Evaluation of Insurance Companies’ Stock Price During Pandemic Era in Indonesia: Does Earning Per Share Matter?

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ABSTRACT

A corporation with excellent financial performance will affect the stock demand and prices. Data shows that the average stock price from 2017 to 2020 decreased by 268.07 points, and only three of the nine insurance companies showed above-average market prices. From 2017 to 2020, this research will look at how book value per share and earnings per share influence the stock price of IDX-listed insurance businesses. The sample for this study consists of nine insurance companies concluded on the IDX, as determined by a set of criteria. The study used multiple linear regression analysis methods. The study concluded as follows: (1) Partial earnings per share did not significantly affect stock prices; (2) The insurance company’s stock price is significantly impacted by partial book value per share; and (3) Book value per share and earnings per share have substantial effect on stock prices.

Keywords: Book Value Per Share; Earning Per Share; Stock Prices

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1. Introduction

One of the essential aspects that investors always consider before investing is corporate performance. Generally, the higher corporate success, the greater the demand for its shares, hence the higher the share price. According to Kepramareni et al., the definition of share price server is an instruction when contemplating investment decisions and reflects the company’s value (Kepramareni et al., 2023). Apart from that, share prices also rise when demand for daily necessities increases. The confidence of these investors will increase if the high stock prices are sustained.

On the contrary, investors’ trust will decrease if a company’s share price continuously declines. Government policies can also influence the rise and decrease in stock prices, one of which is the policy made due to the pandemic that spread in Indonesia and the world. These policies include large-scale social restrictions and the regulation of restrictions on community activities. The pandemic was announced by WHO (World Health Organization) on March 13, 2020, and declared a pandemic.

The closing price of the insurance company’s shares was determined using data from the IDX Website. The following information regarding the share prices of insurance service businesses listed in IDX is provided in the table below.

<table>
<thead>
<tr>
<th>Company Name (code)</th>
<th>Share Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT Asuransi Bina Dana Arta Tbk (ABDA)</td>
<td>7250 7000 6975 5575</td>
</tr>
<tr>
<td>PT Asuransi Multi Artha Guna Tbk (AMAG)</td>
<td>34.95 34.6 44.63 56.21</td>
</tr>
<tr>
<td>PT Asuransi Bintang Tbk (ASBI)</td>
<td>286 282 308 310</td>
</tr>
<tr>
<td>PT Asuransi Dayin Mitra Tbk (ASDM)</td>
<td>1015 1165 1090 890</td>
</tr>
<tr>
<td>PT Lippo General Insurance Tbk (LPGI)</td>
<td>4870 4300 3600 3390</td>
</tr>
<tr>
<td>PT International Reinsurance Airlines Tbk (MREI)</td>
<td>4000 5100 4280 4700</td>
</tr>
<tr>
<td>PT Victoria Insurance Tbk (VINS)</td>
<td>189 126 123 91</td>
</tr>
<tr>
<td>PT Maxi-mus Graha Persada Tbk Insurance (ASMI)</td>
<td>67.23 38.93 112.44 215</td>
</tr>
<tr>
<td>PT Ramayana Insurance (ASRM)</td>
<td>1607.69 1671.15 1546.15 1680</td>
</tr>
<tr>
<td>Average</td>
<td>2146.65 2190.85 2008.80 1878.58</td>
</tr>
<tr>
<td>Stock Decline 2018-2020</td>
<td>268.07 12.48%</td>
</tr>
</tbody>
</table>

Source: IDX.co.id

Table 1 above shows that the mean share prices of all insurance service corporations concluded in the Indonesia Stock Exchange in 2017 and 2018 were 2146.65 and 2190.85, while in 2019, it was 2008.80, and in 2020, it was 1878.58. It can also be seen that companies with below-average stock prices are more than vice versa. This can be seen in several companies, such as ABDA, AMAG, ASBI, ASDM, LPGI, MREI, VINS, ASMI, and ASRM. While companies with stock prices above the average insurance industry are only owned by three companies, namely PT Asuransi Bina Dana Artha Tbk (ABDA), PT Lippo General Insurance Tbk (LPGI), PT Ramayana Insurance (ASRM), PT Maskapai Reasuransi Internasional Tbk (MREI), and PT Asuransi Dayin Mitra Tbk (ASDM). In addition, Table 1 shows that the average share price of insurance service corporations concluded in the Indonesia Stock Exchange has decreased from 2017 to 2020 by 268.07 or 12.48%.

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Many internal factors and external factors influence the stock price rate. External factors include announcements from the government, laws, exchange rate fluctuations, and the securities industry. Internal factors consist of notifications about marketing, production, sales, funding, board of directors, diversification, investments, and company financial statements: Earning Per Share (EPS) and Book Value Per Share (BVS) ratios (Yudistira & Adiputra, 2020).

Previous research on EPS, PER, and BVS has been widely conducted. Research conducted by Aletheiari and Jati (2016) showed that the variables EPS, PER, and BVS had a favorable and meaningful impact on share prices. Utami and Darmawan’s research shows that the EPS variable positively affects stock price (Utami & Darmawan, 2018). The research carried out by Astuti et al. showed that the EPS, PER, and BVS positively and significantly influence stock price (Astuti et al., 2018).

This research aims to simultaneously determine the effect of EPS and BVS on the share price of insurance companies listed on the IDX in 2017-2020. The novelty of this research is that it deepens how EPS and BVS influence insurance company share prices by researching insurance companies going public on IDX. This research also provides a more extensive analysis regarding the actions needed by insurance companies that experience a decline in share prices and how to maintain their influence on company value. It also provides insights regarding investment security. So you can anticipate financial distress in the company and minimize bankruptcy.

2. Hypothesis Development
2.1. Share Price

The capital market comprises players, investors, brokers, and demand and supply concerned with a share price. Lestari and Cahyono explained that the share price in the capital market has become a trademark of the company’s performance (Lestari & Cahyono, 2020). Although financial statements present book values following the nature and principles of financial statements, book values are only considered primary data that will be processed in calculating various ratios and indicators of corporate economic performance.

2.2. Earning Per Share (EPS)

The ability of a company to make a profit will entice investors because it demonstrates the corporation’s capability to generate returns to its shareholders, as measured by earnings per share or abbreviated EPS. EPS is a number that shows how much income is available for each common share outstanding. If there is no preferred stock dividend, then EPS is calculated by dividing net income after taxes by the number of common shares available for trading.

EPS is a metric that measures management’s success in generating profits for shareholders (Owolabi et al., 2022). EPS is the net profit per ordinary share outstanding in a certain period. Information regarding the value of a corporate EPS can be obtained directly from the corporate financial reports or determined from the corporate income statement. Earnings per share have a significant meaning for the company because they are concerned with the profit earned by each shareholder.

EPS is formulated as follows:

\[
EPS = \frac{\text{Net Profit After Tax}}{\text{Number of Shares Outstanding}}
\]
2.3. **Book Value Per Share (BVS)**

BVS is a figure per share derived from the liquidation of a corporation at the amount reported in the balance sheet (Batubara et al., 2023). The BVS ratio is calculated by dividing shareholders’ equity by the total shares outstanding. The BVS ratio reflects the corporate ability to create value compared to the amount of capital expenditure. The higher the BVS ratio indicates, the more it is expected to produce shareholder value.

2.4. **Hypotheses**

H01: Earnings Per Share is not significantly influencing the share price  
Ha1: Earning Per Share has a significant influence on share prices  
H02: The book’s value per share does not significantly impact the share price.  
Ha2: Book Value Per Share has a significant effect on stock price  
H03: Earnings Per Share and Value Per Share have no simultaneous effect on the share price.  
Ha3: Both earnings and Book Value Per Share simultaneously affect the stock price.

3. **Research Methodology**

3.1. **Object of Study**

The object of this research is the effect of EPS and BVS on the share price of the insurance corporations included in the Indonesia Stock Exchange (IDX) over 2017-2020.

3.2. **Population and Sample**

The object of this research is the effect of EPS and BVS on the share price of the insurance corporations included in the Indonesia Stock Exchange (IDX) over 2017-2020.

3.3. **Data Types and Sources**

This study employs quantitative data regarding monetary matters. IDX, via the official website https://www.idx.co.id/, provides annual financial statements on insurance businesses listed on the IDX over the 2017-2020.

3.4. **Data Collection Techniques**

The data were collected using the documentation method by collecting data from financial statement documents in IDX. In addition, literature research was carried out by collecting, reading, and understanding books, literature, lecture notes, and articles.

3.5. **Data Analysis Methods**

This research is based on the quantitative approach. In analyzing the collected data to conclude, The author uses IBM SPSS (Statistical Product and Service Solution) Version 22 software to carry out data processing, calculations, and regression analysis of the model that has been formulated.
According to Astiti et al., multiple regression analysis is the relationship of more than two variables. It is more effective to consider the impact of more than a single independent variable within the analysis to produce more accurate predictions about the value of Y (dependent variable) based on certain values of X (independent variable) (Astiti et al., 2019). This study explains the relationship between EPS, price-earning ratio, and BVS to stock prices.

The formula for multiple linear regression offers an expression as stated below:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e \]

Information:
- \( Y \) = Share price
- \( X_1 \) = Earning Per Share (EPS)
- \( X_2 \) = Book Value Per Share (BVS)
- \( a \) = Constants
- \( b_1; b_2; b_3 \) = Regression Coefficient
- \( e \) = error

### 4. Results
#### 4.1. Multiple Linear Regression Test

By utilizing multiple linear regression models, you can measure how much influence each component has on the others, then use that information to predict the dependent variable. Multiple linear regression analysis uses the following formula.

Results multiple linear regression tests performed using SPSS 22 applications can be seen in the table below:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e \]

### Table 3. Multiple Regression Test

<table>
<thead>
<tr>
<th>Type</th>
<th>Unstandardized Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>791,129</td>
<td>424,823</td>
<td>1,862</td>
</tr>
<tr>
<td>EPS</td>
<td>-2,755</td>
<td>5,055</td>
<td>-0,545</td>
</tr>
<tr>
<td>BV/Share</td>
<td>1,037</td>
<td>0,498</td>
<td>2,084</td>
</tr>
</tbody>
</table>

\( a \) Dependent Variable: Share Price

Source: Results of Data Processing with SPSS (2021)
\[
Y = a + b_1x_1 + b_2x_2 + b_3x_3 + e
\]

The multiple linear regression test that has been carried out is represented in the provided table, including the processing of multiple linear equations with the following formula:

\[
Y = 791,129 - 2,755X_1 + 1,037X_2 + e
\]

The following multiple linear regression equation has been presented: (1) If all values in the independent variables are zero, both \(X_1\) and \(X_2\), then the Share Price value amounts to 791,129. If earnings per share \((X_1)\) increase by 1, then stock price \((Y)\) will likely decline by -2.755. Thus, a rise in earnings per share \((X)\) will have an impact on a decrease in share price \((Y)\), while a decrease in earnings per share \((X_1)\) will increase the Share Price \((Y)\), and (2) if there is a boost in the book value per share \((X_2)\) by 1. As a result, the share price is expected to decrease by 1.037 when the book value per share \((X_2)\) increases. This shows that the BVS \((X_2)\) positively impacts the share price \((Y)\), which indicates that increasing the book value per share will reduce the share price risk. Conversely, decreasing book value per share \((X_2)\) can improve the share price \((Y)\).

4.2. Hypothesis Test

4.2.1. R Square (R2) Test

Coefficient of determination analysis aims to show how well the model can explain variations in limited variables. The closer the determinant value \((R^2)\) is, the more significant the influence exerted by the independent variable on the dependent variable is. It shows that the model has greater power in explaining the impact from a set of independent variables investigated on the dependent variable. The influence of the EPS \((X_1)\), BVS \((X_2)\), and leverage \((X_3)\) variables on the financial distress attachment variable \((Y)\) this information is evident in the table below.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Type</th>
<th>R</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0.634</td>
<td>0.402</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Book Value Per Share, Earning Per Share
\(^b\) Dependent: Share Price

Source: Results of Data Processing with SPSS (2021)

The Model Summary in the table above contains correlation values from free to bound variables. The Model Summary table contains a double correlation value from \(Y\) called the \(R\)-value. \(R\) Square is the coefficient of determination value, which measures how much variability in variable \(Y\) can be explained by variable \(X\). Adjusted \(R\) Square also functions as a coefficient of determination, especially in regressions with more than two independent variables. However, if there is only one independent variable, or only one independent variable is used, then \(R\) Square will be an indicator of the coefficient of determination. Standard Error of the Estimate indicates how accurate the regression model is in predicting the \(Y\) value by measuring the number of errors that occur (Razak & Jaya, 2014).

The outcomes of the determination test show that 40% of the dependent variable’s variability can be elucidated with independent variables within the regression model. Thus, it
can be concluded that 40% of the variables EPS and BVS can explain variations in the Share Price variable.

4.2.2. T Test (Partial)

To determine the effect of each variable X on the variable Y, you can employ a t-test. The partial test was carried out at a significance level of 5%. Ho is maintained if the significance value exceeds 0.05 or 5%, and Ha is discarded. However, if the significance value is equal to or less than 5%, Ho is rejected, and Ha is accepted.

In addition, significant decision-making can also be done by comparing the calculations against the T-table where (1) Ho implies that there is no partially significant impact of the variable X on the variable Y, and (2) Ha indicates that there is a notable effect of (X) partially on (Y). The T-table value can be obtained by looking at the degrees of freedom (df) value from the data, wherein the F-test gives that the df value of the data = 20, so the T-table can be found using the table list or with MS Excel with the formula = TINV(0.05;36), resulting in a T-table value of 2.028. The t-test result was obtained using the SPSS application, as shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1,862</td>
<td>0,071</td>
</tr>
<tr>
<td>Earning Per Share</td>
<td>-0,545</td>
<td>0,589</td>
</tr>
<tr>
<td>Book Value Per Share</td>
<td>2,084</td>
<td>0,045</td>
</tr>
</tbody>
</table>

Source: Data Processing Results with SPSS (2021)

1) Effect of Earnings Per Share on Stock Price

The t-test outcomes show that earnings per share (XI) has a t-count = -0.545 while t-table = -2.0345. Then, it can be known that t count < table or -0.545 < -2.0345. So, a decision was made to accept Ho and reject Ha. The t-test outcomes also indicate that earnings per share (XI) had a statistically meaningful or significant value of 0.589. Where the statistically meaningful value is less than 0.05. Hence, a decision was made to reject Ho, and Ha was accepted. The outcomes from the t-test conducted on the independent variables reveal the variable earnings per share (XI). It can be stated that earnings per share (XI) does not have a statistically significant influence on the share prices of insurance corporations included in the IDX.

2) Effect of Book Value Per Share (X2) on Stock Price (Y)

The t-test outcomes reveal that the book value per share (X2) has a calculation= of 2.084 while t-table = 2.0345. Then it can be known that t table < tcount or 2.0345 < 2.084. So, a decision was taken to reject Ho and accept Ha. The t-test results similarly indicated that the book value per share (X2) had a significant value of t of 0.045 < 0.05. A decision was taken to reject Ho and accept Ha.

According to the outcomes of the t-test on the independent variable BVS (X2), the inference is that the book value per share (X2) significantly affects the share price (Y) in insurance firms included in the IDX.
4.2.3. F Test (Simultaneous Test)

F Test is employed to determine if the variances of two populations are equal. The approach employed involves utilizing a specific technique check the significance level to determine where the reference point for the value is significant by 0.05 or 5%, provided that (1) Should the significance value exceed 0.05 or 5%, H₀ is upheld, while the Hₐ is discarded; and (2) If the p-value is below 0.05 or 5%, H₀ is rejected, and Hₐ is accepted.

In addition to being significant, decision-making 16 can also be done by comparing the calculated F against the Ftable, where (1) if F counts < Ftable, then H₀ is accepted and Hₐ is rejected; and (2) If F counts > Ftable, then H₀ is rejected and Hₐ is accepted.

H₀ implies that there is no significant influence on Earnings Per Share (X2) and Leverage (X3) simultaneously on the Share Price (Y), Share (X₈), and Book Value Per Ha: this means that the existence of a significant influence of EPS (X1), BVS (X2), and Leverage (X3) together on Share Prices (Y) has been proven.

Table 6. Simultaneous F Test

<table>
<thead>
<tr>
<th>Type</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2</td>
<td>36272190,734</td>
<td>11,114</td>
</tr>
<tr>
<td>Residual</td>
<td>33</td>
<td>3263503,073</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 shows the ANOVA results of the F-test conducted using SPSS. The table presents the ANOVA values of the degrees of freedom are df1 = 2 and df2 = 33. In addition, the regression model has an Fcount value of 11.114 and a significance level of 0.000.

Based on the significance value, it is known that “the F-test with a significance level of 0.000, being below 0.05, leads us to reject H₀ and accept Hₐ.” To make decisions by comparing Ftable with Fcount, one can look at the Ftable list or use the MS Excel program with the formula FINV(0.05; df1; df2), where the significance value is 0.05.

To get an F-table, we must first know the value of df1 and df2. The table shows that the F-test results with df1 = 2 and df2 = 33 can be generated in the SPSS program or with MS Excel, producing an Ftable value of 3.2849. Therefore, we reject H₀ and accept Hₐ.

According to the F-test with the SPSS application, the conclusion indicates that the Earnings Per Share (X1) and the Book Value Per Share (X2) variables significantly impact the share prices of insurance companies included in the IDX.

5. Discussion
5.1. Effect of Earnings Per Share and Book Value Per Share on Stock Price

In Table 4, the test for the coefficient of determination (R²) demonstrates the correlation coefficient (R) and the coefficient of determination (R²) are correlated. The R-squared statistic measures the relationship between independent and dependent variables. The data processing results show a correlation coefficient of 0.634, or 63%, indicating a strong relationship between...
EPS, BVS, and share prices. The computed results indicate that the Adjusted R Square is 0.402, suggesting that EPS and BVS influence 40% of share price variability.

The F test findings show that the estimated F value of 11.114 > the table F value of 3.2849 with a significance level of 0.000, less than 0.05. This suggests that the independent variables, such as EPS and BVS, significantly impact Indonesian insurance companies’ share price in the IDX from 2017 to 2020.

5.2. The Effect of Earnings Per Share on Stock Price

The outcomes of the t-test (partial) show that the EPS variable doesn’t significantly influence share prices during the observation period. BVS significantly impacts the positive outcome of the share prices of insurance companies included in the IDX.

From the test outcomes, the earnings per share variable has a calculated value = -0.545, which is smaller in the negative direction than the t-table value = -2.0345, with a significance level of 0.589 > α = 0.05. In conclusion, the EPS variable doesn’t significantly impact share prices. The investigation reveals that when a company’s EPS increases, the share price offered on the stock exchange tends to be lower.

EPS considerably influences stock prices, but our research does not support this conclusion. This discrepancy may be due to differences in the observation period. EPS reflects corporate performance, and if the company’s revenue is high, EPS will also increase, and vice versa. This change will impact share prices because share movements affect the company’s initial income (Nenobais et al., 2022).

5.3. The Effect of Book Value Per Share on Stock Price

The test result of the BVS variable has a calculated t value = 2.084 > t-table value = 2.0345 with a significance level of 0.045 < α = 0.05. This suggests that the BVS variable considerably impacts the stock price. The impact of BVS on stock prices indicates that published BVS information is crucial for investors when making stock investment decisions.

According to previous research by Aletheari and Jati, which revealed that book value influences stock prices, this research agrees (Aletheari & Jati, 2016). According to research by Saputro, the book value per share significantly influences stock prices (Saputro, 2019). The positive correlation suggests that the stock price rises as the book value per share increases.

The assets and equity of a firm are represented by its Book Value (price per share/book value). Since a company’s book value typically rises in tandem with its success, it is critical to clearly understand a company’s price per share and whether its stock market price is appropriate.

6. Conclusion

The findings of this study suggest that financial performance can be determined using the ratio of EPS and BVS. Partially, EPS does not significantly influence the share price of insurance included in the IDX. Partially, a notable impact relationship exists between the stock prices of insurance corporations included in the IDX and simultaneously influenced by both EPS and BVS, significantly affecting the share price of insurance corporations included in the IDX.

As a contribution to the development of science, it is important to align theory with practice regarding the influence of EPS and BVS on insurance company share prices. By contributing ideas, we can support the development of existing theories and expand knowledge, especially on the impact of EPS and BVS on share prices, which benefits investors and other stakeholders in the Indonesian capital market.
So, insurance corporations included in the IDX can estimate the level of investment security by analyzing how EPS and BVS affect share prices, which is the main concern of investors.

This study examines how EPS and BVS influence the share prices of insurance corporations included in the IDX from 2017 to 2020.

This research suggests that for insurance service companies that have gone public and offered their shares IDX, it is necessary to pay attention to increasing earnings per share so that the company’s shares attract investor interest, which can increase share prices without significant impact. Future research should also broaden the scope by examining companies from different sectors, such as manufacturing or banking, to gain more comprehensive insights. By doing this, the independent variables in the study can be compared to see how they influence corporate share prices from different sectors.

7. Acknowledgment
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8. Declaration of Conflicting Interests
The authors have declared no potential conflicts of interest concerning this article’s research, authorship, and/or publication.

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