

PENELITIAN TERDAHULU

Nama Peneliti	Judul Penelitian	Variabel	Metode Penelitian	Hasil Penelitian
Emasari 2010	Pengaruh kinerja keuangan berdasarkan model Altman dan Zmijewski terhadap harga saham pada perusahaan food and beverages yang terdaftar di BEI periode 2003-2007	Variabel Bebas : <ul style="list-style-type: none"> • Z-Score • Altman • X-Score • Zmijewski Variabel Terikat : <ul style="list-style-type: none"> • Harga Saham 	Analisis Deskriptif dan Analisis Regresi	Hasil penelitian menunjukkan bahwa kinerja keuangan perusahaan Food and Beverage yang terdaftar di BEI selama tahun 2003-2007 berdasarkan model Altman (Z-score) terdapat 1 perusahaan yang berpotensi bangkrut, 1 perusahaan yang dalam kondisi sehat selama lima tahun berturut-turut, walaupun masih ada beberapa perusahaan yang rawan bangkrut". Sedangkan berdasarkan model Zmijewski (X-score) semua perusahaan dalam kondisi sehat". Penelitian ini juga membuktikan bahwa kinerja keuangan berdasarkan model Altman (Z-score) dan model Zmijewski (X-score) secara parsial mempunyai pengaruh terhadap harga saham"
Intan Pangliih 2015	Penggunaan Z-Score Altman Sebagai Alat Prediksi Kebangkrutan dan Pengaruhnya terhadap Tingkat Return Saham pada Perusahaan Sektor Makanan dan Minuman yang Terdaftar di Bursa Efek Indonesia	Variabel Bebas : <ul style="list-style-type: none"> • Z-Score • Altman Variabel Terikat : <ul style="list-style-type: none"> • Return Saham 	Analisis Deskriptif dan Analisis Regresi	Hasil penelitian menunjukkan bahwa dari tahun 2010 sampai tahun 2013 sebagian besar perusahaan industri sektor makanan dan minuman di Bursa Efek Indonesia masuk dalam kategori perusahaan yang sehat. Untuk hasil pengujian hipotesis penelitian ini menunjukkan bahwa tidak ada pengaruh yang signifikan antara nilai rasio keuangan Altman Z-score terhadap return pada perusahaan industri sektor makanan dan minuman di Bursa Efek Indonesia dengan tingkat koefisien determinasi sebesar 0,7%.

<p>Hambang Argani 2010</p>	<p>Analisis Tingkat Kebangkrutan dan Pengaruhnya terhadap Return Saham pada Perusahaan Textile dan Garment Gopublic di Bursa Efek Indonesia</p>	<p>Variabel Bebas : <ul style="list-style-type: none"> • Z-Score Altman Variabel Terikat : <ul style="list-style-type: none"> • Return Saham </p>	<p>Analisis Z-score Altman, Z-Score Foster, dan Analisis Statistik</p>	<p>Dari perhitungan rasio keuangan Z-Score Altman maupun Z-Score Foster pada tahun 2005 sampai tahun 2007 diperoleh nilai Z-Score yang masih rendah di bawah nilai 1,20 untuk Z-Score Altman dan untuk Z-Score Foster di bawah 6,40 sehingga sebagian besar perusahaan textile dan garment di Bursa Efek Indonesia masuk dalam kategori perusahaan yang bangkrut. Dari hasil analisis diperoleh nilai koefisien determinasi (R Square) sebesar 0,025 atau 2,5% untuk Model Altman dan 0,005 atau 0,5% untuk Model Foster. Maka dapat diambil kesimpulan bahwa return saham dapat dipengaruhi oleh nilai Z-Score namun masih banyak variabel yang dapat mempengaruhi return saham selain variabel nilai Z-Score</p>
<p>Imam Tri Wibowo 2015</p>	<p>Pengaruh Kinerja Keuangan berdasarkan Teori Kebangkrutan Zmijewski terhadap Harga Saham pada Perusahaan Publik Sektor Keramik, Kaca dan Porselin di Bursa Efek Indonesia (BEI) Periode 2010 – 2014</p>	<p>Variabel Bebas : <ul style="list-style-type: none"> • Earning After Tax to Total Asset • Current Assets to Current Liabilities • Total Debt to Total Asset Variabel Terikat : <ul style="list-style-type: none"> • Harga Saham </p>	<p>Analisis Regresi Linier Berganda</p>	<p>Hasil penelitian ini menunjukkan bahwa bahwa variabel Earning After Tax to Total Asset dan Current Assets to Current Liabilities mempunyai pengaruh terhadap harga saham sedang variabel Total Debt to Total Asset tidak mempunyai pengaruh terhadap harga saham.</p>

<p>Aris Nafianto 2011</p>	<p>Pengaruh kebangkrutan model Altman terhadap return saham pada perusahaan plastic and glass product yang listing di BEI tahun 2006-2008</p>	<p>Variabel Bebas :</p> <ul style="list-style-type: none"> • Working Capital to Total Assets • Retained Earnings to Total Assets • EBIT to Total Assets • Market Value of Equity to Book Value of Dept • Sales to Total Assets <p>Variabel Terikat :</p> <ul style="list-style-type: none"> • Return Saham 	<p>Analisis Deskriptif dan Analisis Regresi</p>	<p>Hasil penelitian ini menunjukkan pada periode 2006 perusahaan yang dikategorikan bangkrut sebanyak 5 perusahaan, dan perusahaan yang termasuk ke dalam rawan bangkrut atau grey area sebanyak 5 perusahaan " Pada periode 2007 dan 2008 perusahaan plastic and glass product dikategorikan bangkrut sebanyak 3 perusahaan, dan perusahaan yang termasuk ke dalam rawan bangkrut atau grey area sebanyak 7 perusahaan "Variabel WC/TA dan RE/TA berpengaruh secara signifikan terhadap return saham " Variabel EBIT/TA, MVE/BVD dan Sales/TA tidak berpengaruh secara signifikan terhadap return saham "</p>
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PERHITUNGAN Z-SCORE ALTMAN

➤ X1 (*Working Capital to Total Assets*)

Nama Perusahaan	Tahun	Current Assets (a)	Current Liabilities (b)	Working Capital (c) = (a + b)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	767.343.000	385.554.000	381.789.000	USD
	2012	755.866.000	494.418.000	261.448.000	
	2013	853.890.000	632.878.000	221.012.000	
	2014	694.548.000	494.696.000	199.852.000	
	2015	448.467.000	405.554.000	42.913.000	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	907.001.000.000	725.374.000.000	181.627.000.000	IDR
	2012	1.026.460.000.000	907.065.000.000	119.395.000.000	
	2013	1.094.079.000.000	1.016.562.000.000	77.517.000.000	
	2014	988.526.000.000	945.117.000.000	43.409.000.000	
	2015	1.492.365.000.000	1.491.109.000.000	1.256.000.000	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	115.051.347.797	22.170.811.806	73.925.818.973	IDR
	2012	107.455.824.614	12.506.012.328	105.556.556.562	
	2013	167.103.003.126	16.424.251.535	130.685.823.094	
	2014	175.900.992.382	14.384.941.579	169.190.493.997	
	2015	185.099.466.179	13.865.122.841	204.460.755.848	
PT Ekadharna International Tbk (EKAD)	2011	155.734.437.903	81.808.618.930	73.925.818.973	IDR
	2012	180.370.886.413	74.814.329.851	105.556.556.562	
	2013	229.041.255.054	98.355.431.960	130.685.823.094	
	2014	296.439.331.922	127.248.837.925	169.190.493.997	
	2015	284.055.202.739	79.594.446.891	204.460.755.848	
PT Intanwijaya International Tbk (INCI)	2011	99.731.859.727	8.904.208.439	90.827.651.288	IDR
	2012	96.740.984.835	12.546.019.891	84.194.964.944	
	2013	84.716.525.404	6.107.335.794	78.609.189.610	
	2014	86.975.126.394	6.761.434.983	80.213.691.411	
	2015	107.268.622.816	11.084.537.386	96.184.085.430	
PT Indo Acidatama Tbk (SRSN)	2011	259.287.595.000	81.670.263.000	177.617.332.000	IDR
	2012	306.887.345.000	111.511.056.000	195.376.289.000	
	2013	294.789.185.000	89.839.668.000	204.949.517.000	
	2014	335.892.148.000	116.994.521.000	218.897.627.000	
	2015	440.739.212.000	203.379.900.000	237.359.312.000	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	651.807.000	370.362.000	281.445.000	USD
	2012	694.849.000	484.305.000	210.544.000	
	2013	811.683.000	617.699.000	193.984.000	
	2014	666.434.000	477.912.000	188.522.000	
	2015	416.634.000	377.753.000	38.881.000	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	174.869.936	109.537.453	65.332.483	USD
	2012	156.649.317	93.819.002	62.830.315	
	2013	189.934.054	108.322.185	81.611.869	
	2014	157.069.204	71.363.344	85.705.860	
	2015	155.732.643	61.477.639	94.255.004	

Nama Perusahaan	Tahun	Working Capital (c)	Total Assets (d)	X1 (c) / (d)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	381.789.000	2.098.741.000	0,182	USD
	2012	261.448.000	2.120.461.000	0,123	
	2013	221.012.000	2.321.070.000	0,095	
	2014	199.852.000	2.325.419.000	0,086	
	2015	42.913.000	2.253.084.000	0,019	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	181.627.000.000	2.123.285.000.000	0,086	IDR
	2012	119.395.000.000	2.299.672.000.000	0,052	
	2013	77.517.000.000	2.382.875.000.000	0,033	
	2014	43.409.000.000	2.476.982.000.000	0,018	
	2015	1.256.000.000	3.265.953.000.000	0,000	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	92.880.535.991	172.322.620.690	0,539	IDR
	2012	94.949.812.286	184.636.344.559	0,514	
	2013	150.678.751.591	256.372.669.050	0,588	
	2014	161.516.050.803	268.877.322.944	0,601	
	2015	171.234.343.338	274.483.110.371	0,624	
PT Ekadharna International Tbk (EKAD)	2011	73.925.818.973	237.592.308.314	0,311	IDR
	2012	105.556.556.562	273.893.467.429	0,385	
	2013	130.685.823.094	343.601.504.089	0,380	
	2014	169.190.493.997	411.348.790.570	0,411	
	2015	204.460.755.848	389.691.595.500	0,525	
PT Intanwijaya International Tbk (INCI)	2011	90.827.651.288	125.184.677.577	0,726	IDR
	2012	84.194.964.944	132.278.839.079	0,636	
	2013	78.609.189.610	136.142.063.219	0,577	
	2014	80.213.691.411	147.992.617.351	0,542	
	2015	96.184.085.430	169.546.066.314	0,567	
PT Indo Acidatama Tbk (SRSN)	2011	177.617.332.000	361.182.183.000	0,492	IDR
	2012	195.376.289.000	402.108.960.000	0,486	
	2013	204.949.517.000	420.782.548.000	0,487	
	2014	218.897.627.000	463.347.124.000	0,472	
	2015	237.359.312.000	574.073.314.000	0,413	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	281.445.000	1.604.922.000	0,175	USD
	2012	210.544.000	1.687.115.000	0,125	
	2013	193.984.000	1.907.438.000	0,102	
	2014	188.522.000	1.923.510.000	0,098	
	2015	38.881.000	1.862.386.000	0,021	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	65.332.483	280.646.814	0,233	USD
	2012	62.830.315	248.270.710	0,253	
	2013	81.611.869	269.269.882	0,303	
	2014	85.705.860	236.016.596	0,363	
	2015	94.255.004	222.447.500	0,424	

➤ X2 (Retained Earnings to Total Assets)

Nama Perusahaan	Tahun	Retained Earnings (e)	Total Assets (d)	X2 (e) / (d)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	11.876.000	2.098.741.000	0,006	USD
	2012	-81.070.000	2.120.461.000	-0,038	
	2013	-106.937.000	2.321.070.000	-0,046	
	2014	-115.641.000	2.325.419.000	-0,050	
	2015	-123.145.000	2.253.084.000	-0,055	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	204.973.000.000	2.123.285.000.000	0,097	IDR
	2012	210.022.000.000	2.299.672.000.000	0,091	
	2013	220.811.000.000	2.382.875.000.000	0,093	
	2014	248.723.000.000	2.476.982.000.000	0,100	
	2015	264.296.000.000	3.265.953.000.000	0,081	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	38.220.968.642	172.322.620.690	0,222	IDR
	2012	63.063.099.622	184.636.344.559	0,342	
	2013	117.109.566.169	256.372.669.050	0,457	
	2014	126.017.336.180	268.877.322.944	0,469	
	2015	130.161.840.170	274.483.110.371	0,474	
PT Ekadharna International Tbk (EKAD)	2011	87.814.986.686	237.592.308.314	0,370	IDR
	2012	118.893.866.350	273.893.467.429	0,434	
	2013	152.156.976.818	343.601.504.089	0,443	
	2014	185.910.936.610	411.348.790.570	0,452	
	2015	222.385.991.410	389.691.595.500	0,571	
PT Intanwijaya International Tbk (INCI)	2011	19.994.801.276	125.184.677.577	0,160	IDR
	2012	24.438.642.140	132.278.839.079	0,185	
	2013	34.770.450.236	136.142.063.219	0,255	
	2014	45.798.671.248	147.992.617.351	0,309	
	2015	60.944.762.486	169.546.066.314	0,359	
PT Indo Acidatama Tbk (SRSN)	2011	-49.347.447.000	361.182.183.000	-0,137	IDR
	2012	-32.391.407.000	402.108.960.000	-0,081	
	2013	-16.397.112.000	420.782.548.000	-0,039	
	2014	-1.940.852.000	463.347.124.000	-0,004	
	2015	9.295.365.000	574.073.314.000	0,016	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	456.639.000	1.604.922.000	0,285	USD
	2012	369.248.000	1.687.115.000	0,219	
	2013	378.930.000	1.907.438.000	0,199	
	2014	394.381.000	1.923.510.000	0,205	
	2015	412.523.000	1.862.386.000	0,222	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	63.473.602	280.646.814	0,226	USD
	2012	61.245.373	248.270.710	0,247	
	2013	68.318.330	269.269.882	0,254	
	2014	67.717.722	236.016.596	0,287	
	2015	66.082.752	222.447.500	0,297	

➤ **X3 (Earnings Before Interest and Taxes to Total Assets)**

Nama Perusahaan	Tahun	EBIT (f)	Total Assets (d)	X3 (f) / (d)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	-23.578.000	2.098.741.000	-0,011	USD
	2012	-146.468.000	2.120.461.000	-0,069	
	2013	-14.390.000	2.321.070.000	-0,006	
	2014	5.613.000	2.325.419.000	0,002	
	2015	34.737.000	2.253.084.000	0,015	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	90.095.000.000	2.123.285.000.000	0,042	IDR
	2012	12.475.000.000	2.299.672.000.000	0,005	
	2013	38.549.000.000	2.382.875.000.000	0,016	
	2014	43.488.000.000	2.476.982.000.000	0,018	
	2015	52.125.000.000	3.265.953.000.000	0,016	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	-7.519.876.119	172.322.620.690	-0,044	IDR
	2012	25.657.760.096	184.636.344.559	0,139	
	2013	87.322.830.461	256.372.669.050	0,341	
	2014	17.183.018.745	268.877.322.944	0,064	
	2015	11.832.026.060	274.483.110.371	0,043	
PT Ekadharna International Tbk (EKAD)	2011	35.219.487.148	237.592.308.314	0,148	IDR
	2012	47.930.499.632	273.893.467.429	0,175	
	2013	51.988.302.824	343.601.504.089	0,151	
	2014	58.721.777.723	411.348.790.570	0,143	
	2015	66.306.918.116	389.691.595.500	0,170	
PT Intanwijaya International Tbk (INCI)	2011	-17.612.617.179	125.184.677.577	-0,141	IDR
	2012	4.578.352.738	132.278.839.079	0,035	
	2013	10.690.815.380	136.142.063.219	0,079	
	2014	11.358.760.719	147.992.617.351	0,077	
	2015	19.220.641.866	169.546.066.314	0,113	
PT Indo Acidatama Tbk (SRSN)	2011	33.811.292.000	361.182.183.000	0,094	IDR
	2012	25.760.615.000	402.108.960.000	0,064	
	2013	32.666.954.000	420.782.548.000	0,078	
	2014	29.857.990.000	463.347.124.000	0,064	
	2015	20.714.663.000	574.073.314.000	0,036	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	-2.131.000	1.604.922.000	-0,001	USD
	2012	-87.213.000	1.687.115.000	-0,052	
	2013	17.079.000	1.907.438.000	0,009	
	2014	24.912.000	1.923.510.000	0,013	
	2015	55.899.000	1.862.386.000	0,030	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	8.714.282	280.646.814	0,031	USD
	2012	4.784.763	248.270.710	0,019	
	2013	18.901.460	269.269.882	0,070	
	2014	1.726.780	236.016.596	0,007	
	2015	-101.989	222.447.500	-0,000	

➤ **X4 (Market Value of Equity to Book Value of Dept)**

Nama Perusahaan	Tahun	Saham Beredar (g)	Closing Price (h)	Kurs (i)	MVE (j) = (g x h) / (i)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	6.979.892.784	770	4.298	1.250.469.391	USD
	2012	6.979.892.784	410	4.298	665.834.351	
	2013	6.979.892.784	410	4.298	665.834.351	
	2014	6.979.892.784	303	4.298	492.067.825	
	2015	6.979.892.784	130	4.298	211.118.209	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	3.783.367.329	240	-	908.008.158.960	IDR
	2012	4.098.997.362	113	-	463.186.701.906	
	2013	4.098.997.362	109	-	446.790.712.458	
	2014	4.098.997.362	107	-	438.592.717.734	
	2015	4.098.997.362	63	-	258.236.833.806	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	331.129.952	710	-	235.102.265.920	IDR
	2012	331.129.952	385	-	127.485.031.520	
	2013	331.129.952	470	-	155.631.077.440	
	2014	331.129.952	353	-	116.888.873.056	
	2015	331.129.952	387	-	128.147.291.424	
PT Ekadharma International Tbk (EKAD)	2011	698.775.000	280	-	195.657.000.000	IDR
	2012	698.775.000	355	-	248.065.125.000	
	2013	698.775.000	390	-	272.522.250.000	
	2014	698.775.000	515	-	359.869.125.000	
	2015	698.775.000	400	-	279.510.000.000	
PT Intanwijaya International Tbk (INCI)	2011	181.035.556	210	-	38.017.466.760	IDR
	2012	181.035.556	245	-	44.353.711.220	
	2013	181.035.556	240	-	43.448.533.440	
	2014	181.035.556	238	-	43.086.462.328	
	2015	181.035.556	305	-	55.215.844.580	
PT Indo Acidatama Tbk (SRSN)	2011	6.020.000.000	54	-	325.080.000.000	IDR
	2012	6.020.000.000	50	-	301.000.000.000	
	2013	6.020.000.000	50	-	301.000.000.000	
	2014	6.020.000.000	50	-	301.000.000.000	
	2015	6.020.000.000	50	-	301.000.000.000	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	3.066.196.416	2.600	8.991	886.676.752	USD
	2012	3.066.196.416	3.500	8.991	1.193.603.321	
	2013	3.286.962.558	2.975	9.131	1.070.935.671	
	2014	3.286.962.558	3.000	9.131	1.079.935.130	
	2015	3.286.962.558	3.445	9.131	1.240.125.508	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	383.331.363	2.000	2.125	360.782.459	USD
	2012	383.331.363	2.000	2.125	360.782.459	
	2013	383.331.363	1.910	2.125	344.547.249	
	2014	383.331.363	1.600	2.125	288.625.967	
	2015	383.331.363	1.480	2.125	266.979.020	

Nama Perusahaan	Tahun	Current Liabilities (b)	Non-Current Liabilities (k)	Book Value of Dept (l) = (b + k)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	385.554.000	630.654.000	1.016.208.000	USD
	2012	494.418.000	656.467.000	1.150.885.000	
	2013	632.878.000	629.032.000	1.261.910.000	
	2014	494.696.000	775.820.000	1.270.516.000	
	2015	405.554.000	651.621.000	1.057.175.000	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	725.374.000.000	586.880.000.000	1.312.254.000.000	IDR
	2012	907.065.000.000	538.472.000.000	1.445.537.000.000	
	2013	1.016.562.000.000	481.192.000.000	1.497.754.000.000	
	2014	945.117.000.000	618.514.000.000	1.563.631.000.000	
	2015	1.491.109.000.000	669.593.000.000	2.160.702.000.000	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	22.170.811.806	18.982.620.623	41.153.432.429	IDR
	2012	12.506.012.328	16.433.810.159	28.939.822.487	
	2013	16.424.251.535	16.520.452.726	32.944.704.261	
	2014	14.384.941.579	18.409.859.093	32.794.800.672	
	2015	13.865.122.841	19.321.908.486	33.187.031.327	
PT Ekadharna International Tbk (EKAD)	2011	81.808.618.930	8.138.161.133	89.946.780.063	IDR
	2012	74.814.329.851	7.101.330.539	81.915.660.390	
	2013	98.355.431.960	7.538.510.774	105.893.942.734	
	2014	127.248.837.925	10.900.720.681	138.149.558.606	
	2015	79.594.446.891	18.135.731.998	97.730.178.889	
PT Intanwijaya International Tbk (INCI)	2011	8.904.208.439	4.964.431.862	13.868.640.301	IDR
	2012	12.546.019.891	3.972.941.048	16.518.960.939	
	2013	6.107.335.794	3.943.041.189	10.050.376.983	
	2014	6.761.434.983	4.111.275.120	10.872.710.103	
	2015	11.084.537.386	4.410.219.931	15.494.757.317	
PT Indo Acidatama Tbk (SRSN)	2011	81.670.263.000	27.271.692.000	108.941.955.000	IDR
	2012	111.511.056.000	21.393.761.000	132.904.817.000	
	2013	89.839.668.000	16.567.246.000	106.406.914.000	
	2014	116.994.521.000	17.516.164.000	134.510.685.000	
	2015	203.379.900.000	30.613.578.000	233.993.478.000	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	370.362.000	436.891.000	807.253.000	USD
	2012	484.305.000	481.980.000	966.285.000	
	2013	617.699.000	434.416.000	1.052.115.000	
	2014	477.912.000	576.350.000	1.054.262.000	
	2015	377.753.000	597.787.000	975.540.000	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	109.537.453	28.172.425	137.709.878	USD
	2012	93.819.002	14.716.563	108.535.565	
	2013	108.322.185	15.516.865	123.839.050	
	2014	71.363.344	21.146.242	92.509.586	
	2015	61.477.639	20.154.909	81.632.548	

Nama Perusahaan	Tahun	Market Value of Equity (j)	Book Value of Dept (l)	X4 (j) / (l)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	1.250.469.391	1.016.208.000	1,231	USD
	2012	665.834.351	1.150.885.000	0,579	
	2013	665.834.351	1.261.910.000	0,528	
	2014	492.067.825	1.270.516.000	0,387	
	2015	211.118.209	1.057.175.000	0,200	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	908.008.158.960	1.312.254.000.000	0,692	IDR
	2012	463.186.701.906	1.445.537.000.000	0,320	
	2013	446.790.712.458	1.497.754.000.000	0,298	
	2014	438.592.717.734	1.563.631.000.000	0,280	
	2015	258.236.833.806	2.160.702.000.000	0,120	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	235.102.265.920	41.153.432.429	5,713	IDR
	2012	127.485.031.520	28.939.822.487	4,405	
	2013	155.631.077.440	32.944.704.261	4,724	
	2014	116.888.873.056	32.794.800.672	3,564	
	2015	128.147.291.424	33.187.031.327	3,861	
PT Ekadharma International Tbk (EKAD)	2011	195.657.000.000	89.946.780.063	2,175	IDR
	2012	248.065.125.000	81.915.660.390	3,028	
	2013	272.522.250.000	105.893.942.734	2,574	
	2014	359.869.125.000	138.149.558.606	2,605	
	2015	279.510.000.000	97.730.178.889	2,860	
PT Intanwijaya International Tbk (INCI)	2011	38.017.466.760	13.868.640.301	2,741	IDR
	2012	44.353.711.220	16.518.960.939	2,685	
	2013	43.448.533.440	10.050.376.983	4,323	
	2014	43.086.462.328	10.872.710.103	3,963	
	2015	55.215.844.580	15.494.757.317	3,564	
PT Indo Acidatama Tbk (SRSN)	2011	325.080.000.000	108.941.955.000	2,984	IDR
	2012	301.000.000.000	132.904.817.000	2,265	
	2013	301.000.000.000	106.406.914.000	2,829	
	2014	301.000.000.000	134.510.685.000	2,238	
	2015	301.000.000.000	233.993.478.000	1,286	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	886.676.752	807.253.000	1,098	USD
	2012	1.193.603.321	966.285.000	1,235	
	2013	1.070.935.671	1.052.115.000	1,018	
	2014	1.079.935.130	1.054.262.000	1,024	
	2015	1.240.125.508	975.540.000	1,271	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	360.782.459	137.709.878	2,620	USD
	2012	360.782.459	108.535.565	3,324	
	2013	344.547.249	123.839.050	2,782	
	2014	288.625.967	92.509.586	3,120	
	2015	266.979.020	81.632.548	3,270	

➤ X5 (Sales to Total Assets)

Nama Perusahaan	Tahun	Sales (m)	Total Assets (d)	X5 (m) / (d)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	2.207.156.000	2.098.741.000	1,052	USD
	2012	2.295.023.000	2.120.461.000	1,082	
	2013	2.518.996.000	2.321.070.000	1,085	
	2014	2.476.887.000	2.325.419.000	1,065	
	2015	1.406.139.000	2.253.084.000	0,624	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	2.503.984.000.000	2.123.285.000.000	1,179	IDR
	2012	2.295.369.000.000	2.299.672.000.000	0,998	
	2013	2.568.954.000.000	2.382.875.000.000	1,078	
	2014	2.284.211.000.000	2.476.982.000.000	0,922	
	2015	2.378.805.000.000	3.265.953.000.000	0,728	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	121.168.473.285	172.322.620.690	0,703	IDR
	2012	146.690.966.909	184.636.344.559	0,794	
	2013	131.333.196.189	256.372.669.050	0,512	
	2014	132.775.925.237	268.877.322.944	0,494	
	2015	118.475.319.120	274.483.110.371	0,432	
PT Ekadharna International Tbk (EKAD)	2011	328.459.768.003	237.592.308.314	1,382	IDR
	2012	385.037.050.333	273.893.467.429	1,406	
	2013	418.668.758.096	343.601.504.089	1,218	
	2014	526.573.620.057	411.348.790.570	1,280	
	2015	531.537.606.573	389.691.595.500	1,364	
PT Intanwijaya International Tbk (INCI)	2011	50.278.008.437	125.184.677.577	0,402	IDR
	2012	64.628.362.916	132.278.839.079	0,489	
	2013	81.244.267.131	136.142.063.219	0,597	
	2014	110.023.088.698	147.992.617.351	0,743	
	2015	136.668.408.270	169.546.066.314	0,806	
PT Indo Acidatama Tbk (SRSN)	2011	387.354.222.000	361.182.183.000	1,072	IDR
	2012	384.145.388.000	402.108.960.000	0,955	
	2013	392.315.526.000	420.782.548.000	0,932	
	2014	472.834.591.000	463.347.124.000	1,020	
	2015	531.573.325.000	574.073.314.000	0,926	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	2.197.484.000	1.604.922.000	1,369	USD
	2012	2.285.158.000	1.687.115.000	1,354	
	2013	2.506.414.000	1.907.438.000	1,314	
	2014	2.460.051.000	1.923.510.000	1,279	
	2015	1.377.573.000	1.862.386.000	0,740	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	461.602.658	280.646.814	1,645	USD
	2012	460.239.017	248.270.710	1,854	
	2013	438.997.361	269.269.882	1,630	
	2014	400.094.886	236.016.596	1,695	
	2015	285.420.572	222.447.500	1,283	

➤ **Z-Score Altman**

Nama Perusahaan	Tahun	1,2 (X1)	1,4 (X2)	3,3 (X3)	0,6 (X4)	1,0 (X5)	Z-Score
PT Barito Pacific Tbk (BRPT)	2011	0,182	0,006	-0,011	1,231	1,052	1,979
	2012	0,123	-0,038	-0,069	0,579	1,082	1,296
	2013	0,095	-0,046	-0,006	0,528	1,085	1,431
	2014	0,086	-0,050	0,002	0,387	1,065	1,339
	2015	0,019	-0,055	0,015	0,200	0,624	0,741
PT Budi Starch & Sweetener Tbk (BUDI)	2011	0,086	0,097	0,042	0,692	1,179	1,972
	2012	0,052	0,091	0,005	0,320	0,998	1,398
	2013	0,033	0,093	0,016	0,298	1,078	1,479
	2014	0,018	0,100	0,018	0,280	0,922	1,310
	2015	0,000	0,081	0,016	0,120	0,728	0,966
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	0,539	0,222	-0,044	5,713	0,703	4,944
	2012	0,514	0,342	0,139	4,405	0,794	4,991
	2013	0,588	0,457	0,341	4,724	0,512	5,815
	2014	0,601	0,469	0,064	3,564	0,494	4,220
	2015	0,624	0,474	0,043	3,861	0,432	4,303
PT Ekadharna International Tbk (EKAD)	2011	0,311	0,370	0,148	2,175	1,382	4,068
	2012	0,385	0,434	0,175	3,028	1,406	4,870
	2013	0,380	0,443	0,151	2,574	1,218	4,338
	2014	0,411	0,452	0,143	2,605	1,280	4,440
	2015	0,525	0,571	0,170	2,860	1,364	5,070
PT Intanwijaya International Tbk (INCI)	2011	0,726	0,160	-0,141	2,741	0,402	2,676
	2012	0,636	0,185	0,035	2,685	0,489	3,236
	2013	0,577	0,255	0,079	4,323	0,597	4,500
	2014	0,542	0,309	0,077	3,963	0,743	4,458
	2015	0,567	0,359	0,113	3,564	0,806	4,502
PT Indo Acidatama Tbk (SRSN)	2011	0,492	-0,137	0,094	2,984	1,072	3,571
	2012	0,486	-0,081	0,064	2,265	0,955	2,996
	2013	0,487	-0,039	0,078	2,829	0,932	3,416
	2014	0,472	-0,004	0,064	2,238	1,020	3,137
	2015	0,413	0,016	0,036	1,286	0,926	2,336
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	0,175	0,285	-0,001	1,098	1,369	2,633
	2012	0,125	0,219	-0,052	1,235	1,354	2,381
	2013	0,102	0,199	0,009	1,018	1,314	2,354
	2014	0,098	0,205	0,013	1,024	1,279	2,341
	2015	0,021	0,222	0,030	1,271	0,740	1,937
PT Unggul Indah Cahaya Tbk (UNIC)	2011	0,233	0,226	0,031	2,620	1,645	3,915
	2012	0,253	0,247	0,019	3,324	1,854	4,561
	2013	0,303	0,254	0,070	2,782	1,630	4,250
	2014	0,363	0,287	0,007	3,120	1,695	4,429
	2015	0,424	0,297	-0,000	3,270	1,283	4,168

PERHITUNGAN X-SCORE ZMIJEWSKI

➤ X1 (*Net Income to Total Assets*)

Nama Perusahaan	Tahun	Net Income (a)	Total Assets (b)	X1 (a) / (b)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	-25.370.000	2.098.741.000	-0,012	USD
	2012	-123.447.000	2.120.461.000	-0,058	
	2013	-36.597.000	2.321.070.000	-0,016	
	2014	-2.360.000	2.325.419.000	-0,001	
	2015	184.000	2.253.084.000	0,000	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	62.965.000.000	2.123.285.000.000	0,030	IDR
	2012	5.084.000.000	2.299.672.000.000	0,002	
	2013	42.886.000.000	2.382.875.000.000	0,018	
	2014	28.499.000.000	2.476.982.000.000	0,012	
	2015	21.072.000.000	3.265.953.000.000	0,006	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	-6.641.710.478	172.322.620.690	-0,039	IDR
	2012	20.608.530.035	184.636.344.559	0,112	
	2013	66.813.230.321	256.372.669.050	0,261	
	2014	14.519.866.284	268.877.322.944	0,054	
	2015	9.859.176.172	274.483.110.371	0,036	
PT Ekadharna International Tbk (EKAD)	2011	26.148.879.995	237.592.308.314	0,110	IDR
	2012	36.197.747.370	273.893.467.429	0,132	
	2013	39.450.652.821	343.601.504.089	0,115	
	2014	40.756.078.282	411.348.790.570	0,099	
	2015	47.040.256.456	389.691.595.500	0,121	
PT Intanwijaya International Tbk (INCI)	2011	-17.169.761.427	125.184.677.577	-0,137	IDR
	2012	4.443.840.864	132.278.839.079	0,034	
	2013	10.331.808.096	136.142.063.219	0,076	
	2014	11.028.221.012	147.992.617.351	0,075	
	2015	16.960.660.023	169.546.066.314	0,100	
PT Indo Acidatama Tbk (SRSN)	2011	23.987.816.000	361.182.183.000	0,066	IDR
	2012	16.963.915.000	402.108.960.000	0,042	
	2013	45.171.491.000	420.782.548.000	0,107	
	2014	14.460.805.000	463.347.124.000	0,031	
	2015	16.049.623.000	574.073.314.000	0,028	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	8.007.000	1.604.922.000	0,005	USD
	2012	-87.329.000	1.687.115.000	-0,052	
	2013	11.030.000	1.907.438.000	0,006	
	2014	18.246.000	1.923.510.000	0,009	
	2015	26.256.000	1.862.386.000	0,014	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	5.863.852	280.646.814	0,021	USD
	2012	1.638.636	248.270.710	0,007	
	2013	10.308.014	269.269.882	0,038	
	2014	2.573.684	236.016.596	0,011	
	2015	-866.215	222.447.500	-0,004	

➤ **X2 (Total Liabilities to Total Assets)**

Nama Perusahaan	Tahun	Total Liabilities (c)	Total Assets (b)	X2 (c) / (b)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	1.016.208.000	2.098.741.000	0,484	USD
	2012	1.150.885.000	2.120.461.000	0,543	
	2013	1.261.910.000	2.321.070.000	0,544	
	2014	1.270.516.000	2.325.419.000	0,546	
	2015	1.057.175.000	2.253.084.000	0,469	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	1.312.254.000.000	2.123.285.000.000	0,618	IDR
	2012	1.445.537.000.000	2.299.672.000.000	0,629	
	2013	1.497.754.000.000	2.382.875.000.000	0,629	
	2014	1.563.631.000.000	2.476.982.000.000	0,631	
	2015	2.160.702.000.000	3.265.953.000.000	0,662	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	41.153.432.429	172.322.620.690	0,239	IDR
	2012	28.939.822.487	184.636.344.559	0,157	
	2013	32.944.704.261	256.372.669.050	0,129	
	2014	32.794.800.672	268.877.322.944	0,122	
	2015	33.187.031.327	274.483.110.371	0,121	
PT Ekadharna International Tbk (EKAD)	2011	89.946.780.063	237.592.308.314	0,379	IDR
	2012	81.915.660.390	273.893.467.429	0,299	
	2013	105.893.942.734	343.601.504.089	0,308	
	2014	138.149.558.606	411.348.790.570	0,336	
	2015	97.730.178.889	389.691.595.500	0,251	
PT Intanwijaya International Tbk (INCI)	2011	13.868.640.301	125.184.677.577	0,111	IDR
	2012	16.518.960.939	132.278.839.079	0,125	
	2013	10.050.376.983	136.142.063.219	0,074	
	2014	10.872.710.103	147.992.617.351	0,073	
	2015	15.494.757.317	169.546.066.314	0,091	
PT Indo Acidatama Tbk (SRSN)	2011	108.941.955.000	361.182.183.000	0,302	IDR
	2012	132.904.817.000	402.108.960.000	0,331	
	2013	106.406.914.000	420.782.548.000	0,253	
	2014	134.510.685.000	463.347.124.000	0,290	
	2015	233.993.478.000	574.073.314.000	0,408	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	807.253.000	1.604.922.000	0,503	USD
	2012	966.285.000	1.687.115.000	0,573	
	2013	1.052.115.000	1.907.438.000	0,552	
	2014	1.054.262.000	1.923.510.000	0,548	
	2015	975.540.000	1.862.386.000	0,524	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	137.709.878	280.646.814	0,491	USD
	2012	108.535.565	248.270.710	0,437	
	2013	123.839.050	269.269.882	0,460	
	2014	92.509.586	236.016.596	0,392	
	2015	81.632.548	222.447.500	0,367	

➤ X3s (Current Assets to Current Liabilities)

Nama Perusahaan	Tahun	Current Assets (d)	Current Liabilities (e)	X3 (d) / (e)	Ket.
PT Barito Pacific Tbk (BRPT)	2011	767.343.000	385.554.000	1,990	USD
	2012	755.866.000	494.418.000	1,529	
	2013	853.890.000	632.878.000	1,349	
	2014	694.548.000	494.696.000	1,404	
	2015	448.467.000	405.554.000	1,106	
PT Budi Starch & Sweetener Tbk (BUDI)	2011	907.001.000.000	725.374.000.000	1,250	IDR
	2012	1.026.460.000.000	907.065.000.000	1,132	
	2013	1.094.079.000.000	1.016.562.000.000	1,076	
	2014	988.526.000.000	945.117.000.000	1,046	
	2015	1.492.365.000.000	1.491.109.000.000	1,001	
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	115.051.347.797	22.170.811.806	5,189	IDR
	2012	107.455.824.614	12.506.012.328	8,592	
	2013	167.103.003.126	16.424.251.535	10,174	
	2014	175.900.992.382	14.384.941.579	12,228	
	2015	185.099.466.179	13.865.122.841	13,350	
PT Ekadharna International Tbk (EKAD)	2011	155.734.437.903	81.808.618.930	1,904	IDR
	2012	180.370.886.413	74.814.329.851	2,411	
	2013	229.041.255.054	98.355.431.960	2,329	
	2014	296.439.331.922	127.248.837.925	2,330	
	2015	284.055.202.739	79.594.446.891	3,569	
PT Intanwijaya International Tbk (INCI)	2011	99.731.859.727	8.904.208.439	11,201	IDR
	2012	96.740.984.835	12.546.019.891	7,711	
	2013	84.716.525.404	6.107.335.794	13,871	
	2014	86.975.126.394	6.761.434.983	12,863	
	2015	107.268.622.816	11.084.537.386	9,677	
PT Indo Acidatama Tbk (SRSN)	2011	259.287.595.000	81.670.263.000	3,175	IDR
	2012	306.887.345.000	111.511.056.000	2,752	
	2013	294.789.185.000	89.839.668.000	3,281	
	2014	335.892.148.000	116.994.521.000	2,871	
	2015	440.739.212.000	203.379.900.000	2,167	
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	651.807.000	370.362.000	1,760	USD
	2012	694.849.000	484.305.000	1,435	
	2013	811.683.000	617.699.000	1,314	
	2014	666.434.000	477.912.000	1,394	
	2015	416.634.000	377.753.000	1,103	
PT Unggul Indah Cahaya Tbk (UNIC)	2011	174.869.936	109.537.453	1,596	USD
	2012	156.649.317	93.819.002	1,670	
	2013	189.934.054	108.322.185	1,753	
	2014	157.069.204	71.363.344	2,201	
	2015	155.732.643	61.477.639	2,533	

➤ X-Score Zmijewski

Nama Perusahaan	Tahun	-4,3 – (4,5 X1 + 5,7 X2 + 0,004 X3)			
		X1	X2	X3	X-Score
PT Barito Pacific Tbk (BRPT)	2011	-0,012	0,484	1,990	-1,47771
	2012	-0,058	0,543	1,529	-0,93822
	2013	-0,016	0,544	1,349	-1,1247
	2014	-0,001	0,546	1,404	-1,17556
	2015	0,000	0,469	1,106	-1,62143
PT Budi Starch & Sweetener Tbk (BUDI)	2011	0,030	0,618	1,250	-0,90567
	2012	0,002	0,629	1,132	-0,72249
	2013	0,018	0,629	1,076	-0,79395
	2014	0,012	0,631	1,046	-0,74938
	2015	0,006	0,662	1,001	-0,554
PT Duta Pertiwi Nusantara Tbk (DPNS)	2011	-0,039	0,239	5,189	-2,74455
	2012	0,112	0,157	8,592	-3,87449
	2013	0,261	0,129	10,174	-4,69958
	2014	0,054	0,122	12,228	-3,79887
	2015	0,036	0,121	13,350	-3,71906
PT Ekadharna International Tbk (EKAD)	2011	0,110	0,379	1,904	-2,62976
	2012	0,132	0,299	2,411	-3,18033
	2013	0,115	0,308	2,329	-3,05068
	2014	0,099	0,336	2,330	-2,82222
	2015	0,121	0,251	3,569	-3,39943
PT Intanwijaya International Tbk (INCI)	2011	-0,137	0,111	11,201	-3,00652
	2012	0,034	0,125	7,711	-3,70852
	2013	0,076	0,074	13,871	-4,16523
	2014	0,075	0,073	12,863	-4,16511
	2015	0,100	0,091	9,677	-4,19053
PT Indo Acidatama Tbk (SRSN)	2011	0,066	0,302	3,175	-2,8669
	2012	0,042	0,331	2,752	-2,59487
	2013	0,107	0,253	3,281	-3,32855
	2014	0,031	0,290	2,871	-2,77424
	2015	0,028	0,408	2,167	-2,09381
PT Chandra Asri Petrochemical Tbk (TPIA)	2011	0,005	0,503	1,760	-1,44839
	2012	-0,052	0,573	1,435	-0,79669
	2013	0,006	0,552	1,314	-1,17673
	2014	0,009	0,548	1,394	-1,21298
	2015	0,014	0,524	1,103	-1,3733
PT Unggul Indah Cahaya Tbk (UNIC)	2011	0,021	0,491	1,596	-1,59072
	2012	0,007	0,437	1,670	-1,83117
	2013	0,038	0,460	1,753	-1,84378
	2014	0,011	0,392	2,201	-2,10608
	2015	-0,004	0,367	2,533	-2,18059