17

Total panel (unbalanced) observations: 80

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.424916	0.422117	3.375642	0.0012
ROA	0.013516	0.053859	0.250948	0.8025
DER	0.406504	0.102887	3.950991	0.0002
CR	0.063051	0.076291	0.826464	0.4112
SALES_GROWTH	0.017428	0.160762	0.108412	0.9140

Effects Specification

	S.D.	Rho
Cross-section random	1.233777	0.3781
Idiosyncratic random	1.582230	0.6219

Weighted Statistics

R-squared	0.176945	Mean dependent var	1.116407
Adjusted R-squared	0.133049	S.D. dependent var	1.708333
S.E. of regression	1.587234	Sum squared resid	188.9484
F-statistic	4.030992	Durbin-Watson stat	0.939575
Prob(F-statistic)	0.005145		

Unweighted Statistics

R-squared	0.233481	Mean dependent var	2.196308
Sum squared resid	289.8506	Durbin-Watson stat	0.612492