

# Sustainable Growth and Corporate Risk as Navigation for Shareholders (Study on Manufacturing Companies Listed on the Indonesia Stock Exchange

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# Sustainable Growth and Corporate Risk as Navigation for Shareholders (Study on Manufacturing Companies Listed on the Indonesia Stock Exchange)

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## Abstract

Sales growth is one indicator of company performance, but too high growth does not guarantee to provide higher value for shareholders; on the contrary, low or declining sales growth is sales growth actually achieved by companies with certain funding sources to support sustainable growth (SUS\_GR). Sustainable Growth Rate (SUS\_GR) is a simulation of sales growth which should be achieved with retained earnings policy, such as internal funding and constant external funds. Certainly this is important for shareholders, as a navigation control on managerial performance as to how much the role of internal funding sources will be able to have an impact on how maximum sales growth can be achieved with internal funding. The research samples are 103 manufacturing firms in Indonesia with panel time-series data from 2012 to 2018 amounting to 721 N data observations. Pair T-Samples Test results show that there are significant variances between Actual Growth of Sales (AGoS) and Sustainable Growth Rate (SUS\_GR). This is an indication that retained earnings policy is not entirely rational for investment needs in relation to supporting sales growth. Furthermore, panel data regression models have been tested using the Chow Test and Hausman Test, showing that the model of fixed effect is a more suitable model. The multiple panel regression model and the least-squares fixed-effect method proves that corporate risks include business risk, operating risk, and financial risk, as well as assets growth negatively affect SUS\_GR, while inventory turnover and sales growth have a significant positive influence on SUS\_GR. This finding implies that, if a company makes an effort to achieve SUS\_GR, then business risk, operating business, financial risk and asset growth become the main obstacles in increasing SUS\_GR, with Inventory Turnover (ITO) and Actual Growth of Sales (AGoS) as supporting factors. Thus, the SUS\_GR can be used as a navigation control of the company, toward the policy of "go public" manufacturing companies in Indonesia, which generally have the behavior of holding retained earnings as an investment, but not in line with the increase in actual sales, as indicated by the significant slack between SUS\_GR and AGoS.

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## I. METHODOLOGY

The main problem for companies to increase sales is that they are generally limited by the availability of funding. It is not uncommon for company behavior

to hold profits or increase debt as grounds for increased sales. The company retains earnings, not only as a precautionary motive, also for the purpose of dealing with a very competitive market in the

condition of recession and uncertainty [37]. In general, the use of retained earnings for company operations in the short term or maintaining cash at a certain level to maintain sales growth, does not rule out the possibility of companies to place retained earnings as a long-term investment funding [11].

Some studies showing the effect of retained earnings on sales [23] found no relationship between the plowback ratio and sales growth. This is in line with [7], who states dividend policy is more sensitive to market characteristics than investment needs to maintain the target capital structure. The relationship of dividend policy with firm value is still a debate in the field of corporate finance as to its relationship with corporate value [36]. Most researchers talk more about dividend payout policy than the plowback ratio. Although the two interact with each other, as in dividend and retained earnings models, both serve as a basis to explain the concepts of growth, investment and saving. For example, [19] uses the optimal dividend policy model that Gordon has introduced, to determine investment needs for future growth opportunities. Besides explaining the relationship between retained earnings with dividend growth for returns to shareholders in the form of return on equity, some financial literature uses the term sustainable growth rate [6] [27] [5], which shows the sales growth target that can be achieved with a constant capital structure after calculating four ratios, among others, profit margin, plowback ratio (retention ratio), assets turnover and financial leverage ratio, although [5] uses different measurements, but with relatively the same results to explain sustainable growth. So, the concept of sustainable growth rate is relevant for the interests of shareholders as a tool for controlling managers, as research shows that internal funding is the basis for increasing realistic income based on operational and financial performance [53]. Sustainable growth is also an important parameter to assess the success or failure of a company, and enlighten managers and investors [4].

The problem of retained earnings for the purpose of firm growth is still debated as in practice there are still many anomalies [49]. Several previous empirical studies showed an inconsistency between increased funding and sales growth, where companies that have high sustainable growth also have high debt [63]. Some studies also show that there is a relationship between Return on Asset and Price to Book Value toward actual growth and sustainable growth gap [2]. This is in contrast to research [2] which shows that sustainable growth has a positive relationship with low performance and risk. Previous research results also show that internal financing has a positive effect on growth, with high levels of productivity and limited external funds, [22]. [15] developed a sustainable growth dynamic model that shows that the optimization of firm value can be determined by the interaction of optimal growth rates with the covariance between profitability and dividend payout that unites investment decisions and dividend policies. [12] uses various methods to estimate growth regarding the financing mix, which shows that company characteristics have a significant influence on forecasting dividend errors and sales growth, whereas [18] shows that sustainable growth could be a model for determining financial and operational decisions.

Various studies on the phenomenon of sustainable growth have given new inspiration in this study. Most of the previous studies paid more attention to the behavior of dividend policy, funding decisions and investment decisions. This study discusses the relationship between sustainable growth with various company risks. This consideration is based on the reason that however sales growth targets are to be achieved, they will be influenced by external factors. Thus, sustainable growth, as a managerial control tool by shareholders, is also inseparable from the various risks that will be faced by the company in an effort to pursue sales growth. Therefore, information on the relationship of sustainable growth and corporate risk will

complement each other, which will be used for the benefit of shareholders more realistically.

The concept of sustainable growth has been introduced by several authors [6] [64] [5], which shows the maximum sales growth that can be achieved by maintaining funding policies that are based on operational targets, debt and dividend policies. However, several studies show other characteristics that affect sustainable growth, such as [44] showing a negative relationship between asset quality, operational efficiency and sustainable growth. In line with [59], [21] shows that operational decisions affect sustainable growth business. Operational and asset characteristics are also determinants that will determine risk [8] [48]. Based on several previous studies, it is very relevant to study the relationship between operational risk and sustainable growth.

While business risk is a measure of risk caused by external factors, for example, the existence of economic complexity, which is interpreted as dynamic risk affects sustainable growth in the telecommunications industry [40]. In line with research [58], economic risk has a negative effect on growth. Even financial market conditions affect sustainable growth as a profitability risk [30]. This is certainly a systematic risk that can affect every business. In the macro view, sustainable growth is related to volatility, uncertainty and risk [43] and also related to the business life cycle [62] [50] and inflation [28] [33].

The relationship between sustainable growth and financial risk has been very clearly discussed in financial strategy literature, which uses the debt to equity ratio indicator as financial risk or financial distress [51] [42] [38], which consistently explains the interests of shareholders through growing return on equity [14] [63]. This is in line with [55], who shows that Debt to Equity Ratio has a positive effect on sustainable growth, while [55] shows that sustainable growth is relatively no different from the different capital structures in various ASEAN

countries. Although there are still differences in the results of research on the effect of debt on firm value, [35] shows a positive relationship between debt and firm value, in contrast to [47] and [45] who show there is a negative relationship between debt on firm value and operational performance.

The phenomenon of sustainable growth is still interesting to study, especially in Indonesia with the attributes of risk: (1) operating risk that can be reflected from the variance of net operating margin at a certain time; (2) business risk originating from external factors that can be reflected by variance in sales within a certain period of time; and (3) financial risk, which can be reflected from high external funding. It is important to distinguish between operating risk, business risk, and financial risk, because each risk has a different handling problem. This study aims to empirically examine the difference between sustainable growth and actual growth and how operating risk, business risk, and financial risk, as well as other variables such as asset growth, inventory turnover and actual sales, growth affect sustainable growth. Another factor that can affect sustainable growth rates is asset growth, whether it contributes to the achievement of sustainable growth rates, it is not uncommon for companies to accumulate assets through debt and retained earnings, which are only used as corporate savings, which results in low Return on Assets, thus giving signals negative for shareholders to increase stock returns [17].

Besides the various risks that can affect sustainable growth, management policies in managing assets can be reflected from sales effectiveness, for example, with an inventory turnover indicator. Besides that, sales growth will not fully reflect sustainable growth rates; this can also be explained by how the relationship between inventory turnover and sustainable growth is achieved. Inventory turnover is a variable that can directly affect sustainable growth, due to the higher inventory turnover should be in line with the level of sales growth and increased profitability [39] [3].

However, it is not the same as asset growth and what might happen is high asset growth, but low inventory or asset turnover. This is an indication of asset optimization or low asset effectiveness. Some researchers also point out that the lower the operational costs, the higher the sustainable growth rate [34].

How can sustainable growth rates be used as navigation for shareholders?[26] states that excessive growth has an impact on financial problems, due to the tendency of companies to increase debt capacity. Therefore, it is important to anticipate the gap between actual sales growth and sustainable growth, for the benefit of shareholders. To bridge the interests between managers and shareholders, sustainable growth rates can be arranged as a control tool, especially on dividend policy and capital structure control. This is one way to overcome the problem of conflicts of interest between managers and shareholders. For example managers prefer to use debt to obtain incentives, while shareholders prefer to use internal funds in the hope that earnings will increase. But, in reality, retained earnings often do not reflect sustainable growth rates that can be realized.

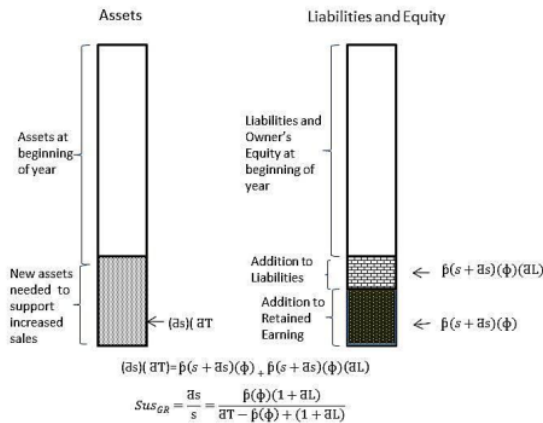
Therefore, this study not only empirically examines the gap between sustainable growth and actual growth sales, but also examines the factors that affect the sustainable growth rate of several variables, including business risk, operating risk and financial risk as overall company risk, and other variables such as inventory turnover, asset growth and sales growth..

## II. LITERATURE REVIEW

Since the 1960s, the concept of retention ratio has been widely discussed in the literature of corporate and economic finance, which, at that time, was more aimed at explaining the relationship between saving and business expansion. Based on the theory of the firm, several authors have explained the relationship between profit, sales maximization, and growth from savings as measured by retained earnings [61]

[65]. The behavior of companies to place the retained earnings function in corporate financing is much discussed, whether as cash flow or replacement cost added with a number of depreciation. The retention function can be an investment function or a saving function in case of uncertainty. However, both roles are still oriented toward efforts to increase sales growth to maximize the value of the company. However, recently, the retention ratio function as internal funding to maintain maximum sales targets with relative limitations on external funding has begun to be taken into account. Although this really depends on the stages of the business life cycle, because, after all, in the company that has highly sufficient retained earnings, the condition of the company is at the stage of growth or maturity. Conversely, at the time of maturity, the company will tend to pay out a dividend ratio that is greater than the retention ratio. So that this study becomes interesting when formulating interactions between retention ratios, liabilities, asset turnover and profit margins in pursuit of growth targets and is called as sustainable growth.

The term sustainable growth [27] is not only Higgins property, but has been widely discussed in various financial literature since the 1960s in the context of explaining the theory of the firm [60] [64] and the function of sales maximization. But Higgins is more popular to explain the term sustainable growth in the context of financial strategy literature. Furthermore, financial writers developed [64] [56] in several books. Sustainable growth is growth with internal financing with relatively unchanged leverage [26] [16]; this term might be more appropriate if it is referred to by how much internal funding has a double effect on sales growth. As an illustration, quoting from [27], the Sustainable Growth Rate can be determined as shown in the figure below.



**Scheme: 1. The Illustration of Sustainable Growth [27]**

Sustainable growth rate is a sales growth target that can be written with the notation  $(\Delta s / s)$  that can be achieved by a company with internal funding sources  $(\phi)$  through additional earnings notated;

$$Sus_{GR} = (\Delta s/s) \quad (1)$$

$$\phi = (1 - d_t) \quad (2)$$

$d_t$  is dividend payout ratio for time  $t$ , or through additional debt  $(\Delta L)$ . This will have an impact on the interaction between net profit margin  $(\beta)$  and retained earning or with debt, with equations as follows:

$$\frac{\Delta s}{s} = \beta(s + \Delta s)(\phi) \quad (3)$$

or

$$\frac{\Delta s}{s} = \beta(s + \Delta s)(\phi)(\Delta L) \quad (4)$$

For achieving additional sales,  $(\Delta s)$  needs additional new assets for supporting sales increase and then sales with additional assets  $(\Delta T)$  becomes  $(\Delta s)(\Delta T)$ , which can be formulated as follows:

$$(\Delta s)(\Delta T) = \beta(s + \Delta s)(\phi) + \beta(s + \Delta s)(\phi)(\Delta L) \quad (5)$$

Therefore, sustainable growth rate  $Sus_{GR}$  can be written as the following:

$$Sus_{GR} = \frac{\Delta s}{s} = \frac{\beta(\phi)(1 + \Delta L)}{\Delta T - \beta(\phi) + (1 + \Delta L)} \quad (6)$$

This formula explains that, to achieve sales targets, this is determined by net profit margins  $(\beta)$ , the number of internal  $(\phi)$  or external  $(\Delta L)$  and additional investment  $(\Delta T)$  to support increased sales.

A company's decision to use internal funding sources through a plowback ratio to achieve sales targets has become a financial strategy issue. However, it is still relatively rare to study growth opportunities from internal funding as part of equity funding. The consequences of internal financing investment decisions will have an impact on dividend payout policy, and vice versa, although [41] shows that, in a perfect market, dividend policy does not affect firm value, and some studies also question whether dividend policy is important for firm value. [52] shows that there is a positive relationship between dividend payout and firm value, but cannot draw conclusions to explain the reasons for dividend payments. Besides, dividend policy is also part of the company's strategy, especially its relationship with the business life cycle, which will affect investment decisions [29] [9]. But, in practice, simultaneously, the company sets a low dividend payout ratio policy while increasing debt. Although the dividend payout ratio policy and capital structure policy complement each other, as explained in the pecking order theory [20], most companies use internal financing first rather than debt for investment financing [1]. The relationship between dividend policy and investment decisions becomes important when linked to future sales targets, because this is a variable that bridges between managerial and shareholder interests. Dividend and funding policies place more emphasis on risk issues for shareholders, while the sales target is a company operational issue that is more in the managerial interests, which both interact with each other.

This is based on the asymmetry theory, which explains the information gap received between two parties (in this case between managers and shareholders), which can cause transactional

inefficiency or financial slack in investment decisions [46]. Factually, in general, managers have more knowledge and information about the company than shareholders. Besides that, management has more interest in the company's growth because it will obtain more incentives, while shareholders have more interest in earnings per share and high dividend payouts. Several studies have shown a relationship between dividend policy and corporate value [25].

Besides, dividend policy is also used to avoid conflicts of interest between managers and shareholders, which can be explained by agency theory [32]. It is further explained that management is more focused on growth targets while shareholders will prioritize wealth [31], which argues that sales growth does not fully increase value for shareholders, and whether managers will pursue sales growth or generate cash flow for shareholders is highly dependent on the relationship sales growth and free cash flow. This is in line with the research [13] [52].

### III. RESEARCH METHOD

Research was conducted on 103 companies listed on the Indonesia Stock Exchange from 2012 to 2018, meaning that there are 721 panel sample data. To prove whether there is a difference between Sustainable Growth (SUS\_GR) and Actual Growth Sales (AGS), a Paired Sample T test is performed on panel data as well as multiple regression test with the General Linear Model Panel Least Squares Method. To test the suitability of the model as to whether random effects or fixed effects models are used, the Hausman Test and Chow Test are used. For testing multiple regression models, all panel data variables are transformed in the form of logarithms with the reason to streamline data dispersion which has very high data range intervals between cross-section variables. This technique makes it possible to minimize the distribution of data by not eliminating data information.

### IV. DATA ANALYSIS AND VARIABLE DEFINITION

To measure the Sustainable Growth Rate (SusGR) using the Higgins (1997) model, which is a sales growth target with relatively constant internal funding and external funding sources, it can be formulated as follows:

$$SUS_{GR} = \frac{\Delta s}{s} = \frac{\beta(\phi)(1+\Delta L)}{\Delta T - \beta(\phi) + (1+\Delta L)} \quad (7)$$

- P = Net Profit Margin Existing Sales After Taxes
- $\phi$  = Retention ratio = (1-The Target DividendPayout Ratio)
- $\Delta L$  = Tambahanhutang
- $\Delta T$  = The ratio of total assets to net existing sales
- S = Sales at the beginning of the year
- $\Delta s$  = Increase in sales during the year

Firstly, it is tested whether there is a significant difference between actual sales growth and sustainable growth rates. This test uses the method of comparing mean paired sample t-test. This study also tested the causal relationship between the predictors of business risk, operating risk, financial risk, inventory turnover, asset growth, and actual sales growth to sustainable growth rates. The test uses multiple regression estimation models with the E-Views program. Estimation analysis techniques used the Panel Estimation General Least Squares (EGLS) method with the following models:

$$\lg SUS_{GR} = \alpha + \partial_t + \beta_1 \lg BRisk_{it} + \beta_2 \lg OpRisk_{it} + \beta_3 \lg FRisk_{it} + \beta_4 \lg ITO_{it} + \beta_5 \lg AssGr_{it} + \beta_6 \lg AGOS_{it} + \epsilon \quad (8)$$

The use of logarithms for the measurement of each variable is for the reason of minimizing data dispersion that is too wide. This is due to variations in data with fairly high sample data intervals, risk calculation with time series data variance for seven (7) years (2012-2018) for each risk variable

- a)  $\lg SUS_{GR}$  = Sustainable Growth Rate is computed using equation (7)

- b)  $IgBRisk$  = Business Risk is the average standard deviation of net sale of firm  $i$  for 7 years.
- c)  $Ig\_OpRisk$  = Operating Risk is the average standard deviation of net profit margin of firm  $i$  for 7 years.
- d)  $Ig\_F\_Risk$  = Financial Risk is computed from Debt Equity Ratio.
- e)  $IgITO$  = Inventory Turnover
- f)  $IgAssGr$  = Asset Growth is the change of assets of firm  $i$  at year  $t$  compared to previous year.
- g)  $IgAGOS$  = Actual Growth Of Sales is the growth of sales, that is the change of sales for firm  $i$  at year  $t$  compared to previous year.
- h) Period  $t$  is seven year and  $i$  is the total firms, which is 103 firms

operating risk and financial risk. Table 1 presents the descriptive statistics of the variables.

The existence of sales growth and negative asset growth is a phenomenon of companies experiencing growth decline even though, on average, from year to year, there is an increase in risk variables, which indicates lower business risk compared to financial risk and operating risk. As explained above, business risk is the standard deviation of average net sales; this reflects how external conditions also affect the company's business cycle. Descriptive statistical results show an average business risk of around 0.5 percent with a standard deviation of around 1.6 percent, meaning that sales conditions are not too volatile. In contrast to very high operational risk, the average is 7.2 percent with a standard deviation of 16.32 percent. As previous studies have shown that operational operational characteristics can determine a company's risk [8] [48], another example is the existence of inflation, which can affect operational risk and sustainable growth [28].

## V. RESULTS AND DISCUSSION

Descriptive analysis shows that the average of the panel data is in the range of 0.02 percent to 3.9 percent while the average sales growth rate ranges from -0.9 percent to a maximum of 1.27 percent in a high-risk and volatile business environment. This can be seen from the high number of business risk,

**Table 1 : Descriptive Statistics**

Variable	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
SusGr	721	.0201	3.95	1.027	.0209	.5636	.318
B_Risk	721	.0016	32.05	.507	.0632	1.6977	2.882
Op_Risk	721	.0380	161.41	7.241	.6079	16.3249	266.503
F_Risk	721	.0412	13.67	1.294	.0552	1.4836	2.201
ITO	721	.0035	33.50	5.824	.1382	3.7118	13.778
AssGr	721	-.9990	1.72	.110	.0077	.2086	.044
AGoS	721	-.9989	1.27	.072	.0085	.2290	.052

This is also supported by the average inflation rate in Indonesia, ranging from 4 to 6 percent (Central Bureau of Statistics, 2018). Meanwhile, financial risk has an average rate of around 1.29 times with a standard deviation of about 1.48 times. Financial risk is the risk caused by funding sources, as measured by the debt to equity ratio. The higher the

DER, the greater the financial risk faced by the company because it has the potential for financial distress [51] [42] [38]. The average financial risk is quite good, although there are companies that have a DER of more than 13 times the ratio of debt to equity.



Statistical test results comparing mean paired samples t-test showed that there were significant differences between actual growth of sales (AGoS) and sustainable growth rate (SusGR). As some literature has explained, the difference between sales growth with sales targets that should be achieved by companies with additional sources of funding from retained earnings (retained earnings) with other funding sources is relatively constant [27] [64] [56]. In this case, there should be no real difference between actual growth of sales and sustainable growth. If there are real differences, it is an indication there is a problem in dividend policy. Some research also shows that there is a relationship between ROA and Price to Book Value to the gap between actual growth and sustainable growth [2].

Furthermore, the results of the study indicate that the average SusGR is far higher than the AGoS. This indicates that the company has an adequate source

of internal funding to increase growth at a certain sales level. However, additional internal funds are not enough to have contributed to the increase in sales. This can also be massaged from a relatively small inventory turnover with an average of 5.8 times per year, and asset growth of 11 percent, which shows the internal funds used to increase assets are less effective in generating sales target; so, if the company does not reach a certain level of sales, a series of policies can be taken to increase dividend payments or reduce the level of debt. This is in line with [52], as previous research shows that companies that have sustainable growth also have a high level of Debt To Ratio [63]. This is a problem in the behavior of the company's financial strategy, as explained by [46], namely the existence of financial slack, which causes inefficiency in investment decisions. This can occur because of the asymmetry of information [20] and the conflict of interest of the agency [31].

**Table 2 : Paired Samples Test- Paired Differences**

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t test	Sig-2 tailed
				Lower	Upper		
lg_SusGR - Lg_AGoS	-1.235	.275	.01026	-1.255	-1.215	-120.43	.000

Furthermore, the causal relationship test between predictor variables, business risk, operating risk, debt to equity ratio, asset turn over, asset growth and sales growth to sustainable growth rates is tested with the multiple regression equation model, which will be explained below. The data used are panel data, a combination of time series for seven (7) years in the period of 2012 to 2018 and a total of 103 companies going public in the manufacturing industry sector. Therefore, the selection of the GLM estimation method at least squares is important as to whether the data are random. This is done by testing whether to choose fixed effects or common effects with the Chow Test. If the results of the chi-square

cross-section show sig 0.0000 or 0.05 less, then the fixed effect is chosen compared to the common effect. Because the Chow Test results chose the fixed effect, the GLM least square random estimation method with Hausman Test was then estimated, to choose either the fixed effect or random effect. Correlated Random Effects-Hausman Test results show a chi-square probability value of 0.1141. This means that the estimation equation model is more suitable using fixed effects. Following are the final results of the regression model with fixed effects, meaning that all panel data have constant constants for all predictor variables, as shown in Table 3.

**Table 3 Multiple Regression dengan Estimasi General Linear Model Least Squares Fixed Effect**

Dependent Variable: LG_SUSGR				
Periods included: 7				
Cross-sections included: 103: Fixed Effect				
Total panel (balanced) observations: 721				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.052	0.951	-1.106	0.2688
LG_B_RISK	-0.128	0.016	-7.643	0.0000
LG_OP_RISK	-0.017	0.009	-1.768	0.0774
LG_F_RISK	-0.112	0.020	-5.604	0.0000
LG_ITO	0.049	0.015	3.237	0.0013
LG_ASS_GR	-8.891	0.679	-13.08	0.0000
LG_AGoS	9.225	0.629	14.66	0.0000
R-squared	0.904	Mean dependent var		-0.057
Adjusted R-squared	0.886	S.D. dependent var		0.277
S.E. of regression	0.093	Akaike info criterion		-1.756
Sum squared resid	5.299	Schwarz criterion		-1.025
Log likelihood	748.08	Hannan-Quinn criter.		-1.474
F-statistic	50.130	Durbin-Watson stat		1.3984
Prob(F-statistic)	0.0000			

Table 3 shows that all risk determination variables, including B\_RISK, OP\_RISK and F\_RISK, have a negative effect on SUS\_GR, as well as the asset growth variable (ASS\_GR) which has a negative effect on SUS\_Gr. This proves that increasing business risk, operational risk and financial risk decreases sales achievement targets. The influence of business risk on SUS\_GR, as a reflection that external factors have a sensitivity toward investment decisions so that, in turn, it will affect the capital structure policy is in line with the opinion by [7] that market characteristics can influence investment decisions.

The influence of operational risk on SUS\_GR also shows a negative relationship, meaning that the higher the operational risk, the lower the SUS\_GR achievement; this proves that the higher the volatility of net operating margin, the lower the investment of internal funds needed to maintain sales targets. This finding is in line with dividend growth theory with Gordon Model investment opportunities (Fairchild, 2003). In line with

Mukherjee and Sen (2017) it shows that there is a negative relationship between asset quality, operational efficiency and sustainable growth, while [59] [21] show that operational decisions affect sustainable growth business.

Likewise, the negative relationship between financial risk and SUS\_GR can be explained that the higher the financial risk, the lower the sales target with internal funding sources. This means that the higher the debt, the company tends to use retained earnings to cover the debt, or for additional operational costs or to stand guard against business uncertainty. This support Amouzes (2011) who shows that sustainable growth has a positive relationship with low performance and risk. This is in line with pecking order theory and trade-off theory on the choice of funding sources that have implications for capital structure [57] [60] [24] [10].

Inventory turnover, on the other hand, has a positive effect on SUS\_GR as an indication that companies that have high inventory turnover and sales growth have the potential for higher SUS\_GR. This can be

interpreted that high inventory turnover supports sales growth funded with internal capital, which is in line with the results of previous research also showing that internal financing has a positive effect on growth with high levels of productivity and limited external funds [22] [15]. Likewise, high sales growth will be able to be financed with internal funds, meaning companies can make a series of policies to reduce debt.

The results of this study also prove that there is a very significant influence between sales growth with sustainable growth, although some studies show no relationship between plowback ratio and sales growth [23]. Although there is a positive relationship between actual sales and sustainable growth, there is a descriptive difference between the two. This shows that the characteristics of manufacturing companies listed on the Indonesia Stock Exchange do not have a match or consistency between internal funding sources or dividend policies with sales growth targets that will be maintained on an ongoing basis. Also, it serves as a reflection of the need for caution of company policies relating to shareholder rights and capital structure.

## VI. CONCLUSION

This study concludes that there is a significant slack between sales growth and sustainable growth rates, where the sustainable growth rate is much higher than the actual growth rate as an indication of the inconsistency between internal funding and increased sales. This inconsistency is an indication of the need for caution regarding dividend policy for shareholders. Therefore, managerial behavior is controlled by balancing sales targets with retained earnings and capital structure policies. This study also concludes that there is a negative relationship between business risk, operational risk and financial risk toward sustainable growth, as an indication that any potential risk can have an impact on not achieving sales targets. Therefore, it is important to consider the level of sales volatility, net operating

margin and financial limitations in determining investment policies with internal funding. This is as a guide for determining the dividend payout policy ratio. The findings of the negative influence between asset growth and sustainable growth explain that the ineffectiveness of the company in managing assets to generate sales, or use of assets is not optimal. The positive influence between inventory turnover on sustainable growth shows the factor that determines the achievement of sales targets is the effectiveness of inventory management, so there is no idle capacity. This is in line with sales growth that has a positive effect on sustainable growth.

## VII. LIMITATION

This research has not distinguished the specific industry characteristics in the study sample, including the stages of the business life cycle of each company. Moreover, the sample is limited to the manufacturing industry environment, which may have differences with other types of companies. This research also does not specifically explain the data bias because, in the calculation of sustainable growth, there is also an endogenous factor obtained from the dividend policy that affects investment.

## REFERENCES

- [1] Aggarwal, R., & Zong, S. (2006). The cash flow–investment relationship: International evidence of limited access to external finance. *Journal of Multinational Financial Management*, 16(1), 89-104.
- [2] Amouzesh, N., Moeinfar, Z., & Mousavi, Z. (2011). Sustainable growth rate and firm performance: evidence from Iran stock exchange. *International Journal of Business and Social Science*, 2(23).
- [3] Andreou, P. C., Louca, C., & Panayides, P. M. (2016). The impact of vertical integration on inventory turnover and operating performance. *International Journal of Logistics Research and Applications*, 19 (3), 218-238.
- [4] Arora, L., Kumar, S., & Verma, P. (2018). The Anatomy of Sustainable Growth Rate of Indian Manufacturing Firms. *Global Business Review*, 19(4), 1050-1071.

- [5] Ashta, A. (2008). Sustainable growth rates: refining a measure. *Strategic Change*, 17(5-6), 207-214.
- [6] Babcock, G. C. (1970). The concept of sustainable growth. *Financial Analysts Journal*, 26(3), 108-114.
- [7] Baker, H. K., & Weigand, R. (2015). Corporate dividend policy revisited. *Managerial Finance*, 41(2), 126-144.
- [8] Bartram, S. M., Brown, G. W., & Waller, W. (2015). How important is financial risk?. *Journal of Financial and Quantitative Analysis*, 50(4), 801-824.
- [9] Bender, R. (2013). *Corporate financial strategy*. Routledge.
- [10] Bilgin, R., & Dinc, Y. (2019). Factoring as a determinant of capital structure for large firms: Theoretical and empirical analysis. *Borsa Istanbul Review*.
- [11] Bliss, B. A., Cheng, Y., & Denis, D. J. (2015). Corporate payout, cash retention, and the supply of credit: Evidence from the 2008–2009 credit crisis. *Journal of Financial Economics*, 115(3), 521-540.
- [12] Brick, I. E., Chen, H. Y., Hsieh, C. H., & Lee, C. F. (2016). A comparison of alternative models for estimating firm's growth rate. *Review of Quantitative Finance and Accounting*, 47(2), 369-393.
- [13] Brush, T. H., Bromiley, P., & Hendrickx, M. (2000). The free cash flow hypothesis for sales growth and firm performance. *Strategic Management Journal*, 21(4), 455-472.
- [14] Channon, D. F., & McGee, J. (2015). Sustainable Growth Rate. *Wiley Encyclopedia of Management*, 1-2.
- [15] Chen, H. Y., Gupta, M. C., Lee, A. C., & Lee, C. F. (2013). Sustainable growth rate, optimal growth rate, and optimal payout ratio: A joint optimization approach. *Journal of Banking & Finance*, 37(4), 1205-1222.
- [16] Constantin, Alin. 2015. Cash-Flow Sustainable Growth Rate Models. *Journal of Public Administration, Finance and Law*.
- [17] Constantinou, G., Karali, A., & Papanastasopoulos, G. (2017). Asset growth and the cross-section of stock returns: evidence from Greek listed firms. *Management Decision*, 55(5), 826–841.
- [18] Escalante, C. L., Turvey, C. G., & Barry, P. J. (2009). Farm business decisions and the sustainable growth challenge paradigm. *Agricultural Finance Review*, 69(2), 228-247.
- [19] Fairchild, R. J. (2003). Dividend smoothing and optimal re-investment. *Managerial Finance*, 29(11), 35-48.
- [20] Fama, Eugene F., French, Kenneth R., 2002. Testing trade-off and pecking order predictions about dividends and debt. *Rev. Financ. Stud.* 15, 1–33 .
- [21] Grigoroi, L. (2016). The Evolution Of The Sustainable Growth Of Companies Within The Pharmaceutical Industry. *Revista Economica*, 68(3).
- [22] Guariglia, A., Liu, X., & Song, L. (2011). Internal finance and growth: microeconomic evidence on Chinese firms. *Journal of Development Economics*, 96(1), 79-94.
- [23] Gurbuz, A. O., Ataunal, L., & Aybars, A. (2017). The Impact of Selected Firm Features on Sales Growth: Empirical Evidence from S&P500. In *Global Business Strategies in Crisis* (pp. 371-383). Springer, Cham.
- [24] Haddad, K., & Lottfaliei, B. (2019). Trade-off theory and zero leverage. *Finance Research Letters*, 31, 165-170.
- [25] Hauser, R., & Thornton Jr, J. H. (2017). Dividend policy and corporate valuation. *Managerial Finance*, 43(6), 663-678.
- [26] Higgins RC. 2008. Sustainable growth under inflation. *Financial Management* 10(4): 36–40.
- [27] Higgins, R. C. (1977). How much growth can a firm afford?. *Financial management*, 7-16.
- [28] Higgins, R. C. (1981). Sustainable growth under inflation. *Financial Management*, 36-40.
- [29] J. Lintner, 'Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes', *American Economic Review*, May 1956, pp97–113.
- [30] Janicka, M. (2016). Financial markets and the challenges of sustainable growth. *Comparative Economic Research*, 19(2), 27-41.
- [31] Jensen, M. C. (1986). 'Agency costs of free cash flow, corporate finance and takeovers', *American Economic Association Papers and proceedings*, 76(2), pp. 323–329.
- [32] Jensen, M. C. and W. H. Meckling (1976). 'Theory of the firm: managerial behavior,

- agency costs and ownership structure', *Journal of Financial Economics*, 3, pp. 305–360
- [33] Johnson, D. J. (1981). The behavior of financial structure and sustainable growth in an inflationary environment. *Financial Management*, 30-35.
- [34] Junaidi, S., Sulastri, S., Isnurhadi, I., & Adam, M. (2019). Liquidity, asset quality, and efficiency to sustainable growth rate for banking at Indonesia Stock Exchange. *Jurnal Keuangan Dan Perbankan*, 23(2), 308-319.
- [35] Kaźmierska-Jóźwiak, B. (2015). Determinants of dividend policy: evidence from polish listed companies. *Procedia economics and finance*, 23, 473-477.
- [36] Koussis, N., Martzoukos, S. H., & Trigeorgis, L. (2017). Corporate liquidity and dividend policy under uncertainty. *Journal of Banking & Finance*, 81, 221-235.
- [37] Lockwood, L., & Prombutr, W. (2010). Sustainable growth and stock returns. *Journal of Financial Research*, 33(4), 519-538.
- [38] Karakaya, A., Kurtaran, A. T., & Kurtaran, A. (2017). Firm Value and External Financing Needs. *International Journal of Economics and Finance*, 9(6), 69-81.
- [39] Mappanyuki, R., & Sari, M. (2017). The Effect of Sales Growth Ratio, Inventory Turnover Ratio, Growth Opportunity to Company's Profitability. *International Journal of Management and Applied Science (IJMAS)*, 3(3), 139-147.
- [40] Matyash, I. (2018). Investment Attractiveness and Sustainable Growth of Telecommunication Companies: Value-Oriented Approach. *Economy of region*, 1(4), 1411-1423.
- [41] Miller, Merton H., Modigliani, Franco. (1961). Dividend policy, growth and the valuation of shares. *J. Bus.* 34, 411–433 .
- [42] Mishra, C. S., & McConaughy, D. L. (1999). Founding family control and capital structure: The risk of loss of control and the aversion to debt. *Entrepreneurship theory and practice*, 23(4), 53-64.
- [43] Mogos, S., Davis, A., & Baptista, R. (2015). Defining high growth firms: sustainable growth, volatility, and survival. *DRUID 15*, Rome, June 15, 17.
- [44] Mukherjee, T., & Sen, S. S. (2017). Sustainable growth: a study on some selected banks in India. *Wealth*, 6(1), 51-59.
- [45] Muritala, T. A. (2018). An empirical analysis of capital structure on firms' performance in Nigeria. *IJAME*.
- [46] Myers, S. and N. Majluf. 1984. Corporate financing and investment decisions when firms have information investors do not have. *Journal of Financial Economics* 13: 187-221.
- [47] Nadeem Ahmed Sheikh Zongjun Wang, (2013), "The impact of capital structure on performance", *International Journal of Commerce and Management*, Vol. 23 Iss 4 pp. 354 – 368.
- [48] Olson, G. T., & Pagano, M. S. (2005). A new application of sustainable growth: a multi-dimensional framework for evaluating the long run performance of bank mergers. *Journal of Business Finance & Accounting*, 32(9-10), 1995-2036.
- [49] Papanastasopoulos, G., Thomakos, D., & Wang, T. (2010). The implications of retained and distributed earnings for future profitability and stock returns. *Review of Accounting and Finance*, 9(4), 395-423.
- [50] Phillips, M., Anderson, S., & Volker, J. (2010). Understanding small private retail firm growth using the sustainable growth model. *Journal of Finance and Accounting*, 3, 1-11.
- [51] Platt, H. D., Platt, M. B., & Chen, G. (1995). Sustainable growth rate of firms in financial distress. *Journal of Economics and Finance*, 19(2), 147-151.
- [52] Priya, P. V., & Mohanasundari, M. (2016). Dividend policy and its impact on firm value: A review of theories and empirical evidence. *Journal of Management Sciences and Technology*, 3(3), 59-69.
- [53] Radasanu, A. C. (2015). Cash-flow sustainable growth rate models. *Journal of Public Administration, Finance and Law*, (07), 62-70.
- [54] Rahim, N., & Munir, M. B. (2018). The Sustainable Growth Rate Of Firm In Malaysia: A Panel Data Analysis. *Al-'Abqari: Journal of Islamic Social Sciences and Humanities*, 16, 69-80.
- [55] Rahim, N., & Saad, N. (2014). Sustainable growth of public listed companies (PLC) using capital structure choices and firm performance

- in an Asean Market. Proceeding of the Global Summit on Education GSE, 4-5.
- [56] Ross, Stephen, Randolph Westerfield, and Jeffrey Jaffe, 1996, Corporate finance (Irwin, Chicago, Ill.).
- [57] Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. *Journal of financial economics*, 67(2), 217-248.
- [58] Saccomanni, F. (2016). Fault Lines in the International Monetary System: Risks for Economic Recovery and Sustainable Growth. In *Stagnation Versus Growth in Europe* (pp. 209-219). Springer, Cham.
- [59] Schwab, L., Gold, S., Kunz, N., & Reiner, G. (2017). Sustainable business growth: exploring operations decision-making. *Journal of Global Responsibility*, 8 (1), 83-95.
- [60] Shyam-Sunder, L., & Myers, S. C. (1999). Testing static tradeoff against pecking order models of capital structure. *Journal of financial economics*, 51(2), 219-244.
- [61] Smith, D. C. (1963). Corporate Saving Behaviour. *Canadian Journal of Economics and Political Science/Revue canadienne de economiques et science politique*, 29(3), 297-310.
- [62] Tao, J., & Yu, S. (2018). Product Life Cycle Design for Sustainable Value Creation. In *Value Creation through Engineering Excellence* (pp. 297-326). Palgrave Macmillan, Cham.
- [63] Utami, D., Sulastri, Muthia, F., & Thamrin, K. H. (2018). Sustainable Growth: Grow and Broke Empirical Study on Manufacturing Sector Companies Listed on the Indonesia Stock Exchange. *KnE Social Sciences*, 3(10).
- [64] Van Horne, J. C. (1986). *Financial management and policy*. Prentice Hall.
- [65] Williamson, J. (1966). Profit, growth and sales maximization. *Economica*, 1-16.

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