



PRICE EARNING RATIO AND STOCK LIQUIDITY BEFORE AND AFTER STOCK SPLIT IN INDONESIA STOCK EXCHANGE

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Abstract:

The purpose of this research is to know (1) difference of stock liquidity level before and after stock split (2) difference of Price Earning Ratio (PER) before and after stock split. The population used in this study are all companies listed on the Indonesia Stock Exchange. While the sample selection is taken by using purposive sampling method. The number of samples used by researchers are 62 companies listed on the Indonesia Stock Exchange and stock split in the period 2009-2016. Based on the results of research indicate that there is a significant difference in Price Earning Ratio (PER), either before stock split or Price Earning Ratio (PER) after stock split. With paired sample t-test results obtained t test with t count > t table (3.912 > 2,000) can be concluded then Ho accepted means there is a difference between price earnings ratio (PER) of each sample company, either before stock split or price Earnings ratio (PER) after the stock split event. With paired sample t-test obtained t test results with t count > t table (1,844 > 2,000) can be concluded then Ho accepted means there is no difference between the stock liquidity of each sample company, either before the stock split and the liquidity of stock after the event Stock split.

Keywords: Stock Liquidity, Price Earning Ratio (PER), Stock Split

Introduction

Background

Capital market as one means to obtain external sources of funds The steps taken include managing the company well and transparently, resulting in good corporate performance and doing go public by selling shares in the capital market. "Stock split has become one of the tools used by management to shape the firm's market price" (Marwata, 2001: 152)

Investors decide to buy or sell the shares based on an assessment of whether the stock price is under valued (too low) or over valued (too high). Assessment of under valued or over

valued can be done through Price Earning Ratio ..

According to Retno Miliasih (2000: 134-135) those who support the stock split believe that lower stock prices will increase the ability of such shares to be traded at any time and improve market efficiency will attract small investors to invest,

Cases Identification

Based on the background of the problem above, it can be identified some problems as follows:

1. Stock split information received from the management can generate a positive and negative reaction from investors.
2. For some parties, especially issuers, stock splits are believed to provide various benefits for them
3. Stock liquidity changes after stock split.
4. Price Earning Ratio changes after stock split.

Cases Limitation

Stock Split, Price Earning Ratio, Stock Liquidity, Indonesia Stock Exchange

Literature Review

Theoretical Study.

Understanding Financial Management

Financial management is one of the company's most important operational functions in addition to operational functions such as marketing management, operations management, human resource management, and so on.

According to Keown, Martin, Petty, and Scott (2005: 4), are:

“Financial management is concerned with maintenance and creation of economic value or wealth”

Which means financial management is about the maintenance and creation of economic value or wealth.

Meanwhile, according to Sutrisno (2003: 3) are: *“Financial management is all the activities of a company that deals with the efforts of obtaining company funds at a low cost and the effort to use and allocate the funds efficiently.”*

Financial Management Objectives

According to Ross et.al (2016: 11) the objectives of financial management are as follows:

“The goal of financial management is to maximize the current value per share of the existing stock”

This means that the purpose of financial management is to minimize the value of the current per share of the stock or existing stock.

Capital Market

The capital market is a financial market for long-term funds and a concrete market.

Understanding Capital Market

Gitmen (2006: 25) capital markets are:

“The capital market is a market that enables suppliers and demanders of long term find to make transactions. Included are securities issue of business and government. The back bone of capital market is formed by the various securities exchange that providers a forum for bond and stock transaction”

Capital market according to the Law of the Republic of Indonesia No. 8 of 1995 Article 1 Item 14 concerning the capital market and the stock exchange is said that: The capital market is an activity concerned with the public offering and securities trading, the public enterprise concerned with the securities it publishes as well as the securities-related institutions and professions”.

Capital Market Benefits

According to (Hadi, 2013: 14), capital markets have benefits include:

1. Provide source of financing (long term)
2. Alternative investments that provide potential benefits with calculated risks
3. Providing an opportunity to have a healthy and prospective company,
4. Creating an exciting job / profession.

5. Giving access control social /
6. Provide a leading indicator for the economic trend of the State.

Type of Capital Market

Type of Capital Market by Sunariyah (2011: 12), namely: Primary Market , Secondary Market ,Third Market), The Fourth Market

Understanding Shares

According to (Anoraga, 2001: 58) states that: "Common stock (common stock) is one type of securities most widely traded in the capital market. Shares can be defined as securities as evidence of participation or ownership of individuals or institutions within a company. The realization of shares is a piece of paper explaining that the paper owner is the owner of the company that issued the paper

Common stock consists of two types:

- a. Shares on behalf of, the names of shareholders are listed above those shares.
- b. Shares on the show, the name of the shareholder is not listed above the stock but the owner of the stock is who owns the shares.

According to (Anoraga, 2001: 58) the value of a share based on its function is divided into 3 types, namely:

- a. Par Value (Nominal Value) is the value listed on the shares for accounting purposes.
- b. Base Price (Basic Price) is the initial price used in the calculation of stock price index. $\text{Basic Value} = \text{Basic Price} \times \text{Total shares outstanding}$
- c. Market Price is the price at the real market determined at its closing price. $\text{Market Value (price capitalization)} = \text{Market price} \times \text{Total shares outstanding}$.

Stock Classification

There are several points of view to classify shares (Anoraga, 2001: 58-59). including:

1. Based on Bill or Claim Right

2. Common stock

Share Value

Share Value In stock valuation three types are known, namely:

- a. Book Value,
- b. Market Value
- c. Intrinsic Value.

Stock Split

Stock split by Sugiyanto (1998: 321) is to break a sheet of stock into n shares of stock. The price per share after the stock split is $1/n$ from the previous price. So thus, the actual stock split does not add value to the business entity.

The company's decision to do a stock split illustrates the condition of companies that have good financial performance. Investors and observers generally have a positive outlook on any company that does stock split, especially in the short term

A rising breakdown is a decrease in the nominal value per share resulting in an increase in the number of shares outstanding.

The US capital market represented by the New York Stock Exchange (NYSE) also regulates the policy on stock split (McGough in Ewijaya and Indriantoro, 1999: 94). NYSE divides stock split into two:

1. Partial stock split (partial stock split)

Partial stock split is an additional distribution of outstanding shares of 25% or more but less than 100% of the total outstanding shares.

2. Full stock split

Full stock split is an additional share distribution in circulation of 100% or more of the number of shares outstanding long.

Companies that do stock splits can have several goals, among others (Arif Suadi, 1994: 225-226):

1. To complicate the occurrence of hostile take over, Increase the number of shareholders
2. Returns the price and average size of stock trading to the targeted range.

3. And also brings information about investment opportunities in the form of increased profits and cash dividends.

Price earning ratio is a simple ratio obtained by dividing the market price of a stock by earning per share. If the price earnings ratio of a company is high it means that the company's stock can give a big return for investors. Price earnings ratio is also a measure to determine how the market gives value or price to the company's stock (Arisona, 2013)

According to Riyadi and Sujana (2014) the company with high price earning ratio (PER) reflects the company's high stock price, Margaretha and Damayanti (2008) stated that price earning ratio has a positive and significant effect on stock return. The higher the price earning ratio of a company's stock then the price per share will tend to increase, so the company will earn profits that can increase the value of the company.

From the above explanation can be concluded that investor's expectation to earnings of company in the future, reflected on stock price that they willing to pay for stock of company which further influence to PER (Price Earning Ratio) by knowing PER of a company, analyst can estimate how the position of a stock relative to the stock of other shares, whether the shares are purchased or not.

Usefulness of Price Earning Ratio

The use of price earnings ratio is to see how the market appreciates the performance of the company as reflected by its earning per share. the price earning ratio shows the relationship between the common stock market with earnings per share:

$$\text{PER} = \frac{\text{Common Stock Price}}{\text{earnings per share}}$$

$$\text{Stock Liquidity} = \frac{\text{Number of Trading Days Shares}}{\text{Number of Exchange Days}}$$

Percentage of trading volume = volume of traded shares / Number of shares listed on the exchange)

Differences PER before and after stock split

Stock splitting makes stock prices not too high so more investors will be able to transact. Indah Kurniawati (2003: 264) argues that the company does stock split so that the trading level is in better condition so that it can increase investor attractiveness and improve trading liquidity.

Trading Range Theory states that stock split will increase stock trading liquidity. stock can be measured by bid-ask spread. If the bid-ask spread of a stock is lower, then it indicates the liquidity of its stock increases. Testing conducted by Forjan and Mc Conroy (1995) in Indah Kurniawati (2003: 265) on the bid-ask spread reaction at the stock split announcement showed that there was a decrease in the percentage of bid-ask spread on the stock split announcement.

To know the difference between stock liquidity before and after stock split is to do paired t-test between bid-ask spread at end of year before and bid-ask spread after stock split event. Based on the above explanation, it can be concluded that stock liquidity after stock split has increased compared to before stock split.

Framework of thinking

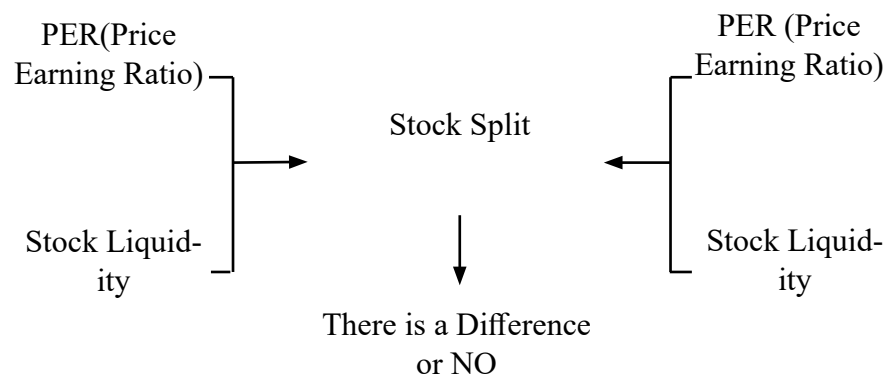


figure 1. Framework of thinking

Hypothesis

1. There is difference of Price Earning Ratio (PER) before and after stock splits (stock split) in company that go public in Indonesia Stock Exchange (BEI) period 2009-2015.
2. There is a difference of Stock Liquidity before and after stock splits (stock split) in companies that go public in Indonesia Stock Exchange (BEI) period 2009-2015.

Research Methodology

Research variable

Variables This study compares between firms doing stock split both before and after stock split (X) with Price Earning Ratio (Y1) and Stock Liquidity (Y2)

Population and Sample Research

The population in this study are all companies listed in the Indonesia Stock Exchange (IDX) period of 2009-2016. The company's total population is 88 companies.

Descriptive Analysis

Descriptive analysis is intended to provide a description and explanation of the variables used in this study. (standard deviation) of each variable to be studied.

Test Data Normality

The assumption of data normality is a requirement of most statistical procedures. Normality assumptions are used to test normal distributed data or not.

Hypothesis :

Ho = residual data is normally distributed

H1 = residual data is not normally distributed

Normality testing is done by looking at Asymp.Sign (2-Tailed). If Asymp.Sign (2-Tailed) > 0.05 then the data comes from a normally distributed population and vice versa if the Asymp.Sign (2-Tailed) < 0.05 then the data is from the non-distributed population. This test uses two-sided test that is by comparing the probability (p) obtained with a significant level (α) 0.05.

Test Statistical Hypothesis

Uji Paired Sample T-Test (Two Different Test Difference)

Paired sample t-test or better known as pre post design is an analysis involving two measurements on the same subject to a particular influence or treatment. According to Gozali in Lizti Nadia Nilam (2010), paired t-test is a parametric test used to test the same or not different hypothesis (Ho) between 2 variables. The data were derived from measurements of 2 different observation periods drawn from the same research subjects. Paired t-test is a parametric statistic test tool that the sample data being studied should be normally distributed. So the hypothesis in this study are as follows:

H0: $\mu_1 = \mu_2$, which means that there is no difference in Price Earning Ratio (PER) and Liquidity of shares between the company doing the stock splitting and not doing stock splitting

H1: $\mu_1 \neq \mu_2$, which means that there is a difference of Price Earning Ratio (PER) and Liquidity of shares between companies doing stock splitting and not doing stock splitting

The formula used to find the value of t in paired sample t-test is as follows:

$$t_{\text{hitung}} = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

Where:

x is the sample average;

μ_0 is the population average;

s is the sample standard deviation;

n is the number of samples.

The criteria of decision making by using two-tailed t test based on the ratio of profitability and alpha (0.05), are as follows:

Ho : Rejected if $p < \alpha$

Ho Accepted if : $p > \alpha$

Wilcoxon Signed Ranks Test (Wilcoxon)

The wilcoxon signed rank test is a nonparametric statistical test used if the data is not normally distributed. This test is used to test different pair data and is an alternative to paired t test. Basis of decision making by looking at the probability and alpha numbers (0.05), under the condition :

Ho : Rejected if $p < \alpha$

Ho Accepted if : $p > \alpha$

Results and Discussion

This study aims to determine the differences in Price Earning Ratio (PER), stock liquidity, before and after stock split on

the company go public in Indonesia Stock Exchange period 2009-2016. This study uses secondary data obtained from the financial statements and Data on bid and ask price prices in 2009-2016 listed on the Indonesia Stock Exchange and The Indonesia Market Institute (TICMI) through the official website of Indonesia Stock Exchange (www.idx.co.id). The population in this study are all companies listed on the Indonesia Stock Exchange period 2009-2016, Sampling using purposive sampling method

Table 4.1

Recapitulation of the number of Companies doing Stock Split.

Amount of Companies doing stock split Years 2009 - 2016	88
Companies that are not actively doing stock split tahun 2009 – 2016	26
Companies that are active in stock split from t Years 2009 – 2016	62

Sources :: www.idx.co.id , data processed.

Table 4.2

Price Earning Ratio (PER) Before dan After Stock Split Years 2009 -2016

NO	KODE SAHAM	PER		+ / -
		BEFORE	AFTER	
1	ARNA	5.74	2.87	-2.87
2	KKGI	3.44	4.46	1.02
3	CTRA	28.05	34.41	6.36
4	TURI	31.07	12.08	-18.99
5	DVLA	23.91	11.82	-12.09
6	CPIN	22.96	13.63	-9.33
7	BBRI	13.48	10.73	-2.75
8	LSIP	85.1	9.04	-76.06
9	BTPN	89.19	13.77	-75.42
10	INTA	51.59	8.02	-43.57
11	PBRX	15.88	15.59	-0.29
12	MAIN	30.19	8.1	-22.09
13	AUTO	139.35	12.49	-126.86
14	SSIA	37.2	13.09	-24.11
15	JTPE	27.16	6.66	-20.5
16	MTSM	26.47	33.68	7.21

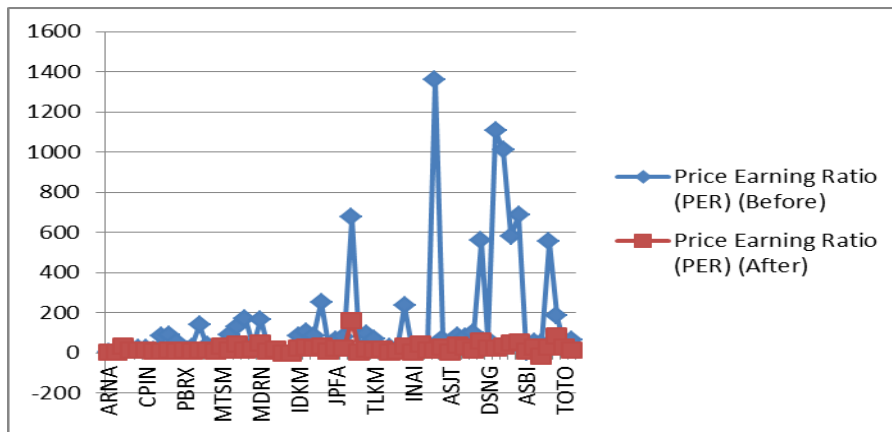
17	PWON	87.01	14.49	-72.52
18	HERO	127.95	45.39	-82.56
19	ASII	168.56	15.83	-152.73
20	IMAS	36.86	18.28	-18.58
21	MDRN	166.06	47.5	-118.56
22	DKFT	16.85	7.55	-9.3
23	KREN	7.89	18.33	10.44
24	BFIN	2.04	0.63	-1.41
25	TOTO	5.67	0.7	-4.97
26	IDKM	83.56	23.94	-59.62
27	KLBF	106.25	28.65	-77.6
28	SCMA	83.56	23.94	-59.62
29	ACES	251.69	32.83	-218.86
30	BRNA	30.38	9.68	-20.7
31	JPFA	65.43	21.79	-43.64
32	ARNA	78.1	25.63	-52.47
33	TOWR	676.47	161.76	-514.71
34	AMRT	15.44	2.65	-12.79
35	JRPT	95.8	19.3	-76.5
36	TLKM	66.89	14.59	-52.3
37	JKON	23.15	20.59	-2.56
38	MDLN	29.63	2.01	-27.62
NO	KODE SAHAM	PER		+ / -
		BEFORE	AFTER	
39	NIPS	3.79	6.91	3.12
40	ROTI	234.14	32.67	-201.47
41	INAI	20.83	4.11	-16.72
42	ALMI	7.08	45.04	37.96
43	TOTO	32.22	13.38	-18.84
44	CMPP	1,360.00	14.83	-1345.17
45	BALI	69.65	29.37	-40.28
46	ASJT	9.9	5.41	-4.49
47	CEKA	82.87	40.66	-42.21
48	LMSH	81.65	28.75	-52.9
49	LION	98.94	11.93	-87.01
50	MIKA	557.89	61.54	-496.35
51	DSNG	62.41	23.58	-38.83
52	DLTA	1,104.82	21.85	-1082.97
53	HMSP	1,010.75	34.82	-975.93

54	IMPC	582.13	48.3	-533.83
55	KREN	686.08	51.66	-634.42
56	ASBI	2.72	8.64	5.92
57	ICBP	52.43	27.75	-24.68
58	BTON	49.54	-15.18	-64.72
59	MYOR	554.55	26.97	-527.58
60	ASMI	184.82	84.35	-100.47
61	TOTO	24.65	30.5	5.85
62	SMSM	64.32	12.41	-51.91

Source: www.idx.co.id, data processed

Figure 2

Grafik Price Earning Ratio (PER)



Output : SPSS Versi 22.00

Price Earning Ratio (PER) :

Is one of the most basic measures in fundamental stock analysis. Easily, the PER (Price Earning Ratio) is a 'comparison between the stock price and the firm's net income', where the stock price of an issuer is compared to the net profit generated by the issuer within a year. Because the focus of the calculation is the net profit that has been generated by the company, then by knowing the PER (Price Earning Ratio) of an issuer, we can know whether the price of a stock is fair or not in real and not in futures alias estimates. From the above table we can consider the value of Price Earning Ratio (PER) before and Price Earning Ratio (PER) after stock split from 2009 to 2016 as many as 62 companies Average Price Earning Ratio (PER) means in general if the company has a lower Price Earning Ratio (PER). The lower the P / E Ratio of a share, the cheaper the stock shares in respect of the company's earnings.

Table 4.3
 Statistik Deskriptif Variabel Penelitian Price Earning Ratio (PER)

		Statistics	
		PER BEFORE	PER AFTER
N	Valid	62	62
	Missing	0	0
Mean		157.9710	22.8508
Std. Error of Mean		35.64197	3.11286
Median		57.4200 ^a	15.7100 ^a
Mode		83.56	23.94
Std. Deviation		280.64514	24.51067
Variance		78761.692	600.773
Range		1357.96	176.94
Minimum		2.04	-15.18
Maximum		1360.00	161.76
Sum		9794.20	1416.75

Output : SPSS Version 22.00

From Table 4.3, it is shown that the Price Earning Ratio (PER) before stock split has a minimum value of 2.04, the maximum value of 1360.00, the mean value of 157.97108 and the standard deviation of 280.64514. The mean value (mean) is greater than the standard deviation of 157.97108 < 280.64514. Price Earning Ratio (PER) before the highest stock split occurred at PT Centri Multipersada Pratama Tbk (CMPP) of 1360.00, while the Price Earning Ratio (PER) before the lowest stock split occurred at PT. BFI Finance Indonesia Tbk (BFIN) of 2.04.

Based on the above table shows that the Price Earning Ratio (PER) after the stock split has a minimum value of 1.99, the maximum value of 166.67 average value (mean) of 26.7933 and standard deviation of 37.11622. The average value (mean) is smaller than the standard deviation of 26.7933 < 37.11622. Price Earning Ratio (PER) before the highest stock split occurred in PT Sarana Menara Nusantara Tbk of 161.76, while the Price Earning Ratio (PER) before the lowest stock split occurred at company of PT Betonjaya Manunggal Tbk equal to -15.18.

Analysis Description Statistics Stock Liquidity

Table 4.4
Stock liquidity Before and After Stock Split Years 2009 - 2016

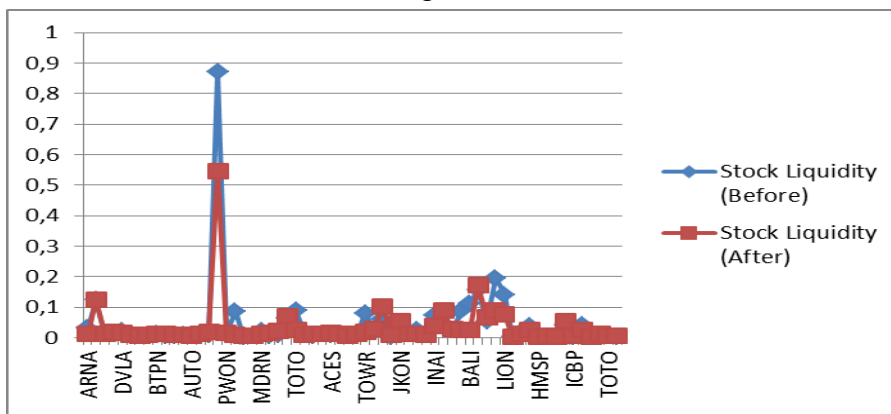
NO	KODE SAHAM	NAME EMITEN	STOCKLIQUIDITY		Y1
			BEFORE	AFTER	
1	ARNA	ArwanaCitramuliaTbk	0.032	0.013	-0.019
2	KKGI	Resource Alam Indonesia Tbk	0.124	0.124	0
3	CTRA	Ciputra Development Tbk	0.013	0.014	0.001
4	TURI	Tunas RideanTbk	0.012	0.018	0.006
5	DVLA	Darya VariaLaboratori-aTbk	0.023	0.015	-0.008
6	CPIN	Charoen Pokphan Indonesia Tbk	0.008	0.009	0.001
7	BBRI	Bank Rakyat Indonesia (Persero) Tbk	0.006	0.007	0.001
8	LSIP	London Sumatera Plantation Tbk	0.006	0.011	0.005
NO	KODE SAHAM	NAMA EMITEN	STOCKLIQUIDITY BEFORE	AFTER	CODE STOCK
9	BTPN	Bank Tabungan Pensiunan Nasional Tbk	0.012	0.012	0
10	INTA	IntracoPentaTbk	0.007	0.014	0.007
11	PBRX	Pan Brothers Tbk	0.006	0.011	0.005
12	MAIN	MalindoFeedmillTbk	0.009	0.01	0.001
13	AUTO	Astra OtopartTbk	0.006	0.007	0.001
14	SSIA	Surya SemestaInternusaTbk	0.007	0.014	0.007
15	JTPE	JasuindoTiga Perkasa Tbk	0.009	0.019	0.01
16	MTSM	Metro Realty Tbk	0.871	0.547	-0.324
17	PWON	PakuwonJatiTbk	0.014	0.015	0.001
18	HERO	Hero Supermarket Tbk	0.088	0.01	-0.078
19	ASII	Astra InternasionaTbk	0.004	0.007	0.003
20	IMAS	IndomobilSukseInternasionalTbk	0.006	0.007	0.001
21	MDRN	Moder International Tbk	0.022	0.014	-0.008
22	DKFT	Central Omega Resources Tbk	0.006	0.015	0.009
23	KREN	KresnaGrahaSekurindoTbk	0.011	0.022	0.011
24	BFIN	BFI Finance Indonesia Tbk	0.065	0.072	0.007

25	TOTO	Surya Toto Indonesia Tbk	0.09	0.026	-0.064
26	IDKM	IndosiarKarya Media Tbk	0.011	0.011	0
27	KLBF	kalbeFarmaTbk	0.008	0.012	0.004
28	SCMA	Surya Citra Media Tbk	0.013	0.012	-0.001
29	ACES	Ace Hardware Indonesia Tbk	0.009	0.015	0.006
30	BRNA	BerlinaTbk	0.009	0.013	0.004
31	JPFA	JapfaComfeedTbk	0.009	0.006	-0.003
32	ARNA	Arwana Citra MuliaTbk	0.01	0.013	0.003
33	TOWR	SaranaMenara Nusantara Tbk	0.081	0.018	-0.063
34	AMRT	SumberAlfariaTrijayaTbk	0.024	0.03	0.006
35	JRPT	Jaya Real Property Tbk	0.061	0.102	0.041
36	TLKM	Telekomunikasi Indonesia Tbk	0.005	0.01	0.005
37	JKON	Jaya KonstruksiTbk	0.049	0.055	0.006
38	MDLN	Modernland Realty Tbk	0.012	0.012	0
39	NIPS	NipressTbk	0.026	0.013	-0.013
40	ROTI	Nippon IndosariCorporindoTbk	0.013	0.01	-0.003
41	INAI	IndalAluminium Industry Tbk	0.075	0.038	-0.037
42	ALMI	Alumindo Light Metal Industry Tbk	0.037	0.089	0.052
43	TOTO	Surya Toto Indonesia Tbk	0.025	0.029	0.004
44	CMPP	CentrisMultipersadaPratamaTbk	0.085	0.027	-0.058
45	BALI	Bali Towerintdo Sentra Tbk	0.112	0.027	-0.085
46	ASJT	AsuransiJasa Tania Tbk	0.157	0.171	0.014
47	CEKA	WilmarCahaya Indonesia Tbk	0.054	0.068	0.014
NO	KODE SAHAM	NAME EMITEN	STOCK LIQUIDITY		Y1
			BEFORE	AFTER	
48	LMSH	Lionmesh Prima Tbk	0.196	0.089	-0.107
49	LION	Lion Metal Works Tbk	0.142	0.078	-0.064
50	MIKA	MitraKeluargaKaryasehatTbk	0.002	0.002	0
51	DSNG	Dharma Satya Nusantara Tbk	0.013	0.014	0.001
52	DLTA	Delta Djakarta Tbk	0.04	0.025	-0.015
53	HMSP	HM SampoernaTbk	0.003	0.004	0.001

54	IMPC	ImpackPratamaIndus-triTbk	0.004	0.006	0.002
55	KREN	KresnaGrahaInvesti-anaTbk	0.006	0.005	-0.001
56	ASBI	AsuransiBintangTbk	0.042	0.054	0.012
57	ICBP	Indofood CBP Sukse-MakmurTbk	0.003	0.006	0.003
58	BTON	BetonjayaManung-galTbk	0.042	0.026	-0.016
59	MYOR	Mayora Indah Tbk	0.006	0.004	-0.002
60	ASMI	AsuransiKresnaMi-traTbk	0.009	0.012	0.003
61	TOTO	Surya Toto Indonesia Tbk	0.008	0.008	0
62	SMSN	SelamatSampurnaTbk	0.005	0.007	0.002

Source: www.idx.co.id, dataprocessed

Figure .3



Stock Liquidity Graph

Table 4.5

Descriptive Statistics of Research Variables Stock liquidity

Statistics		Stock Liquidity(before)	Stocl Liquidity (after)
N	Valid	62	62
	Missing	0	0
Mean		.046177	.034742
Std. Error of Mean		.0145379	.0093380
Median		.012000	.014000
Mode		.0060	.0070 ^a
Std. Deviation		.1144715	.0735273
Variance		.013	.005
Range		.8690	.5450
Minimum		.0020	.0020

Maximum	.8710	.5470
Sum	2.8630	2.1540

Output : SPSS Version. 22.00

Based on the above table shows that the stock liquidity before stock split has a minimum value of 0.0020, the maximum value of 0.8710, the average value (mean) of 0.046177 and the standard deviation of 0.1144715. The mean value (mean) is greater than the standard deviation of 0.046177 < 0.1144715. Stock liquidity before stock split is highest in PT. Metro Realty Tbk (MTSM) equal to 0.0871, while stock liquidity before stock split lowest happened at company PT. Mika Keluarga Karyasehat Tbk (MIKA) of 0.002.

Normality Test Price Earning Ratio (PER)

Normality test aims to determine whether the data is normally distributed or not. If the data is normally distributed then the paired sample t test is used. Whereas if the data is not normally distributed then used stat test Man Whitney. As in the normality test used Kolmogorov-Smirnov test with the rule of use decision used is: (Singgih Santoso, 2001)

- If P value > 0,05 then data is normally distributed
- If P value < 0,05 then data is not normal distribution

The result of normality test by using computer program SPSS version 24 is as follows:

Table 4.6. Normality Test Results

One-Sample Kolmogorov-Smirnov Test			PER BEFORE	PER AFTER
N			62	62
Normal Parameters ^{a,b}	Mean		157.9710	22.8508
	Std. Deviation		280.64514	24.51067
Most Extreme Differences	Absolute		.331	.167
	Positive		.331	.167
	Negative		-.289	-.166
Test Statistic			.331	.167
Asymp. Sig. (2-tailed)			.000 ^c	.000 ^c

Output : SPSS version 22.00

From result of analysis of calculation of normality of Price Earning Ratio (PER) before stock split with Absolute value 0,331. When compared with kolmogorov table in sample N = 62 is 0.17272, then $0.331 > 0.17272$ which means the data is normally distributed. This is evidenced by the results of probability test on SPSS that is seen on Asymp value. Sig. (2 tailed) value is 0.00 where $< 0,05$ means that the data is not normally distributed.

In the calculation of normality test Price Earning Ratio (PER) after stock split with Absolute value 0.167. When compared with kolmogorov table in sample N = 62 is 0.17272, then $0.167 < 0.17272$, which means the data is not normally distributed. This is evidenced by the results of probability test on SPSS that is seen on Asymp value. Sig. (2 tailed) value is 0.00 where $< 0,05$ means that the data is not normally distributed.

Based on normality test result above, it can be seen that all value of Earning Ratio (PER) on research day has P value smaller than 0,05 so it can be concluded that all Price Earning Ratio (PER) data is not Normal. As a result of the data that is not normal distribution then the next test statistic used is the Wilcoxon test.

Wilcoxon test against Price Earning Ratio (PER) is done to know the difference of Price Earning Ratio (PER) before and after stock split event.

Table 4.7

Test Results Wilcoxon Variabel Price Earning Ratio (PER)

Test Statistics ^a	
	PER AFTER - PER BEFORE
Z	-6.145 ^b
Asymp. Sig. (2-tailed)	.000

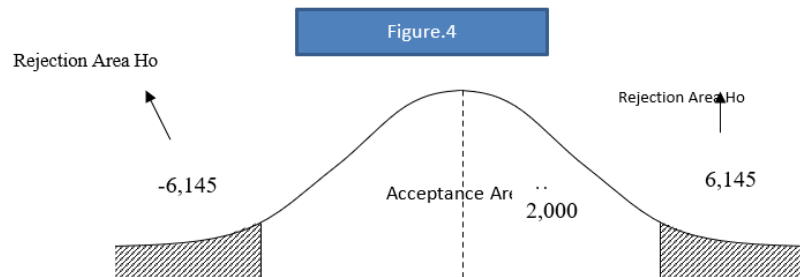
a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Output : SPSS Version. 22.00

Table 4.7. describes different T test for Price Earning Ratio (PER) stock activity before and after stock split event. It can be seen that the probability for 0.05 and the value of t-hit -6.145b is smaller than t-table 2,000, it can be concluded that the average Price Earning Ratio (PER) activity after the stock split event is different from before the break event stock. In other words the hypothesis explains that there is a difference in Price Earning Ratio (PER) between before and after a proven event. The im-

age of the acceptance region of this hypothesis 1 is as follows:



Test of Stock Liquidity Normality

Normality test aims to determine whether the data is normally distributed or not. If the data is normally distributed then the paired sample t test is used. Whereas if the data is not normally distributed then used stat test Man Whitney. As in the normality test used Kolmogorov-Smirnov test with the rule of use decision used is: (Singgih Santoso, 2001)

- If P value > 0,05 then data is normally distributed
- If P value < 0,05 then data is not normal distribution

Table 4.8
Normality Test Result

One-Sample Kolmogorov-Smirnov Test			
		Stock Liquidity (Before)	Stock Liquidity (After)
N		62	62
Normal Parameters ^{a,b}	Mean		.034742
	Std. Deviation		.0735273
	Most Extreme Differences		
	Absolute	.359	.332
	Positive	.273	.332
	Negative	-.350	-.328
Test Statistic		.350	.332

Asymp. Sig. (2-tailed)	.000 ^c	.000 ^c
a. Test distribution is normal		
b. Calculated from data.		
c. Lilliefors Significance Correction		
Output : SPSS Version 22.00		

On the calculation of the normality test Stock liquidity before stock split with Absolute value 0.359. When compared with kolmogorov table on sample N = 62 is 0.17272, then $0.359 > 0.17272$ which means distribution is not normal. This is evidenced by the results of probability test on SPSS that is seen on Asymp value. Sig. (2 tailed) value is 0.00 where $< 0,05$ means that the data is not normally distributed.

On the normality test calculation Stock liquidity after stock split with Absolute value 0.332. When compared with kolmogorov table in sample N = 62 is 0.17272, then $0.332 > 0.17272$ which means data is not normally distributed. This is evidenced by the results of probability test on SPSS that is seen on Asymp value. Sig. (2 tailed) value is 0.00 where $< 0,05$ means that the data is not normally distributed.

Based on the normality test results above can be seen that all values Liquidity stock on the day of the study has a value of P value smaller than 0.05 so it can be concluded that all data Price Earning Ratio (PER) diffuses not Normal. As a result of the data that is not normal distribution then the next test statistic used is the Wilcoxon test.

Wilcoxon's test of Stock Liquidity is done to know the difference between stock trading volume before and after stock split event. In the first paired test will be test based on the day of the event that is 10 days before and 10 days after the event of stock splitting. Below we will describe the results of the analysis of the different test of trading volume activity before and after the stock split event

Table. 4.9
 Test Result Wilcoxon

Test Statistics ^a	
	Stock Liquidity(after) - Stock Liquidity(before)
Z	-2.53 ^b
Asymp. Sig. (2-tailed)	.800

a. Wilcoxon Signed Ranks Test
 b. Based on negative ranks.
 Output : SPSS Versi 22.00

Table 4.9. describes different Z test for Liquidity Shares of stock activity before and after stock split event. It can be seen that the probability for 0.05 and the value of t-arithmetic -2.53b is smaller than t-table 2.00, it can be concluded that the average stock liquidity after stock split event is different from before stock split event occurs. In other words the hypothesis explains that there is a difference of stock liquidity between before and after a proven event. The image of the acceptance region of hypothesis 2 is as follows:

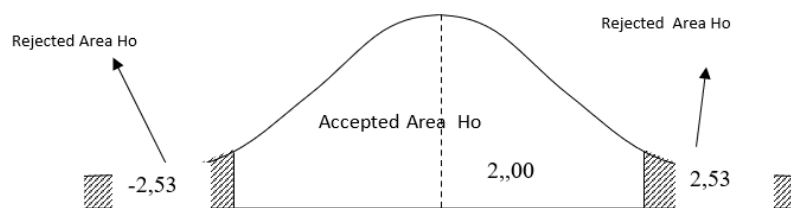


Figure 4.4

The Region of Acceptance of the Hypothesis 2

Analysis Price Earning Ratio (PER) and Stock Liquidity

In this section is presented analysis of each Price Earning Ratio (PER) and Liquidity Shares of all samples. Hypothesis testing is done by using the level of significance (α) of 5% for the test on one side, the number of samples (n) of 62 companies, degrees of freedom $df = n - 1 = 61$. So from table t distribution obtained t table value of 2000.

Analysis Price Earning Ratio (PER) Before and After Stock Split

The result of different test of Price Earning Ratio (PER) before

and after Stock Split gives the output as shown in Table 4.11 and Table 4.12

Table 4.10

Average test results and standard deviation Price Earning Ratio (PER)

Before and After Stock Split (Paired Samples Statistics)

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PER SEBELUM	157.9710	62	280.64514	35.64197
PER SESUDAH	22.8508	62	24.51067	3.11286

Output : SPSS Version 22.00

In Table 4.10 Shown a summary of statistics for the mean (mean) and standard deviation of the Price Earning Ratio (PER) studied through the sample. The mean for the year before the stock split and after the stock split (Stock Split) amounted to 157.9710 and after 22.8508. so the average value after the stock split decreased 135.1202. whereas the standard deviation value in the year prior to stock split is 35.64197 and after stock split is 3.11286

Table 4.11

Different t Test results for Paired samples Price Earning Ratio (PER)

before and after Stock Split

Paired Samples Test

Mean	Paired Differences					T	df	Sig. (2-tailed)
	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
			Lower	Upper				
Pair 1 PER SEBELUM – PER SESUDAH	135.12016	271.99415	34.54329	66.04658	204.19374	3.912	61	.000

Output : SPSS Version 22.00

Table 4.11 shows different test results t for paired sample test. Based on Table 4.12, the value of t arithmetic for the year prior to stock split and after stock split event is 3,912 with a significance of 0.000. As it is well known that the t value of the statistical table for n = 62 and $\alpha = 0.05$ for test on one side is 2,000. thus the value of t table <value t arithmetic (2.000 <3.912) so that the value of t arithmetic is in the rejection region H_0 . While the value of significance obtained results α hit $0.059 > 0.00$) so that

Ho is rejected. Thus it can be concluded that Ho is rejected, H1 is accepted. This means that there is a significant difference in the increase in Price Earning Ratio (PER) at the company go public in Indonesia Stock Exchange between before and after doing stock split.

Analysis Stock Likuidity before and after Stock Split

Different t test results Stock liquidity before and after Stock Split gives the output as shown in Table 4. 11 and Table 4.12

Table 4.12

Average Test Result and Standard Deviation of Stock Liquidity before and after Stock Split

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Stock Liquiditybefore	.046177	62	.1144715	.0145379
	Stock Liquidityafter	.034742	62	.0735273	.0093380

Output : SPSS Versi 22.00

In Table 4.12 Shows the statistical summary for the mean and standard deviation values of the stock liquidity examined through the sample. Mean value for the year prior to stock split and after stock split (Stock Split) is 0.46177 and after 0.34742. so the average value after stock split (stock split) decreased by 0.11435. whereas the standard deviation value in the year prior to stock split is 0.145379 and after stock split is 0.0093380

Table 4.13
Different t test result for Sample Pairwise Stock Liquidity before and after Stock Split

		Paired Samples Test							
		Paired Differences							
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Df	Sig. (2-tailed)	
Mean	Lower			Upper					
Pair 1	Stock Liquidity before	.0114355	.0488177	.0061999	-.0009619	.0238329	1.844	61	.070
	Stock Liquidity after								

Output : SPSS Version 22.00

Table 4.13 shows different t test results for paired sample test. Based on Table 4:12, the value of t arithmetic for the year before stock split and after stock split (Stock Split) amounted to 1.844 with a significance of 0.000. As it is well known that the t value of the statistical table for $n = 62$ and $\alpha = 0.05$ for test on one side is 2,000. thus the value of t table $<value\ t\ arithmetic\ (2.000) > 1.844$ so that the value of t arithmetic is in the rejection region H_0 . While the value of significance obtained results $\alpha\ hit\ 0.059 > 0.00$ so that H_0 is rejected. Thus it can be concluded that H_0 is rejected, H_1 is accepted. This means that there is no significant difference in the increase of stock liquidity in the company go public in Indonesia Stock Exchange between before and after doing stock split.

Different Price Earning Ratio (PER) Before and After Stock Split

Based on the analysis of data that has been done, it can be obtained Price Earning Ratio (PER) before stock split compared with after stock split for all samples shown by Table 4:13

Table 4.14

Summary of Different Test Results t for Price Earning Ratio (PER) sample before stock split and after stock split for all samples

Rasio	t hitung	t tabel	α	HA
PER	3.912	2.000	0.05	Diterima

As indicated by Table 4:14, Price Earning Ratio (PER) before stock split indicates Ho's rejection area, which means that the alternative hypothesis Ha for ratio before stock split is accepted by t value analysis (3.912) greater than t table value (2000) with significance level (α) 0.05 and sum (n) = 62.

It can be concluded that there is a difference of Price Earning Ratio (PER) before and after stock split as for the factors that cause the difference of Price Earning Ratio (PER) before and after stock split due to several factors namely Dividend Payout Ratio (DPR) , Earning Growth, Variance of Earning Growth, and Financial Leverage.

Differences in Stock Liquidity before and after Stock Splits

Table 4.15

A summary of the different test results t for a sample of stock liquidity before stock split and after stock split for all samples

Rasio	t hitung	t tabel	A	HA
Likuiditas saham	1.844	2.000	0.05	Ditolak

As indicated by Table 4.15, Stock liquidity before stock split indicates the rejection area of Ho, which means that the alternative hypothesis Ha for ratio before stock split is accepted by t value analysis (1.844) smaller than t table value (2,000) with significance level (α) 0.05 and number (n) = 62. And the rejection of the hypothesis Stock liquidity due to the value of t arithmetic (1.844) ratio Liquidity of stock is smaller than the value of t table (2,000) with significance level (α) 0.05 and number of samples (n) = 62. This means that the value of t arithmetic is in the rejection region Ho. While the value of significance obtained results α hit $0.059 > 0.00$) so that Ho is rejected. Thus it can be concluded that Ho is rejected, H1 is accepted. This means that there is no significant difference in the increase of stock liquidity in the company go public in Indonesia Stock Exchange between before and after doing stock split.

This is in accordance with the opinion of Jogiyanto (2010: 565). The absence of significant difference between bid ask spread before and after stock split announcement basically means that stock split announcement does not have enough information that can influence investor decision in making investment which in the end can not be considered as effort of company in increasing stock liquidity.

Conclusion

1. There is a significant difference in Price Earning Ratio (PER), either before stock split or Price Earning Ratio (PER) after stock split. According to the results of calculations by analysis with the normality test where the results of analysis of $0.331 > 0.17272$, which means data distribution is not normal. the result of hypothesis testing using non parametric test, Wilcoxon Sign Rank test with $\alpha = 0.05$ obtained p-value smaller than alpha (α) which result $-2, < 2,000$ then the result is difference Price Earning Ratio (PER), either before stock split and Price Earning Ratio (PER) after stock split. And with paired sample t-test obtained t test results with $t \text{ count} > t \text{ table}$ ($3,912 > 2,000$) can be concluded then H_0 accepted means there is a difference between price earnings ratio (PER) each sample company, either before stock split or price earnings ratio (PER) after the stock split event.
2. That there is no significant difference in stock liquidity, either before stock split or liquidity of stock after stock split. According to the calculation results with the analysis with the normality test where the results of analysis of $0.167 < 0.17272$, which means the data is not normally distributed. the result of hypothesis testing using non parametric test, Wilcoxon Sign Rank test with $\alpha = 0.05$ obtained p-value smaller than alpha (α) which result $-2,53 < 2,000$ then the result there is difference Liquidity of stock, either before stock split or Liquidity stock after stock split. And with paired sample t-test obtained t test results with $t \text{ count} > t \text{ table}$ ($1.844 > 2,000$) can be concluded then H_0 accepted. meaning there is no difference between the stock liquidity of each sample company, either before stock split or liquidity of stock after stock split event.

Recommendation

1. For investors, capital market actors should precisely sort and analyze relevant information as a consideration in decision-making to make investments,
2. For issuers, before making a decision to conduct a stock split policy, the issuers should carefully consider the impact, profit or loss that the issuer will get after the stock split policy,

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