

IMPACT OF HUMAN RESOURCE INVESTMENT ON FIRM VALUE

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ABSTRACT

This study attempts to investigate the effect of Human Resource (HR) investment that has been done by a firm. Human resource investment became the main focus of this research because HR is one of the key factors of a firm's success. However, a great HR investment costs a lot of money that not every firm is willing to take risks. The objective of this study is to find out whether HR investment, in the form of training and education, create value for the firm. Tobin's Q is used as a firm value proxy. This study uses multiple linear regression method for hypothesis testing and use probability sampling method with simple random sampling technique on non-finance companies listed in Indonesian Stock Exchange between 2013-2017. Final sample of this study is 540 firm-years. The result of this study does not support the initial proposition: HR investment does not have significant impact in creating values for companies.

Keywords: human capital, human resource investment, firm value,

Penelitian ini berusaha untuk menyelidiki pengaruh investasi Sumber Daya Manusia (SDM) yang telah dilakukan oleh suatu perusahaan. Investasi SDM menjadi fokus utama penelitian ini karena SDM adalah salah satu faktor kunci kesuksesan perusahaan. Namun, investasi SDM yang baik membutuhkan dana yang besar sehingga tidak setiap perusahaan mau mengambil risiko untuk melakukannya. Tujuan dari penelitian ini adalah untuk mengetahui apakah investasi SDM, dalam bentuk pelatihan dan pendidikan, menciptakan nilai bagi perusahaan. Tobin's Q digunakan sebagai proksi nilai perusahaan. Penelitian ini menggunakan metode regresi linier berganda untuk pengujian hipotesis dan menggunakan metode *probability sampling* dengan teknik *simple random sampling* pada perusahaan non-keuangan yang terdaftar di Bursa Efek Indonesia antara 2013-2017. Sampel akhir dari penelitian ini adalah 540 perusahaan-tahun. Hasil penelitian ini tidak mendukung hipotesis awal: investasi SDM tidak memiliki pengaruh signifikan dalam menciptakan nilai bagi perusahaan.

Kata kunci : modal manusia, investasi SDM, nilai perusahaan

INTRODUCTION

Human resources are valuable assets for a country. Based on The Global Human Capital Report (2017), the quality of HR in Indonesia is still ranked 65th out of 130 countries, below the neighboring countries, such as Malaysia (33rd place) and Thailand (40th place). Human resource income in Indonesia is in the category of low-middle income which shows the low quality of Indonesia HR. With a population of more than 260 million people, of which 67% of the population is in the productive age range, Indonesia has great potential in developing HR to compete with other countries (World Economic Forum, 2017).

High quality human resource (HR) is also one of the key success factors of a firm. The problem of a firm in the millennium era is not concentrated on the top of the management pyramid anymore. Human resources are the center of a firm's management, because the principle of a firm's management is impossible to achieve without an integral contribution of HR (Oyewunmi, Osibanjo, Falola, Olusola, & Olujobi, 2017).

The concept of Human Capital (Schultz, 1961) originated from an acknowledgement that an individual or firm's decision to invest in HR is similar to other investment decisions (Blundell,

Dearden, Meghir, & Sianesi, 1999). Human resource investment (HRI) involves an early cost (education and training cost, also includes opportunity cost during the HR education and training period) that the individual or firm hoped to be compensated in the future (i.e. through increase in salary or firm's productivity) (Becker, 1975; Blundell *et al.*, 1999). Human Resource investment in general decreases the firm's profit during the investment period and increases the profit in the period after the investment (Becker, 1975). Becker's theory is supported by a research that shows HR investment has a positive influence on profitability mediated by labor productivity (Roca-Puig, Bou-Llusar, Beltrán-Martín, & García-Juan, 2018).

Human resource investment requires a huge cost that not every firm is willing to accept the risk of the investment. Companies investing in HR are usually big companies in general (Choi, Lee, & Sonu, 2013; Holland, 2017), has high business complexity and has good management (Choi *et al.*, 2013). The previous research found out that a manager's salary rate has positive effects against a firm's performance through HR (Tahir, Rudiyanto, Prayitno, Amiruddin, & Rosita, 2019). Another empirical research shows proof that companies with a higher portion of managers from prestigious academic universities show higher corporate value (Joh & Jung, 2016). However, based on prior studies, HR investment cannot give a return in the short-term period, but instead in a long-term period (Edmans, 2011; Kwon, 2011).

Human Capital Theory that has been developed by (Becker, 1975) is in contrast with Job Market Signalling Theory by Spence (1973). Spence (1973) argued that education is not the only deciding factor of HR quality. Becker (1975) emphasized education's role in increasing worker's productivity, Spence (1973) meanwhile argued that education is just a way to communicate a candidate worker's characteristics that cannot be observed by companies in the early stage of recruitment (Weiss, 1995). Spence's theory is also supported by research in South Korea that

shows ongoing education and training costs have a negative relationship with the next year's profit (Kwon, 2011).

The objective of this research is to find out the effect of HR investment on firm values in Indonesia. This research is being done empirically by observing non-financial companies that are recorded and registered in the Indonesian Stock Exchange from 2013-2017. The finance sector companies are excluded from the sample of this research because of firms' value evaluation that differs from other sectors companies.

A lot of prior studies choose developed countries as research location. This study chooses Indonesia as a research location because of the potential for HR development in developing countries. The study result will provide a new perspective on how the capital market in Indonesia realizes the importance of HR investment in an organization. Human resource investment will improve a country's economy because of HR's quality improvement that has been done by companies. Therefore, it will give insight and reassurance to firms in Indonesia to invest more in HR.

This paper is organized as follows. Section 2 discusses the theoretical motivation for hypothesizing a link between HR investment and stock returns. Section 3 discusses the data and methodology, Section 4 presents the analysis of the results, and Section 5 presents the conclusion. Section 6 discusses the limitation of this study and suggestions for future research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Human Capital Theory

The term Human Capital appeared during the 1960s in literature written by Schultz. Schultz (1961) argued that labor has become capitalistic not from the side of companies' stock ownership but instead from the laborers' knowledge and expertise acquisition who has economical values. Those knowledge and expertise are mostly a product of investment and, in combination with other human

investments, holds a dominant role in a developed country's productivity excellence (Schultz, 1961). According to Schultz (1961), HR has quantitative and qualitative dimensions. Amount of labor, effective labor time proportion to productive labor and working hours are quantitative characteristics, while expertise, knowledge, and other similar attributes that affect certain capabilities in doing productive work belong to qualitative characteristics (Schultz, 1961). The amount of expense to improve those capabilities will also increase the labor's productivity values, which in turn will result in a positive return rate to the firm (Becker, 1975; Schultz, 1961). Schultz (1961) categorized HR-related expense to 5 (five) key activities categories which can improve HR capabilities and competence, as follows: 1) Medical Facilities and Service, which are diversely arranged to include every expense that affects willingness to live, strength, stamina, and also the people's spirit and vitality; 2) On-the-job training, includes internships held by companies; 3) Formal education in elementary, middle, and higher grades; 4) Study programs for adults that are not managed by companies, especially agricultural counseling; 5) Familial and Individual migration to adapt to change of work opportunities.

Becker (1975) in the Human Capital Theory proposed 4 (four) ways that can be done in HR investment as follows. First, on-the-job training fee, include the value and effort of the trainees, "education" given by others, and tools and materials used. The amount of cost and part of the training period duration depends on the type of training. A lot of workers increase their productivity by learning new expertise and refining the old one during work. Future productivity can only be enhanced with certain amount of cost because, if not done there will be an endless request for training. These companies can gain benefits (partly) from training only if marginal product increase exceeds the workers' salaries. Training can lower the present's income and increase the present's outcome, but companies can

receive the benefits and profits in giving trainings if in the future, the income increases or the outcome can be lowered.

There are 2 types of on-the-job training which consist of general training and specific training. General training is a training that can produce equal benefits and marginal product will increase equally on all levels in every firm. The salary rate will go up by marginal products and companies giving this kind of training would not receive anything in return. Companies will only give general training if they are not obligated to pay for any fees. Because of that, the training's participants are the ones instead of the firm paying the fees and in return, they will receive below the productivity salary (opportunity) for now. Several types of training increase productivity with varying amounts which differ from each firm. Specific training can be defined as training that does not impact trainees' productivity if being done in other firms. One form of specific training is a resource expended by the firm to commence new employees' orientation because of the increase of productivity in that firm compared to others.

Second, school or education, which can be defined as an institution specializing in training, different from companies offering training related to the product manufacturing process. There are skills better achieved by practical problems, meanwhile several other skills need a longer duration of learning. Which means, there are complementary elements from learning with working and learning with time.

Third, knowledge. On-the-job training and school/education are not the only activity that can increase knowledge intentionally and can be used to increase income. For example, information regarding prices from different suppliers can be used as a possibility to pick the cheaper supplier, so it will increase the control of resource; information regarding salaries offered by various companies will allow the possibility of workers choosing the companies with the highest salary; information regarding social and political events like influences from various parties

can also significantly increase worker salaries’.

Fourth, the increase in productive salaries. One of the ways for investing in human capital is with increasing emotional and physical health. Health, just like knowledge, can be improved in various ways. The decrease in death rate during working age can increase revenue’s prospect by prolonging periods of income acquisition period; better diet increase strength and stamina, and because of that produced capacity; or improvement in working condition, like higher salaries, coffee break, etc, can affect working spirit and productivity.

Most of the relevant HR expenses are a mix of part consumptive and part investment, that’s why the identification process of each component is very hard and measuring capital formation by the outcome is inaccurate for human investment compared to physical investment (Schultz, 1961). There are alternative methods to forecast HR investment if, the identification process of investment component cannot be done, which is based on the result obtained by HR like salary and labor’s wage (Schultz, 1961). Human Resource Investment in general lowered the income during the period of investment and increased after the investment period (Becker, 1975). This difference is caused by how the reported earnings during the investment period tend to be clean from general investment fees and gross profit from productivity rate improvement.

Human Resource Investment

Human resource investment can be defined as the use of specific HR practices that demonstrate organizational commitment to employees (Roca-Puig *et al.*, 2018). Human capital is formed when an individual or firm decides to invest its resources into the development of employees who work in the business (Blundell *et al.*, 1999). Similar to other investment decisions, human capital investment aims to get a higher return (profit), as long as the individual or firm is rational (Liao, Mo, & Grant, 2019).

Previous studies used various meas-

urement and index models to interpret HR investment. Some previous research uses operational costs related to HR to measure HR investment in companies, including employee remuneration (salary or wage costs) (Hoopes, Merkley, Pacelli, & Schroeder, 2018; Roca-Puig, Beltrán-Martín, & Segarra-Ciprés, 2012), employee incentives (Wang, Lavelle, & Gunnigle, 2018), employee benefit and welfare costs (Holland, 2017; Kang, Lee, Son, & Stein, 2017; Kwon, 2017), and employee training and education costs (García-Zambrano, Rodríguez-Castellanos, & García-Merino, 2018; Kang *et al.*, 2017; Kwon, 2011, 2017; Roca-Puig *et al.*, 2012).

Previous studies also used the level of formal education of employees (Gunlock, & Lee, 2005; Liu, Lin, & Shu, 2017; Salehi, Ziba, & Daemi Gah, 2018), work experience of employees (Brockman, Campbell, Lee, & Salas, 2019; Chen, Dai, Kong, & Tan, 2017), managerial skills and employee competencies (Demerjian, Lev, Lewis, & McVay, 2012; Hidayah & Zarkasyi, 2017), and permanent employee contracts (Roca-Puig *et al.*, 2012) as a signal that the firm is committed to recruiting the best HR. The firm’s commitment aims to get the maximum return on HR investment decisions made by the firm.

Several other previous studies, using the best firm ranking data in terms of HR provided by magazines or other information media as a signal of good HR management practices in the firm. Liao *et al.*, (2019) and Riley, Michael, & Mahoney (2016) examined human capital using training information (including the dollar amount for training expenses and whether the training was related to other business performance measures) from the Training Top 100 survey report (or Top Training 125) published by Training magazine.

Firm Value

The firm value represents the firm’s past, present and future performance. The share price is often associated with the firm’s value because the stock price reflects the willingness of investors to buy the firm’s shares. One financial ratio that is often used to measure the value of a firm is price-to-book (P/B) and price-to-earnings (P/E). Price-to-book (P/B) measures the value of a

firm's assets and compares them to stock prices. If the share price is lower than the value of the assets, the firm is undervalued, assuming the firm is not in financial trouble. Price-to-earnings (P/E) compares the firm's stock price and earnings-per-share to determine whether the stock price reflects all earnings.

The value of a firm calculated based on stock prices only gives information about the total stock market price of a firm and does not consider debt, cash and cash equivalents, and other key factors related to the value of the firm. Enterprise value (EV) has emerged as another alternative for measuring firm value. EV is calculated by adding up the firm's stock market capitalization, short-term debt, and long-term debt, less cash owned by the firm.

Loughran & Wellman (2011) developed the previous literature by introducing a more complete and stronger value-based ratio for use by practitioners, namely Enterprise Multiple (EM). EM is calculated by dividing EV with operating income before interest, taxes, depreciation, and amortization (EBITDA) (Loughran & Wellman, 2011). Loughran & Wellman (2011) uses EM to calculate EMD, which is a factor created that reflects the difference in returns on low versus high EM portfolios.

Another widely accepted measurement of firm value is Tobin's Q (Tobin, 1969). Q for a firm is calculated as the ratio of the market value of financial claims circulating to the firm against the current replacement costs of the firm's assets. Replacement costs are a logical measure of

the value of alternative asset uses. Companies that display Q greater than 1 (one) are rated as companies that use scarce resources effectively, and companies with Q less than 1 (one) use resources poorly (Tobin, 1969).

Hypothesis Development

According to Human Capital theory by Becker (1975), HR investment through education and training will affect HR productivity. Human Resource investment can be made through formal and non-formal education incentives, on-the-job training, and improving emotional and physical health facilities that will increase labor productivity (Becker, 1975; Schultz, 1961). Smith (1977) also argues that labor competency as a form of intangible assets, such as the skills and knowledge of a company's workforce, is the result of education or training.

An increase in productivity and work competence will produce value for the company. Various studies have been conducted to prove the relationship between HR investment and firm value. Human Resource investment positively influences productivity (Holland, 2017; Roca-Puig *et al.*, 2018), profitability (Roca-Puig *et al.*, 2018), and firm value (García-Zambrano *et al.*, 2018; Holland, 2017; Joh & Jung, 2016; Kwon, 2011, 2017; Massingham & Tam, 2015). Even though it's hard to measure stock market capabilities in recognizing HR quality, several previous types of research show that an effective HR investment signal points to positive stock price reaction (García-Zambrano *et al.*, 2018; Kwon, 2017;

Table 1.
Determination of Research Samples

Description	Amount
Firm-years listed in the Indonesia Stock Exchange in 2013-2017	2.991
(-) Firm-years in the financial sector in 2013-2017	(445)
(-) Firm-years in the non-financial sector in 2013-2017 whose annual report cannot be download	(303)
(-) Firm-years in the non-financial sector in 2013-2017 that did not disclose education and training expenses in their annual report	(1.682)
(-) Firm-years in the non-financial sector in 2013-2017 that has extreme firm value (Tobin's Q score more than 10)	(10)
Number of observation data (firm-years)	540

Riley *et al.*, 2016). The results of that research prove that HR as one of the intangible assets owned by the company has a value that is valued by the market. The value of these intangible assets can be increased through HR investment so that it will increase the overall value of the company. Therefore, hypotheses are based on theory and related research to the following:

H1: HR investment positively influences firm value.

RESEARCH METHODS

This study uses secondary data: annual reports of companies listed on the Indonesia Stock Exchange (IDX). The data used is panel data with a ratio scale. The population in this research is non-financial sector companies listed on the Indonesia Stock Exchange in 2013-2017. Financial sector companies are excluded from this research because the calculation of their firm value is different from other sector companies. After determining the study population, then we select the research sample. Sampling is done by a probability sampling method with a simple random sampling technique, for every individual has the potential or has the opportunity to become a sample. Table 1 shows the determination of research samples in this

study.

This research uses a quantitative approach to answer the research problem. Multiple linear regression is used to determine the effect of the dependent variable on the independent variable. The following are the research equation in this study:

$$FV_{i,t} = \beta_0 + \beta_1 HRI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 ROA_{i,t} + \alpha_{i,t} + u_{i,t} \dots\dots\dots(1)$$

FV is the firm value of firm *i* in year *t*.

Firm value is defined as an economic measure that reflects the market value of a firm. In this study, Tobin's Q is used as a measure of firm valuation. Tobin Q is defined as the ratio of market value to the replacement value of a firm's assets. Debt market values and replacement costs require very detailed data that is difficult to obtain, this study follows Tobin's Q's calculations modified by Chung & Pruitt (1994):

$$Q_{i,t} = (MVE_{i,t} + PS_{i,t} + DEBT_{i,t}) / TA_{i,t} \dots\dots\dots(2)$$

Q_{i,t} : Tobin's Q firm *i* in year *t*; *MVE_{i,t}* : Common stock market value firm *i* in year *t*; *PS_{i,t}* : Liquidation value of preferred stock firm *i* in year *t*; *DEBT_{i,t}* : Book value of total debt firm *i* in year *t*; *TA_{i,t}* : Book value of total asset firm *i* in year *t*

HRI is an HR investment that represents the cost and effort incurred by a

Table 2.
Descriptive Statistic Result

	FV	HRI	SIZE	LEV	ROA
Mean	1,462772	2,231126	29,07152	0,4699915	0,0357221
Median	1,132276	0,4629167	29,06533	0,4559932	0,041269
Minimum	0,1722975	0	24,37715	0,000000187	-1,216225
Maximum	9,506547	697,9273	33,32018	1,922784	0,2727677
Std. Deviation	1,118343	30,02978	1,560982	0,2296955	0,1071883

Table 3.
Pearson Correlation Result

	FV	HRI	SIZE	LEV	ROA
FV	1,0000				
HRI	-0,0223 (0,6043)	1,0000			
SIZE	-0,0350 (0,4168)	0,0209 (0,6268)	1,0000		
LEV	-0,0234 (0,5880)	0,0251 (0,5603)	0,0454 (0,2927)	1,0000	
ROA	0,1835*** (0,0000)	0,0028 (0,9476)	0,0416 (0,3347)	-0,5025*** (0,0000)	1,0000

*p-values in parentheses * p < 0.1, ** p < 0.05, *** p < 0.01*

firm to have quality HR. Prior research (Kwon, 2017) uses 2 (two) measurements to measure HR investment in their research: (1) employee welfare expenses and (2) employee education and training expenses. Employee welfare is eliminated from this measurement as Indonesia companies rarely disclose it in their annual report, so this study only uses education and training expenses. In this study, HRI is measured as percentage training and education expense of operating expense firm *i* in year *t*. Operating expense is used as a denominator in HRI proxy to adjust with each firm's cost structure. Then, this study uses 3 (three) control variables: (1) firm size (*SIZE*), (2) leverage (*LEV*), and (3) return on asset (*ROA*) firm *i* in year *t*.

ANALYSIS AND DISCUSSION

Table 2 presents the descriptive statistics of the main variables and control variables of this study. A total of 550 firms-years is investigated. The maximum FV value of 9,506547 is owned by PT Mitra Keluarga Karyasehat, Tbk. in 2015 and the minimum FV value of 0,1722975 is owned by PT PP London Sumatra Indonesia, Tbk. in 2013. The average FV value is 1,462772 and the median value of FV is 1,132276. The maximum HRI value of 697,9273 is owned by PT Petrosea, Tbk. in 2013 and the minimum HRI value of 0 is owned by PT Trada Alam Minera, Tbk. in 2013. The average HRI value is 2,231126 and the median value of HRI is 0,4629167.

The maximum LEV value of 1,922784 is owned by PT Bakrie & Brothers, Tbk. in 2016 and the minimum LEV value of 0,000000187 is owned by PT Hanson International, Tbk. in 2015. The average

LEV value is 0,4699915 and the median value of LEV is 0,4559932. The maximum ROA value of 0,2727677 is owned by PT Cardig Aero Services, Tbk. in 2013 and the minimum ROA value of -1,216225 is owned by PT Modern International, Tbk. in 2015. The average ROA value is 0,0357221, and the median value of ROA is 0,041269. The maximum SIZE value of 33,32018 is owned by PT Astra International, Tbk. in 2017 and the minimum SIZE value of 24,37715 is owned by PT Grahama Citrawisata, Tbk. in 2017. The average SIZE value is 29,07152 and the median value of SIZE is 29,06533.

Table 3 shows the results of a Pearson correlation for the main variables to investigate the relationships among fair value (FV), human resource investment (HRI), size (SIZE), leverage (LEV), and return on assets (ROA). The results show that return on asset are positively correlated with fair value (0,1835) and negatively correlated with leverage (-0,5025).

The analytical method used in this study is the multiple linear regression analysis. The multiple linear regression analysis aims to determine the effect of the variable human resource investment on firm value. Based on the result of the panel data linear regression analysis with the robust fixed-effects model, the regression equation for this study is as follows:

$$FV_{i,t} = 11,2613 + 0,0000254 HRI_{i,t} - 0,3508292 SIZE_{i,t} + 0,8342225 LEV_{i,t} + 0,728292 ROA_{i,t} + \alpha_{i,t} + u_{i,t} \dots \dots \dots (3)$$

Table 4 shows that HR investments done by Indonesian companies in 2013-2017 are not significantly impacting firm value (p-value of 0,860), and therefore does not support H1. HRI coefficient value of 0,0000254 shows that HRI has a positive

Table 4.
Panel Data Fixed-Effects Regression Result

Variables	Predicted Sign	FV		
		Coefficient	t	p-value
HRI	+	0,0000254	0,18	0,860
SIZE	+	-0,3508292	-1,24	0,217
LEV	+	0,8342225	2,35	0,020**
ROA	+	0,728292	1,99	0,048**
_cosn		11,2613	1,36	0,175
Year Effect		Yes		
R-squared		0,0871		
n		540		

(+) impact to firm value, but it is relatively low compare to the control variables coefficient. Moreover, LEV and ROA shows a positive (+) coefficient (0,8342225 and 0,728292) and significant impact (p-value of 0,020 and 0,048) to firm value in the estimates model, while SIZE shows a negative (-) coefficient (-0,3508292) and not significant impact (p-value of 0,217) to firm value. Table 4 also shows within an R-squared value of 0,0871, meaning that firm value can be explained 8,71% from the firm's HR investment, size, leverage, and return on asset.

This study provides new findings related to the relationship between HR investment and firm value. Prior studies found evidence that companies try to increase their value by increasing the HR quality (García-Zambrano et al., 2018; Holland, 2017; Joh & Jung, 2016; Kwon, 2011, 2017). According to Human Capital Theory by Becker (1975), high quality HR will increase a firm's productivity that leads to an escalation in a firm's performance. The capital market will value more the company with high performance.

However, the results of this study show the opposite fact: HR investment does not have a significant impact on firm value. There are 2 (two) possible reasons for this phenomenon. First, the Indonesian capital market fails to capture the company's efforts to improve the quality of HR through training and education programs. Human Resource investment does not have a strong influence to make the Indonesian capital market believe in increased productivity by the company.

Second, the return of HR investment may be obtained in a long-term period (Edmans, 2011; Kwon, 2011). Human Resource investment in the form of training and education may need more time to give an impact on increasing productivity. This study uses HR investment and firm value data in the same year so the result may not reflect appropriate investment mechanism.

CONCLUSION

This study examined the effect of HR investment on firm value. The study

population is a non-financial company listed on the Indonesia Stock Exchange. The research sample consisted of 143 companies listed on the Indonesia Stock Exchange in the period 2013-2017 and had complete data related to research needs. This research method is a quantitative method with STATA test equipment. Data analysis techniques used multiple linear regression analysis.

The result of the statistical analysis test does not support the research hypothesis. Based on empirical evidence, HR investment does not have significant influence on firm value. The result of this study is not the same as prior research (García-Zambrano et al., 2018; Holland, 2017; Joh & Jung, 2016; Kwon, 2011, 2017) that shows the significant and positive influence of HR investment on firm value.

There are 2 (two) possible reason for this phenomenon. First, the Indonesian capital market fails to capture the company's efforts to improve the quality of HR through training and education programs. Second, the return of HR investment may be obtained in a long-term period (Edmans, 2011; Kwon, 2011).

LIMITATIONS AND SUGGESTIONS

This study has several limitations. First, the sample used in this study is only limited to Indonesian companies that disclose training and education expense in their annual report. Voluntary disclosure regulation in Indonesia has an important role in gaining research data. Future studies may use another measurement to gain a broader sample of the study.

Second, this study does not capture the time needed for HR investment to produce its return. This study uses the same year data to show the short-term impact of HR investment on firm value. Therefore, the suggestion for further research is to use time gaps between HR investment and firm value data to capture the long-term impact.

Third, the relation between HR investment and firm value is still unclear. Future studies may improve the research model by incorporating another relevant variable that represents a firm's

productivity that may mediate or moderate the relation between HR investment and firm value. Future studies may also test several other control variables that are relevant to improve the research model.

This research result may fill the research gap in which there is no research examined the influence of HR investment in the form of training and education expense to firm value in Indonesia. HR investment become fundamental for companies to compete globally. Although the result of the study shows that the Indonesian Capital Market does not value HR investment, it does not mean that HR investment is not necessary. The results of this study motivate Indonesian companies to be able to creatively disclose HR investments to create value for the company. Regulators are expected to be able to set HR investment disclosure policies to encourage companies to disclose more broadly and deeply.

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