

# THE EFFECT OF EMPLOYEE TRAINING ON FIRM VALUE THROUGH FINANCIAL PERFORMANCE AS A MEDIATING VARIABLE

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## ABSTRACT

A study entitled The effect of employee training on firm value through financial performance as a mediating variable was conducted to examine the effect of employee training on firm value through financial performance. Rapid technological developments force companies to continue to adopt the latest technology. The adoption of the new technology must be accompanied by training of employees in order to improve their abilities so that the company's human capital will increase. Increasing the ability of employees makes employees work more efficiently and effectively so that financial performance will increase and ultimately increase the value of the company. This research uses the basic theory of firm, signaling theory and human capital theory. The study was conducted on banking companies listed on the Indonesian stock exchange in 2018-2021. The sample was taken by purposive sampling method and used 15 studies with 45 observational data, namely 2019, 2020, and 2021. The results of employee training research have an effect on financial performance. In addition, financial performance has an effect on firm value. While the training does not have a direct effect on the value of the company. The effect of training on firm value is an indirect effect through financial performance. Financial performance mediates the effect of training on firm value. This study shows the business world the importance of employee training as a company's human resource management strategy which in turn can increase the value of the company.

**Keywords:** Firm Value, Financial Performance, Human Resource Training, Human Capital

## FOREWORD

The purpose of the company established based on the theory of firm is to maximize shareholder wealth (Salvator, 2014). Shareholders' wealth of the company can be seen from the value of the company. Firm value is an investor's perception of a company that is often associated with stock prices (Ardana 2019). In public companies, when the value of the company increases, the wealth of shareholders as owners of the company will also increase. Basically a company's value can be measured from various aspects, one of which is from the aspect of the company's stock market price because it can reflect an investment assessment of all equity owned by the company (Karimah and Arifin 2017).

The high value of the company reflects an increase in investor profits. Stock prices in the capital market are formed because of an agreement between investor demand and supply, therefore the stock price is a fair price that is used as a proxy for company value (Sembiring and Trisnawati 2019). One thing that is closely related to company value is the company's financial performance (Brimantyo, Rochman, and Karima 2019). So to increase the value of

the company, the company's financial performance must continue to be improved. The Indonesian Institute of Accountants (2019) defines financial performance as a description of the financial results that a company can achieve at a certain time through organizational training. These exercises are recorded and summarized into data that can be used as a medium to report the condition and position of the organization to individuals who invest, especially lenders, financial backers, and the organization's administration itself (Rahmadan and Huda 2021).

The company's financial performance shows the company's capability in managing the financial resources owned by the company (Brimantyo, Rochman, and Karima 2019). If the financial performance shows good prospects, the shares will be in demand by investors and will affect the selling value of the shares (Pujarini 2020). The company's financial performance will be reflected in the financial statements produced by the accounting system.

Accounting is the language of business because through accounting information will be generated about the company's financial condition that is used by interested parties to make decisions. The accounting system will produce financial reports that can provide information about the company's performance and financial position, including the company's assets. However, not all assets can be reported in accounting, one of which is human resources.

The role of employees as resources in the company is very important in carrying out business activities and efforts to improve financial performance. Human resources is an important asset that must be owned and considered by management. Human Resources is an element that must exist in an organization. Companies cannot maximize productivity and profits without competent and dedicated human resources to the company's goals (R. N. Sari 2016). Currently, conventional accounting information has not fully disclosed human resources. However, based on human capital theory, humans are capital or capital goods, just like other capital goods (Hasmin and Nurung 2021). Human resources are still an important asset for companies to improve financial performance.

Human resources that are managed properly will make business processes run efficiently and effectively which will improve the company's financial performance. In today's developments, the workforce needs to have new knowledge and rely on knowledge and technical mastery to adapt to the ever-changing dynamics. Compared to the past, human capital refers to the knowledge, education, training, professional knowledge, and skills of employees in organizations that are very important now (Hasmin and Nurung 2021).

As technology develops faster, company-provided employee training can play an increasingly important role. Training can renew and expand workers' school qualifications in their work and provide important personal and social benefits. This is no exception for the banking industry.

The development of lifestyle makes the banking industry must continue to develop technology that is able to facilitate transactions but still maintain security. Especially with the Covid-19 pandemic which has changed almost all aspects of life. Before the pandemic, account opening had to be done at a branch office, but now customers can open an account from anywhere. The Bank has developed various technologies to facilitate customers in various transactions.

This development must be accompanied by adequate training for bank employees. This training will continue to update employees' insights which will be very useful in carrying out their duties. The results of research by (Rahman and Akhter 2021) in Bangladesh show that investment in training, level of knowledge and skills of employees is positively related to bank performance. Another study conducted by (Kwon 2019) in South Korea found that growth in training and development investment is positively related to future financial performance.

Based on this, this study was conducted to determine whether training for employees will increase the value of the company through the company's financial performance. The

research will be conducted on banking sub-sector companies in Indonesia which are listed on the Indonesia Stock Exchange. The banking industry was chosen because with the rapid development of technology and information, Banks are required to always present the latest technology that always provides added value to facilitate banking transactions for its customers. To maximize the benefits of this technology, continuous employee training is an important thing that must be done by the banking industry.

In the next section, the theory that underlies this research and the research that has been conducted previously related to the variables discussed will be described, followed by the formulation of hypotheses. After that, it was continued with an explanation of the research methodology followed by statistical testing and discussion of research results. This paper closes with conclusions and suggestions regarding the research that has been carried out.

## **LITERATURE REVIEW**

In this literature review section, the grand theory, supporting theories and results of previous research will be discussed, followed by the formulation of research hypotheses.

### **Grand Theory**

This study uses the theory of firm, signaling theory, and human capital theory as the main theories discussed in this section. Furthermore, it is explained about the supporting theory used about company value, financial performance, and employee training.

#### ***Theory of Firm***

Since Coase's (1937) seminal paper on 'The Nature of the Firm', strategy scholars have been invested in developing so-called 'corporate theories' (ToFs). It is a theory that should answer four questions about the nature of the company: Why do companies exist? Why are their boundaries like that? Why are they arranged like that? and Why are they so heterogeneous? (Kraaijenbrink and Spender 2011).

The first ToF family thought of the company as a pool of assets. These theories focus on the individual means that firms use as the basis for their competitive advantage – tangibles, intangibles, capital, capabilities, and the like. Such theories primarily answer the question of why firms are heterogeneous. The creation of use value is a must for the company to maintain it. Without it, the company would have no added value at all and there would be no reason for them to exist. The fact that value in use is a subjectively recognized attribute implies that a firm's resources and products are not valuable in themselves, but only if one considers them valuable. (Kraaijenbrink and Spender 2011)

Companies exist as long as they have added value and this value will be different for each party. If it is related to why the company was founded in the first place, this is closely related to the owner of the company, which means that the company must provide value for the owner of the company. This is in accordance with the question of Salvatore (2014) which states that the company was founded to maximize shareholder wealth. Companies become valuable to owners (shareholders) because they maximize their wealth.

#### ***Signaling Theory***

The theory that can be used on firm value is Signaling Theory. Signaling theory was first introduced by Michael Spence (1973) in his research entitled Job Market Signaling. Spence explained the relationship between two interrelated parties, namely management and investors. The management as the internal party that gives the signal and the investor as the external party who receives the signal (Setiawan, Ery Wibowo, and Nurcahyono 2021).

Signaling theory suggests reasons that encourage companies to submit information in the form of financial reports to parties outside the company in a good and accountable manner (Kosriyah, Kurnia, and Octaviani 2021).

Signaling theory focuses on information submitted by the company in the form of financial statements and future business developments can be a positive signal for the company, with the hope that this information can increase stock prices as a reflection of the increase in company value (Sucipto and Sudiyatno, 2018).

When the information is announced and all market participants have received the information, market participants first interpret and analyze the information as a good signal or a bad signal. If the announcement of the information is a good signal for investors, there will be a change in the volume of stock trading which will affect the stock price. Broadly speaking, signaling theory is closely related to the availability of information. Financial statements can be used to make decisions for investors, financial statements are the most important part of a company's fundamental analysis (Haryani 2021).

According to Brigham and Houston (2016: 185) that a signal is an action taken by the company to provide instructions for investors about how management views the company's prospects. This signal is in the form of information about what management has done to realize the owner's wishes.

### ***Human Capital Theory***

Human Capital is a view that says that humans are capital or capital goods, just like other capital goods (such as land, buildings, machines, etc.) (Hasmin and Nurung 2021). Human Capital theory is closely related to human resource management research in business management and macroeconomic practices (Hasmin and Nurung 2021). The original idea of Human Capital can be traced back at least to Adam Smith in the 18th century. Modern Human Capital theory comes from (Becker, 1993), an economist and Nobel laureate from the University of Chicago.

Human Capital Theory statements date back to the early 1960s, when (Schultz, 1962) proposed that Human Capital consists of 'the knowledge, skills and abilities of the people employed in an organization'. Furthermore, the view of (Schultz, 1962) says that HCT is a person's capital obtained from the education and development process in the form of knowledge and skills including technical skills. Capital obtained from a human investment process will ultimately benefit in the form of compensation for services from their skills (Zula and Chermack, 2007).

Human capital can be interpreted in at least three concepts. The first is seen from the Individual aspect referring to knowledge and skills. The second concept states that human capital is knowledge and skills acquired through various activities. While the third concept views human capital through a production orientation perspective (Hasmin and Nurung 2021). The first component in human capital is individual ability. This component is the most important thing from all aspects (Tyas and Irhandayaningsih 2021). This individual ability includes knowledge, skills, experience and individual networks with other individuals.

Human capital is a very useful source of knowledge, skills, and competencies in an organization or company. Human Capital reflects the company's collective ability to produce the best solutions based on the knowledge possessed by the people in the company (Jusriadi and Tiara 2021).

### ***Firm Value***

Firm value is an investor's perception of the level of success of a company which is often associated with stock prices (Novitasari and Krisnando 2021). Company value is an indicator of business development that shows the condition of the company, namely a description of public trust in the company's performance and an overview of the company's future prospects (Mulyasari and Murwaningsari, 2019). company value is the stock market price that describes the state of the company where the higher the value of a company, the more prosperous the investors will be (E. P. Sari, Cahyono, and Aspirandi 2021).

Firm value is the present value of future free cash flows. The higher the value of the company, the greater the prosperity that will be received by the owner of the company. The company value indicator is a performance evaluation by calculating the company's market value (Arlita 2019).

One of the valuation ratios that can be used to measure firm value is Price to Book Value (PBV). Price to Book Value (PBV) describes how much the market appreciates the book value of a company's shares. The higher the PBV means the market trusts the company's prospects. Price to book value also shows how far a company is able to create company value relative to the amount of capital invested (Arlita and Aghivirwiati 2021). If the value of the PBV ratio is too expensive, then the shares will not be sold or will not attract investors to buy them (Dwipayana and Suaryana, 2016).

### ***Financial performance***

Performance is how well the results achieved by the company in achieving economic goals where the economic goal is to maximize economic welfare (Kansil, Rate, and Tulung 2021). The measurement of a company's financial performance is one of the indicators used by investors to assess a company which is expressed in the stock market price on the stock exchange. The better the company's financial performance, the higher the return that investors will get (Ardana 2019).

The company's financial performance shows the company's capability in managing the financial resources owned by the company (Brimantyo, Rochman, and Karima 2019). The company's financial performance can be seen and measured through financial statement analysis. Financial statement analysis is done by calculating the ratios in financial performance. These ratios show the level of efficiency and effectiveness of a company's performance (Nengsih 2021).

Financial ratios are useful in identifying key financial variables and relationships between variables with the intention of giving meaning to various relationships while ascertaining the strengths and weaknesses of a company (Ardana 2019). One of the ratios to measure financial performance is the ratio of return on assets.

If it is associated with the use of signaling theory, information is in the form of ROA or the rate of return on assets or also how much profit is obtained from the assets used. Thus, if the ROA is high, it will be a good signal for investors, because a high ROA indicates the company's financial performance is good so that investors will be interested in investing their funds in the form of securities or shares (Haryani 2021).

### ***Employee Training***

The most important component in human capital is individual ability (Tyas and Irhandayaningsih 2021). Furthermore (Tyas and Irhandayaningsih 2021) describes that there are several characteristics that can be seen in a person's individual abilities, including personal capabilities, professional and technical expertise (professional and technical know-how), experience, network and outreach. personal contacts (the network and range of personal

contacts), values and attitudes that influence action (the values and attitudes that influence action).

Technology continues to develop and consequently personal capabilities and professional and technical know-how must be continuously developed and improved. Efforts to develop employees' personal abilities can be done through training. The training program is part of a human resource strategy that is expected to improve skills, motivation, work ability, and employee loyalty (Hasmin and Nurung 2021).

Motlokoa, Sekantsi, and Monyolo (2018) describe that there are many benefits associated with employee training. First, training promotes employee development and growth, and creates positive attitudes and behaviors. Second, training keeps employees motivated. Third, increase the competitiveness of companies over their competitors and help companies to stay ahead of the competition in this changing world. Fourth, reduce production costs and risks inherent in the business, because trained personnel are not only able to make well-informed investment and financial decisions, but also make economical use of business materials and equipment to avoid wastage in an effort to optimize profits, thereby increasing company value and shareholder wealth. Last but not least, training helps manage the change process by increasing employee understanding and involvement in the change process and also providing the skills and abilities needed to adapt to new situations.

### **Research Framework and Hypothesis**

This study tries to examine the effect of training on firm value through financial performance which is illustrated by the following framework:

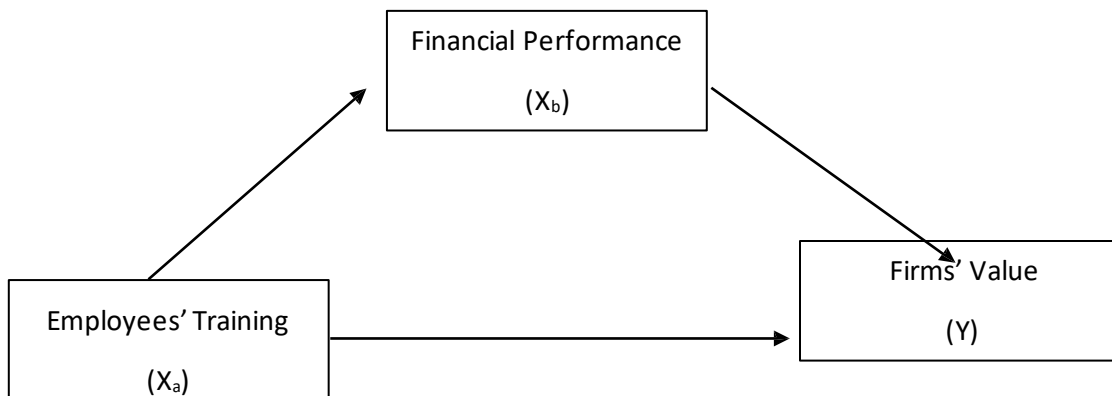


Figure 1  
Research Framework

The relationship on the research framework is explained further in the formulation of the following hypothesis:

### **Effect of training on financial performance**

Based on human capital theory, individual ability is an important component and must be continuously improved. The training program is part of a human resource strategy that is expected to improve skills, motivation, work ability, and employee loyalty (Hasmin and Nurung

2021). Training enhances employee development and growth, besides that training helps manage the change process by increasing employee understanding and involvement in the change process and also providing the skills and abilities needed to adapt to new situations (Motlokoa, Sekantsi, and Monyolo 2018). Similar results were also found by (Rahman and Akhter 2021) who found that investment in training, level of knowledge and skills of employees was positively related to bank performance. Based on this, the following hypothesis is formulated:

H1: Training has an effect on financial performance

### **Effect of financial performance on firm value**

Financial statements can be used to make decisions for investors, financial statements are the most important part of a company's fundamental analysis (Haryani 2021). The financial statements contain information about the company's financial condition and performance. This is closely related to signal theory.

Signaling theory focuses on information submitted by the company in the form of financial statements and future business developments can be a positive signal for the company, with the hope that this information can increase stock prices as a reflection of the increase in company value (Sucipto and Sudiyatno, 2018).

If it is associated with the use of signaling theory, information is in the form of ROA or the rate of return on assets or also how much profit is obtained from the assets used. Thus, if the ROA is high, it will be a good signal for investors, because a high ROA indicates the company's financial performance is good so that investors will be interested in investing their funds in the form of securities or shares (Haryani 2021).

Financial performance has a significant effect on firm value (Brimantyo, Rochman, and Karima 2019). This is supported by (Nengsih 2021) research which finds that financial performance partially has a significant positive effect on firm value. Based on this, the following second hypothesis is formulated:

H2: Financial performance has an effect on firm value

### **Direct effect of training on firm value**

Capital obtained from a human investment process will ultimately benefit in the form of compensation for services from their skills (Zula and Chermack, 2007). Human Capital reflects the company's collective ability to produce the best solutions based on the knowledge possessed by the people in the company (Jusriadi and Tiara 2021).

Training can reduce production costs and risks inherent in a business as trained personnel are not only able to make well-informed investment and financial decisions, but also make economical use of business materials and equipment to avoid wastage in an effort to optimize profits, thereby increasing company value and shareholder wealth (Motlokoa, Sekantsi, and Monyolo 2018). Based on this, the third hypothesis is formulated, namely:

H3: Training has an effect on firm value

### Indirect effect of training on firm value

Training enhances employee development and growth, besides that training helps manage the change process by increasing employee understanding and involvement in the change process and also providing the skills and abilities needed to adapt to new situations (Motlokoa, Sekantsi, and Monyolo 2018). With adequate skills and abilities, employees can work effectively and efficiently so that business processes can run well so as to improve financial performance. Financial performance as reflected in financial statements gives a signal to investors about the condition and prospects of the company. When the financial performance is good, this gives a positive signal for investors so that the company's shares become attractive which in turn will increase the share price. Based on this, it is suspected that training through financial performance will affect firm value, so the following hypothesis is formulated:

H4: Financial performance mediates the effect of training on firm value

## RESEARCH METHODOLOGY

The research was conducted on banking sub-sector companies listed on the Indonesia Stock Exchange. The banking industry was chosen because with the rapid development of technology and information, Banks are required to always present the latest technology that always provides added value to facilitate banking transactions for its customers. To maximize the benefits of this technology, continuous employee training is an important thing that must be done by the banking industry.

The study was conducted on firm value in 2019 to 2021. Sampling used a purposive sampling technique, and based on the following criteria:

- a. Companies listed on the IDX in 2018-2021
- b. The company has published an annual report in 2018-2021
- c. Companies report employee training and education costs separately from other costs.
- d. All data needed in the study are available completely

Based on these criteria, the following number of samples was obtained:

**Table 1**  
**Samples' Determination**

Criteria	Number of Companies
Banking sub-sector companies listed on the IDX until 2021	43
Banking sub-sector companies registered after 2018 (1) companies that have not published 2021 annual reports (18)	
Companies that do not report separate employee training and education costs	(1)
companies with incomplete data (8)	
Number of final sample	15
Number of years of observation	3
Number of data	45

Source: processed data, 2022



This study uses secondary data derived from annual reports and company financial statements. This report was obtained from the Indonesian stock exchange website and the company's official website. This study consists of 3 variables, namely employee training (Xa), financial performance (Xb) and firm value (Y). Employee training is measured by the following formula:

$$E\% = \frac{\text{Training Investment} - \text{Initial Training Investment}}{\text{Initial Training Investment}} \times 100\%$$

This study uses a measurement of changes in training load because based on research (Kwon 2019), although growth in training and development investment is stable over time, there are significant differences between companies in the trajectory of training and development investment over time. Financial performance was previously shown to be positively related to higher levels of training and development investment, but not to growth in training and development investment. Initial levels of training and development investment do not predict future returns, but growth in training and development investment is positively related to future financial performance.

Financial performance in this study was measured using return on assets (ROA) with the following formula:

$$ROA = \frac{\text{Net Income}}{\text{Average Total Assets}} \times 100\%$$

The ROA ratio was chosen to be used because it is related to employee training. Employee training can reduce production costs and risks inherent in the business because the personnel are well trained and informed so that they will make economical use of business materials and equipment.

Finally, the value of the company in this study was measured using the ratio of price to book value (PBV). Price to book value also shows how far a company is able to create company value relative to the amount of capital invested (Arlita and Aghivirwiati 2021). PBV is calculated by the following formula:

$$PBV = \frac{\text{Market Value}}{\text{Book Value}}$$

The data will be analysed using SPSS 24. After the data is tabulated, the classical assumption test is then carried out. The classical assumption tests carried out in this study were normality test, multicollinearity test, autocorrelation test and heteroscedasticity test. Statistical analysis used in this study is path analysis. To determine the influence of one variable on other variables, the following requirements are required: first, the relationship between variables must be linear and additive; second, all residual variables have no correlation with each other; third, the pattern of the relationship between variables is recursive, and fourth, the measurement scale for both causal and effect variables is at least an interval.

The path coefficient can be calculated by working steps as follows; first, draw a path diagram for the complete variable relationships reflecting the proposed conceptual hypothesis. Then calculate the magnitude of the influence (structural parameters) between a causal variable and an effect variable. This calculation is based on the sub-structure of the relationship between k causal variables and an effect variable. Hypothesis testing in this study uses path analysis with the following path structure:

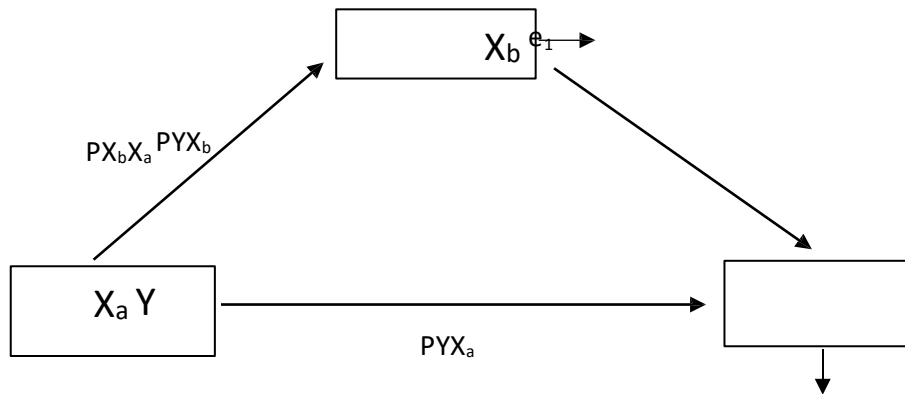


Figure 2  $e_1$

Path Diagram Structure

The regression equation is as follows:

$$a. X_b = \alpha + \beta_1 X_a + e_1 \dots \dots \dots (1)$$

$$b. Y = \alpha + \beta_1 X_a + \beta_2 X_b + e_2 \dots \dots \dots (2)$$

Explanation :

- $\alpha$  : constan
- $X_a$  : Employee Training
- $X_b$  : Financial Performance
- $Y$  : Firm Value
- $\beta_1, \beta_2$  : Intercept
- $e_1$  : Residual of Employee Training ( $e_1 = 1 - R_1^2$ )
- $e_2$  : Residual of kinerja Financial Performance ( $e_2 = 1 - R_2^2$ )

## RESULT

In this section, the research results will be described. Starting from descriptive statistics, the results of classical assumption testing, and closing with the results of path analysis. The study was conducted on 45 observational data from 15 banking sector companies listed on the Indonesian stock exchange with the list listed in table 2 below:

**Table 2**  
**List of sample company**

No	Code	Companys' Name
1	BBCA	Bank Central Asia Tbk
2	BBKP	Bank Bukopin Tbk
3	BBNI	Bank Negara Indonesia Tbk
4	BBRI	Bank Rakyat Indonesia (Persero) Tbk
5	BDMN	Bank Danamon Indonesia Tbk
6	BINA	PT Bank Ina Perdana Tbk.
7	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk
8	BKSW	PT Bank QNB Indonesia Tbk
9	BMRI	Bank Mandiri (Persero) Tbk
10	BNBA	Bank Bumi Artha
11	BNGA	Bank CIMB Niaga Tbk
12	BNLI	Bank Permata Tbk
13	MEGA	Bank Mega Tbk
14	NISP	Bank OCBC NISP Tbk
15	SDRA	PT Bank Woori Saudara Indonesia 1906 Tbk

From these 45 observations, descriptive statistics were obtained as follows:

**Table 3**  
**Descriptive Statistics**

	N	Minimum	Maximum	Mean
Employee Training	45	-0.72	1.27	-0.1044
Financial Performance	45	0.02	8.5	2.0671
Firm Value	45	0.09	10.81	1.7438
Valid N (listwise)	45			

Based on the data in table 3, the largest decrease in training costs was 72% from the previous period which occurred at Bank Bumi Artha in 2020. The largest increase in training costs was 127% by Bank Permata in 2021. However, on average, employee training costs issued by banking companies decreased by 10.44%. This is natural considering that Indonesia is experiencing the Covid-19 Pandemic and implementing Large-Scale Social Restrictions (PSBB) which restricts social movements of the community. The COVID-19 pandemic has made many learning and training activities that were originally face-to-face turned into online. Online training can reduce training costs because companies do not have to pay for venues and provide food for training participants.

The average financial performance as measured by ROA is 206.71%, which means that the Bank's financial performance is classified as good because it is above 5%. Meanwhile, the

average value of the company as measured by PBV is 1.7438, which means that in general, the shares of banking companies in Indonesia have been overvalued, i.e., the current stock price is higher than the value of the company's assets.

Prior to the regression analysis, the classical assumption test was previously carried out on the research data. The following are the results of the classical assumption test carried out:

### Normality Test Results

A good regression model is one that has a normal distribution or is close to normal. For this reason, a normality test is needed, which is intended to test whether the independent (related) variable and the dependent (free) variable in the regression model have a normal distribution or not. The normality test in this study used the Kolmogorov-Smirnov test with the results in table 4 below:

		RES1
N		17
Normal Parameters <sup>ab</sup>	Mean	.9991
	Std. Deviation	.32551
	Most Extreme Differences	
	Absolute	.162
	Positive	.162
	Negative	-.095
Test Statistic		.162
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

Based on table 4, the results of the normality test have a significance value of 0.200. This value is greater than 0.05 so it can be concluded that the research data is normally distributed.

### Multicollinearity Test Results

Multicollinearity test was conducted to test whether the regression model found a correlation between independent variables. This test can be done by looking at the tolerance and variance inflating factor (VIF) values. Table 5 below shows the results of the multicollinearity test.

Table 5  
Collinearity Test Output

Model		Collinearity Statistics	
		Tolerance	VIF
	Employee Training	.996	1.004
	Financial Performance	.996	1.004

From table 5, it is known that the tolerance value is 0.996 which is greater than 0.1 and the VIF value is 1.004 which is smaller than 10. From these results it can be concluded that there is no multicollinearity problem in this study.

### Heteroscedasticity Test Results

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. If the variance of the residual from one observation to another observation remains, it is called homoscedasticity and if it is different it is called heteroscedasticity. The following are the results of the heteroscedasticity test using the Glejser test:

Table 6  
Glejser Test

Variabel		Sig
	Employee Training	.146
	Financial Performance	.349

The significance value of the two variables is greater than 0.05 so it can be concluded that there is a heteroscedasticity problem in the observation data.

### Autocorrelation Test Results

The autocorrelation test is intended to determine whether in the linear regression model there is a relationship between the confounding error in period t and the error in period t-1 (previous). This study uses the Durbin Watson test to see whether there is an autocorrelation problem in the model. The results of the autocorrelation test can be seen in table 7 below:

Table 7

#### Autocorrelation Test

Du	Durbin-Watson	4-du
1.4298	2.092	2,3852

Based on table 7, Durbin Watson's value is 2,092. This value is compared with the Durbin Watson table (k, n) where k shows the number of independent variables, namely 2 variables and n is the number of data, which is 45 data. To prove whether it is in accordance with the absence of positive or negative autocorrelation by means of  $Du < d < 4-du$ , namely  $1.4298 < 2.092 < 2.3852$ , these results indicate that the model used is free from autocorrelation, so the model is feasible to use.

### Path Analysis

Path analysis is used to examine the effect of intervening variables as well as to analyze the pattern of relationships between variables with the aim of knowing the direct or indirect effect of a set of independent variables (exogenous) on the dependent variable (endogenous).

Basically the path coefficient is a standardized coefficient or comparing the coefficient of indirect effect with the coefficient of direct effect.

### Regression Equation 1

Table 8 below shows the results of regression 1 which shows the effect of training on financial performance.

**Table 8**

**Regression Results 1**

Variable	Unstandardized Coefficients	Std. Error	Sig.
constant	2.093	0.241	0.000
Employee Training	0.248	0.608	0.045

SPSS output results provide an unstandardized beta value for employee training in equation 1 of 0.248 and a significance of 0.045 which means that intellectual capital affects financial performance. With the regression equation formula as follows:

$$X_b = 2.093 + 0.248 X_a$$

### Regression Equation 2

Table 9 below shows the results of regression 1 which shows the effect of training and financial performance on firm value

**Table 9**  
**Regression Result 2**

Variable Unstandardized Coefficients	B	Std error	Sig
<b>constant</b>	2.012	0.545	0.001
<b>Employee Training</b>	-0.459	0.829	0.583
<b>Financial Performance</b>	10.153	0.208	0.036

In equation 2 the unstandardized value of employee training is -0.459 with a significance value of 0.583 > 0.05 which means that employee training has no effect on firm value, while for financial performance it is 10,153 with a significance level of 0.036 < 0.05, which means that employee training has an effect on the value of companies indirectly by mediating financial performance. With the following regression equation:

$$Y = 2,012 - 0.459 X_a + 10,153 X_b$$

The mediating effect of financial performance on the relationship between the influence of intellectual capital on firm value is significant or not, it can be proven in the following way: Calculating the standard error of the indirect effect coefficient ( $S_{23}$ ).

$$S_{23} = \sqrt{p_3^2 \cdot p_2^2 + p_2^2 \cdot p_3^2 + p_2^2}$$

$$p_3^2$$

$$S_{23} = \sqrt{(10.153^2)(0.608^2) + (0.248^2)(0.208^2) + (0.608^2)(0.208^2)}$$

$$S_{23} = \sqrt{(103.083)(0.608^2) + (0.248^2)(0.208^2) + (0.608^2)(0.208^2)}$$

$$S_{23} = \sqrt{62.67471 + 0.00266 + 0.016008}$$

$$S_{23} = \sqrt{62.69338}$$

$$7.9179$$

$$S_{23} =$$

$$7.9179$$

Statistical t value of the effect of mediation (intervening)

$$t = \frac{p_2 \cdot p_3}{S_{p_2 \cdot p_3}}$$

$$t = \frac{0.248 \times 10.153}{7.9179}$$

$$t = 0.3180$$



The value of  $e1 = (1 - 0.064) = 0.936$ , the result of  $e1$  is the root of  $(1 - (R\text{-Square}))$  in equation 1 seen in the model summary table. And for the value of  $e2 = (1 - 0.171) = 0.829$ , the result is obtained from the root  $(1 - (R\text{-Square}))$  in equation 2.

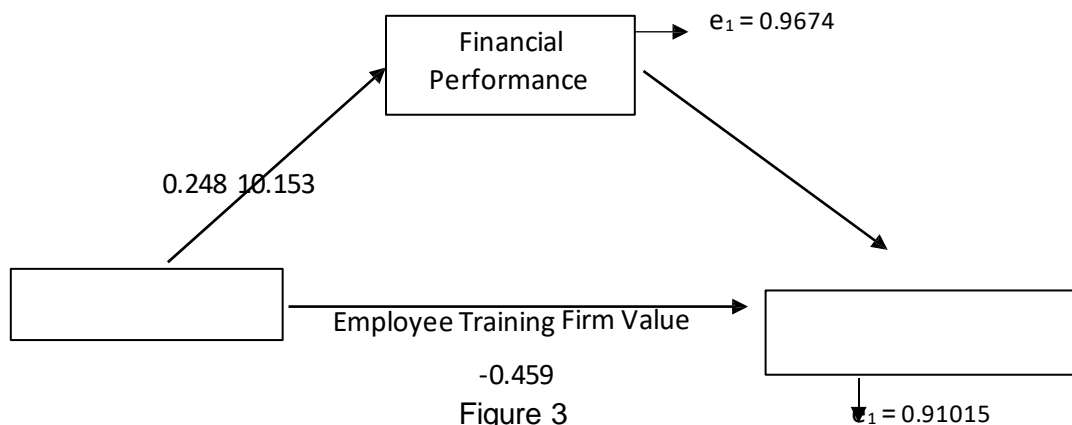


Figure 3  
Path Analysis

Figure 3 shows the magnitude of the effect of employee training on financial performance is 0.248. The direct effect of employee training on firm value is -0.459. The effect of financial performance on firm value is 0.153. The magnitude of the effect of employee training on firm value through financial performance as an intervening variable (indirect effect) must be calculated by multiplying the indirect coefficient, namely  $(0.248 \times 10.153) = 2.5179$  so that the total effect becomes  $(-0.459 + (0.248 \times 10.153)) = 2.058944$ . The level of indirect influence of employee training on the company's financial performance is 2.5179, which is greater than the coefficient of the direct relationship of employee training of -0.459, which means that it can be concluded that the actual relationship is an indirect relationship, namely employee training affects company value indirectly through the mediating variable of financial performance.

## Hypothesis test

### ***Effect of training on financial performance***

H1: Training has an effect on financial performance

Based on table 8 the results of the path analysis regression test, the regression employee training coefficient is 0.248 with a significance level of 0.045. The significance value is smaller than the expected significance level ( $0.045 < 0.05$ ) indicating that employee training has an effect on financial performance in banking companies listed on the Indonesia Stock Exchange, so the first hypothesis is accepted.

### ***Effect of financial performance on firm value***

H2: Financial performance has an effect on firm value

Based on table 9 the results of the path analysis regression test, the regression coefficient of financial performance is 10,153 with a significance level of 0.036. The significance value is smaller than the expected significance level ( $0.036 < 0.05$ ) indicating that financial performance has an effect on firm value in banking companies listed on the Indonesia Stock Exchange, so the second hypothesis is accepted.

### ***Direct effect of training on firm value***

H3: Training effect on firm value

Based on table 9 the results of the path analysis regression test, the employee training regression coefficient is -0.459 with a significance level of 0.583. A significance value greater than the expected significance level ( $0.583 < 0.05$ ) indicates that employee training has no effect on firm value in banking companies listed on the Indonesia Stock Exchange, so the third hypothesis is rejected.

### ***Indirect effect of training on firm value***

H4: Financial performance mediates the effect of training on firm value

Based on table 9, the magnitude of the direct effect of employee training on firm value is -0.459. The effect of financial performance on firm value is 10,153 with a significance level of 0.036. The indirect effect through financial performance as an intervening variable is  $(0.248 \times 10.153) = 2.5179$ . The direct effect value is smaller than the indirect effect ( $-0.459 < 2.5179$ ). The significance value is smaller than the expected significance level ( $0.036 < 0.05$ ) indicating that employee training indirectly affects firm value through financial performance in banking companies listed on the Indonesia Stock Exchange for the period 2014 - 2016, so the fourth hypothesis is accepted.

## **DISCUSSION**

### **Effect of training on financial performance**

The first hypothesis of this study is accepted which means that employee training has an effect on financial performance. This shows the congruence between business practice and human capital theory. Human Capital is a view that says that humans are capital or capital goods, just like other capital goods (such as land, buildings, machines, etc.) (Hasmin and Nurung 2021). Based on human capital theory, individual ability is an important component and must be continuously improved. The training strategy, as recently stated (Motlokoa, Sekantsi, and Monyolo 2018) that training provides benefits in increasing employee development and growth, and creates positive attitudes and behaviours so that they become more efficient and effective in the use of company resources. The results of this study support Rahman and Akhter (2021) who found that investment in training, level of knowledge and skills of employees is positively related to bank performance.

### **Effect of financial performance on firm value**

The second hypothesis of this study is accepted which means that financial performance has an effect on firm value. If it is associated with the use of signaling theory, information is in the form of ROA or the rate of return on assets or also how much profit is obtained from the assets used. Thus, if the ROA is high, it will be a good signal for investors, because a high ROA indicates the company's financial performance is good so that investors will be interested in investing their funds in the form of securities or shares (Haryani 2021). The results of this study support the results of research by Brimantyo, Rochman, and Karima (2019) and Nengsih (2021) who found that financial performance had a positive effect on firm value.

### **Direct effect of training on firm value**

The third hypothesis of this research is rejected, which means that training has no effect on firm value. This study shows that there is no direct effect of employee training on firm value. This means that increased training costs alone will not directly increase the value of the company. When employees can improve their performance then the value of the company can increase.

### **Indirect effect of training on firm value**

The fourth hypothesis of this study is accepted which means that financial performance mediates the effect of training on firm value. Training enhances employee development and growth, besides that training helps manage the change process by increasing employee understanding and involvement in the change process and also providing the skills and abilities needed to adapt to new situations (Motlokoa, Sekantsi, and Monyolo 2018).

## **CONCLUSION**

The first hypothesis of this study is accepted which means that employee training has an effect on financial performance. The second hypothesis of this study is accepted which means that financial performance has an effect on firm value. The third hypothesis of this research is rejected, which means that training has no effect on firm value. The fourth hypothesis of this study is accepted which means that financial performance mediates the effect of training on firm value.

The results of this study show the business world the importance of employee training as a company management strategy. By providing training, employees will be able to work more effectively and efficiently which will improve financial performance and ultimately increase company value.

This research is limited to the banking sector and has not separated the costs of education and training. In the future, more detailed research and focus on training can be carried out.

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Apendix 1

List of sample

<b>No</b>	<b>Code</b>	<b>Companys' Name</b>
1	BBCA	Bank Central Asia Tbk
2	BBKP	Bank Bukopin Tbk
3	BBNI	Bank Negara Indonesia Tbk
4	BBRI	Bank Rakyat Indonesia (Persero) Tbk
5	BDMN	Bank Danamon Indonesia Tbk
6	BINA	PT Bank Ina Perdana Tbk.
7	BJBR	Bank Pembangunan Daerah Jawa Barat dan Banten Tbk
8	BKSW	PT Bank QNB Indonesia Tbk
9	BMRI	Bank Mandiri (Persero) Tbk
10	BNBA	Bank Bumi Artha
11	BNGA	Bank CIMB Niaga Tbk
12	BNLI	Bank Permata Tbk
13	MEGA	Bank Mega Tbk
14	NISP	Bank OCBC NISP Tbk
15	SDRA	PT Bank Woori Saudara Indonesia 1906 Tbk

Appendix 2

Descriptive Statistic

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Employee Training	45	-.72	1.27	-.1044	.38686
Financial Performance	45	.02	8.50	2.0671	1.54473
Firm Value	45	.09	10.81	1.7438	2.09727
Valid N (listwise)	45				



## Appendix 3

### Classical Assumptions Test

#### Normality Test

##### One-Sample Kolmogorov-Smirnov Test

		RES1
N		.17
Normal Parameters <sup>a,b</sup> Mean		.9991
	Std. Deviation	.32551
Most Extreme Differences Absolute		.162
	Positive	.162
	Negative	-.095
Test Statistic		.162
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

#### Multicollinearity Test

Model B	Coefficients <sup>a</sup>					Collinearity Statistics		
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance	VIF
		Std. Error	Beta					
1 (Constant)	2.012	.545			3.693	.001		
Employee Training	-.459	.829	-.085		-.553	.583	.996	1.004
Financial Performance	-.153	.208	-.112		-.735	.466	.996	1.004

- a. Dependent Variable: Firm Value

### Coefficients<sup>a</sup>

Model B	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	1.081	.118		9.192	.000		
Employee Training	-.241	.157	-.369	-1.538	.146	.999	1.001
Financial Performance	-.036	.038	-.232	-.969	.349	.999	1.001

a. Dependent Variable: Abs\_res

### Heteroscedasticity Test

#### Model Summary<sup>b</sup>

Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
-.026	2.12397	2.092

a. Predictors: (Constant), Financial Performance, Employee Training

b. Dependent Variable: Firm Value

Appendix 4

Regression 1

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Employee Training <sup>b</sup>		Enter

a. Dependent Variable: Financial Performance

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.262 <sup>a</sup>	.064	.049	1.55958

a. Predictors: (Constant), Employee Training

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.404	1	.404	.166	.045 <sup>b</sup>
Residual	104.588	43	2.432		
Total	104.993	44			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Employee Training

s

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.093	.241		8.685	.000
Employee Training	.248	.608	.062	.408	.045

a. Dependent Variable: Financial Performance

Apendix 5

Regression 2

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Financial Performance, Employee Training <sup>b</sup>		Enter

a. Dependent Variable: Firm Value

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.345 <sup>a</sup>	.171	.126	2.12397

a. Predictors: (Constant), Financial Performance, Employee Training

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4.063	2	2.032	3.450	.040 <sup>b</sup>
Residual	189.472	42	4.511		
Total	193.535	44			

a. Dependent Variable: Firm Value

b. Predictors: (Constant), Financial Performance, Employee Training

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.012	.545		3.693	.001
Employee Training	-.459	.829	-.085	-.553	.583
Financial Performance	10.153	.208	.112	.735	.036

a. Dependent Variable: Firm Value