IMPACT OF EPS ON MARKET PRICES AND MARKET RATIO

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ABSTRACT

In this paper the researchers have made an attempt to examine the impact of Earnings Per Share on the Market Prices, Price-Earning-Ratio and Price to Book Value. In the study, the researchers have taken into consideration twenty-four companies which represent Property and Real Estate industry. A reference period of seven years has been taken from 2009 to 2015. In order to achieve the objectives of the study, regression data panel has been employed and the findings put forth by the study affirmed that on the one hand there exists a positive relationship between earnings per share and market price of shares and on the other hand earnings per share does not statistically influence the market ratio. We suggest that investors must consider other factors as well as EPS in order to invest in the security market.

Keywords : Earning per Share, Market Price, Price Earning Ratio and Price to Book Value
INTRODUCTION

Investment in equity stocks is one of the most liquid investments. Basically the company’s main goal is to increase and maximize the profits of the company's owners. The company's profits are reflected in the company's net income, while the profits of the company's owners are reflected in profits for ordinary shareholders or often called Earnings Per Share (EPS). EPS that shows how much the company's ability to provide returns to the owner of the company. Therefore, EPS is attractive to shareholders because it is an indicator that is often used to measure the success of a company in achieving profits from every share invested.

Besides that, EPS in investing is used as the main indicator in seeing the attractiveness of a stock. The amount of EPS is expected to be able to influence the level of investor confidence in investing. Rahardjo (2005) said that in investing, ordinary stock buyers generally pay more attention to their earnings per share because of this EPS, which in turn affects the price of shares in the market to obtain capital gains. The greater the profit available to shareholders, the greater the dividend payment to shareholders. That way it can be said that investor behavior towards shares is influenced by accounting information which in this case is represented by EPS as a reflection of financial performance.

Stock market prices are one of the most important factors that influence investors' investment decisions (Hemadivya and Devi, 2013). Thus, analysts place much emphasis on research on the stock market, especially stock price predictions.

Changes in stock prices occur because of market forces, namely the purchase and sale of shares available on the market. Stock market prices depend on the demand and supply of shares in the market, which in turn depends on the financial performance of a particular company. In general, securities prices reflect company performance. Both economic and non-economic factors always influence the behavior of stock prices.

Financial ratios are one of the analytical tools to assess financial performance in measuring a company’s success in generating profits. According to Taani and Banykhaled (2011) financial ratios can help investors make investment decisions and can predict the state of the company in the future and can provide an early warning about the decline in
the company's financial condition. And through financial ratios investors can supervise to ensure the capital they invest develops well.

In analyzing and assessing financial position, company potential and fairness assessment of a company's growth, the ratio that is most often used and gets investor attention is the market valuation ratio. According to Warsono (2010: 38), "Market value ratio is the ratio of market value that indicates what equity investors think about the company’s past performance and future prospects. Indicators of market valuation ratios that are often used are price earnings ratio and price book value.

Price Earning Ratio (PER), which measures how investors assess the company's growth prospects in the future, and is reflected in the stock price that investors are willing to pay for every dollar the company profits. The higher PER indicates that investors have good expectations about the company's development in the future, so for certain earnings per share, investors are willing to pay a high price (I Made, 2011: 23).

Price to book value (PBV) describes how much the book value of a company's stock is valued by the market. A high PBV shows that the more successful the company creates value for shareholders. This statement is supported by the research of Shinta and Laksito (2014) which states that with increasing company performance reflected in the high PBV, the company is increasingly successful in creating value for shareholders and the amount of profits available to shareholders will increase. Besides that, the high PBV makes the market more confident about the company's prospects, so that investors will be interested in investing their funds into the company. The research conducted by Shinta and Laksito (2014), Taani and Banykhaled (2011) shows a significant positive effect between PBV and EPS.

EPS is generally considered to be the most significant variable in determining stock market prices. It also plays a very important role in measuring price to earnings ratio and price to book value. Stock analysts throughout the financial world often use the variables considered in this study. Companies publish their results, allowing investors to use them and make rational investment decisions that will not only produce good results for them, but also expose them to minimal risk.

The objects in this study are also different, namely in the real estate industry and property companies listed on the Indonesia Stock Exchange. This is because the property
business in Indonesia continues to grow positively and the interest of the community to engage in the business world is even higher. Previous research on financial performance and EPS has been carried out. However, there are still several research gaps in previous studies. Therefore, through this research we will examine the effects of Earnings Per Share on Stock Market Prices and Market Ratios. The study was conducted at the Property and Real Estate sector companies listed on the Indonesia Stock Exchange with a research period from 2009 to 2015.

Based on the description of the background above, the formulation of the problem in the study is:
1) Is there an influence between earnings per share and stock market prices?
2) Is there an influence between earnings per share and price earnings ratio?
3) Is there an influence between earnings per share and price to book value?

**LITERATURE REVIEW**

Chisti et al. (2016) examine the impact of EPS on stock prices and PER. The sample uses sixteen companies representing four different industries such as the banking industry, pharmaceutical industry, information technology industry and cement industry. The period was taken for eight years from 2003-2004 to 2010-2011. To achieve the objectives of the study used regression analysis and correlation. The research findings confirm that on the one hand there is a positive relationship between EPS and stock market prices on the other hand EPS is not statistically affecting PER.

Talamati and Pangemanan (2015) examined the effect of Earnings per Share and Return on Equity on Banking Stock Prices listed on the Indonesia Stock Exchange in 2010-2014. The findings of this study simultaneously both EPS and ROE variables influence stock prices. Partially, EPS has a positive and significant effect on Stock Prices while ROE partially has no effect on Stock Prices.

Shehzad and Ismail (2014) examine between two accounting variables (i.e., EPS and BVPS) and stock market prices. This study used pooled regression techniques in nineteen
private banks from the period 2008 to 2012. The findings showed a strong relationship between the two. There is also a negative correlation between BVPS and Stock Prices. As well as earning per share, the value is more relevant than the book value, while accounting data explains the high proportion of stock prices.

Hunjra et al. (2014) examined the effect of dividend yield (DY), dividend payout ratio (DPR), return on equity (ROE), earnings per share (EPS) and post-tax profit (EAT) on stock prices in Pakistan. Using four non-financial sectors (sugar, chemical, food and personal care, energy) and a sample of 63 companies listed on the Karachi stock exchange analyzed for the 2006-2011 period. The results showed that DY and DPR had a significant influence on stock prices. DY is negatively related to stock prices and the DPR is positively related to stock prices, which means that the theory of dividends is irrelevant. For other independent variables EAT, ROE and EPS have a significant positive impact on stock prices.

Shinta and Laksito (2014) examined the effect of financial performance consisting of total asset turnover, current ratio, debt equity ratio, net profit margin, return on equity, price book value, firm size and operating cash flow on earnings per share. Research samples are Indonesian companies listed on the Indonesia Stock Exchange (IDX) in 2010-2012. Data were analyzed using multiple regression methods with the SPSS program. The results of the analysis show that the amount of asset turnover, debt equity ratio, net profit margin, return on equity, price book value and operating cash flow have a significant positive effect on earnings per share, while firm size has a significant negative effect on earnings per share.

Hemadivya and Devi (2013) conducted a study of the relationship between market prices and EPS. The study was conducted in three sectors, namely the primary sector, manufacturing, services in India and the research findings determined that there was a statistically significant positive relationship between EPS and stock market prices.

Malhotra and Tandon (2013) examined the effects of book value, earnings per share, dividends per share, yield dividends, dividend cover and price earnings ratio in this study from the company’s stock price registered at NSE 100. The research findings for the 2007-2012 period revealed that BV, EPS and PER which have a significant positive relationship
with the company’s stock price while the dividend yield is a significant inverse relationship with the market price of the company’s stock.

Seetharaman and Rudolph (2011) in their study concluded that the impact of earnings per share is significant on volatility and shifts in stock price movements, thus, asserting that there is a significant relationship between stock prices and earnings per share.

Sharma (2011) conducted a study to examine the impact of book value per share, dividends per share, earnings per share, PER, dividend yield and dividend payout and the results revealed that there was a positive relationship between the variables considered in the study.

Taani and Banykhaled (2011) examined the effect of accounting information on earnings per share (EPS). Selected samples from 40 companies listed on the Amman Market Exchange and using multiple regression methods and model stepwise regression. Profitability, liquidity, debt to equity, market ratio, size derived from the company’s total assets, and cash flows from operating activities as independent variables, and EPS (Earning Per Share) as the dependent variable. The results showed that profitability ratios (ROE), market ratios (PBV), cash flows from operations / sales, and leverage ratios (DER) had a significant effect on earnings per share.

Radim Gottwald (2002) made a study of the application of price-to-earnings ratios for stock valuation and the findings stated emphasized that high-performance companies with high PER showed an increase in profits.

Talinishi and Mittal PK (2001) made a cross sectional analysis taking into account the PER of 105 companies and the findings confirmed that earnings per share positively significantly affected stock market prices.

**HYPOTHESIS DEVELOPMENT**

**Effect of Stock Market Prices on Earnings Per Share**

EPS is useful for the shareholders, because the increase in EPS will certainly increase the income that will be obtained. The increase in EPS will encourage an increase in
stock prices. Earning per share has a positive relationship with market prices, that is, higher earnings per share, market prices will be higher (Ball and Brown 1968).

This figure shown from earnings per share is often published about the performance of companies that sell their shares to the public (go public) because investors and prospective investors are of the view that earnings per share contains important information to make predictions about the amount of dividends per share and the level of stock prices at a later time.

The research conducted by Chisti et al. (2016), Talamati and Pangemanan (2015), Shehzad and Ismail (2014), Hunjra et al. (2014), Hemadivya and Devi (2013), Malhotra and Tandon (2013), Seetharaman and Rudolph (2011), Sharma (2011) show a positive and significant effect of earnings per share on stock market prices.

\[ H_1 \quad : \text{There is the influence of Stock Market Prices on Earnings Per Share.} \]

**Effect of Price Earning Ratio on Earnings Per Share**

PER measures how investors value the company's growth prospects in the future, and is reflected in the stock price that investors are willing to pay for every rupiah the company profits. The higher this ratio shows that investors have good expectations about the development of the company in the future, so for certain earnings per share, investors are willing to pay a high price (I made, 2011: 23).

For investors this ratio number is used to predict the company's ability to generate profits in the future. Companies that are expected to grow with high growth rates (which means having good prospects), usually have a high PER. Conversely companies that are expected to have low growth, will have a low PER as well (Hanafi, 2004: 43).

The research conducted by Chisti et al. (2016), Sharma (2011), Hemadivya and Devi (2013), Malhotra and Tandon (2013), Radim Gottwald (2002), Talinishi and Mittal (2001) show a positive and significant effect of earnings per share on price earnings ratio.

\[ H_2 \quad : \text{There is an effect of PER on Earning per share} \]

**Effect of Price to Book Value Against Earnings Per Share**

Price Book Value (PBV) shows how much the book value of a company's stock is valued by the market. A high PBV shows that the more successful the company creates
value for shareholders. This shows that management’s performance is getting better in improving the welfare of the owner. With this success, the market will increasingly believe in the company’s prospects, so companies can easily get funds for profit growth. This statement is supported by the research of Shinta and Laksito (2014) which states that companies that have a high PBV tend to have high earnings. That way the profits available to shareholders will also increase. The research conducted by Shinta and Laksito (2014), Taani and Banykhaled (2011) shows a positive and significant influence between EPS and PBV.

\( H_3 \) : There is an effect of PBV on Earning per share

**Effect of Stock Market Prices, Price Earning Ratio and Price Book Value Against Earnings Per Share**

To measure whether the independent variables (free) together or simultaneously have a significant effect on the dependent variable (bound) can be proposed the fourth alternative hypothesis (H4) as follows:

\( H_4 \) : There is the influence of Stock Market Prices, Price Earning Ratio and Price Book Value of Per Share Earnings

**Picture 1**: Conceptual Framework
Mathematical Model

To find out the impact of various variables on earnings per share, the form of the equation used is:

\[ EPS_{it} = \beta_0 + \beta_1 MP + \beta_2 PER + \beta_3 PBV + \epsilon_{it} \]

Where \( \beta_0 \) is the intercept of the equations, \( \beta_1, \beta_2 \) and \( \beta_3 \) are the coefficients of the independent variable, that is, each stock market price (MP), price earnings ratio (PER) and price to book value (PBV). \( \epsilon \) is an error that has an award value of 0.

RESEARCH VARIABLES AND OPERATIONAL DEFINITIONS

This research was conducted to test the hypothesis of the variable consisting of the dependent variable and the independent variable that has relevance. The independent variable "independent variable" is the earning per share, while the independent variable "independent variable" is the stock market price, price earnings ratio and price book ratio.

Earning Per Share

According to Darmadji and Fakhruddin (2012: 154), EPS describes the profitability of the company that is reflected in each share. The higher the EPS value, of course, encourages shareholders because the greater the profit provided to shareholders. The increase in earnings per share generally shows the company's growth and results in high market prices. Earning per share is obtained as follows:

\[ EPS = \frac{\text{Net Profit}}{\text{Number of share outstanding}} \]

Stock Market Prices

The stock market price is an independent variable. The way to calculate stock market prices is the average price of the highest stock price and the lowest stock price that has been considered the market price (Sharma, 2011). This is the current price at which assets or services can be bought or sold.

Stock market prices (market prices) can be obtained by:

\[ MP = \frac{(\text{Highest Market Price} + \text{Lowest Market Price})}{2} \]
PER (Price Earning Ratio)

Price Earning Ratio is an independent variable that expresses the relationship between the market price of a company's stock and earnings per share. Investors will calculate how many times the earnings value is reflected in the price of a stock. For investors, the smaller the PER of a stock the better because the stock is included as cheap. (Darmadji and Fakhruddin, 2012: 156)

\[
\text{PER} = \frac{\text{Share price}}{\text{Earnings per share}}
\]

PBV (Price to Book Value)

PBV is a comparison of the market value of a stock against the value of its book. PBV shows the level of success of the company in creating value for shareholders.

According to Darmadji and Fakhruddin (2012: 157), PBV is calculated by the formula:

\[
\text{PBV} = \frac{\text{Stock Price}}{\text{Stock Book Value}}
\]

Table 1: Variables with Symbols and Expectations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Symbol</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earning Per Share</td>
<td>EPS</td>
<td>+</td>
</tr>
<tr>
<td>Stock Market Prices</td>
<td>MP</td>
<td>+</td>
</tr>
<tr>
<td>Price Earning Ratio</td>
<td>PER</td>
<td>+</td>
</tr>
<tr>
<td>Price Book Value</td>
<td>PBV</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: The results of the data processing itself

POPULATION AND SAMPLE

The population used in this study are companies in the sector of Property and Real Estate listed on the Indonesia Stock Exchange. The researcher took a seven-year reference period from 2009 to 2015. This study used a sampling method with certain considerations called the purposive sampling method (Sugiyono, 2012).
Table 2: Sample Selection Procedure

<table>
<thead>
<tr>
<th>No.</th>
<th>Remarks</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Companies incorporated in the Property and Real Estate sector are listed on the IDX for the period 2009-2015</td>
<td>48</td>
</tr>
<tr>
<td>2.</td>
<td>Less companies that have not been listed on the IDX between 2009-2015</td>
<td>11</td>
</tr>
<tr>
<td>3.</td>
<td>It is deducted by companies that average earnings per share from every three consecutive zero or negative years during the period</td>
<td>11</td>
</tr>
<tr>
<td>4.</td>
<td>Less companies that move sector</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Total companies sampled</td>
<td>24</td>
</tr>
<tr>
<td>6.</td>
<td>Total research data (24 x 7 years)</td>
<td>168</td>
</tr>
</tbody>
</table>

*Source: The results of the data processing itself*

Based on the sampling criteria above, the companies in the Property and Real Estate sector that can be sampled in this study are 24 companies.

**TYPES AND DATA SOURCES**

This study uses secondary data and data sources derived from the company's annual report issued by the Indonesia Stock Exchange in 2009-2015. The types of data needed:

a. Financial reports obtained from Indonesia Stock Exchange Statistics (IDX Statistics Yearly), and Indonesian Capital Market Directory 2009-2015, as well as from the official website of the Indonesia Stock Exchange ([http://www.idx.co.id](http://www.idx.co.id)).

b. Annual stock prices from 2009-2015, especially Table Trading and Financial Ratios since the period 2009-2015. The Trading Table is used to get the highest and lowest price data for every year 2009 until 2015; and the Financial Ratios is used to obtain financial ratio data which includes EPS, PER and PBV obtained on an annual basis.

**DATA PROCESSING AND ANALYSIS METHODS**

The analysis technique used in this study is quantitative data analysis, to quantitatively estimate the influence of several independent variables on the dependent variable. After selecting a sample, making a model, determining the variables used in the study and making a test hypothesis, the next step is
to process the data using panel data regression analysis methods to test the hypothesis. Data processing techniques are carried out using computer eviews programs.

RESULTS AND DISCUSSION

Table 3: Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>EPS?</th>
<th>MP?</th>
<th>PER?</th>
<th>PBV?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>191.1863</td>
<td>6.350831</td>
<td>25.67607</td>
<td>1.742917</td>
</tr>
<tr>
<td>Median</td>
<td>37.50000</td>
<td>6.195934</td>
<td>14.30000</td>
<td>1.360000</td>
</tr>
<tr>
<td>Maximum</td>
<td>12128.00</td>
<td>9.615805</td>
<td>395.4400</td>
<td>6.710000</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.250000</td>
<td>3.960813</td>
<td>0.610000</td>
<td>0.130000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>951.8857</td>
<td>1.181767</td>
<td>50.12390</td>
<td>1.328785</td>
</tr>
<tr>
<td>Skewness</td>
<td>11.87272</td>
<td>0.507288</td>
<td>5.611178</td>
<td>1.540993</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>148.9999</td>
<td>2.843619</td>
<td>37.02395</td>
<td>5.161973</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>153158.7</td>
<td>7.376731</td>
<td>8984.992</td>
<td>99.20931</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000000</td>
<td>0.025013</td>
<td>0.000000</td>
<td>0.000000</td>
</tr>
<tr>
<td>Sum</td>
<td>32119.30</td>
<td>1066.940</td>
<td>4313.580</td>
<td>292.8100</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>1.51E+08</td>
<td>233.2278</td>
<td>419571.7</td>
<td>294.8669</td>
</tr>
<tr>
<td>Observations</td>
<td>168</td>
<td>168</td>
<td>168</td>
<td>168</td>
</tr>
<tr>
<td>Cross sections</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Eviews 9 Processing Results

Table 3 explains the details of the descriptive statistics used in this study. Earning per share variable has an average value of 191,1863 and a standard deviation of 951,8857. The maximum value of earnings per share variable is 12128.00 with a minimum value of 0.250000. The variable market price has an average value of 6.350831 and a standard deviation of 1.181767. The maximum value of the market price variable is 9.615805 with a minimum value of 3.960813. Variable price earnings ratio has an average value of 25.67607 and a standard deviation of 50.12390. The maximum value of the price earning ratio variable is 395.440 with a minimum value of 0.610000. Variable price book ratio has an average value of 1.742917 and a standard deviation of 1.328785. The maximum value of the variable price book ratio is 6.710000 with a minimum value of 0.130000.

In determining which method is most appropriate to use in this study, it will first be estimated with three panel data models namely Common Effect, Fixed Effect and Random Effect for each simple regression equation in this study. After that, a paired test will be
conducted with Chow Test, Hausman Test and LM Test to determine the most suitable estimation model of the three types of models above.

**Table 4: Chow Test**

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>1.525464</td>
<td>(23,141)</td>
<td>0.0713</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>37.331400</td>
<td>23</td>
<td>0.0300</td>
</tr>
</tbody>
</table>

Source: Processing Results Eviews 9

The Chow Test Hypothesis is:

$H_0$ : Common Effect Model  
$H_a$ : Fixed Effect Model

Output shows that the probability value of the Chi-Square cross-section is 0.0713 greater than 0.05 so the null hypothesis cannot be rejected. This means that the common effect model is better than the fixed effect model.

**Table 5: Hausman Test**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>3.450237</td>
<td>3</td>
<td>0.3273</td>
</tr>
</tbody>
</table>

Source: Eviews 9 Processing Results

The Hausman Test Hypothesis is:

$H_0$ : Random Effect Model  
$H_a$ : Fixed Effect Model

Output shows that the probability value of a random cross-section of 0.3273 is greater than 0.05, so the null hypothesis cannot be rejected. This means that the random effect model is better than the fixed effect model.
The hypothesis of the Lagrange Multiplier (LM) test is:

\( H_0: \) Common Effect Model  
\( H_a: \) Random Effect Model

Based on LM test output from eviews, the p-value of 0.6711 is greater than 0.05, so the null hypothesis cannot be rejected. This means that the common effect model is better than the random effect model.

After conducting the pairing test using the Chow Test, Hausman Test, and Multiple Multiple Langrange Test the common effect model is the best model for this study. Panel data regression analysis is an analysis used to determine the effect of independent variables on the dependent variable. The regression results can be seen in the table below.

Table 7: Results of the Common Effect Regression Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>( C )</td>
<td>-1414.761</td>
<td>394.4434</td>
<td>-3.586726</td>
<td>0.0004</td>
</tr>
<tr>
<td>( MP? )</td>
<td>264.0122</td>
<td>64.95776</td>
<td>4.064368</td>
<td>0.0001</td>
</tr>
<tr>
<td>( PER? )</td>
<td>-0.980642</td>
<td>1.454817</td>
<td>-0.674066</td>
<td>0.5012</td>
</tr>
<tr>
<td>( PBV? )</td>
<td>-26.14656</td>
<td>59.22707</td>
<td>-0.441463</td>
<td>0.6595</td>
</tr>
</tbody>
</table>

R-squared 0.104714, Adjusted R-squared 0.088337, S.E. of regression 908.8704, Sum squared resid 9.13E+08, Log likelihood -1380.807, Durbin-Watson stat 2.119523

Source: Eviews 9 Processing Results
From the estimation results using the Common Effect model a panel data regression equation can be formed as follows:

\[ Y_{it} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_{it} \]

\[ EPS = -1414.761 + 264.0122MP - 0.980642PER - 26.14656PBV + \epsilon_{it} \]

The meaning of the above equation is as follows:

- \( \beta_0 = -1414.761 \) means that if all the independent variables (MP, PER and PBV) are equal to zero, then the EPS variable will be \(-1414.761\).
- \( \beta_1 = 264.0122 \) means that if the MP variable increases by one unit, then the EPS variable will increase by 264.0122 units, assuming the PER variable and PBV are fixed or constant.
- \( \beta_2 = -0.980642 \) means that if the PER variable rises by one unit, then the EPS variable will decrease by \(-0.980642\) units, assuming the variable MP and PBV are fixed or constant.
- \( \beta_3 = -26.14656 \) means that if the PBV variable rises by one unit, then the EPS variable will decrease by \(-26.14656\) units, assuming MP and PER are fixed or constant.

**Coefficient of determination analysis (adjusted R²)**

Based on the common effect regression model above, the coefficient of determination (adjusted R²) is 0.088337. This shows that the dependent variable (earning per share) that can be explained by variations in the independent variable (market price, price earnings ratio and price book ratio) is 0.088337 or 8.8337% and the rest (0.911663 or 91.17%) is explained by variations in other variables which is not included in the regression model.

**Test Results t**

The t test is used to test the effect of independent variables (MP, PER and PBV) on the dependent variable (EPS) partially (individual) with alpha 5%. Decision criteria:

1. If the \( p-values \leq \alpha \) then \( H_0 \) is rejected which means that the independent variable has a significant effect on the dependent variable.
2. If the \( p-values > \alpha \) then \( H_0 \) cannot be rejected which means that the independent variable has no effect on the dependent variable.
**H1: There is a significant effect of market price on earnings per share**

Based on table 7, the results of hypothesis testing indicate that the probability value of the market price is 0.0001 which is smaller than the alpha value of 0.05, then H01 is rejected. So, it can be concluded that the market price has a significant effect on earnings per share for companies in the sector of Property and Real Estate for the period 2009-2015. There is a positive relationship between market price and earnings per share which is indicated by a regression coefficient of 264.0122

This is in line with the research of Chisti et al. (2016), Talamati and Pangemanan (2015), Shehzad and Ismail (2014), Hunjra et al. (2014), Hemadivya and Devi (2013), Malhotra and Tandon (2013), Seetharaman and Rudolph (2011), Sharma (2011) which states that the variable Earning Per Share (EPS) is positive and has a significant effect on stock prices. Companies with higher EPS values will attract investors because EPS indicates that even though share prices increase but will also generate multiple profits for investors, so the higher EPS of a company means the higher the price of the shares and this will benefit the company.

**H2: There is a significant effect of price earnings ratio on earnings per share**

Based on table 7, the results of hypothesis testing indicate that the probability value of the price earnings ratio is 0.5012 which is greater than the alpha value of 0.05, then H01 is accepted. So, it can be concluded that the price earnings ratio does not significantly influence earnings per company in the sectors of Property and Real Estate for the period 2009-2015. There is a negative relationship between price earnings ratio and earnings per share as indicated by the regression coefficient of -0.980642.

The results of this study support the research conducted by Chisti et al. (2016), which states that price earnings ratio does not have a significant effect on earnings per share. The results of the study reject the general proposition of the average stock earnings ratio that is low on giving a profit greater than the higher PER share. The findings indicate that the average annual portfolio returns formed on the basis of PER do not differ significantly from each other, therefore, PER is not an appropriate basis for investment decisions.
H₃: **There is a significant effect of price to book valuation on earnings per share**

Based on table 7, the results of hypothesis testing indicate that the probability value of price to book values is 0.6595 which is greater than the alpha value of 0.05, then H₀₁ is accepted. So, it can be concluded that the price to book value has no significant effect on earnings per share for companies in the sector of Property and Real Estate for the period 2009-2015. There is a negative relationship between price to book value and earnings per share which is indicated by a regression coefficient of -26.14656.

This is not in line with the research conducted by Shinta and Laksito (2014), Taani and Banykhaled (2011) which show that the Price to Book Value (PBV) variable is positive and has a significant effect on earnings per share. According to Tryfino (2009: 9) Price to Book Value (PBV) is a calculation or comparison between market value and book value of a stock. This ratio serves to complete the book value analysis. If in book value analysis, investors only know the capacity per share of the stock value, in the PBV ratio investors can find out directly how many times the market value of a stock is valued from its book value. In addition, Tryfino (2009: 11) states that indeed there is no definite measure of the price or not of a stock price if measured by its PBV ratio because this is highly dependent on the expectations and performance of the company or stock.

**Test Results F**

H₄: **There is a significant influence between the market price, price earnings ratio and price to book values together towards earnings per share**

H₀₄ : β₁ = β₂ = β₃ = 0; there is no significant effect of market price, price earnings ratio and price to book ratio together on earnings per share.

H₄₄: β₁ ≠ β₂ ≠ β₃ ≠ 0; there is a significant influence between market price, price earnings ratio and price to book values together with earnings per share.

From the results of calculations with eview in table 7 the regression results of the common effect model above, the probability value (F-statistic) is 0.000401 which is less than the alpha value of 0.05, so H₀₄ is rejected and Ha₄ is accepted. Thus, it can be concluded that there is a significant influence between market price, price earnings ratio and price to book values together towards earnings per share.
This study shows that there is a significant impact of EPS announcements on stock prices, so that it has a considerable impact on PER and PBV. The reason is because investors prefer to invest in stocks that have a stable EPS growth and thus lead to an increase in demand for stocks that have consistent growth. This increases the demand for shares on the stock and increases the price of its shares on the stock exchange. Changes in EPS and market prices have a significant impact on PER and PBV where the value depends on EPS values and market price.

CONCLUSION

Based on the findings proposed by this study, it can be concluded that earnings per share affects stock prices significantly because there is a positive relationship between earnings per share and stock prices but on the other hand the findings confirm that earnings per share does not affect the market ratio as the relationship between two variables statistically quite low. Thus, based on these findings, it can be concluded that earnings per share affects one variable, namely stock market prices but does not affect price earnings ratio and price to book value.

This study also shows that earnings per share movement is influenced by many factors other than the company's financial performance. Of all the models used in this study, R² was only 8.83%. This shows that there is information other than internal fundamental factors that also affect EPS. In certain periods, changes in stock returns do not reflect the company's financial performance. Macroeconomic conditions, political situations, government industrial policies, and technical aspects in the company are factors other than financial performance that can affect changes in stock returns.

Given the limited number of companies and the observation period, it is recommended to increase the sample in the number of companies and the observation period for further research. Furthermore, other macro-level variables that can affect earnings per share such as interest rates, economic growth (GDP), and inflation can be used to expand further research.
This study also has limitations, this study only focuses on quantitative characters in assessing the performance of companies in improving the welfare of their owners. On the basis of these limitations, further research is suggested to add characteristic variables of corporate governance as qualitative criteria. This is because investors see corporate governance as a qualitative criterion in investing.

REFERENCES


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