### The Effect of Growth and Systematic Risk on the Firm's Value: Profitability as a Mediating Variable

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#### ABSTRACT

This research aimed to examine the impact of growth and systematic risk on company value, mediated by profitability in insurance companies listed on the Indonesia Stock Exchange (IDX). There are 88 companies in the financial sector in the insurance subsector listed on the IDX. They are taken as the population by using the purposive sampling technique. The sample of this study consists of fourteen insurance companies. The data is analyzed using partial least square structural equation modeling (PLS-SEM). It is found that growth has a significant positive effect on profitability, and profitability has a significant positive effect on firm value. It means that profitability fully mediates the effect of growth on firm value. On the contrary, growth does not have a significant direct effect on firm value. Systematic risk has no significant effect on profitability and firm value. These findings are expected to have a good impact on investors and firms' managers in Indonesia by looking at the growth and its impact on current corporate values.

#### ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh pertumbuhan dan risiko sistematis terhadap nilai perusahaan yang dimediasi oleh profitabilitas pada perusahaan asuransi yang terdaftar di Bursa Efek Indonesia (BEI). Terdapat 88 perusahaan sektor keuangan di sub sektor asuransi yang tercatat di BEI. Perusahaan tersebut diambil sebagai populasi dengan menggunakan teknik purposive sampling. Sampel terdiri dari empat belas perusahaan asuransi. Analisis data menggunakan model persamaan struktural kuadrat terkecil (PLS-SEM). Hasil penelitian membuktikan bahwa pertumbuhan berpengaruh positif signifikan terhadap profitabilitas, dan profitabilitas berpengaruh positif signifikan terhadap nilai perusahaan. Artinya profitabilitas sepenuhnya memediasi pengaruh pertumbuhan penjualan terhadap nilai perusahaan. Sebaliknya, pertumbuhan pernjualan tidak memiliki pengaruh langsung yang signifikan terhadap nilai perusahaan. Risiko sistematik tidak berpengaruh signifikan terhadap profitabilitas dan nilai perusahaan. Hasil penelitian ini diharapkan dapat memberikan dampak yang baik bagi investor dan pengelola perusahaan di Indonesia melihat pertumbuhan dan pengaruhnya terhadap nilai-nilai perusahaan saat ini.

#### 1. INTRODUCTION

The purpose of establishing the company is grouped into two main parts, namely in the short and long term. The short-term goal is to maximize profit for the company, while the long-term goals are to prosper the company's owners or shareholders. One way to meet the company's goals is by maximizing the firm's value (Brigham & Huston, 2021). The firm's value is an investor view of the company's success rate and is usually related to stock prices. The higher the stock price, the higher the returns to be received by investors and will improve the

welfare of shareholder owners.

Considering the importance of the company's value, it is necessary to research various factors that influence it. This study examines the determinant of the company's value in the financial sub-sector, namely the insurance industry. The industry is very interesting to research, specifically related to the Covid-19 outbreak, which began to occur in 2020. The Covid-19 outbreak makes people increasingly aware of the importance of health insurance, affecting the company's profit performance and share price. IDX Statistics (IDX, 2021) shows that the

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health sector is one of the sectors that experienced a high growth rate during March 2020 - March 2021, amounting to 38 percent.

Firm value is strongly influenced by two main factors, namely the growth opportunities and risk. A firm's growth ratio shows its position within its industry and its growth over time (Fahmi, 2012; Kasmir, 2016). It could be reflected in the growth of sales, earnings, earnings per share, dividends, and total assets. The higher the growth rate of the firm, the higher the firm value. Growing companies generally have investment opportunities that generate positive net present value (Liow, 2010). So that investors perceive this growth as a positive signal about the company's future performance and rush to buy company shares which will encourage share prices to increase (Gregory, Tharyan, & Whittaker, 2014; Varaiya, Kerin, & Weeks, 1987).

Another important factor influencing the firm value is systematic risk. The systematic risk can spread among financial institutions and between the financial system and the real economy through contagion. It is a risk that investors cannot eliminate through diversification. The higher the systematic risk borne, the higher the level of return expected by investors (Campbell, Polk, & Vuolteenaho, 2010; Zahiri, Mehrara, Falahati, & 2014). Risk management literature states that companies can benefit from risk management because low risk will increase the present value of expected cash flows and increase firm value (Krause & Tse, 2016; Panaretou, 2014). Therefore, in the context of firm value, the higher the systematic risk, the lower the firm value (Astuty, 2017).

The previous discussion mentions that growth rates influence the firm value. However, the effect of growth on the firm value may indirectly impact profitability (Davidsson, Steffens, & Fitzsimmons, 2009). Sales growth coupled with controlling costs will increase the company's profit (Ramezani, Soenen, & Jung, 2002). The higher the profitability, the higher the company's stock price. However, growth can also hinder profitability (Jang & Park, 2011). The growth that is too expansive causes various consequences of fixed costs that cannot be covered in the short term, resulting in a decrease in company profits. The effect of systematic risk on firm value can also be indirect through profitability. To cover the amount of risk borne, companies also need to make investments that generate high profitability. Therefore, the higher the systematic risk, the higher the firm profitability (Aaker & Jacobson, 1987).

There are two main novelties to this research compared to previous studies. First, various previous studies have examined the determinants of firm value. However, these studies generally only use one measure of firm value, such as Tobin's Q (Mak & Kunadi, 2005; Sucuahi & Cambarihan; Wei, Xie, & Zhang, 2005), price to book value (Gamayuni, 2015; Paminto, 2015), and price to earnings ratio (Kamstra, 2003; Ramcharran, 2002). This study is different from previous studies because it uses a firm value composite score, which combines two indicators, namely Tobin's Q and Price to Book Value. This composite score is expected better to capture the variation in firm value from various perspectives. Second, this study examines the role of profitability in mediating the effect of growth on firm value. Previous research only examined the direct effect of these two variables on company value (Astuty, 2017; Gregory et al., 2014; Varaiya et al., 1987).

# 2. THEORETICAL FRAMEWORK AND HYPOTHESES

A previous study, such as by Margaretha & Supartika (2016), showed that a company's financial growth has a significant and positive effect on the company's profitability. To enhance profitability, sales growth is the key to success. For example, Farhana, Susila, & Suwendra (2016) showed that growth in sales increases profitability. Sari, Ritonga, & Azlina (2014) show a positive correlation between sales growth and profitability. When the sales growth increases, the company's profitability also increases. Therefore, sales growth can affect the company's profitability significantly. Higher sales growth means that the company performs well, thus encouraging its profits to increase. This argument is also supported by Missy, Budiyanto, & Riyadi (2016), Kumar et al. (2021), and Odalo, Njuguna, & Achoki (2016), showing that sales growth positively affected profitability. Growth can also be measured using asset growth. The company will increase its assets, especially fixed assets, if this can provide added value to the company, namely generating revenue higher than its costs. Thus, asset growth can increase company profits (Ting, Kweh, & Chan, 2014; Watanabe et al., 2013).

The evidence above leads us to generalize a significant effect of sales growth and asset growth on a company's profitability. In other words, the higher growth, the higher the company's profitability is. For this reason, the hypothesis is stated as follows:

H<sub>1</sub>: Growth has a positive effect on profitability.

Another factor that affects the company's profitability is a systematic risk as measured using the beta. Companies need to make investments that generate high returns as compensation for the high risks they bear (Aaker & Jacobson, 1987). As discovered by Nawaz et al. (2017) and Al-qaisi (2011), a systematic risk has a positive effect on profitability. Another study is by Balasundaram & Praptheepkanth (2012), who also found that profitability is positively associated with systematic risk. Based on these arguments, the hypothesis is stated as follows:

H<sub>2</sub>: Systematic risk has a positive effect on profitability.

A company's value is indicated by the stock price that rises. It can be induced by the investors' demand for shares or stocks after the investors see that the company's sales growth has risen. Thus, investors always appreciate the company's stocks based on their understanding of the company's growth. This, in turn, leads to the increase of the company's value, as is indicated by their stock prices that have risen. Dewi, Yuniarta, & Atmadja (2014) and Pangulu (2014) described that it indicates the beginning of the process's movement in the first period of company growth. This period can immediately achieve the return on investment. When the company has made a remarkable improvement in its sales growth, it can also increase their company's value. It means that the company can increase its value after it increased its sales growth.

When considering the factors affecting the company's value, some previous studies related to this evidence can be referred to. For example, a study by Oh & Kim (2016) found that growth in any company can affect the company's value. From this evidence, it can clearly be understood that when sales growth increases, more customers have higher trust in the company's stock prices. Setianto (2020) also discovered that sales growth could affect the company's value. This study was also supported by Data et al. (2017), Fajaria & Isnalita (2018), and Putri & Rahyuda (2020), who also found that the company's sales growth has a significant positive impact besides on capital structure, financial performance, it also affected the company's value. In addition, asset growth also affects profitability. The company decides to expand its assets if it believes it generates revenue that exceeds expenses, or in other words, it generates a profit. Thus, the higher the asset growth, the higher the profit generate (Aaker

& Jacobson, 1987). Based on the evidence above, the hypothesis is stated as follows:

H<sub>3</sub>: Growth has a positive effect on firms' value.

Besides growth, systematic risk is also the factor to be deemed to affect the company's value. The risk in the investment capital market, In fact, just consists of two kinds of risks: the systematic and the unsystematic. Systematic risk cannot be eliminated by diversification and is, therefore, a concern of investors. This is why investors invest in stocks with the expectation of receiving high returns. However, investors should also be willing to bear the risk. As a result, the company should also consider the risk as an important factor affecting their values.

This study focuses on the risk related to systematic risk. Based on the theory, systematic risk is considered the factor that has a significant effect on the company's value. The measurement is indicated by the beta, which indicates the risk of the stock. Prasetia, Tommy, & Saerang, 2014) found that systematic risk is an important factor for increasing the company's value. According to Alghifari (2013), there is a positive effect of systematic risk on the company's value. Although this evidence is not supported by Wibowo (2012), stating that systemic risk has no significant effect on company performance and company value. On the contrary, Astuty (2017) found that the higher the systematic risk, the lower the firm value. From this argument, the hypothesis can be stated as follows:

H<sub>4</sub>: Systematic risk effect firms' value.

It can be predicted that profitability is an important factor, and it affects the company's value. According to Rahayu & Sari (2018), profitability is a ratio that describes the management performance of company resources management. It is stated that increased profits will increase the company's value. This can be true when the company has optimized the use of assets, increased sales of company products, and increased cost-efficiency. From this, it can also be argued that the higher the ratio of profitability, the better the productivity of assets in generating profits is. The high profitability will show the prospect of a good quality company so that the market can respond positively.

When the company's profitability is high, it will attract investors. Investors believe that the company has a positive signal to report information related to good financial performance. Investors also believe that the coming period will be comfortable for companies to increase profits. This signal that the prospect of the company's profitability performance is good attracts investors to buy the company's shares, causing the stock price and company value to increase (Handayani, 2018; Sucuahi & Cambarihan, 2016). It is described more clearly that profitability impacts company value because the company value has a positive sentiment on achieving profit to justify higher future dividends. The stock price would rise because the company showed a positive signal to pay dividends (Sabrin et al., 2016).

The increase in growth also shows the increase of the profit potential, thus positively impacting the company's value (Febriyanto, 2018; Kodongo, Mokoaleli-Mokoteli, & Maina, 2015). This growth has a positive effect on the company's value, and finally, it can also attract investors. This means that the effect of growth on firm value is not direct but through profitability. In other words, profitability is

a mediator of growth on firm value (Davidsson et al., 2009).

The same is true for the influence of systematic risk. The high risk borne by shareholders requires the company to generate high profits for them (Aaker & Jacobson, 1987). This high profit will, in turn, attract more investors to buy the company shares, causing share prices to rise. Based on the arguments above, the hypothesis is stated as follows:

H<sub>5</sub>: Profitability mediates the effect of growth and systematic risk on the firms' value.

Based on the discussion above, the research framework is presented in Figure 1. The exogenous variables consist of growth and systematic risk, the mediating variable is profitability, and the endogenous variable is the firms' value.

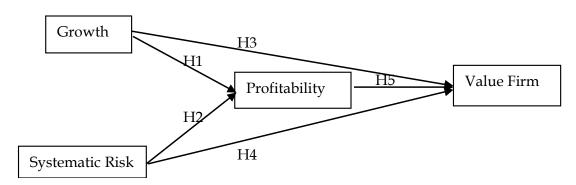


Figure 1. Research Framework

### 3. RESEARCH METHOD

This research used a population consisting of 18 insurance companies listed on the Indonesia Stock Exchange IDX between 2016 and 2020. There were 14 companies meeting the criteria based on purposive sampling. The details of the sample selection process are seen in Table 1. The companies selected as research samples are Asuransi Bina Dana Arta Tbk (ABDA); Asuransi Harta Aman Pratama Tbk (AHAP); Multi Artha Guna Tbk (AMAG) Insurance; Asuransi Bintang Tbk (ASBI); Asuransi Dayin Mitra Tbk (ASDM); Asuransi Jasa Tania Tbk (ASJT); Asuransi Kresna Mitra Tbk (ASMI); Asuransi Ramayana Tbk (ASRM); Asuransi Jiwa MSIG Tbk (LIFE); Lippo General Sinarmas Insurance Tbk (LPGI); Reinsurance Airlines Indonesia Tbk (MREI); Malacca Trust Wuwungan Insurance Tbk (MTWI); Asuransi Tugu Pratama Indonesia Tbk (TUGU) and Victoria Insurance Tbk (VINS). The data were collected through relevant data from various sources from the Indonesian Capital Market Directory and the Indonesian Stock Exchange Official Website (Source: www.idx.co.id). This study has four variables. The endogenous variable is firm value. This dependent variable consists of two indicators: Tobin Q (Y1) and Price to Book Value (Y2). The two exogenous variables are growth and systematic risk. The growth variable consists of two indicators: asset growth (X1.2) and sales growth (X1.2.). The systematic risk use only one indicator, represented by beta (X2). This study uses profitability as the mediating variable. The indicators of profitability consist of net profit margin (Z1), return on asset (Z2), and return on equity (Z3)

Table 1. Sample Selection Criteria

Sample Criteria	Total
Insurance companies that went public or listed on the IDX in 2016-2020	18
Insurance companies that did not publish annual reports regularly	-3
Insurance with outlier data	-1
Insurance sub-sector finance company as a research sample	14
Observations (No. of firms x year = $14 \times 5$ )	70

The Partial Least Square Structural Equation Modeling (PLS-SEM) was used to evaluate the factors. PLS-SEM is used for causal predictive analysis and reflective and formative variables (Calvo-mora, Leal, & Roldán, 2005). This method is non-parametric, which means that this method does not require any assumption about the data distribution. PLS-SEM is a standard multivariate analysis method used to calculate variance-based structural equation models, particularly in social sciences (Hair et al., 2012). However, PLS-SEM offers an opportunity to resolve the multifaceted process of associations and causal relationships that are otherwise difficult to detect. PLS-SEM will use the data to evaluate the path coefficient. The most commonly used PLS-SEM application in the current era is considered more suitable for quantitative data analysis. Besides, PLS-SEM distributed the data using the bootstrapping technique to determine the significance value of the path coefficient. This study aims to apply PLS-SEM to a better understanding of the influence factors. The proposed model is analyzed in two different phases: first, the models

comprise latent variables (measuring models) that define the relationship between latent indicators and their manifest variables; and, second, the structural model includes the relationship between latent variables.

# 4. DATA ANALYSIS AND DISCUSSION Validity and Reliability Test

The loading factor is a coefficient that describes the degree of relationship between indicators and latent variables. In general, the higher the loading factor, the better, and values less than 0.30 are ignored. A loading factor greater than 0.71 is considered very good, 0.63 is considered very good, 0.55 is considered good, 0.45 is considered fair, and 0.32 is considered flawed (Tabachnick & Fidell, 2006). An indicator is deemed to be valid when it has a loading factor of at least 0.5 (Wiyono, 2011). The standard weight for determining whether an indicator is valid is theoretical confirmatory research. This means that the indicator is accurate in measuring the construction it forms. Figure 1 shows the results of the output of the Smart PLS load factor.

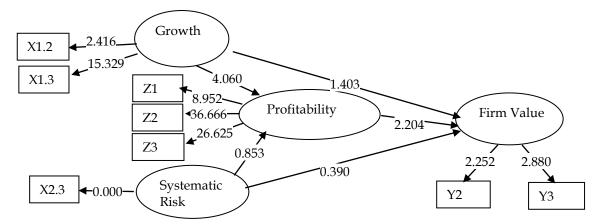


Figure 2. Output Path Coefficient/ Algorithm Model 2

From Figure 2, the study model predicts that all indicators are valid as the PLS-SEM is above a specific threshold. The details are shown in Table 2. All indicators have a loading factor higher than the threshold

of 0.5. The results from Table 2 also show that values of Average Variance Extracted (AVE) of all constructs are higher than 0.5, which means that the indicator was appropriate and proved to be valid.

Table 2 Indicator Test Results.

Validita	Indicator —	Research Variable				Information
Validity		X1	X2	Z	Y	ппогшаноп
	X1.2	0.608				Valid
	X1.3	0.940				Valid
	X2.3		1.000			Valid
Outer Loadings	Z1			0.757		Valid
(Convergent Validity)	Z2			0.971		Valid
	<b>Z</b> 3			0.914		Valid
	Y2				0.785	Valid
	Y3				0.778	Valid
Average Variance Extracted (AVE)	Growth (X1)				0.627	Valid
	Systematic Risk (X2)				1.000	Valid
	Profitability (Z)				0.784	Valid
	Value Company (Y)				0.611	Valid

Table 3. Reliability Test Results

	Growth (X1)	0.762	Reliable
Composite	Systematic Risk (X2)	1.000	Reliable
Reliability	Profitability (Z)	0.915	Reliable
•	Value Company (Y)	0.758	Reliable

The composite reliability function is used to measure the reliability level of various indicators in a unitary variable. If the value is more significant than 0.7, the variable can be declared reliable. The results of this study possess a composite reliability value of 0.83. The data presented in Table 3 has more excellent reliability than 0.7. It can be concluded that all

variables meet the reliability of sufficient for analysis purposes. And then, when the predicted data matches the expected numbers for the outer model, the structural model will be tested. After the variables were entered, the last action is to determine whether the model is excellent or poor by looking at how much they contribute to the model.

Table 4. R-Square Value

Endogenous Variable	R-Square
Profitability	0.412
The Company value	0.085

R-Square is the coefficient of determination that measures the regression equation's fit: the proportion or percentage of the dependent variable's difference, which the independent variable can explain. The value of R<sup>2</sup> is between 0-1, and the fit of the model is said to be better if R<sup>2</sup> is closer than 1. Table 4 shows that the company value variable (Y), systematic risk (X2), and profitability (Z) explained about 8.5 percent of the variation in the company value variable (Y). All factors are other than those studied in this study impact Y of up to 8.5 percent, while the remaining 91.5 percent is due to factors not analyzed in this study. The outcomes were significant, but only on a small scale. This occurs as a result of external factors

that are beyond the control of the research. Thus, by setting the profitability variable at a value of 0.412, the system risk variable explains 41.2 percent of the profits' variation. The influence of variable X on variable Z is only 41.2 percent, while the remaining 58.8 percent is influenced by other variables not studied as part of this research.

Based on bootstrap analysis results, we can estimate the magnitude of the relationships between variables and how variables are related to one another. When using a 95 percent confidence level, df = 0.05, and when using T table = 1.68 as the test statistic, the test statistic is used to determine significance. To better understand Table 5.

Table 5. Hypothesis Testing Results

Variable	Coefficient	Standard Deviation	T-Statistic	P- Values	Conclusion
Growth→Profitability	0.636	0.157	4.060	0.000	Significant
Systematic Risk → Profitability	-0.104	0.121	0.853	0.394	Not Significant
Growth→Firm Value	0.240	0.171	1.403	0.161	Not Significant
Systematic Risk → Firm Value	0.055	0.142	0.390	0.697	Not Significant
Profitability →Firm Value	0.360	0.163	2.204	0.028	Significant

Table 5 shows that the impact of sale growth on profitability has a coefficient value of 0.636 and a statistical value of 4.060. With a significant level of 5%, it can be stated that growth has a significant positive effect on profitability, implying that hypothesis 1 is accepted. Next is the effect of systemic risk on profitability with a coefficient value of -0.104 and a statistical value of 0.853. With a significant level of 5%, it can be stated that growth has no significant impact on profitability, implying that hypothesis 2 is rejected.

It deals with the impact of growth on company value that has a coefficient value of 0.240 and a statistical value of 1.403. With a significant level of 5%, it can be stated that growth has no significant impact on the value company, implying that hypothesis 3 is rejected. Again, the effect of systemic risk on the value company has a coefficient value of 0.055 and a statistical value of 0.390. With a significant level of 5%, it can be stated that growth has no significant impact on profitability, implying that hypothesis 4 is also rejected. The next is the effect of profitability on the firm company has a coefficient value of 0.360 and a statistical value of 2.204. With a significant level of 5%, it can be stated that growth has a significant positive impact on the firm value, implying that hypothesis 5 is accepted. It can be inferred that growth does not substantially have a direct impact on firm valuation but has an indirect effect on it. As a result, ultimately, profitable companies can mediate the impact of growth on company value.

The results show a significant effect of growth on profitability in a positive direction, which means that the higher the growth, the greater the company's profitability. The results of this study are following research conducted by Chotimah (2014), Farhana et al. (2016), Missy et al. (2016), Odalo et al. (2016), and Kumar et al. (2021), which states that growth has a significant positive effect on profitability but is contrary to what was done by Sari et al. (2014), which states that there is no significant effect. These findings support the view that a company expands its assets or sales only when the expansion can generate revenue that exceeds the various costs that must be

incurred, including financial expenses, to support this growth. The growth that is too expansive can be detrimental to the company if it is not accompanied by controlling high costs. This finding also proves that no overinvestment behavior causes a decline in the company's operational performance in insurance companies in Indonesia, such as the phenomenon found by Fu (2010).

Systematic risk has no significant effect on profitability and company value on the study results. This result is not following the results of research conducted by Nawaz et al. (2017) and Al-qaisi (2011), which state that systematic risk has a significant positive effect on profitability. The risks faced by investors related to the sensitivity of the company's share price are not adequately compensated for in the form of operating profit or a higher share price. This, of course, should be a concern for investors as they expect a higher rate of return when taking on greater risk. The findings of this study contradict the findings of Alghifari (2013), Dinasari & Herawati (2020), Prasetia et al. (2014), and Wijaya & Utama (2014) who discovered that systemic risk has a significant impact on firm value.

According to the results in Table 5, profitability mediated the effect of growth on the firm value. Considering that growth does not directly affect firm value, but growth affects profitability, and subsequently, profitability affects company value, the mediating role of profitability, in this case, is full mediation. This indicates that growth will not increase the firm value if the growth is unable to increase profitability. In other words, investors do not necessarily see sales growth and asset growth as positive signals. Investors will react positively to growth when it increases company profits. Thus, company profit is the main concern of investors.

This study backs up the findings by Haugen & Baker (1996) and Yang et al. (2010), which show that the higher the company's profitability, the more profits are distributed to shareholders. Thus, the higher company value is expected to increase. Furthermore, Chen & Chen (2011) and Rizqia, Aisjah, & Sumiati (2013) discovered that profitability has a positive and significant effect on company value.

As previously stated, growth and systematic risk in insurance companies have no significant effect on a company's value. However, investors must be vigilant to enhance the company's progress by paying attention to profitability, measured in this study by net profit margin, return on asset, and return on equity. Therefore, these three indicators can be used to measure company performance. The higher the net profit margin, the higher the company's net income, the higher the return on asset, the higher the rate of return on operations, and the higher the return on equity, the higher the rate of return on available to shareholders or a high growth rate of a company will increase company value if the company has high profits. All of this demonstrates that to increase company value, internal company activities must be optimized to increase profitability.

### 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study examines the relationship between profitability and company value and how profitability can affect the company's value. The argument underpinning this evidence is by using profitability as a driving factor in company value. This is indicated by profitability that significantly increases the company's value. When profit increases, the company's value increases too, and it can attract investors. Although there are still factors that can increase a company's value, the company should optimally increase its profitability, such as sales growth ratios and systematic risk, which they must manage seriously.

This study's findings can help investors determine the profitability of the firms, their potential dividends, and their stock market prices. The most important factor in estimating the value of a company is the extent to which the company has various profitable investment opportunities. This, in turn, will affect the company's ability to distribute dividends, which will impact company value.

The main limitation of this study is that the research period covers only five years. It cannot fully see the effect of growth and systematic risk on the value of insurance companies in various economic conditions. As it is known, Indonesia's economic growth during the 2016-2020 period was relatively stable at around 5 percent. For this reason, it is very interesting to study how these two variables affect the profitability and value of insurance companies after the COVID-19 Pandemic.

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