



THE COMPARISON OF SUSTAINABLE GROWTH RATE, FIRM'S PERFORMANCE AND VALUE AMONG THE FIRMS IN SRI KEHATI INDEX AND IDX30 INDEX IN INDONESIA STOCK EXCHANGE

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Abstract: *The objectives of the research are to examine to what extent the effect of sustainable growth rate of the firms on current ratio as one of liquidity ratio, price to earning ratio, and profitability ratio focus on the firm's earnings (return on asset) of firms in Indonesia stock exchange, then, to compare the mean value of sustainable growth rate, return on asset, price earning ratio, and current ratio of firms listed in Kehati Sri Index and IDX30 Index. Our research used two population indices that consists of Kehati Sustainable and Responsible Investment Index (SRI-Kehati) and IDX30 Index. Sri Kehati Index represented the sustainable firm, and IDX30 as a benchmark index. Data have been collected from the Indonesia Stock Exchange within period 2010-2013. We use regression test and t-test to analyze the data. After analyzing data by using regression analysis we concluded that for firms listed in Sri Kehati Index, sustainable growth rate has positive and significant effect on return on asset and current ratio, sustainable growth rate has negative and significant effect on price earning Ratio. For firms listed in IDX30 Index, sustainable growth rate has positive and significant effect on return on asset, sustainable growth rate has negative insignificant effect on price earning ratio, and the sustainable growth rate has positive insignificant effect on current ratio. Based on t-test results we concluded that observed on firm's sustainable growth, there is significant mean difference for firms listed in Sri Kehati index and IDX30 Index. The results also the same with current ratio, there is significant difference on current ratio of both indexes. In term of profitability, the results on return on assets shown that Sri Kehati Index have significant difference with IDX30 Index, whereas t-test result on price earning ratio shown that mean value of price to earnings ratio of both indices are not significantly different.*

Key words: Sustainable Growth Rate, Return on Assets, Price Earnings Ratio, Current Ratio



INTRODUCTION

Sustainable growth rate is the maximum growth rate that a firm can sustain without having to increase financial leverage. In the basic term, the growth is often limited by the amount of equity in the business. The more equity a business has, the more potential businesses have for growth. However, if the business is growing too fast, then there may not be enough equity to sustain the growth. If the business is growing too slowly, it may start to become stagnant. After the firm has passed this rate, it must raise funds from another source to facilitate growth. According to Higgins (2003) that more profitable firms with slow-growth will generate more cash than less profitable firms with fast-growth.

Furthermore, the increment and decrement of company's profitability, liquidity, and firm's value will consistent with the company's growth rate. Liquidity is the ability of an asset to be converted to cash quickly at low cost. Profitability ratios are used to measure the firm's return on its investments. And if managers have been successful in adding value for stockholders, price earning ratio should be low.

There is a lot of research on this but few compare these variables for the two indices. Therefore, through this research, we examine to what extent the effect of sustainable growth rate of the firms on current ratio as one of liquidity ratio, price to earning ratio, and profitability ratio focus on the firm's earnings (return on asset) of firms in Indonesia stock exchange. Then, we compare the mean value of sustainable growth rate, return on asset, price earning ratio, and current ratio of firms listed in Kehati Sri Index and IDX30 Index.

The rest of this paper is structured in 5 sections. Section 2 reviews relevant literature on the theory, highlights some of the empirical findings of other similar studies, and hypotheses based on these studies. Section 3 discusses the research methodology and data used for the study. Sections 4 and 5 present the study results and conclusions respectively.

LITERATURE REVIEW

A. Theory

Sustainable growth rate represents the company's growth strategy and its resources to facilitate it.

As Higgins (2003) explained that sustainable growth rate represents the maximum rate at which a firm can expand its sales or revenues without depleting its financial resources, and



Hestated that the sustainable growth concept is very important because it forced the management to consider whether the company's growth strategy was compatible with the ability of the company's growth. A company with excellent growth opportunities but without sufficient financial resources in long-term period to exploit opportunities will not grow. However, a company with the necessary financial infrastructure in place to pursue high growth opportunities but without the long-term ability to identify and take benefit opportunities also will not grow.

According to Van Horne(1998), the sustainable growth rate is the percentage of the maximum growth in sales that may occur in accordance with the target of the operation, debt, and the dividend ratio. With the model of sustainable growth, one can determine whether the purpose of the company's sales growth is consistent with the operating characteristics and financial goals.

B. Previous Research

Several previous researches that have been conducted areas follows. In Fonseka, Ramos, and Tian (2012) paper analyzed the extent to which two widely and commonly used estimators of Higgins (1977) and Van Horne (1987) SGR models, diverge in relation to common financial characteristics of a firm. The liquidity, profitability, capital investment, financial distress and rate of tax are significantly affected by the magnitude (value) of SGR in two models. They also explained that, if the HSGR model is used to compute SGR, it would give higher SGR for more profitable firms than VSGR. On the other hand, if the VSGR model is used to measure SGR, a firm with higher leverage is given higher SGR than HSGR.

The research of Drake concluded that, by using the 2005 fiscal year data, if Wal-Mart Stores were to change its dividend payout to, say, 15%, they expect sustainable growth of 17.95%. If, as another example, the net profit margin falls to 2%, the sustainable growth is expected to fall to 9.22%. Further, they explained that the primary difference in 2005and2008 is the dividend payout by increasing the dividend payout, the sustainable growth declines. The sustainable growth may also be an indicator of difficulty ahead for the company. If actual growth exceeds sustainable growth for a period of time, it may be the case that this growth higher growth is not sustainable and, hence, there may be a substantial decline in growth ahead because the company is depleting its financial resources. On the other hand, if the



company's sustainable growth rate exceeds its actual growth rate, it may be interpreted that the company is not using its financial resources to maximize owners' wealth.

In the study of Constantine Radasanu (2015) stated that the model proposed by Churchill and Mullins (2001) focuses on cash-flow management in generating a sustainable growth rate. According to them, a sustainable growth rate is the growth rate that can be achieved using operational means, without divestment and without external funding. The sustainable growth rate is influenced by the four factors: (a) profitability ratio. An increase of profitability ratio determines the generation of internal funds, with direct impact in achieving growth; (b) asset turnover ratio. An increase of the net asset turnover ratio causes an increase of sales generated per asset unit. This decreases the need for assets based on the increase of sales, which results in the increase of the sustainable growth rate. (c) financial policy. An increase of the total debt means additional resources and an increase of the sustainable growth rate. (d) dividend policy. An increase in retention rate determines the growth of capital and implicitly the sustainable growth rate.

In the study of Rahim and Saad (2014) concluded that firm's profitability shown a positive significantly to firm sustainable growth rate. The higher the level of profitability in the company showed that the sustainable growth of companies will increase. They explained that regression results also were supported by the correlation result whereby the result was shown that all variables correlated to the sustainable growth. They recommended that, companies should be able to plan and monitor their level of leverage in business dealing to ensure that the sustainable in their business growth as a pivotal strategy for future transactions and forecasting. Furthermore, sustainable growth rate and debt equity ratio have no significant different in all ASEAN countries.

The study of Seens (2013) addressed the question: how much growth could Canadian SMEs financially support? The HSGM was introduced to measure the maximum rate of growth in sales a firm could potentially support internally, and sustain over the long-term, given its financial resources, financial policies and normal earnings power without the need to raise additional financing. Findings from the study showed that as a whole Canadian SMEs could have sustained an average rate of growth in sales of approximately 7.3 percent over the 2000–2010 period and changes in sustainable growth rates for Canadian SMEs over the



2000–2010 period were driven primarily by changes in net profit margins with some minor influence by retention rates and financial leverage.

The study of Saputro (2013) explained the effect of relationships performance, liquidity and stock return against deviation actual growth rate of sustainable growth rate in manufacturing company in Indonesia Stock Exchange. This study used a sample of 49 companies that include in the index listed on the Indonesia Stock Exchange. The results of this study showed that the ratio of acid variable has positive and significant impact on the deviation of the actual growth rate of sustainable growth rate. ROA and the current ratio significantly and negatively related to the deviation of the actual growth rate of sustainable growth rate. While stock returns has significant negative effect on the deviation of the actual growth rate of sustainable growth rate.

Amazesh et al (2011) examined the relationship between sustainable growth rate and liquidity and firm performance. The result show the deviation of actual growth rate from sustainable growth rate has relationship with ROA and price to book ratio.

CONCEPTUAL FRAMEWORK

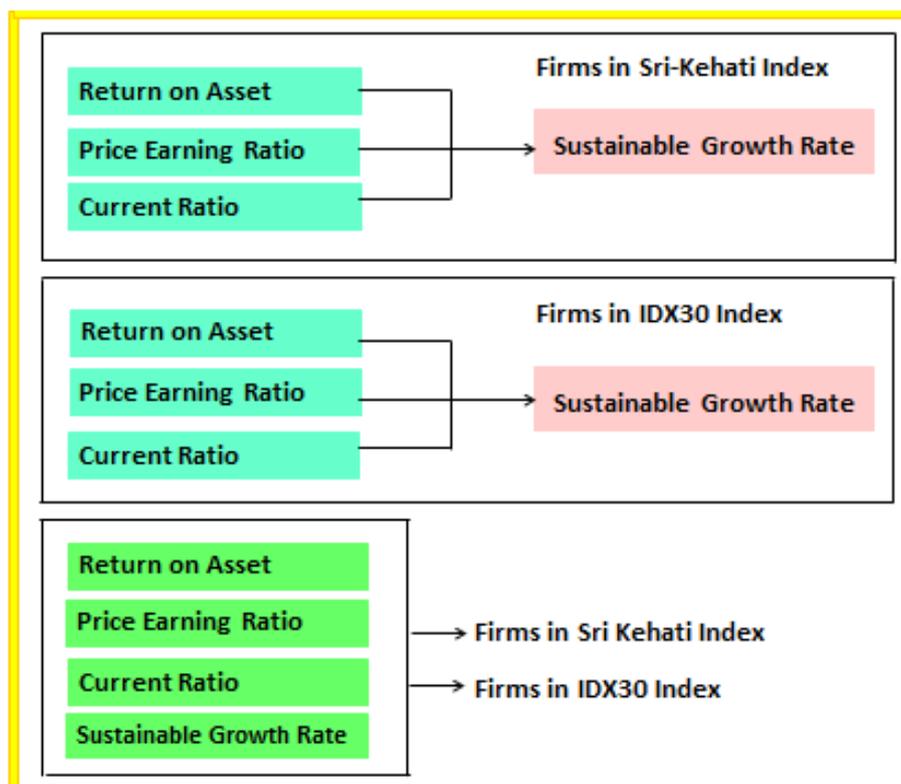


Figure 1. Conceptual Framework



HYPOTHESIS

Based on theory and previous research, the hypotheses are formulated as follows:

1. There is a significant effect of return on assets on sustainable growth rate of companies listed in the of Sri Kehati Index and IDX30 Index.
2. There is a significant effect of price earnings ratio on sustainable growth rate of companies listed in the Sri Kehati Index and IDX30 Index.
3. There is a significant effect of current ratio on sustainable growth rate of companies listed in the Sri Kehati Index and IDX30 Index.
4. There is a significant difference of mean value of return on assets, the price earnings ratio, current ratio, and sustainable growth rate of company that listed in Sri Kehati Index and IDX30 Index.

RESEARCH METHODOLOGY

Population and Sample

Our research uses two population indices that consists of Kehati Sustainable and Responsible Investment Index (SRI-Kehati) and IDX30. Sri Kehati Index represented the sustainable firm, and IDX30 as a benchmark index. Data have been collected from the Indonesia Stock Exchange within period 2010-2013. The sample was choosed by considering the criterias whether companies incorporated in Sri-Kehati Index or in IDX30 index.

The sample of this research listed on the table below:

Table 1. Sample of Research

SRI-Kehati Index	IDX30 Index
Timah (Persero) Tbk [TINS]	Surya Citra Media Tbk [SCMA]
Holcim Indonesia Tbk. [SMCB]	Indocement Tunggol Prakarsa Tbk [INTP]
Tambang Batubara Bukit Asam Tbk. [PTBA]	Charoen Phokphand Indonesua Tbk [CPIN]
Gajah Tunggol Tbk. [GJTL]	Gudang Garam Tbk [GGRM]
Bank Danamon Indonesia Tbk. [BDMN]	Adaro Energy Tbk [ADRO]

Data Analysis

In this study, we use regression test and t-test to analyze the data. Regression analysis can be used to identify how independent variable influences the dependent variable. A T-test is one of method that used in the parametric statistical hypothesis testing and to determine whether there is a significant difference between two variables were compared.

Our regression models are as follows:



$$Y1 = \beta_0 + \beta_1 * X1 + \epsilon$$

$$Y2 = \beta_0 + \beta_2 * X2 + \epsilon$$

$$Y3 = \beta_0 + \beta_3 * X3 + \epsilon$$

Where:

Y1,2,3 = Sustainable Growth Rate

β_0 = Intercept

$\beta_1,2,3$ = Coefficient of Regression

X1,2,3 = Dependent Variables (ROA, PER, CR)

ϵ = Error Terms

Variable Measurement

Throughout this study, the proxy to represent dependent variable is sustainable growth rate, and the proxies of independent variables are return on asset, price earning ratio, and current ratio.

We measured the variables as follows:

$$\text{Sustainable Growth Rate} = \text{Return on Equity} \times (1 - \text{Payout ratio})$$

Earnings not paid out as dividends are retained, or plowed back into the business. The proportion of earnings reinvested in the firm is called the plowback ratio (Brealey, Myers, and Marcus, 2001). It is also called the retention rate, the percentage of earnings retained by the company that is not paid out in the form of dividends. The return on equity is method to measure the ratio of the return per dollar of owners' equity, and the return on equity is calculated as the ratio of net income to book value of equity.

$$\text{Return on Asset} = \frac{\text{Net Income}}{\text{Total Asset}}$$

Return on asset is method to measure the ratio of the return per dollar of owners' assets.

The return on asset is calculated as the ratio of net profit to book value of assets.

We measure current ratio and price earning ratio as in Brealey, Myers, and Allen (2011).

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

Current Ratio is to calculate the ratio of current assets to current liabilities. Current ratio is often used as an indicator to measure the performance of companies in paying short-term financial obligations at maturity using available liquid assets.

$$\text{Price Earning Ratio} = \frac{\text{Stock Price}}{\text{Earning per Share}}$$



To analyze the firms value, we use variable price earnings ratio. Price earnings ratio is the ratio that describes the profit of company or shareholder to the stock price. Price earnings ratio is influenced by company's stock price. The level of stock price in the stock market shows the level of prosperity of the owners or shareholder after purchase the company's share, while the stock price is influenced by market forces, so the public information that provided by the company will affect the market responses and the company's stock price.

RESULTS AND ANALYSIS

A. Results of Regression Analysis

Table 2. Summary of Regression Results

Variable	Index	Coefficients	Std. Error	T-Stat.	P-Value
Return on Assets (ROA)	SRIKehati	0.5338	0.139	3.818	0.000
Return on Assets (ROA)	IDX30	0.6705	0.147	4.569	0.000
Price Earnings Ratio (PER)	SRI Kehati	-0.5048	0.129	-3.915	0.000
Price Earnings Ratio (PER)	IDX30	-0.1753	0.143	-1.226	0.232
Current Ratio (CR)	SRI-Kehati	0.0197	0.008	2.406	0.024
Current Ratio (CR)	IDX30	0.0055	0.012	0.465	0.647

For firms listed in Sri Kehati Index, we can show that the SGR has positive and significant effect on ROA with t-value of 3.818 and significance value of 0.000, the SGR has negative and significant effect on PER with t-value of -3.915 and significance value of 0.000, the SGR has positive and significant effect on CR with t-value of 2.406 and significance value of 0.024.

For firms listed in IDX30 Index, we can show that the SGR has positive and significant effect on ROA with t-value of 4.569 and significance value of 0.000, the SGR has negative insignificant effect on PER with t-value of -1.226 and significance value of 0.232, and the SGR has positive insignificant effect on CR with t-value of 0.465 and significance value of 0.647.

These indicate that the higher the level of SGR in the company showed that the ROA of companies will increase, the higher the level of SGR in the company showed that the PER of



companies will decrease, and the higher the level of SGR in the company showed that the CR of companies will increase.

The higher the sustainable growth rate of the company, the higher the level of profitability and liquidity in the company will increase. These results comply with Johnson and Soenen (2003) who found that large profitable firms with efficient working capital management are the most successful companies with high degree of sustainable growth rate.

R-Square Analysis

Linear relationship between two variables can be measured by coefficient of determination. Coefficient of determination measures how much independent variable can explain the dependent variable. The coefficient of determination provides a measure between 0 until 1.

Table 3. Model Summary

Var.	Index	R	R square	Adj. R Square	Std. Error of estimate
ROA	Sri-Kehati	0.6228	0.3880	0.3613	5.211
ROA	IDX30	0.6898	0.4758	0.4531	7.117
PER	Sri-Kehati	0.6324	0.3999	0.374	5.16
PER	IDX30	0.2478	0.0613	0.0205	9.5244
CR	Sri-Kehati	0.4485	0.2011	0.1164	5.95
CR	IDX30	0.0964	0.0093	-0.033	9.7851

Dependent variable: Sustainable Growth Rate

Our table above shows the explanatory power of the models as indicated by the R^2 value. For firms listed in Sri Kehati Index, we can show that the coefficient of determination, or simply R-squared is 0.3880 or 38.80 per cent and interpreted as the percentage of variation of the response variables explained by the regression line. This means that 38.80 percent of the reasons why the ROA increases could be explained by the SGR. R-square 0.3999 or 39.99 per cent means that 39.99 percent of the reasons why the PER increases could be explained by the SGR. R-square 0.2011 or 20.11 per cent means that 20.11 percent of the reasons why the CR increases could be explained by the SGR.

For firms listed in IDX30 Index, we can show that R-square 0.4758 or 47.58 per cent. This means that 47.58 percent of the reasons why the ROA increases could be explained by the SGR. R-square 0.0613 or 6.13 per cent means that 6.13 percent of the reasons why the PER increases could be explained by the SGR. R-square 0.0093 or 0.93 per cent means that 0.93 percent of the reasons why the CR increases could be explained by the SGR.



B. Results of T-test

The t-test results in the table 4 analyzed the mean square of all variables of both indices. Observed on firm's sustainable growth, there is significant mean different for firms listed in Sri Kehati Index and IDX30 index. The results also the same with current ratio that there is significant different on current ratio of both indices. In term of profitability, the results on return on assets (ROA) shown that Sri Kehati Index has significant difference with IDX30 Index. Furthermore, t-test result on PER shown that mean value of price to earnings ratio of both indices are not significantly different. Mean values of ROA CR, and SGR of firms in Kehati Index are lower than mean values of firms in IDX30. However, mean values of those variables of firms in Kehati Index tend to increase over the years.

Table 4. Results of T-test

SGR	Sri Kehati Index	IDX30 Index
Mean	10.4156	14.3484
observation	25	25
t stat	-1.7822	
Pone-tail	0.0437	
t critical one-tail	1.7109	
P two-tail	0.0874	
t critical two-tail	2.0639	
ROA	Sri Kehati Index	IDX30 Index
Mean	9.2632	17.5328
observation	25	25
t stat	4.3898	
Pone-tail	9.80061E-05	
t critical one-tail	1.7109	
Ptwo-tail	0.000196	
t critical two-tail	2.0639	
CR	Sri Kehati Index	IDX30 Index
Mean	221.0912	326.194
observation	25	25
t stat	-2.3648	
Pone-tail	0.0132	
t critical one-tail	1.7109	
Ptwo-tail	0.0265	
t critical two-tail	2.0639	
PER	Sri Kehati Index	IDX30 Index
Mean	22.1744	17.5328
observation	25	25
t stat	1.3395	
Pone-tail	0.0964	
t critical one-tail	1.7109	
Ptwo-tail	0.1929	
t critical two-tail	2.0639	



The price earning ratio indicates the dollar amount an investor can expect to invest in a company in order to receive one dollar of that company's earnings. In general, a high PER suggests that investors are expecting higher earnings growth in the future compared to companies with a lower PER. A low PER can indicate either that a company may currently be undervalued or that the company is doing exceptionally well relative to its past trends. The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations with its current assets. Return on assets is an indicator of how profitable a company is relative to its total assets.

The company's ROA of 10-15% are generally considered good. From our sample, we analyze that 21 firms in IDX30 Index have the higher ROA than ROA of the firms in Sri Kehati Index, 6 firms in Sri Kehati Index have the higher PER than PER of firms in IDX30 Index, 7 firms in Sri Kehati Index have the higher current ratio than current ratio of firms in IDX30 Index, 10 firms in Sri Kehati Index have the higher sustainable growth rate than sustainable growth rate of the firms in IDX30 Index.

Therefore, based on t-test results we concluded that there is significant difference of firm's sustainable growth rate, return on asset, and current ratio among firms listed in Sri Kehati Index and IDX30 Index.

Firms in Sri Kehati Index have been expected to constantly manage sustainable development. The objective of the index establishment is to materialize biodiversity conservation programs by raising awareness and consciousness toward biodiversity, among the public, business sector and capital market, and provide an open information to the public at large in identifying the selected companies rated by the index, which are considered to have various kinds of consideration in running their business in relation to environmental concern, business management, community involvement. As the selection mechanism for the companies to be included in Sri Kehati Index consists of two steps, through negative and financial aspects and through the evaluation of fundamental aspects (www.kehati.or.id) so that the firms in this sustainable and responsible investment index will have good performance in the future.

CONCLUSION

In this study, we used regression test and t-test to analyze the data. After analyzing data by using regression analysis we concluded that for firms listed in Sri Kehati Index, SGR has



positive and significant effect on ROA and CR, SGR has negative and significant effect on PER. For firms listed in IDX30 Index, SGR has positive and significant effect on ROA, SGR has negative insignificant effect on PER, and the SGR has positive insignificant effect on CR.

Based on t-test results we concluded that regarding firm's sustainable growth that there is significant mean different for firms listed in Sri Kehati Index and IDX30 index. The results also the same with current ratio that there is significant different on current ratio of both indices. In term of profitability, the results on return on assets shown that Sri Kehati Index has significant difference with IDX30 Index. Furthermore, t-test result on PER shown that mean value of price to earnings ratio of both indices are not significantly different.

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APPENDIX

Graphic of Each Variable of Sri Kehati Index and IDX30 Index

