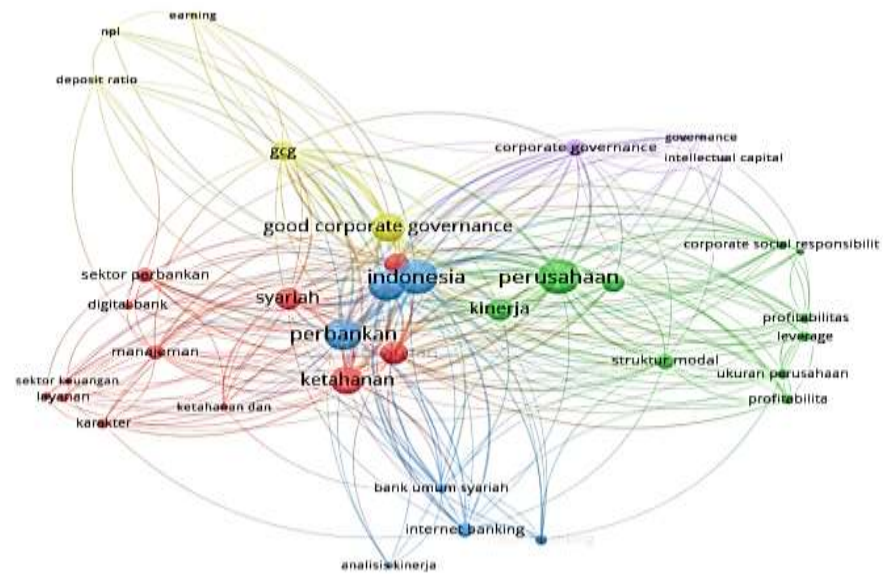


LAMPIRAN

Lampiran 1 Hasil Bibliometrik melalui VosViewer



Lampiran 2 Mapping Penelitian Terdahulu

No	Nama Penulis (Tahun)	Judul Penelitian	Temuan	Perbedaan	Persamaan
1	Zahra Maulida, Adi Rahmannur Ibnu, Miftahul Khair (2022)	Analisis Perbandingan Ketahanan Keuangan Bank Umum Syariah antara Sebelum dan Selama Pandemi Covid-19	CAR naik, NPF & FDR memburuk akibat pandemi	Objek bank syariah, tidak ada GCG	Sama-sama mengkaji ketahanan keuangan bank
2	Rachma Indrarini, Andriani Samsuri (2022)	Model Ketahanan Keuangan Syariah	Inklusi keuangan syariah dominan pengaruhi ketahanan	Objek individu/lembaga syariah	Sama-sama fokus pada ketahanan keuangan
3	Hana Damayanti Tarihoran, Cindy Septiana Rahayu, Irma Nur Fadlia, Maria Yovita R. Pandin (2023)	Peranan Fintech dan Perilaku Keuangan terhadap Ketahanan Keuangan Mahasiswa	Fintech meningkatkan fleksibilitas keuangan	Objek mahasiswa, bukan bank	Digital finance → ketahanan finansial
4	Eva Yuliani (2021)	Pengaruh Struktur Modal, Likuiditas dan Pertumbuhan Penjualan terhadap Kinerja Keuangan	Likuiditas paling berpengaruh terhadap kinerja	Tidak menggunakan variabel ketahanan atau GCG	Struktur modal dan kinerja keuangan

5	Slamet Mudjijah, Zulvia Khalid, Diah Ayu Sekar Astuti (2019)	Pengaruh Kinerja Keuangan dan Struktur Modal terhadap Nilai Perusahaan yang Dimoderasi Ukuran Perusahaan	Struktur modal konservatif meningkatkan nilai	Tidak membahas GCG/digital banking	Struktur modal → outcome keuangan
6	Ni Wayan Sri Wulandari, Made Riska Utami Widana, Ketut Alit Yuniawati (2020)	Pengaruh Likuiditas, Manajemen Aset, Perputaran Kas dan Struktur Modal terhadap Kinerja Keuangan	Likuiditas dan manajemen aset signifikan	Objek perusahaan manufaktur	Struktur modal, likuiditas dan kinerja
7	Syarifah Aini Ritonga, Ihsan Effendi, Ahmad Prayudi (2021)	Pengaruh Struktur Modal terhadap Kinerja Keuangan Perusahaan Consumer Goods	DER tidak signifikan, DAR signifikan terhadap ROA	Objek perusahaan rokok, bukan bank	Struktur modal → kinerja keuangan
8	Rahmat Setiawan, Ivone Dona Khoirun Nisa (2021)	Corporate Governance, Karakteristik Perusahaan dan Kinerja Perusahaan	Ukuran dan umur berpengaruh signifikan, GCG tidak	Tidak mengukur ketahanan keuangan	Gunakan variabel karakteristik dan GCG
9	Bakti Maulana Ikhsan, Rita Wijayanti (2021)	Pengaruh Kinerja Keuangan, Karakteristik Perusahaan dan Corporate Governance terhadap Sustainability Report	ROA, ukuran perusahaan, dan komisaris independen signifikan	Fokus pada pengungkapan keberlanjutan	Gunakan variabel karakteristik & GCG

10	Dwi Putri Kartika Sari, Riki Sanjaya (2019)	Pengaruh Good Corporate Governance dan Karakteristik Perusahaan terhadap Nilai Perusahaan Non-K keuangan	ROE signifikan, GCG tidak signifikan	Objek perusahaan non-keuangan	Gunakan GCG dan karakteristik perusahaan
11	Celine Amanda, Sarifatul Sabrina (2024)	Analisis Fundamental Makro, Mikro terhadap Nilai Perusahaan dengan GCG sebagai Variabel Moderating	GCG memperkuat hubungan antara fundamental makro dan nilai	Tidak menggunakan variabel ketahanan	GCG sebagai variabel moderasi
12	Audymia Liviana, Jacobus Widiatmoko, Maria Goreti Kentris Indarti (2024)	Pengaruh Corporate Governance dan Karakteristik Perusahaan terhadap Kinerja Keuangan (Bank di BEI)	GCG & karakteristik perusahaan berpengaruh signifikan	Tidak menguji digital banking	Gunakan GCG dan karakteristik perusahaan
13	Dewa Ayu Oki Asta Rini (2020)	Pengaruh Intellectual Capital, Corporate Governance, dan Karakteristik Perusahaan terhadap Kinerja Keuangan	Intellectual capital signifikan, CG tidak signifikan	Tidak ada variabel ketahanan dan digital banking	Variabel GCG dan karakteristik perusahaan
14	Yanchun Xia, Zhilin Qiao, Guanghua Xie (2022)	Corporate Resilience to the COVID-19 Pandemic: The Role of Digital Finance	Digital finance meningkatkan ketahanan perusahaan	Konteks Tiongkok; tidak bahas GCG	Digital finance & ketahanan finansial
15	Joseph Ato Forson, Samuel Gameli Gadzo,	Online Sales Adoption and Financial Resilience in Sub-Sahara Africa	Penjualan daring meningkatkan ketahanan UKM	Objek UMKM; tidak ada GCG	Digitalisasi → ketahanan keuangan

	Emmanuel Atta Anaman, Abass Adams (2022)				
16	Adriana Daniela Ciurel, Tiberiu Stoica (2020)	Determining Impacts on Non-Performing Loan Ratio in Turkey	Suku bunga dan pertumbuhan ekonomi pengaruhi NPL	Fokus pada NPL; tidak bahas GCG atau digital banking	Stabilitas bank & risiko kredit
17	Metya Kartikasary, Frihardina Marsintauli, Erla Serlawati, Sebastianus Laurens (2020)	Factors Affecting the Non-Performing Loans in Indonesia	ROA, ROE, CAP, makroekonomi pengaruhi NPL	Tidak ada GCG atau ketahanan	Risiko kredit sektor perbankan
18	Vasiliki Makri, Athanasios G. Tsagkanos, Athanasios Bellas (2014)	Determinants of Non-Performing Loans: The Case of Eurozone	ROE (-) terhadap NPL, utang publik (+)	Fokus zona Euro; tidak pakai GCG	NPL → indikator stabilitas
19	Irman Firmansyah (2014)	Determinant of Non-Performing Loan: The Case of Islamic Bank in Indonesia	GDP & inflasi negatif terhadap NPL; likuiditas positif	Bank syariah; tidak ada GCG atau digital banking	Risiko kredit & stabilitas finansial

20	Nathania Anindyajati, Dewi Hanggraeni (2022)	Determinant Factors of Liquidity Coverage Ratio on Conventional Banks in Indonesia	LCR dipengaruhi oleh CASA, CAR, NPL, ROA, SIZE	Outcome likuiditas, bukan ketahanan	Stabilitas dan rasio keuangan bank
21	Xinran Cao, Boyu Han, Yiping Huang, Xuanli Xie (2022)	Digital Transformation and Risk Differentiation in Chinese Commercial Banks	Digitalisasi mengurangi risiko kredit & tingkatkan efisiensi	Tidak ada GCG; konteks China	Digital banking & ketahanan bank
22	Rafiqah Rahmalia, Sariati Azman, Norkhairul Hafiz Bajuri (2024)	Digital Transformation on Financial Performance: Mobile Banking Adoption	Mobile banking tingkatkan profitabilitas	Tidak meneliti GCG atau ketahanan	Digital banking → efisiensi & kinerja
23	Kristijan Ristić, Mirjana Jemović (2021)	Analysis of Non-Performing Loans' Determinants in Serbia	NPL dipengaruhi manajemen kredit & stabilitas makro	Tidak memuat GCG atau digital banking	Risiko kredit bank sebagai indikator stabilitas
24	Chien-Chang Cheng, Hsin-Yi Chen, Yu-Cheng Tsai (2016)	Factors Affecting NPL in Taiwan Banking Industry	Strategi pinjaman konservatif menurunkan NPL	Konteks Taiwan; tidak membahas GCG	Stabilitas dan risiko kredit bank
25	Zaschia Flanivolya Matulesy, Sukma Asri, Marcella Aullia J., Maria	Pengaruh Digital Ekonomi terhadap Ketahanan Ekonomi melalui Sektor E-Commerce di Pulau Jawa	Ekonomi digital berpengaruh kecil pada GDP & pengangguran	Objek regional; tidak bahas GCG	Digitalisasi dan ketahanan ekonomi

	Yovita R. Pandin (2024)				
26	Tong Wu (2024)	How Fintech Affects Systemic Financial Risk – Evidence from Chinese Commercial Banks	Fintech kurangi risiko likuiditas, tapi berisiko sistemik	Fokus sistemik, tidak bahas GCG	Fintech dan risiko sistem keuangan bank

Lampiran 3 Tabel Sampel Penelitian

No.	Nama Bank	Kode Saham	Kategori Bank	Periode Observasi
1	PT Bank Central Asia Tbk	BBCA	Bank Umum Konvensional	2019–2023
2	PT Bank Rakyat Indonesia Tbk	BBRI	Bank Umum Konvensional	2019–2023
3	PT Bank Negara Indonesia Tbk	BBNI	Bank Umum Konvensional	2019–2023
4	PT Bank Mandiri Tbk	BMRI	Bank Umum Konvensional	2019–2023
5	PT Bank Tabungan Negara Tbk	BBTN	Bank Umum Konvensional	2019–2023

Lampiran 4 Data Sekunder Variabel X1 (Digital Banking)

Bank	Tahun	Pengguna Aktif	Total Nasabah	% Pengguna Aktif	Transaksi Digital (Rp Miliar)	Total Transaksi Bank (Rp Miliar)	% Transaksi Digital	Nilai Transaksi Digital (Rp Miliar)
BCA	2019	430.000	21.743.000	1,98%	6.300.000	9.600.000.000	0,07%	12.790.000
BCA	2020	1.600.000	24.487.000	6,53%	9.600.000.000	13.600.000.000	70,59%	14.001.000
BCA	2021	24.000.000	28.505.000	84,20%	14.361.000.000	20.000.000.000	71,81%	19.167.000
BCA	2022	26.600.000	34.680.000	76,70%	20.079.000.000	26.400.000.000	76,06%	22.931.000
BCA	2023	30.700.000	37.632.000	81,58%	30.700.000.000	37.300.000.000	82,31%	24.825.000
BNI	2019	4.900.000	46.604.919	10,51%	202.000.000	721.428.571	28,00%	316.000
BNI	2020	7.787.000	49.260.404	15,81%	302.000.000	915.151.515	33,00%	466.000
BNI	2021	10.800.000	55.313.236	19,53%	490.000.000	1.256.410.256	39,00%	967.000
BNI	2022	13.630.000	63.160.000	21,58%	597.000.000	1.388.372.093	43,00%	802.000
BNI	2023	16.000.000	66.510.000	24,06%	734.000.000	1.650.000.000	44,48%	1.163.000
BRI	2019	26.200.000	31.400.000	83,44%	1.540.000.000	6.500.000.000	23,69%	919.940.000
BRI	2020	5.300.000	115.500.000	4,59%	985.000.000	7.200.000.000	13,68%	983.000.000
BRI	2021	15.400.000	30.250.000	50,91%	1.837.000.000	9.000.000.000	20,41%	2.669.000.000
BRI	2022	23.800.000	126.800.000	18,77%	1.800.000.000	11.200.000.000	16,07%	2.669.000.000
BRI	2023	31.600.000	37.000.000	85,41%	3.100.000.000	13.500.000.000	22,96%	4.159.000.000
BTN	2019	258.521	8.114.464	3,19%	44.872.107	81.586.559	55,00%	40.190.000

BTN	2020	587.470	8.330.751	7,05%	60.912.342	93.711.295	65,00%	60.800.000
BTN	2021	1.630.000	8.600.000	18,95%	97.000.000	129.333.333	75,00%	151.000.000
BTN	2022	2.000.000	8.911.121	22,44%	178.000.000	217.073.171	82,00%	130.000.000
BTN	2023	2.700.000	8.848.011	30,52%	486.000.000	572.941.176	84,83%	592.000.000
Mandiri	2019	3.223.000	27.000.000	11,94%	540.000.000	2.640.000.000	20,45%	749.000
Mandiri	2020	4.539.000	28.500.000	15,93%	850.000.000	2.302.000.000	36,92%	1.073.000
Mandiri	2021	6.780.000	30.000.000	22,60%	1.224.000.000	2.843.000.000	43,05%	1.640.000
Mandiri	2022	9.702.000	32.000.000	30,32%	1.944.000.000	3.453.000.000	56,30%	2.435.000
Mandiri	2023	13.180.000	35.000.000	37,66%	2.819.000.000	4.127.000.000	68,31%	3.271.000

Lampiran 5 Data Sekunder Variabel X2 (Karakteristik Perusahaan)

Bank	Tahun	Firm Size=In (Total Aset)	Tahun Penelitian	Tahun Berdiri	Umur Perusahaan	Laba Bersih	Total Aset	ROA
BCA	2019	918.989	2019	1957	62	28.570	918.989	3,11%
BCA	2020	1.075.570	2020	1957	63	27.131	1.075.570	2,52%
BCA	2021	1.228.345	2021	1957	64	31.423	1.228.345	2,56%
BCA	2022	1.314.732	2022	1957	65	40.736	1.314.732	3,10%
BCA	2023	1.408.107	2023	1957	66	48.597	1.408.107	3,45%
BNI	2019	845.605	2019	1946	73	15.384	845.605	1,82%

BNI	2020	891.337	2020	1946	74	3.280	891.337	0,37%
BNI	2021	964.838	2021	1946	75	10.890	964.838	1,13%
BNI	2022	1.029.837	2022	1946	76	18.312	1.029.837	1,78%
BNI	2023	1.086.664	2023	1946	77	20.865	1.086.664	1,92%
BRI	2019	1.416.759	2019	1895	124	34.414	1.416.759	2,43%
BRI	2020	1.511.805	2020	1895	125	18.655	1.511.805	1,23%
BRI	2021	1.678.375	2021	1895	126	30.763	1.678.375	1,83%
BRI	2022	1.865.642	2022	1895	127	51.412	1.865.642	2,76%
BRI	2023	1.965.008	2023	1895	128	60.446	1.965.008	3,08%
BTN	2019	311.777	2019	1897	122	209	311.777	0,07%
BTN	2020	361.208	2020	1897	123	1602	361.208	0,44%
BTN	2021	371.868	2021	1897	124	2376	371.868	0,64%
BTN	2022	381.700	2022	1897	125	3045	381.700	0,80%
BTN	2023	410.228	2023	1897	126	3501	410.228	0,85%
Mandiri	2019	1.315.474	2019	1998	21	27.482	1.315.474	2,09%
Mandiri	2020	1.585.994	2020	1998	22	17.119	1.585.994	1,08%
Mandiri	2021	1.726.725	2021	1998	23	28.028	1.726.725	1,62%
Mandiri	2022	1.992.519	2022	1998	24	41.170	1.992.519	2,07%
Mandiri	2023	2.174.000	2023	1998	25	55.074	2.174.000	2,53%

Lampiran 6 Data Sekunder Variabel X3 (Struktur Modal)

Bank	Tahun	Total Utang	Total Ekuitas	DER	Total Utang	Total Aset	DAR	Utang Jangka Panjang	Total Ekuitas	Long-Term Debt
BCA	2019	744.846	174.143	427,7%	744.846	918.989	81,1%	500	174.143	0,29%
BCA	2020	890.856	184.715	482,3%	890.856	1.075.570	82,8%	1.091	184.715	0,59%
BCA	2021	1.019.774	202.849	502,7%	1.019.774	1.228.345	83,0%	8.733	202.849	4,31%
BCA	2022	1.093.550	221.182	494,4%	1.093.550	1.314.732	83,2%	8.512	221.182	3,85%
BCA	2023	1.165.569	242.538	480,6%	1.165.569	1.408.107	82,8%	500	242.538	0,21%
BNI	2019	688.489	125.004	550,8%	688.489	845.605	81,4%	60.321	125.004	48,26%
BNI	2020	746.236	112.872	661,1%	746.236	891.337	83,7%	47.199	112.872	41,82%
BNI	2021	838.318	126.520	662,6%	838.318	964.838	86,9%	51.209	126.520	40,48%
BNI	2022	889.639	140.198	634,6%	889.639	1.029.837	86,4%	57.764	140.198	41,20%
BNI	2023	931.931	154.733	602,3%	931.931	1.086.664	85,8%	52.772	154.733	34,11%
BRI	2019	1.183.156	208.784	566,7%	1.183.156	1.416.759	83,5%	69.543	208.784	33,31%
BRI	2020	1.278.346	199.911	639,5%	1.278.346	1.511.805	84,6%	70.458	199.911	35,24%
BRI	2021	1.385.889	272.010	509,5%	1.385.889	1.678.375	82,6%	89.882	272.010	33,04%
BRI	2022	1.533.655	331.987	462,0%	1.533.655	1.865.642	82,2%	105.332	331.987	31,73%
BRI	2023	1.607.478	357.530	449,6%	1.607.478	1.965.008	81,8%	111.222	357.530	31,11%
BTN	2019	269.452	23.836	1130,4%	269.452	311.777	86,4%	49.250	23.836	206,62%
BTN	2020	321.376	19.988	1607,9%	321.376	361.208	89,0%	48.812	19.988	244,21%
BTN	2021	327.694	21.407	1530,8%	327.694	371.868	88,1%	47.000	21.407	219,56%

BTN	2022	355.790	25.910	1373,2%	355.790	381.700	93,2%	54.568	25.910	210,61%
BTN	2023	381.164	44.354	859,4%	381.164	410.228	92,9%	112.727	44.354	254,15%
Mandiri	2019	1.185.520	129.954	912,3%	1.185.520	1.315.474	90,1%	23.000	129.954	17,70%
Mandiri	2020	1.438.344	147.650	974,2%	1.438.344	1.585.994	90,7%	24.700	147.650	16,73%
Mandiri	2021	1.567.844	158.881	986,8%	1.567.844	1.726.725	90,8%	27.100	158.881	17,06%
Mandiri	2022	1.813.220	179.299	1011,3%	1.813.220	1.992.519	91,0%	28.200	179.299	15,73%
Mandiri	2023	1.971.297	202.703	972,5%	1.971.297	2.174.000	90,7%	29.000	202.703	14,31%

Lampiran 7 Data Sekunder Variabel Y (Ketahanan Keuangan Perbankan)

Bank	Tahun	Modal Bank	ATMR	CAR	Kredit Bermasalah	Total Kredit yang diberikan	NPL	Sumber Pendanaan Stabil	Kebutuhan Pendanaan Stabil	Long-Term Debt
BCA	2019	177.888	721.917	24,64%	7.877	586.940	1,34%	698.980	530.552	131,7%
BCA	2020	184.715	715.500	25,82%	10.343	574.590	1,80%	834.284	642.146	129,9%
BCA	2021	186.154	788.073	23,62%	11.168	589.812	1,89%	968.607	1.171.456	82,7%
BCA	2022	220.570	821.723	26,84%	11.796	694.937	1,70%	844.316	644.876	130,9%
BCA	2023	167.527	569.311	29,43%	15.397	810.392	1,90%	884.641	1.344.211	65,8%
BNI	2019	128.318	526.134	24,39%	13.180	556.761	2,37%	686.377	739.657	92,8%
BNI	2020	112.157	545.802	20,55%	25.207	586.210	4,30%	684.274	791.806	86,4%
BNI	2021	114.408	581.637	19,67%	19.802	535.209	3,70%	743.546	871.089	85,4%
BNI	2022	123.214	605.359	20,35%	18.093	646.188	2,80%	805.065	911.789	88,3%
BNI	2023	131.238	636.396	20,62%	14.597	695.085	2,10%	875.617	971.392	90,1%
BRI	2019	205.430	910.850	22,55%	20.190.260	907.371.040	2,23%	1.183.156	996.400,00	118,7%
BRI	2020	209.492	990.317	21,15%	28.067.763	938.370.000	2,99%	1.278.346	1.121.100,00	114,0%
BRI	2021	251.568	1.116.099	22,54%	28.935.000	939.658.000	3,08%	1.385.889	1.136.032,00	122,0%
BRI	2022	273.393	1.222.038	22,37%	32.185.000	1.083.333.000	2,97%	1.533.655	1.182.105,00	129,7%
BRI	2023	293.287	1.322.657	22,17%	34.862.000	1.266.155.000	2,75%	1.607.478	1.264.023,45	127,2%
BTN	2019	23.836	134.844	17,68%	11.942.081	249.708.993	4,78%	206.906	206.905,69	100,0%
BTN	2020	19.988	137.426	14,54%	11.370.813	260.110.000	4,37%	278.990	259.149,81	107,7%
BTN	2021	21.407	143.950	14,87%	8.480.000	274.833.023	3,09%	298.000	273.189,06	109,1%

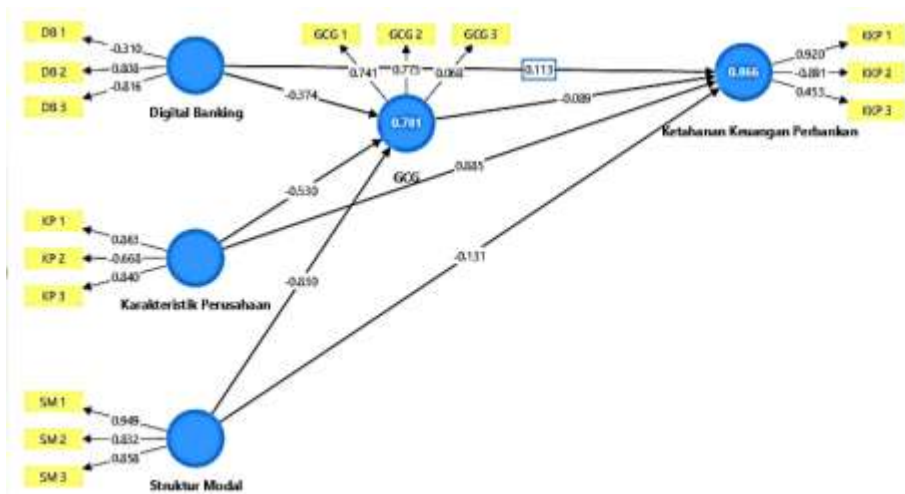
BTN	2022	26.893	154.619	17,39%	8.509.703	282.332.422	3,01%	297.100	264.400,00	112,4%
BTN	2023	52.246	293.622	17,79%	13.065.982	282.332.422	4,63%	324.000	289.000,00	112,1%
Mandiri	2019	185.000	647.310	28,58%	21.349	820.079	2,60%	833.000	655.000	127,2%
Mandiri	2020	194.000	704.883	27,52%	26.365	873.197	3,02%	900.000	703.000	128,0%
Mandiri	2021	210.000	778.002	26,99%	27.104	1.014.000	2,67%	1.036.000	786.000	131,8%
Mandiri	2022	233.000	866.760	26,88%	23.312	1.167.000	2,00%	1.153.000	849.000	135,8%
Mandiri	2023	259.000	958.099	27,03%	22.112	1.286.000	1,72%	1.256.000	927.000	135,5%

Lampiran 8 Data Sekunder Variabel Z (Good Corporate Governance)

Bank	Tahun	Jumlah Saham yang dimiliki Institutional	Total Saham yang beredar	Frainess	Jumlah Komisaris Independen	Total Komisaris	Independensi	Jumlah Rapat Komite Audit dalam Setahun	Jumlah Bulan	Akuntabilitas
BCA	2019	13.545.462.494	24.655.010.000	54,94%	3	5	60,00%	14	12	116,67%
BCA	2020	13.545.462.494	24.655.010.000	54,94%	3	6	50,00%	13	12	108,33%
BCA	2021	55.313.514.935	123.275.050.000	44,87%	3	6	50,00%	13	12	108,33%
BCA	2022	51.023.543.195	123.275.050.000	41,39%	3	5	60,00%	14	12	116,67%
BCA	2023	62.870.289.525	123.275.077.500	51,00%	3	6	50,00%	15	12	125,00%
BNI	2019	18.611.359.145	18.648.656.458	99,80%	3	6	50,00%	22	12	183,33%
BNI	2020	18.611.359.145	18.648.656.458	99,80%	3	6	50,00%	21	12	175,00%
BNI	2021	18.611.359.145	18.648.656.458	99,80%	3	6	50,00%	22	12	183,33%
BNI	2022	18.611.359.145	18.648.656.458	99,80%	3	6	50,00%	19	12	158,33%
BNI	2023	37.222.718.290	37.297.312.916	99,80%	3	6	50,00%	23	12	191,67%
BRI	2019	123.345.810.000	123.345.810.000	100,00%	5	8	62,50%	16	12	133,33%
BRI	2020	123.345.810.000	123.345.810.000	100,00%	4	8	50,00%	17	12	141,67%
BRI	2021	151.559.001.604	151.559.001.604	100,00%	4	8	50,00%	16	12	133,33%
BRI	2022	151.559.001.604	151.559.001.604	100,00%	4	8	50,00%	17	12	141,67%
BRI	2023	151.559.001.604	151.559.001.604	100,00%	4	8	50,00%	17	12	141,67%
BTN	2019	3.671.553.000	10.590.000.000	34,67%	3	6	50,00%	12	12	100,00%

BTN	2020	3.671.553.000	10.590.000.000	34,67%	3	6	50,00%	12	12	100,00%
BTN	2021	3.671.553.000	10.590.000.000	34,67%	3	6	50,00%	12	12	100,00%
BTN	2022	6.354.000.000	10.590.000.000	60,00%	3	9	33,33%	12	12	100,00%
BTN	2023	6.354.000.000	10.590.000.000	60,00%	2	5	40,00%	12	12	100,00%
Mandiri	2019	28.002.000.000	46.670.000.000	60,00%	3	7	42,86%	22	12	183,33%
Mandiri	2020	28.002.000.000	46.670.000.000	60,00%	3	7	42,86%	21	12	175,00%
Mandiri	2021	28.002.000.000	46.670.000.000	60,00%	3	7	42,86%	22	12	183,33%
Mandiri	2022	28.002.000.000	46.670.000.000	60,00%	3	7	42,86%	25	12	208,33%
Mandiri	2023	55.998.000.000	93.330.000.000	60,00%	3	7	42,86%	28	12	233,33%

Lampiran 9 Gambar Model SEM-PLS Penelitian



	Digital Banking	GCG	Karakteristik Perusahaan	Ketahanan Keuangan Per...	Struktur Modal
DB 1	-0.310				
DB 2	0.808				
DB 3	-0.816				
GCG 1		0.741			
GCG 2		0.773			
GCG 3		0.068			
KKP 1				0.920	
KKP 2				-0.891	
KKP 3				0.453	
KP 1			0.863		
KP 2			-0.668		
KP 3			0.840		
SM 1					0.949
SM 2					0.832
SM 3					0.858

	Digital Banking	GCG	Karakteristik Perusahaan	Ketahanan Keuangan Per...	Struktur Modal	
DB 1	0.774					
DB 3	0.869					
GCG 1		0.707				
GCG 2		0.806				
KKP 1				0.938		
KKP 3				0.604		
KP 1			0.908			
KP 3			0.894			
SM 1					0.949	
SM 2					0.834	
SM 3					0.855	

Construct reliability and validity - Overview					Copy to Excel/Word	Cop
	Cronbach's alpha	Composite reliability (rho_...	Composite reliability (rho_c)	Average variance extracte...		
Digital Banking	0.529	0.549	0.807	0.677		
GCG	0.263	0.268	0.729	0.575		
Karakteristik Perusahaan	0.769	0.771	0.896	0.812		
Ketahanan Keuangan Perb...	0.450	0.856	0.759	0.622		
Struktur Modal	0.854	0.860	0.912	0.776		

Discriminant validity - Heterotrait-monotrait ratio (HTMT) - Matrix						Copy to Excel/Word	Copy to R
	Digital Banking	GCG	Karakteristik Perusahaan	Ketahanan Keuangan Per...	Struktur Modal		
Digital Banking							
GCG	0.989						
Karakteristik Perusahaan	0.888	0.691					
Ketahanan Keuangan Perb...	0.593	0.337	1.203				
Struktur Modal	0.614	1.532	0.855	0.727			

Path coefficients - Mean, STDEV, T values, p values						Copy to Excel/Word	Copy to R
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values		
Digital Banking → GCG	0.270	0.256	0.220	1.224	0.221		
Digital Banking → Ketahanan Keuangan Perusahaan	-0.364	-0.256	0.244	1.490	0.136		
GCG → Ketahanan Keuangan Perusahaan	-0.283	-0.345	0.311	0.912	0.362		
Karakteristik Perusahaan → GCG	-0.531	-0.476	0.191	2.780	0.005		
Karakteristik Perusahaan → Ketahanan Keuangan Perusahaan	0.991	0.875	0.321	3.083	0.002		
Struktur Modal → GCG	-0.987	-0.966	0.218	4.531	0.000		
Struktur Modal → Ketahanan Keuangan Perusahaan	-0.111	-0.171	0.398	0.278	0.781		

R-square - Overview			Copy to Excel/Word	Copy to R
	R-square	R-square adjusted		
GCG	0.768	0.758		
Ketahanan Keuangan Perb...	0.865	0.845		

Total indirect effects - Mean, STDEV, T values, p values					Copy to Excel/Word	Copy to R
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O /STDEV)	P values	
Digital Banking → Ketahanan Keuangan Perbankan	-0.076	-0.080	0.127	0.601	0.548	
Kebijakan Perbankan → Ketahanan Keuangan Perbankan	0.151	0.176	0.159	0.945	0.345	
Struktur Modal → Ketahanan Keuangan Perbankan	0.290	0.353	0.327	0.854	0.393	

Path coefficients - Mean, STDEV, T values, p values					Copy to Excel/Word	Copy to R
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O /STDEV)	P values	
Digital Banking → GCG	0.270	0.256	0.220	1.224	0.221	
Digital Banking → Ketahanan Keuangan Perbankan	-0.364	-0.256	0.244	1.490	0.136	
GCG → Ketahanan Keuangan Perbankan	-0.283	-0.345	0.311	0.912	0.362	
Kebijakan Perbankan → GCG	-0.531	-0.476	0.191	2.780	0.005	
Kebijakan Perbankan → Ketahanan Keuangan Perbankan	0.991	0.875	0.321	3.083	0.002	
Struktur Modal → GCG	-0.987	-0.966	0.218	4.531	0.000	
Struktur Modal → Ketahanan Keuangan Perbankan	-0.111	-0.171	0.398	0.278	0.781	

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business activities and the extent to which they are engaged. Finally, some research has suggested that the degree to which a company is engaged in CSR activities is positively related to its financial performance (e.g., Orlitzky et al., 2003; Orlitzky and Schmidt, 2001). However, the empirical evidence on this relationship is mixed, with some studies finding a positive relationship (e.g., Orlitzky et al., 2003; Orlitzky and Schmidt, 2001) and others finding no relationship (e.g., Orlitzky and Schmidt, 2001; Orlitzky et al., 2003). The mixed findings may be due to a number of factors, including differences in the way that CSR is measured, the way that financial performance is measured, and the way that the relationship between the two is tested. For example, some studies have used a broad definition of CSR that includes a wide range of activities, while others have used a narrower definition that focuses on a specific set of activities. Similarly, some studies have used a broad definition of financial performance that includes a wide range of measures, while others have used a narrower definition that focuses on a specific set of measures. Finally, some studies have used a correlation design, while others have used an experimental design. These differences may explain the mixed findings on the relationship between CSR and financial performance.

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J. L. HANCOCK AND T. THORNTON

U.S. Market Structure and Marketing Practices Transformation

highlighting new or innovative combinations of existing services through the implementation of innovative business models. The authors also discuss the importance of being able to deliver services through multiple channels. Finally, the authors discuss the importance of being able to deliver services through multiple channels. Finally, the authors discuss the importance of being able to deliver services through multiple channels.



These authors also emphasize digital technology use by its users through various digital applications, including the adoption rate. Digital technology use affects the performance of service users by the better control of health resources, the percentage of digital technology use in the healthcare system, and the cost of care of healthcare users (Rahman, Syed, Ahmed, & Islam, 2015). These authors also consider a comprehensive picture of the system in which digital technology has been adopted by the service users and the use of digital technology.

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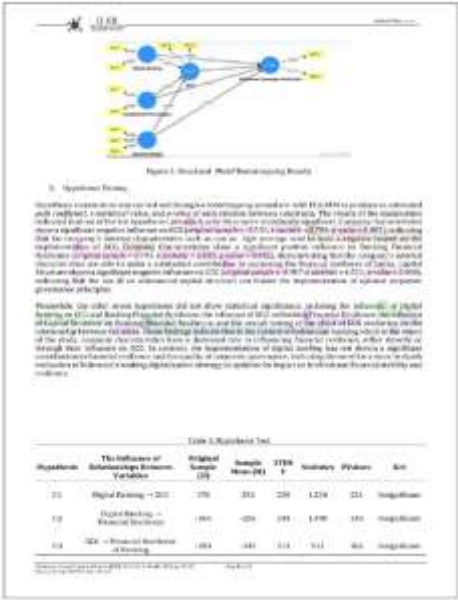
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RESEARCH ARTICLE

The Influence of Digital Banking, Company Characteristics and Capital Structure on Banking Financial Resilience with Good Corporate Governance as an Intervening Variable in Conventional Commercial Banks Listed in the LQ45 Index on the Indonesia Stock Exchange

 Susana K. Alfons ^{1*} | Hwihamus ² | Maria Yovita R. Panaini ³
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Abstract

The banking sector is facing complex transformations due to the digital technology revolution, the evolution of consumer preferences, and intense competition from fintech entities that create an increasingly challenging business landscape. The application of banking digitalization presents new challenges in the form of cyber risk exposure, financial market volatility, and the imperative to strengthen corporate governance to ensure operational continuity and long-term sustainability. This study aims to analyze the influence of digital banking, company characteristics, and capital structure on banking financial resilience with Good Corporate Governance (GCG) as an intervening variable in conventional commercial banks listed in the LQ45 index on the Indonesia Stock Exchange. The research method uses a quantitative approach with an explanatory research design that adopts purposive sampling techniques for five conventional banks (Bank Central Asia, Bank Negara Indonesia, Bank Rakyat Indonesia, Bank Mandiri, and Bank Tabungan Negara) for the 2015–2023 period. Data analysis used Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS software version 4.1.2 to evaluate measurement models and structural models. The results of the study show that digital banking does not have a significant effect on GCG or banking financial resilience, while company characteristics have a significant positive effect on financial resilience and negative on GCG. Capital structure has a significant negative effect on GCG but not significantly on financial resilience. GCG has not been proven to be an effective intervening variable in strengthening the relationship between independent variables and financial resilience. The research concludes that internal factors of the company have a dominant role in determining the financial resilience of banks compared to digital technology innovations, so banking institutions need to integrate digitalization strategies with strengthening internal fundamentals and comprehensive GCG implementation.

Keywords

Digital Banking; Good Corporate Governance; Company Characteristics; Financial Resilience; Capital Structure.

1 | INTRODUCTION

The banking sector plays a fundamental role as the backbone of the national financial system that performs the function of intermediation, mobilization of funds, and catalyst for economic growth. The contemporary era demands that banking institutions face complex transformational dynamics, where the digital technology revolution, the evolution of consumer preferences, and intense competition from fintech entities create an increasingly challenging business landscape. This disruption phenomenon requires banks to make strategic adaptations through the implementation of digitalization to maintain competitive advantages and operational excellence. However, the acceleration of banking digitalization presents new challenges in the form of cyber risk exposure, financial market volatility, and the imperative to strengthen corporate governance to ensure operational continuity and long-term sustainability.

Financial resilience is a crucial indicator that reflects banks' capabilities in dealing with external and internal economic pressures, especially for conventional commercial banks that are members of the LQ45 index considering their strategic position in the architecture of the Indonesian financial system. The complexity of factors affecting the financial resilience of banks includes the digital dimension of banking, the characteristics of the company, and the capital structure that have significant interconnections in determining the financial health of the institution. The implementation of digital banking has the potential to optimize operational efficiency but simultaneously presents technology investment challenges and substantial cybersecurity threats. Company characteristics, including bank size and profitability, play a determinant role in the capacity to deal with external pressure and market volatility. An optimal capital structure is a cornerstone in ensuring the adequacy of the bank's capital that supports compliance with Basel III regulations and operational stability. Good Corporate Governance (GCG) functions as an intervening variable that strengthens the causal relationship between independent factors and financial resilience through internal control mechanisms and management transparency. Data from the Financial Services Authority shows that Indonesia's banking financial resilience indicators for the 2020–2024 period have consistently improved, where the Capital Adequacy Ratio (CAR) increased from 23.0% to 26.7%, Gross NPL decreased from 3.2% to 2.1%, and the Net Stable Funding Ratio (NSFR) remained above 109%, indicating robust resilience but requiring differential analysis between banks.

Previous empirical studies have shown that digital transformation in the banking industry contributes to risk diversification and profitability enhancement (Cao et al., 2022), while adopting Model Banking proven to improve operational efficiency and strengthen financial resilience (Rahmadi et al., 2024). However, the implementation of digital banking that can exacerbate credit risk and undermine financial stability (Ratni & Jeneret, 2023). Research (Maslaha et al., 2022) confirming the superiority of Islamic banking financial resilience over conventional during the 2019 crisis, indicating the importance of a comprehensive analysis of resilience factors. Digital banking

Transformation from complexity in strengthening the financial resilience of banks. Listiana et al. (2024) prove that corporate governance and company characteristics affect financial performance significantly, while Yuliana (2022) emphasized that capital structure contributes to financial stability. Mulyaningrum et al. (2024) identified the limited contribution of economic digitalization to regional resilience, indicating the need for an integrative approach in optimizing the potential of digital transformation. The gap in previous research lies in the fragmentation of studies that have not integrated the four variables in an integrated conceptual model, especially in the context of the conventional bank LQ45 with GCG as the intervening variable. Based on the identification of these problems, the research questions asked include: how the influence of Digital Banking, company characteristics, and capital structure to GCG and banking financial resilience directly, as well as how the role of GCG mediates in strengthening these relationships in conventional commercial banks LQ45. This study aims to test and analyze the direct and indirect influence of independent variables on banking financial resilience through GCG as an intervening variable. The contribution of this research is expected to provide theoretical benefits in the form of the development of integrated conceptual models in the banking financial management literature, as well as practical benefits for regulators in policy formulation, bank management in strategy formulation, and subsequent researchers as a reference for further studies. The research hypothesis was developed based on previous theories and empirical findings, where it is expected that Digital Banking, company characteristics, and capital structure have a significant effect on GCG and banking financial resilience, and GCG acts as a mediator that strengthens the causal relationship between independent variables and financial resilience in conventional commercial banks listed in the LQ45 index on the Indonesia Stock Exchange.

2 | BACKGROUND THEORY

Digital Banking and Banking Services Transformation

Digital banking represents a revolutionary transformation of banking services through the implementation of advanced technology that facilitates the accessibility of financial transactions via the platform Online and applications Mobile Banking (Putri et al., 2023). This conception integrates a comprehensive ecosystem of electronic banking services

optimized to improve Customer Experience through efficiency, process acceleration, and security protection in transactional activities (Ataygülsü & Mardin, 2022). Digital transformation in banking has not only changed the way customers interact with banks, but also fundamentally affected the bank's operational structure and business strategy. Implementation Digital Banking covering various technological innovations such as integrated ATM services, applications Mobile Banking, a network of banking partners, Value Money, and interconnectivity between applications through Application Programming Interface (API) (Sun, 2024). The presence of this technology allows banks to expand their service range, reduce operational costs, and increase efficiency in serving customers. Key benefits Digital Banking including unified accessibility of time and location, transaction time savings, financial monitoring capabilities Real-time, as well as the availability of additional features that support customers' financial activities (Hidayat, et al., 2024). Effectiveness measurement (Digital Banking) can be done through several key indicators, namely the adoption rate (Digital Banking) which reflects the percentage of active users to the total number of bank customers, the percentage of digital transactions to the total bank transactions, and the total value of transactions made through digital channels (Shivji et al., 2023). These indicators provide a comprehensive picture of the extent to which digital transformation has been integrated into banking operations and accepted by customers.

Company Characteristics as Determinants of Banking Performance

Company characteristics are a set of fundamental attributes that are inherent in business entities and become a determining factor in the company's strategy and operational performance (A. Sartono, 2010). In the context of banking, the characteristics of a company reflect various aspects such as the size of the bank, ownership structure, level of leverage, and the age of the company which significantly affect the bank's ability to manage assets, take risks, and adapt to changes in the external environment (Brigham & Houston, 2019). An in-depth understanding of the characteristics of a company is crucial because these factors not only differentiate one bank from another, but also determine the capacity of the bank to face business challenges and maintain financial stability (Weston & Copeland, 2010). Company size (firm size) which is measured through the natural logarithm of total assets reflecting the bank's operational scale and capacity to face risks and access to funding. Leverage measured through Debt to Equity Ratio (DER) shows the extent to which banks use external funds rather than equity in financing their operations. The ownership structure reflects the distribution of shareholding between institutional and public that influences strategic decision-making and corporate governance practices. The benefits of understanding company characteristics include the ability to analyze internal factors, make appropriate strategic decisions, increase competitiveness, support for investors in investment risk assessment, and optimize the company's overall performance (Kozmin, 2016). The characteristics of a strong and well-managed company allow banks to be more adaptive to market changes and have an advantage in managing financial risks (Martono & Hartono, 2018).

Capital Structure and Financial Resilience of Banking

Capital structure is a strategic combination of debt and equity that banks use to fund long-term operations and investments, which directly affects the financial stability and resilience of banking institutions (Weston & Copeland, 2010). This concept reflects an optimal balance between the use of debt and own capital in financing that aims to maximize the value of the company while minimizing capital costs and financial risks (Brigham & Houston, 2019). An effective capital structure allows banks to increase competitiveness through optimization of capital costs, increased financial flexibility, and reduced risk of bankruptcy (Irene & Wachowicz, 2018). The measurement of capital structure is carried out through several key indicators such as Debt to Equity Ratio (DER), Debt to Asset Ratio (DAR), and Long-term Debt to Equity Ratio (LDER) which provides a comprehensive overview of the bank's funding composition (Kozmin, 2016). Banking financial resilience (Financial Resilience) is defined as the capacity of a bank to maintain operational stability and secure resources, manage uncertainty, and various financial risks without experiencing significant disruption (Ruse & Budjati, 2013). This concept includes the ability of banks to maintain solvency, liquidity, and profitability through the implementation of effective risk management (Mackin, 2020). Indicators of banking financial resilience include Capital Adequacy Ratio (CAR) which measures the adequacy of capital, Non-Performing Loan (NPL) Ratio to assess the quality of the assets, Liquidity Coverage Ratio (LCR) to measure short-term liquidity capability, Return on Assets (ROA) then Return on Equity (ROE) as an indicator of profitability, and Net Stable Funding Ratio (NSFR) to evaluate long-term funding stability (Basel Committee on Banking Supervision, 2021). Solid financial resilience provides strategic benefits in the form of minimizing the risk of bankruptcy, strengthening stakeholder confidence, and the ability of banks to continue to contribute to economic growth even in crisis conditions (Freitas & Rochet, 2000).

Good Corporate Governance as a Governance Mechanism

Good Corporate Governance (GCG) represents a systematic framework, philosophy, and mechanism designed to direct and control corporations in creating sustainable added value for stakeholders through the application of the principles of transparency, accountability, responsibility, independence, and equity (Sutitama, 2021). In the context of banking, GCG acts as a mechanism for regulating relationships between shareholders, management, the board of commissioners, and

other stakeholders to improve efficiency and sustainable performance (Effendi, 2016). Effective GCG implementation aims to improve the efficiency and effectiveness of bank management, ensure information disclosure and decision-making transparency, protect shareholder rights, and optimize the use of resources to support sustainable business growth (Sutitama, 2021). Key benefits of GCG implementation include increasing investor confidence through commitment to transparent governance, reducing business risks arising from irresponsible management practices, increasing company value through operational efficiency, and strengthening competitiveness through the application of governance standards that are equivalent to international best practices (Effendi, 2016). GCG implementation measurement is carried out through five main indicators, namely transparency (transparency) measured through the ratio of information disclosure to total required items, accountability evaluated through the frequency of audit committee meetings, accountability (responsibility) which is measured from the allocation of bank Corporate Social Responsibility (CSR) towards not profit, independence (independence) calculated from the proportion of independent commissioners in the structure of the board, and fairness (fairness) which reflects the distribution of shareholding (Effendi, 2016). Comprehensive GCG implementation enables banks to build strong governance foundations, increase public trust, and ensure long-term operational sustainability through transparent and accountable decision-making (Tjiptono & Dina, 2020).

3 | METHOD

This study adopts a quantitative approach with an explanatory research method that aims to analyze the causal relationship between variables. The research design is descriptive-explanatory to test the influence of digital banking, company characteristics, and capital structure on banking financial resilience with Good Corporate Governance (GCG) as an intervening variable. This approach was chosen because it is able to provide an in-depth understanding of the association of cause-and-effect relationships between variables in the context of the Indonesian banking industry for the 2019-2023 period.

The research population includes all conventional commercial banks listed in the LQ45 Index of the Indonesia Stock Exchange. Sample selection using the purposive sampling method with the following criteria: (1) conventional banks are consistently registered in the LQ45 Index for the 2019-2023 period; (2) publish annual reports on an ongoing basis; (3) provide complete research data; and (4) have implemented digital banking services. Based on these criteria, five banks were selected as research samples, namely Bank Central Asia Tbk, Bank Negara Indonesia (Persero) Tbk, Bank Rakyat Indonesia (Persero) Tbk, Bank Tabungan Negara (Persero) Tbk, and Bank Mandiri (Persero) Tbk.

Independent variables include digital banking as measured through adoption rates, digital transaction percentages, and digital transaction value; company characteristics provided by firm size, ownership structure, and company age; and capital structure measured using Debt to Equity Ratio (DER), Debt to Asset Ratio (DAR), and Long-term Debt to Equity Ratio (LDER). The dependent variables of banking financial resilience are measured through the Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), and Net Stable Funding Ratio (NSFR). GCG intervening variables are measured based on the dimensions of accountability, fairness, and independence.

The research uses secondary data sourced from the annual reports of sample banks for the 2019-2023 period. Data is obtained through the official website of the Indonesia Stock Exchange and the website of each bank to ensure the accuracy and credibility of the information analyzed. Data collection is carried out through a documentation method by extracting relevant information from the company's annual report. The data collected includes digital banking indicators, company characteristics, capital structure, financial resilience, and corporate governance in accordance with the operationalization of the variables that have been determined.

Data analysis used Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS software version 4.1.3.2. Model evaluation was carried out through two stages: evaluation of the measurement model (outer model) to assess the validity and reliability of the indicators with the criteria of loading factor ≥ 0.70 , composite reliability ≥ 0.70 , and Average Variance Extracted (AVE) ≥ 0.50 ; and evaluation of the structural model (inner model) to test the relationship between the constructs with the criteria of R-square value and significance Path coefficient through the bootstrapping procedure at a confidence level of 95% (p -value < 0.05).

4 | RESULTS AND DISCUSSION

4.1 Results

4.1.1 Description of Research Object

This investigation analyzes five dominant conventional banking entities in Indonesia that are registered in the LQ45 Index of the Indonesia Stock Exchange, including Bank Central Asia (BCA), Bank Negara Indonesia (BNI), Bank Rakyat

Indonesia (BRI), Bank Mandiri, and Bank Tabungan Negara (BTN). The selection of the five institutions is based on strategic criteria including significant contributions to the domestic banking industry through asset dimensions, profitability, and market penetration, progressive adoption of digital banking technology, implementation of good Corporate Governance (GCG), optimal management of capital structure, and availability of comprehensive secondary data for the quinquennial period (2019-2023) that facilitates longitudinal analysis. The characteristics of each bank show the strategic engagement of the Indonesian banking industry. Bank Central Asia, as a leading private banking entity by market capitalization, has demonstrated a focus on operational efficiency and customer service through digital product innovations such as myBCA and BCA mobile. Profitability and cost efficiency reflected in the ROPO ratio are the main advantages, supported by the progressive implementation of digital banking in the industry. Bank Negara Indonesia, as the first state-owned banking institution established in 1946, has an advantage in corporate and international portfolio. Despite facing challenges in terms of non-performing loan (NPL) ratios, BNI has consistently carried out digital transformation and strengthened its capital structure to increase global competitiveness.

Bank Rakyat Indonesia is known as the institution with the widest distribution network, having significant strength in the micro sector and MSMEs. As a bank that has been operating since 1895, BRI has shown its commitment to financial inclusion through the BRI Lend and BRI Save platforms. The digitization of the microfinancing process and the small business ecosystem makes BRI a key player in national financial literacy. Bank Mandiri, which was formed through the merger of several on-state-owned banks in 1998, is currently the institution with the largest assets in Indonesia. The bank is leading the adoption of open-source digital banking through the Lend and Kopen platforms, and works in consolidating capital structure and operational efficiency. The State Savings Bank, which was founded in 1997 and transformed into a commercial bank with a primary focus on housing financing through mortgages, faces challenges in operational efficiency and risk structure. However, in the last period, it has begun to strengthen digital services and optimize GCG performance.

Table 1. Bank Central Asia Financial Ratio Profile for the 2019-2023 Period

Year	ROA	DER	DAR	Long-Term Debt	NSFR	CAR	NPL
2019	1.11%	427.79%	81.10%	0.29%	0.29%	24.64%	1.34%
2020	1.52%	482.33%	82.09%	0.29%	0.59%	25.03%	1.83%
2021	2.14%	562.79%	83.00%	0.31%	4.31%	21.62%	1.87%
2022	3.10%	494.49%	83.20%	3.05%	3.85%	24.04%	1.57%
2023	2.42%	489.69%	82.90%	0.21%	0.21%	21.43%	1.90%

Table 2. Profile of Bank Negara Indonesia's Financial Ratios for the 2019-2023 Period

Year	ROA	DER	DAR	Long-Term Debt	NSFR	CAR	NPL
2019	1.82%	550.80%	81.40%	48.24%	92.90%	24.39%	2.37%
2020	0.37%	661.10%	85.70%	41.82%	86.46%	20.55%	4.30%
2021	1.13%	662.60%	86.59%	40.88%	85.40%	19.67%	3.70%
2022	1.78%	634.60%	86.40%	43.20%	88.30%	20.35%	2.80%
2023	1.92%	682.30%	85.90%	34.11%	90.18%	20.62%	2.10%

Table 3. Bank Rakyat Indonesia Financial Ratio Profile for the 2019-2023 Period

Year	ROA	DER	DAR	Long-Term Debt	NSFR	CAR	NPL
2019	2.41%	546.70%	83.50%	33.33%	118.79%	22.55%	2.23%
2020	1.23%	635.50%	84.60%	35.24%	114.60%	21.15%	2.99%
2021	1.03%	569.50%	82.60%	32.04%	122.00%	22.54%	3.08%
2022	2.74%	462.80%	82.20%	31.73%	126.50%	22.37%	2.97%
2023	3.08%	443.60%	83.80%	31.12%	127.20%	22.17%	2.75%

Table 4. Bank Mandiri's Financial Ratio Profile for the 2019-2023 Period

Year	ROA	DER	DAR	Long-Term Debt	NSFR	CAR	NPL
2019	2.09%	129.45%	90.50%	17.70%	127.20%	38.58%	2.64%
2020	1.06%	147.65%	90.70%	16.79%	128.00%	27.52%	3.02%
2021	1.62%	153.80%	90.80%	17.06%	131.80%	26.99%	2.67%
2022	2.07%	179.29%	91.90%	15.78%	135.80%	26.68%	2.04%
2023	2.32%	202.73%	90.70%	14.21%	135.50%	27.03%	1.72%

The characteristics of this research use secondary data based on annual financial statements, sustainability reports, GCG reports, and official publications of the Financial Services Authority and the Indonesia Stock Exchange. The observation period covers the years 2019-2023 with data sources obtained from official bank reports, the Indonesia Stock

Exchange, and publications of the Financial Services Authority.

4.1.2 Model Analysis And Hypothesis Testing

The initiation phase of structural model analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM) begins with the examination of the measurement model (outer model). This evaluation aims to measure the capacity of indicators in representing latent constructs through testing convergent validity, discriminant validity, and construct reliability including outer loadings, Average Variance Extracted (AVE), and Composite Reliability.

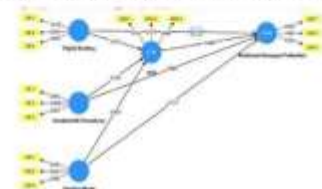


Figure 1. Evaluation of the Outer Model Before Elimination of Indicators

The initial evaluation process identified several indicators with outer loadings below the threshold of 0.7 and showed a negative relationship direction that was inconsistent with the assumptions of the reflective model. The use of indicators with these characteristics has the potential to reduce the validity of the construct and the internal reliability of the model. Therefore, the indicators were eliminated to meet the criteria for convergent validity with outer loadings > 0.7, composite reliability > 0.7, Average Variance Extracted (AVE) > 0.5, and consistency of reflective model direction.

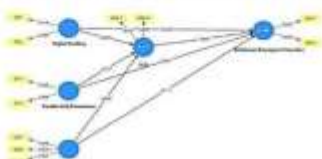


Figure 2. Evaluation of the Outer Model After Indicator Elimination

After the elimination of invalid indicators, the model showed substantial improvements in Cronbach's Alpha, Composite Reliability, AVE, and discriminant validity (HMT) values. This procedure follows the methodology of Hair et al. in the evaluation of the measurement model using the PLS-SEM approach. Evaluation of loading factors indicates that the majority of indicators have an outer loading value exceeding 0.70 and meet the requirements for convergent validity. One indicator (ROPO) received a loading value of 0.694, but was maintained because the AVE construct of Banking Financial Resilience still met the criteria (>0.50) with theoretical considerations and substantive contributions. The Composite Reliability test shows that all constructs have values that exceed the threshold of 0.7. Digital Banking (0.887), GCG (0.749), Company Characteristics (0.896), Banking Financial Resilience (0.759), and Capital Structure (0.912). These results indicate that the indicator is able to consistently measure the construct in question and provide stable results in the testing of the PLS-SEM model. The Average Variance Extracted (AVE) evaluation shows that the five constructs have a value that meets the convergent validity criteria with a minimum value of 0.50. Digital Banking (0.677), GCG (0.575), Company Characteristics (0.612), Banking Financial Resilience (0.622), and Capital Structure (0.776) are able to adequately explain the constructs they represent. Discriminatory validity testing using the Heterotrait-Monotrait (HTMT) identified

several values exceeding the threshold of 0.98, especially between Digital Banking and GCG (0.989), as well as Company Characteristics and Banking Financial Resilience (1.203). Although statistically indicative of the potential for overlapping constructs, these findings are theoretically acceptable because of the logical conceptual linkages between the constructs.

After the measurement model demonstrates optimal validity and reliability, the next phase is an examination of the structural model (path model) to evaluate the causal relationships between latent constructs, including direct and indirect influences. R-Square's evaluation indicates that the GCG construct has a value of 0.651 (robust), explaining 65.1% variation through the variables of Digital Banking, Company Characteristics, and Capital Structure. The Banking Financial Resilience construct has an R-Square value of 0.788 (very robust), indicating 78.8% variability explained by all constructs in the model.

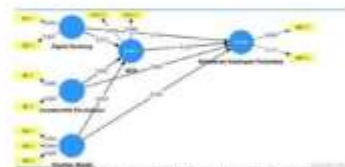


Figure 3. Structural Model Bootstrapping Results

Hypothesis examination was carried out through a bootstrapping procedure with PLS-SEM to produce an estimated path coefficient, t-statistical value, and p-value of each relation between constructs. The results of the examination indicated that out of the ten hypotheses proposed, only three were statistically significant. Company characteristics show a significant negative influence on GCG (original sample = -0.521; t-statistic = -2.788; p-value = 0.005), indicating that the company's internal characteristics such as size or high leverage tend to have a negative impact on the implementation of GCG. Company Characteristics show a significant positive influence on Banking Financial Resilience (original sample = 0.991; t-statistic = 3.083; p-value = 0.002), demonstrating that the company's internal characteristics are able to make a substantial contribution to improving the financial resilience of banks. Capital Structure shows a significant negative influence on GCG (original sample = -0.497; t-statistic = -4.531; p-value = 0.000), indicating that the use of an unbalanced capital structure can hinder the implementation of optimal corporate governance principles.

Meanwhile, the other seven hypotheses did not show statistical significance, including the influence of Digital Banking on GCG and Banking Financial Resilience, the influence of GCG on Banking Financial Resilience, the influence of Capital Structure on Banking Financial Resilience, and the overall testing of the effect of GCG mediation on the relationship between variables. These findings indicate that in the context of Indonesian banking which is the object of the study, company characteristics have a dominant role in influencing financial resilience, either directly or through their influence on GCG. In contrast, the implementation of digital banking has not shown a significant contribution to financial resilience and the quality of corporate governance, indicating the need for a more in-depth evaluation of Indonesia's banking digitalization strategy to optimize its impact on institutional financial stability and resilience.

Table 5. Hypothesis Test

Hypothesis	The Influence of Relationships Between Variables	Original Sample (O)	Sample Mean (M)	STDDEV	Statistics	P-Value	Test
H1	Digital Banking → GCG	270	256	220	1.224	221	Insignificant
H2	Digital Banking → Financial Resilience	-164	-250	244	1.400	116	Insignificant
H3	GCG → Financial Resilience of Banking	-283	-345	311	912	362	Insignificant
H4	Company Characteristics GCG	-551	-450	191	2.788	5	Significant
H5	Characteristics of Companies → Banking Financial Resilience	991	875	321	3.083	2	Significant
H6	GCG → Capital Structure	467	460	218	4.531	0	Significant
H7	Capital Structure → Financial Resilience of Banking	111	171	388	278	781	Insignificant

H8	Digital Banking → GCG → Financial Resilience of Banking	-76	80	127	601	548	Insignificant
H9	Characteristics of GCG → Companies → Banking Financial Resilience	171	176	179	945	945	Insignificant
H10	Capital Structure → GCG → Financial Resilience of Banking	280	353	327	854	893	Insignificant

4.2 Discussion

Analysis of Research Results

The interpretation of the empirical findings of this study was carried out based on structural model testing using the SEM-PLS approach which examines the relationship between variables through path coefficients and the level of statistical significance. An in-depth analysis of each hypothesis shows the complex dynamics between digital transformation, internal characteristics of companies, capital structure, and corporate governance in influencing the financial resilience of banks. The findings provide a new perspective on the effectiveness of banking digitalization in Indonesia, where the adoption of digital technology has not been fully integrated with a comprehensive internal governance system. The empirical context of the Indonesian banking sector shows that internal factors of the company have a more dominant role than technological innovation in determining financial stability. The results of this study reveal the gap between theoretical expectations and the reality of digital transformation implementation in the conventional banking industry. Variations in the level of technological readiness and internal management culture between banking institutions are key factors that affect the effectiveness of digitalization. Empirical findings show that although digital banking is growing rapidly, its impact on strengthening governance and financial resilience is still limited. Statistical analysis confirms that the relationships between variables are not always linear and require a holistic approach in their implementation.

The results of the first hypothesis test indicate that digital banking transformation does not have a significant influence on Good Corporate Governance practices in conventional commercial banks studied. These findings contrast with the theoretical framework that states that digitalization should improve transparency, accountability, and efficiency of internal oversight as key pillars of good corporate governance. Previous research by (Xia et al., 2020) shows that digital technology is able to improve the accuracy of financial reporting and strengthen the governance system, while (Cao et al., 2022) emphasizing the role of digital transformation in strengthening GCG principles. (Riv, 2024) in its study states that digital banking supports risk management and effective GCG implementation, in line with the findings (Utama et al., 2024) which emphasizes the importance of digitalization in ensuring the fairness and independence of companies. However, conditions in Indonesia show that the adoption of digital banking is still focused on improving customer transactional services rather than full integration with internal governance policies. Variations in the readiness of technological infrastructure and internal management culture between banks are the main obstacles in optimizing the role of digital banking as a GCG enabler. This gap indicates the need for a more comprehensive and integrated digital transformation strategy with the strengthening of risk management policies and an adaptive governance culture.

The second hypothesis test regarding the influence of digital banking on the financial resilience of banks also showed insignificant results, contrary to theoretical expectations that digitalization can strengthen cost efficiency, expand service reach, and open up opportunities for income diversification. Modern financial management theory postulates digital banking as a strategic innovation that supports risk management and financial stability of banking institutions. Research (Rahmadi et al., 2024) confirms that digital banking contributes to improving operational cost efficiency, while (Ristić & Jurešić, 2022) found that digitalization helps reduce credit and liquidity risks. Ferenc et al. (2022) in their research showed that the adoption of digital banking helps companies face global economic challenges more resiliently, supported by findings (Matshegy et al., 2024) which states that digital transformation supports income diversification and financial resilience. However, the reality in Indonesia shows that digital banking is still not fully integrated with risk management policies and long-term strategic planning. The focus on implementation, which is still limited to transactional services, has not been able to have a significant impact on strengthening the bank's financial fundamentals. The quality of digital infrastructure and the readiness of human resources that vary between banking institutions are limiting factors for the effectiveness of digitalization in improving financial resilience.

Significant findings were obtained from testing the fourth hypothesis which showed that company characteristics have a positive and significant effect on the financial resilience of banks. These results confirm a theoretical framework that emphasizes that internal factors such as size, leverage, profitability, and ownership structure are the main determinants of a bank's ability to cope with market pressures and economic volatility. Financial management theory postulates internal characteristics as the foundation of financial stability that allows institutions to implement effective risk management strategies. (Maulidi et al., 2022) in its research emphasizes the importance of strong capital and integrated risk management, while (Firmasari, 2014) identifies company size and liquidity as key factors of resilience. (Ariyohaji & Hengrawati, 2022) affirms the role of leverage and profitability in determining financial stability, supported by findings

[Mudjib et al., 2019] which indicates that the size of the company supports risk management even though it does not moderate the influence of the capital structure. The specific context of conventional commercial banks in Indonesia with complex organizational structures and strict regulations reinforces the relevance of internal characteristics as a pillar of resilience. These findings confirm that strengthening the company's internal fundamentals is a priority strategy in building financial resilience amid increasingly competitive market dynamics. The integration of strong internal characteristics with comprehensive financial management policies and risk strategies is proving to be key to success in maintaining operational stability and public trust.

Research Implication

This research has made substantial contribution both from the perspective of theoretical development and practical application in the context of modern financial management and Indonesian banking policy. Theoretically, the findings of the study enrich the scientific literature by presenting a new perspective on the dynamics of the relationship between digital transformation, organizational characteristics, capital structure, and corporate governance in influencing the financial resilience of banking institutions. The main theoretical contribution lies in the confirmation that the internal mechanisms of the company have a more dominant role than technological innovation in determining financial stability, challenging the conventional assumption that pure digitalization as a panacea for all modern banking challenges. The finding that Good Corporate Governance has no significant effect on financial resilience opens up new academic discussion space on the effectiveness of governance implementation in developing countries. The results of this study also expand the application of capital structure theory in the context of emerging market economies where technology adoption and governance have not been systematically integrated. The development of a conceptual model that combines the dimensions of technology, ownership, and organizational structure provides a theoretical foundation that is more relevant to the empirical conditions of the Indonesian banking industry.

The practical implications of the research guidance for multiple stakeholders in the Indonesian banking ecosystem, from financial institution management to regulators and policymakers. For bank management, the research findings emphasize the urgency of optimally managing the company's internal characteristics, including optimizing operational size, increasing profitability, and managing an efficient capital structure as top priorities in strengthening financial resilience. Digital transformation strategies used to be reoriented from transactional focus to comprehensive integration with internal governance and risk management systems to maximize their positive impact. For regulators such as the Financial Services Authority, the results indicate the need for a reformulation of digital banking supervision policies that not only emphasize technological aspects but also encourage substantial corporate transformation. The development of a regulatory framework that integrates digitalization with strengthening the bank's internal fundamentals is the key to the success of the banking industry's transformation. Implications for professional education and training institutions include the need to develop a curriculum that integrates aspects of digitalization, organizational structure, and governance within a holistic and comprehensive financial strategy framework.

5 | CONCLUSIONS AND FUTURE WORK

The results of the study revealed that digital banking transformation has not had a significant impact on strengthening Good Corporate Governance (GCG) and banking financial stability. These findings indicate that the implementation of digital technology in the banking sector is still partial and has not been fully integrated with a good corporate governance system. Meanwhile, the current GCG practices seem to still be procedural and have not become an integral part of the risk management culture of financial institutions. However, this study proves that internal factors such as the company's operating scale, leverage level, and profitability have a substantial influence on the quality of GCG and the financial resilience of banks. Capital composition has also been shown to be positively correlated with GCG implementation, although it does not directly affect financial stability. The role of GCG as a link between various independent variables and financial resilience shows insignificant results, indicating the need for an in-depth evaluation of the effectiveness of current governance practice. Conventional banking institutions listed in the LQ45 index need to integrate digitalization strategies with a more comprehensive implementation of GCG. The development of technological infrastructure must be accompanied by strengthening the internal oversight system and increasing transparency in the strategic decision-making process. Further research is suggested exploring additional variables such as operational efficiency and digital literacy to enrich the analysis of banking financial resilience.

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How to cite this article: Wijayanto, Y., Ardika, P., & Hapsari, P. (2025). Stimulus To Improve Customer Experience In Indonesia's Cargo Shipping Service Industry. *Indonesian Journal Economic Review (IJER)*, 5(2), 17-31. <https://journal.nati-indonesia.com/index.php/ijer/article/view/551>.