

Influence of Investment Growth on Relation Between Equity Value and Earnings: Case from Indonesia

Regina Nathania, I Putu Sugiarta Sanjaya*

Universitas Atma Jaya Yogyakarta, Indonesia

*Corresponding author: siputusugiarta@yahoo.com

Abstract

The objective of this paper is to investigate the influence of investment growth on the relation between equity value and earnings. Investment growth is measured by ratio capital expenditure to book value of assets. This model is developed by Kallapur and Trombley (1999). Sample in this study is all listed companies in Indonesia Stock Exchange from 2008 until 2011 appropriate to the sample criteria. This study uses regression analysis to test the hypothesis. The result of this research is consistent to alternate hypothesis that investment growth influences relation between equity value and earnings. The result of regression analysis shows that investment growth positively affects on the relation of equity value and earnings.

Keywords: Investment growth; equity value; earnings

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1.0 INTRODUCTION

The objective of this research is to investigate the influence of investment growth on the relation between earnings and equity value. Growth opportunity is important aspect to determine the firm value (Miller and Modigliani 1961). Investor usually determines that value by using accounting data which they analyze and consider the expected of the firm's growth. Based on research conducted by Hao *et al.* (2011) earnings and equity book value serve as explanatory variable for equity value. Equity value can represent a linear function of earnings. However, recently the linear functions do not show the effect of earning on equity value (Zhang, 2000). Based on Holthausen and Watts (2001) in Hao *et al.* (2011), empirical research on accounting-based valuation has largely neglected the growth factor. This study tries to examine why we need to include the investment growth as the moderating variable. Since the previous study resulted that earnings still has not given the conclusive effect on equity value.

Until now, many researchers have observed about accounting variables to give an explanation of the company's market value. However, Ali (1994) and Kumalahadi (2003) states that the accounting variables are often subject to manipulation, so the market requires supplementary information.

Investment is one of the components of economic growth. In simple terms, investment is defined as capital expenditures are directed to support the production or expansion of production (Samuelson and Nordaus, 1997). Conducive investment climate requires the participation of the government, not only through the control of macro-economic indicators, but also through legislation in the form of fiscal and non-fiscal incentives. One of the rules issued by the government to attract investment is *Peraturan Pemerintah* (Government Regulation) No. 52/2011 on Income Tax Facilities for Investment Priority Business Lines. By the new government regulations, many local investors and foreign investors are interested to invest in Indonesia. The number of its investments increased capital inflow which may affect the firm's growth into positive direction due to increase in capital investment as asset. By the ease of investments in Indonesia, we are interested in knowing whether the growth of investment in Indonesia may affect the relation between earnings and equity value.

Based on prior study, equity value has a relationship with the accounting earnings (Ball & Brown, 1968). There is an assumption that the current earnings are characteristic of the expected future earnings and dividends. According to Burgstahler and Dichev (1997), earnings are relatively more important determinant of value when the firm's current activities are successful and continued.

To make consistent result in earnings and equity value observation, this study will add investment growth. Investment growth can be referred to the increase (or decrease) in the amount of capital invested in doing business operation (Hao *et al.*, 2011). Economic reasoning gave suggestion that the investment growth can enhance the value generation was depend on the profitability of companies. The profitability defines as the earning in a period divided by the equity book value at the beginning of the period (ROE). This profitability could represent a firm's ability to generate value from invested capital, so it is indicating the desirability of increasing or reducing the scale of operations (Hao *et al.*, 2011). Therefore, firms with high profitability will carry out investment growth which will increase investor value. Meanwhile, firms with low profitability will not generate investor value or even destroy those values.

It is already explain in advance for investing in Indonesia such as growing rapidly. It is an interesting phenomenon to be discussed relates to the growth investment with earnings and firms equity value. Earnings can increase the equity value of firms, and more over if the investment growth intervenes, the equity-earnings relation suspected will increase also (Collin and Kothari, 1989). Base on its

consideration, earnings has positive effect on equity and the growth as well. However, what if the earnings of firms are in bad quality? The bad quality of earnings can be expected to decrease the equity of firms. The information content of earnings is an issue of obvious importance and a point for many measurement controversies in accounting (Beaver, 1968).

If earnings supported by sales are valued as more important by the market than earnings change from other means, it would be interesting to see the extent of this discrimination. Because, knowledge would be valuable for determining the value effect of marketing activities whose purpose is to increase sales (Kim *et al.*, 2008). Earnings from the income statement provide a measure of value which reflects the current firm-specific result of employing firm resources (Brugstahler and Dichev, 1997). Book value from the balance sheet is based on market prices and is therefore largely independent of the success with which the firm currently employs its resources (Brugstahler and Dichev, 1997).

Earnings and equity value relationship is already certain to have a positive relationship (Ball and Brown, 1968, Brugstahler and Dichev, 1997, Ohlson, 1995). However, Book value of equity is often forgotten to determining firm value, whereas book value of equity can eliminate negatively relation to companies experiencing losses (Collins *et al.*, 1999). Based on research conducted by Collins *et al.* (1999), book value of equity has an important role to judge the company suffered losses.

The persistence of the phenomena related to earnings and equity value of firms that can be interfered by investment growth probably has positive relation. More over, the investment in Indonesia is increasing nowadays, the writer wants to know if those increasing investment really give the positive effect to equity value in Indonesian companies. The existence of these phenomena serves as motivation for this research. Thus, this research is expected to provide clearer answers about the relationship among three variables which are investment growth, earnings, and equity value.

■ 2.0 THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Efficiency Market Theory

An efficiency capital market is one in which stock prices fully reflect available information (Ross *et al.*, 2011). If capital market can react rapidly and it's accurate to reach new equilibrium price which fully reflect with information available, this market condition is efficiency market (Jogiyanto, 2010). This efficiency market can affect earnings and equity of company because that information's can give changes in investor behaves. According to Ross *et al.* (2011), there are three conditions that can lead to efficiency such as rationality, independent, and arbitrage.

The earnings contain some of the information that market uses need in forecasting future earnings, developing expectations of future dividends, and determining stock prices. However, these results provide little evidence of whether earnings numbers provide new value-relevant information to the capital markets (Nichols and Whalen, 2004). Earnings numbers communicate new information to capital markets that has important consequences for future earnings forecasts, expectation of future dividends and current market values. The stock price consequences of new earnings information provide substantial incentives for market participants to trade on that information quickly; stock prices appear to incorporate the new information by day +1. The strong reaction to unexpected earnings provides additional insight into why capital market participants place so much emphasis on earnings (Nichols and Whalen, 2004).

In general there are two forms of market efficiency, the informational efficiency market which is seen from the information point of view and the decisional efficiency market which more emphasis in making decisions (Jogiyanto, 2010). The market is not always fully react to the new information in earnings when it is announces (Nichols and Wahlen, 2004).

2.2 Equity

2.2.1 Equity Value

Equity value is a value describing how well or poorly the management of company try to manage their wealth. It can be seen from the measurement of financial performance obtained. The increase in value of the company is usually characterized by rising stock prices in the market. Equity value is the important information needed by investors because the values contained in the equity value were used for the main information in making investment. Equity value is convex in earnings and book value (Burgstahler and Dichev, 1997). Another definition of book value conducted by Keown *et al.* (1996) is the value of asset as shown on a firm's balance sheet. It represents the historical cost of the asset rather than its current market value or replacement cost.

There are several ways in assessing the equity value. Equity value can be obtained in terms of asset stock and operating efficiency. Equity value is shown to equal the expected value from maintaining the present course of operations plus the value of the option to expand or contract the scale of operations (Zhang, 2000). However, in conservative accounting, equity value is measured by a function of two variables accounting and bias that may exist in them (Zhang, 2000). Equity value is the value of a company that can be seen from the amount of assets and liabilities (Burgstahler and Dichev, 1997). Equity value is one factor in attracting investment. If a company has a good equity value, then the situation indicated that the company's assets and activities are also good so that it can attract the attention of investors. Valuation based on accounting data starts with the two basic accounting constructs, earnings and book value (Burgstahler and Dichev, 1997).

Based on Hao *et al.* (2011), the basic relation of equity value and earnings given to book value can be traced out that equity value increasing. However, if the profitability of the company is low, the equity value and earnings relation is close to zero. This reason is when the operation are unprofitable they are likely to be discontinued, equity value will depends on book value with earnings being a little use in predicting value generation. It will give the vice versa relation when the firm's has high profitability. The firm's are likely to continue and will grow their operation.

2.2.2 The Important of Book Value

According to Burgstahler and Dichev (1997), market value of equity can be observed directly in trade firms. However, including the book value of equity in the valuation it is very important because it can help to eliminate the negative bias in the coefficient on earnings in loss firms (Collins *et al.*, 1999). Book value is a cost-based measure of the value of firm's resources, where the cost is independent of how the firm will use the resources (Burgstahler and Dichev, 1997). Hence, this research will not only use market value to reflect the equity value, but also including the book value of equity. Earnings are a relatively more important determinant of value and it is high relative to book value (Burgstahler and Dichev, 1997, Collins *et al.*, 1999). Book value of equity has substantial incremental explanatory power beyond earnings in equity valuation for loss firms (Collins *et al.*, 1999). Ohlson (1995) argues that the book value of equity projecting expected earnings in the future. The market value of the company can be understood as company's earnings aggregation that is expected in the future and the book value of equity of company are also expected in the future (Kumalahadi, 2003).

Company can identify the state in terms of expected profit in future (scaled based on the inversion of the risk-free risk) to determine the value of the company. In such cases, profits expected in the future that provide information sufficient to calculate the present value in determining the value of company (Ohlson, 1995). Thus, the book value of equity and profit is the basis for determining the variable value of the company.

2.2.3 Market to Book Value

Market to book ratio of equity reflects that market assess the company's investment return in the future can be seen from expected return of equity (Smith and Watts, 1992). The difference in the market value and the book value of equity investment shows the opportunities of company's investment (Collins and Kothari, 1989). The proxy market to book ratio of equity states that most of the company's growth prospects expressed by market prices. Another research who used this proxy is Kallapur and Trombley (1999).

This study uses the market to book ratio of equity for equity valuation. Smith and Watts (1992) said that market to book value of equity reflects the market rate of investment return on the company's future seen from the expected return of equity. Market to book ratio of equity proxy shows which states that most of the company's growth prospects expressed by market prices. The ratio of market value to book value may give the final assessment which provides the most thorough on the status of the company's stock market. Therefore, by looking at the ratio can be found on the market reaction to the positive signal of the company that affects the relationships of earnings of the company.

2.3 Earnings

Accounting information such as stock price and return is very important and useful for investors. The importance of accounting information can be seen in the study Ball and Brown (1968). Market value and earnings have a positive relationship that is where the earnings increases, the function of market value also increased (Burgstahler and Dichev, 1997). Earnings occupy a central position in accounting. Earnings information is a component of the company's financial statements, according to SFAC No. 8 earnings information has the following benefits: (1) to assess the performance of the management, (2) to help estimate the ability of earnings representative in the long term, predict earnings and assess the risk of earnings in investment or credit loans.

The empirical results of Easton and Harris (1991) demonstrated that the explanatory power of return earnings relation is enhanced by the inclusion of an earnings level variable. Lev and Zarowin (1999) use the returns-earnings association as measure of usefulness of financial statement information. They identify the decline in association as a decrease in usefulness of financial information because such association reflects consequences of investor's actions. Earnings are also used by investor to evaluate the firm's prospects.

Easton and Harris (1991) shows that both earnings changes and levels have explanatory power when they are included simultaneously in a regression model of abnormal returns on earnings. Earnings level variables can enter the earnings-return model because of the transitory component in the previous period's earnings. According to Beaver (1968), when the annual earnings announcement contains information, the variability of stock price changes will appear larger when announced earnings than any other time during the year. It is because there is a change in the equilibrium value of the stock price during the announcement period. The result of these studies provides evidence of change behavior of stock prices and volume around the announcement date, as well as indicates that the annual earnings contain information relevant to assess the company.

One of the most common indicators for a company of public interest is the earning per share (EPS). The role of EPS is very important to investor because they need that information to make decision. The important of the role also is related with the internal performance of firms and their image on market, reflected through the internal stock market ratios (Achim *et al.*, 2009).

EPS is generally considered to be the single most important variable in determining a share's price. It is also a major component of the price-to-earnings valuation ratio. Achim *et al.* (2009) said basic EPS is calculated by dividing profit or loss attributable to ordinary equity holders of the parent entity (the numerator) by the weighted average number of ordinary securities outstanding (the denominator) during the period.

2.4 Investment Growth

2.4.1 Investment

Investment is an asset or item that is purchased with the hope that it will generate income or appreciate in the future. Firms make investment for multitude of reasons. One of the reasons is to place the funds in higher-income-yielding application which can also provide ready access to funds as and when necessary (Deegan, 2000). If the firms need the money in short term, firm probably can invest it to marketable securities which they can readily be converted to cash. Aside from short term investment, there is also long-term investment. For the long-term investment the company intends to hold for more than a year.

2.4.2 Growth

Growth refers to increase (decrease) in the amount of capital invested in operation. Investment growth is undertaken by a profitable firm enhances investor value (Hao *et al.*, 2011). The operation firm with more growth opportunities will grow faster than firms with fewer opportunities, which will in turn generate more earnings (Hao *et al.*, 2011). As the growth increase, the firm's market share and profit will also increase as well (Higgins, 2003). Investment growth affect the results related to the profitability of investment where the company that also affect firm value. Economic reasoning suggest that whether investment growth enhances value generation depends on profitability; define as earnings in a period divided by the equity book value at the beginning of the period. Profitability also represents a firm's ability to generate value from invested capital indicating the desirability of increasing or reducing the scale of operations (Hao *et al.*, 2011).

The relationship between growth and profitability can not be avoided because profit can assist firm to growth in their investment (Mukhopadhyay and AmirKhalKhaly, 2010). In existing research, growth increases the value-earnings relation and also it strengthens the value-earnings relation in terms of a steeper slope for high-profitability firms. The effect is expected to be smaller and can even disappear for low-profitability firms (Collin and Kothari, 1989).

2.4.3 Investment Opportunity Set (IOS)

The investment opportunities available to the firm constitute an important component of market value (Akbor and Bokpin, 2010). According to Meyers (1997) in Hasnawati (2005), investment opportunity set may provide clues wider where the value of the company as a premier destination depends on the company expense in the future. The company's prospects can be estimated from investment opportunity set (Hasnawati, 2005). According to Gaver and Gaver (1995), IOS is value of the company which the amount depend on expenditure that determined by management in the future.

2.5 Relation between Investment, Earnings and Equity Value

Equity value depends on anticipated future investment which it turn depends on efficiency and growth potential (Zhang, 2000). According to Burgstahler and Dichev (1997), equity value is a function of both earnings and book value. When the earnings of the firm's are increasing, it will positively affect the market value (Burgstahler and Dichev, 1997). Equity value is convex in earnings, especially for low-efficiency firms and growth firms (Zhang, 2000). Equity value depends on the book value, with earnings being in predicting value generation (Hao *et al.*, 2011). If the company's earnings increase, the possibility of the company to continue running the business and operations will also increase. This rise is also expected to increase future earnings, which could also affect the equity value and earnings relations. Based on Chen and Zhang (2007), profitability-related information is more important in explaining price movements than is scale-related information. Their research also proved that their accounting-based model explaining cross-sectional price movement.

2.6 Previous Research

Hao *et al.* (2011) suggest that the growth might increase the value-earnings relation for high profitability firms. But, it has negative effect on the slope for lower-profitability firms. Their study gives the better understanding of the fundamental determinants of earnings, equity value and the investment growth. They said that earnings and equity book value serve as explanatory variables for equity value. In this situation, prospective investment growth and investment activities alter the way accounting data are mapped into value.

Another research is about earnings, adaptation and equity value conducted by Burgstahler and Dichev (1997). In this research, they more focused on the relation of equity value, earnings and book value. They predict that the value of equity is a convex function of both expected earnings and book value. The empirical prediction strongly supports the prediction of the convexity—the coefficient on earnings increases with the ratio of earnings to book value and the coefficient on book value decrease with the ratio of earnings to book value. Thus the result shows that the equity value is a function of both expected earnings and book value.

Collins *et al.* (1999) investigate the equity valuation and negative earnings which more focused on the role of book value of equity. They said that book value of equity has important role also in valuing loss firms. Their result is consistent when the book value of equity serving as a value-relevant proxy for expected future earnings for loss firms in general, and as a proxy for abandonment option for loss firms most likely to cease operations and liquidate. They suggest that book value of equity is an important value attribute for loss firms.

Chen and Zhang (2007) suggested that the stock return which related to the earnings yields, capital investment, and changes in profitability and growth opportunities, and discount rate are highly significant. Among those five factors, the profitability-related information which is earning yields and profitability changes is more important in explaining price movement than is scale-related information.

2.7 Hypotheses Development

An earning is one factor to measure the company's equity value. To find out the earnings we also still need corporate profitability where it is a component associated with the investment company. The existence of the company's investment activities would also need to know information about earnings and the market reaction. Information to determine the earnings can be done in a way to test the efficiency of the theory of markets.

Earnings are not yet being said to reflect the real value of equity value due to the possibility of earnings management by the company manager. The existence of this possibility may affect the quality of their earnings itself. Earning is automatically going to result on the equity value. When investors have interest in investing their money, they need information about the company's condition through the firm value. If the firm value is good, they will be interested to invest. This situation can increase the investment growth and the company also has opportunity to increase their earnings.

Ball and Brown (1968) had investigated the earning and market reaction. Their study shows that the incomes of firms have tended to move together with the stock prices form a company. It means that earnings can affect the stock price. It is also related with the investment

activity of the company and the equity value also connected with the investment. Investment growth gives effect on earnings which can be affected the equity value of firms. Equity value is a function of both expected earnings and book value (Solomons, 1995). The prospective investment and past investment activities alter the way accounting data are included into value (Hao *et al.*, 2011). Investment growth which related with profitability will also focus on the price of shares outstanding is important (Chen and Zhang, 2007). Therefore, the equity value is strongly related to earnings on an enterprise cannot provide conclusive results. There are many other possible factors may also affect earnings thus affecting the final outcome for the company's equity value. Based on these idea and previous research, hypotheses can be formulated as follows:

H1: The investment growth can affect the relation between earnings and equity value.

■3.0 RESEARCH METHODOLOGY

3.1 Sample

The sample of this research is all of companies listed in Indonesia Stock Exchange from 2008 up to 2011. Hao *et al.* (2011) suggested that this research needs at least four consecutive years of data due to using *ex post growth* measure. Ex post growth measure could be used for measuring profit shares (Oulton, 2007). In previous study, Hao *et al.* (2011) delete the observations with the missing data on earnings per share, book value per share, market value per share, profitability, or growth, and they also removed regulated and financial industries. Data of this research is secondary data such as:

1. IDX Fact Book to find the companies that listed in Indonesia Stock Exchange during 2008-2011.
2. www.idx.co.id and *Pusat Data Bisnis dan Ekonomi (PDBE) Universitas Gajah Mada (UGM)* to get the annual and financial report of companies within the period of 2008-2011.
3. Finance.yahoo.com to get closing price data.

3.2 Measurement of Variable

The dependent variable of this research is equity value (EV). Equity value is a value that describes how well or poorly the management of company tries to manage their wealth. This variable will be measured using market to book ratio of equity. The formula is:

$$\text{Market to Book ratio of equity} = \frac{\text{number of shares outstanding} \times \text{closing price}}{\text{Total equity}}$$

The independent variable in this research is earnings of companies (E). Earning can be defined as the profit which produces from company in a certain period. The researcher will use earnings per share of the firms which is earnings per share excluding extraordinary items to determine the company's earnings. EPS may be very important to the participant to value and select securities for the portfolios (Livnat and Segal, 2000). The formula is:

$$\text{EPS} = \frac{\text{Net income} - \text{Dividend on Preferred stock}}{\text{Weighted avg Outstanding Shares}}$$

Moderating variable is the other variables included in the model because it has contingency effect between previous dependent variables and independent variable (Jogiyanto, 2010). In previous study, Hao *et al.* (2011) needed to include this moderate variable because they found that the result of dependent and independent variable was still bias. The moderating variable in this research is investment growth. This investment growth will be measured by using the proxies of Investment Opportunity Set (IOS). The IOS proxies which can reflect the growth of firms is investment based proxies. This proxy is ratio of capital expenditures to book value of asset (CAPBVA) which already used by Kallapur dan Trombley (1999). The measurement of ratio capital expenditures to book value of asset is as follow:

$$\text{CAPBVA} = \frac{\text{additional fixed assets within one year}}{\text{Total asset}}$$

According to Jogiyanto (2010), control variable are used to complement or control the casual relationship to create better and more complete empirical model. This research includes control variables because this control variable can affect on the relationship of the variable. The control variable in this research is profitability. The control variable is using profitability because it represents a firm's ability to generate value from invested capital. It can indicate the increase or decrease in operating scale (Hao *et al.*, 2011). High- and low-profitability also has a role in determining the growth effect in valuation (Hao *et al.*, 2011).

The profitability ratio is Return on Asset (ROA). ROA is as a measure earnings per dollar of assets (Ross *et al.*, 2008). This research will use the common formula of ROA.

$$\text{Return On Assets} = \frac{\text{Net income}}{\text{Total Assets}}$$

3.3 Empirical Model

Empirical model that will be use is regression model which is as follows:

$$\text{EVit} = \alpha + \beta_1 \text{Eit} + \beta_2 \text{IGit} + \beta_3 \text{Eit} * \text{IGit} + \beta_4 \text{ROAit} + e$$

Where:

- EV : Equity value of company i in period t.
 E : Earnings per share of company i in period t.
 IG : Investment growth of company i in period t.
 ROA : Return on Asset Company i in period t.

4.0 DATA ANALYSIS

4.1 Descriptive Statistics

Descriptive statistic analysis is the fundamental analysis to describe the general condition of the data. Data of this research are shown below.

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
EV	1020	-598.27	916.75	1.6848	38.70833
E	1020	-345.44	12120.00	212.2738	864.79356
IG	1020	.00	586.97	2.6537	29.14860
ROA	1020	-112.48	509.54	2.5535	26.60845
Valid N (listwise)	1020				

From Table 1, it shows the descriptive statistic of the whole data during 2008-2011. The highest number for equity value is 916.75 while the lowest is -598.27. The average of equity value from 1020 samples is 1.6848 with standard deviation of 38.70833. For earnings, the highest number is 12120.00 and the lowest number is -345.44. During the year of observation, the average of earning is 212.2738 with standard deviation of 864.79356. The investment growth has minimum number of 0.00 and the maximum number of 586.97. The average number of investment growth is 2.6537. This number means that the companies which used as a sample in this study averagely have 29.14860. Company with higher Return on Assets (ROA) means that the company has higher effectiveness in manage their assets to produce profit for their companies and vice versa. This study shows that the minimum number for ROA is -112.48 and the maximum number is 509.54. The mean of ROA is 2.5535 which it has standard deviation 26.60845.

4.2 Hypothesis Testing

The hypothesis testing in this study uses multiple linear regression analysis. Multiple linear regression analysis is used to quantify the effect of more than one independent variable on the dependent variable. By using multiple linear regression analysis techniques then obtained a thorough overview of the relationship between earnings, investment growth and profitability (ROA) and equity value. Results of multiple linear regressions is as follows

Table 2

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.652	.049		13.164	.000
	E	.072	.012	.205	5.771	.000
	IG	-.024	.031	-.203	-.781	.435
	E*IG	.010	.005	.540	1.994	.047
	ROA	-.002	.005	-.031	-.447	.655

a. Dependent Variable: EV

Based on Table 2 above, following regression model can be formulated:

$$Y = 0.652 + 0.072E - 0.024IG + 0.010E*IG - 0.002ROA$$

Where:

- E = earnings
- IG = Investment Growth
- E*IG = the effect of earnings to Investment Growth
- ROA = Return on Asset

The result of t-test from Table 2 above shows significance value for earnings and the effect of earnings to investment growth are 0.000 and 0.047 respectively. However, for investment growth and ROA show insignificance which are 0.435 and 0.655 respectively. For earnings the significance value is 0, this number lies under 0.05 which means earnings has a relation with equity value or earnings has a predictive ability to predict equity value. Investment growth which has a significance value of 0.435 and the effect of earnings to

investment growth has a significance value of 0.047. It can be said that Investment growth can not affect equity value in this research. As for the effect of earnings, investment growth can affect the equity value.

The coefficient results for earnings, investment growth and the effect of investment growth on earnings show a positive and negative number. Coefficient for earnings, investment growth and the effect of investment growth to earnings are 0.072, -0.024 and 0.010 respectively. The positive number shows that earnings positively affect equity value and so does the effect of investment growth to earnings. But, in this research, investment growth itself shows negative numbers along with the ROA. The negative number shows that investment growth negatively affects the equity value. For the profitability (ROA) as a control variable, the result shows the insignificance value for 0.655 and beta for 0.002. The insignificance value which also higher than 0.05 and beta with negative number represents that profitability (ROA) is negatively affecting the equity value.

4.3 Discussion

The result of regression model gives evidence that this research hypothesis is supported. Earnings have a relation or have predictive ability to predict equity value. Equity value can be affected by the combination of earnings and investment growth. The number of investment growth increase the relation between earnings and equity value will increase as well. Therefore this research hypothesis can be accepted and supported by this empirical evidence.

This finding is also supported by the previous research from Hao *et al.* (2011) which stated that intervene of investment growth has positive effect on earnings-equity value relation. This research is also in line with research Burgstahler and Dichev (1997) that are stating if the equity value is influenced by earnings and book value. (The investment growth gives stronger effect in earnings for affecting equity value.

Earning often used to analyze the company's ability to generate profits based on shares held (Hanafi, 1996 in Susilowati and Turyanto, 2011). Earning is an essential component that must be performed in the analysis of companies and it is very helpful for investors, where investors will also be able to see the connection with the company's equity value because earnings have a very strong relationship with the company's equity value. This research show that earnings have positively significant relation with the equity and it's also in line with the observation conduct by Collins *et al.* (1999) and Burgstahler and Dichev (1997).

This is supported the hypothesis research that is investment growth affects the relation between equity value and earnings. The regression result shows that investment growth positively affects the relation between earnings and equity value. Hence, the hypothesis research can be accepted.

5.0 CONCLUSION AND LIMITATION

The result of this research shows that the investment growth affects the relation between earnings and equity value. Investment growth has positive effect to the relation between earnings and equity value. This reseach has some limitation due to the limit of the availability of the financial statements and the closing price because the publication date some of companies were not available.

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