



## Does Profitability Mediate The Effect Of Intellectual Capital And Financial Leverage On Firm Value Of Banking Companies In Indonesia?

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### A B S T R A C T

The objective of this study is to examine whether profitability mediate the effect of intellectual capital and financial leverage on the firm value. The population of this study are 143 banking companies listed on the Indonesia Stock Exchange from 2013 to 2016. This study is a census method because all elements of population are studied, so to test the hypotheses does not use a significant test. Conclusions are drawn directly from the coefficient values of each variable. Data are collected from annual reports. Profitability should have included as a mediating variable in previous studies, but it was not included. To address this gap, this study incorporates profitability as a mediator to examine the influence of intellectual capital and financial leverage on firm value contributing to the novelty of this study. Since this study includes a mediating variable in the research model, the data are analyzed using path analysis, which was conducted in previous studies. The results indicate that intellectual capital and financial leverage have positive effects on firm value and profitability can mediate the effect of intellectual capital and financial leverage on the firm value.

### INTRODUCTION

The purpose of establishing a company is to generate profit that will increase the firm value and provide prosperity for the owner (shareholders). A company aims to maximize shareholder wealth by increasing firm value (Margaretha, 2005). Firm value is the selling value of an active company in the business world (Sartono, 2010). Besides, firm value is also investors' perceptions of the company reflecting the company's performance (Arfan & Rofizar, 2013) and often associated with company stock prices (Nuryaman, 2015). Thus, firm value will increase if the stock price in the market also increases.

Investors can assess a company by observing the stock price transaction. Investors assume that the higher the stock price the better the value of the company. Investors exhibit interest in company with high value. However, the problem lies in investors facing difficulty in predicting the value of company due to limited time and information. So that, investor concern mostly on price increasing or decreasing.

The fluctuation of firm value is reflected in the PBV (price to book value) ratio. This study uses this ratio as a measurement of company value, because it is widely used by investors and analysts to find out the fair value of shares in making investment decisions. It is a comparison between stock prices and book value per share (Husnan & Pudjiastuti, 2006). This ratio shows the ability of the company to create relative value to the amount of capital invested.

The company will have a high value if it has a PBV ratio above one, where the stock market value is greater than the book value (Husnan & Pudjiastuti, 2006). A high PBV indicates that the company has good performance. In other words, investors will

value a company's shares higher than the equity value of the company. This indicates that the market is optimistic about the company's performance going forward. Conversely, companies with a PVB ratio below one indicate that the company has poor performance, so investors are less interested in investing in the company. PBV values that vary from year to year are experienced by various types of companies, one of which is experienced by banking companies.

Banking companies that experience fluctuations in PBV values are Bank Mandiri, BTPN, BCA, and Danamon. Bank Mandiri is one of the largest banking companies in Indonesia, but even though the PBV value is above 1, it still has a decline in PBV value. In 2014 Bank Mandiri obtained a PBV value of 2.54 but declined to 1.81 for 2015 and continued to decline to 1.77 in 2016. This was also experienced by Bank PTPN which experienced a decline from 2.53 in 2013 to 1.99 in 2014 and continued to decline to 1.01 in 2015 and 0.97 in 2016. Meanwhile, BCA, despite having the highest PBV value among other banking companies, still experienced a fluctuation in PBV value. In 2013 the bank's PBV value was 3.70 and rose to 4.33 in 2014 but, in 2015 it decreased to 3.66 and dropped to 3.49 in 2016. Meanwhile, for Bank Bukopin the PBV value did not match what the company expects is a value average below 1. In 2013 Bank Bukopin had a PBV value of 0.80 and rose to 1.01 in 2014, but fell back to 0.84 in 2015 and 0.63 in 2016.

Thus, the phenomenon that occurs in company value is reflected in the PBV. There are companies that have PBV values above one and there are also under one. Although, basically all companies want a high PBV value but different from the reality.

Companies that have a high PBV value can still experience a decrease in PBV value every year.

Based on the phenomena described earlier, there are several factors that are thought to influence on firm value, namely intellectual capital (Faja & Hidayah, 2014; Handayani, 2015; Maryanto, 2017; Nuryaman, 2015; Sudibya & Restuti, 2014), financial leverage (Adetunji et al., 2016; Gill & Obradovich, 2012; Ishari & Abeyrathna, 2016; Rahman & Nazneen, 2017), and profitability (Dewi & Wirajaya, 2013; Dhani & Utama, 2017; Hermuningsih, 2012; Jusriani & Raharjo, 2013; Nawaiseh, 2017; Pertiwi & Priyadi, 2016). In addition, profitability is also thought to be influenced by intellectual capital (Ming-Chin, Shu-Ju & Yuhchang, 2005; Tan, H., Plowman & Hancock, 2007; Solikhah, Rohman & Meiranto, 2010; Ze'ghal & Maaloul, 2010; Maditinos et al., 2011; Fajarani & Firmansyah, 2012; Faradina & Gayatri, 2016; Search, 2016) and financial leverage (Ashari & Sampurno, 2017; Avistasari et al., 2016; Rajkumar, 2014; Ritonga et al., 2014).

As mentioned earlier, one of the factors that is thought to influence firm value is intellectual capital. Intellectual capital is a resource in the form of knowledge available to the company that ultimately will bring benefits in the future for the company, where such knowledge will become intellectual capital if it is created, maintained, transformed and managed properly (Widiyaningrum, 2014). Intellectual capital will provide added value and good competitiveness for the company and become a major advantage in today's era of global competition. Companies that have a major advantage will be easier to capture market share which has an impact on the investor's assessment of the company's shares which will ultimately increase the company's value (Sunarsih & Mendra, 2012). Many studies conducted to influence the effect of intellectual capital on company values include research conducted by Sudibya & Restuti (2014), Faja & Hidayah (2014), Handayani (2015), Nuryaman (2015), and Maryanto (2017).

The next factor that is thought to determine firm value is financial leverage. Financial leverage is a financial tool that is widely used to increase the rate of return and value of the company (Adetunji et al., 2016). Financial leverage arises because companies use funds in the form of debt which creates a fixed burden of interest (Sudana, 2009). The higher the debt, the higher the share price (Sucuahi & Cambarihan, 2016). Research on the effect of financial leverage on corporate value has been carried out by Gill & Obradovich (2012), Rahman & Nazneen (2017), Adetunji et al. (2016), and Ishari & Abeyrathna (2016).

In addition to the intellectual capital and financial leverage, profitability factors are also thought to affect company value. Profitability is the company's ability to generate profits derived from capital, sales, and assets (Sartono, 2010). A Higher profitability growth indicates that the company's prospects are getting better in the future, allowing companies to finance investments using funds from internal. So, indirectly it will increase the company's value. Research on the effect of profitability on firm value was carried out by Dewi & Wirajaya (2013), Jusriani & Raharjo (2013), Hermuningsih (2012), Pertiwi & Priyadi (2016), Dhani & Utama (2017), and Nawaiseh (2017).

Furthermore, besides allegedly influencing firm value, profitability is also thought to be influenced by intellectual capital and financial leverage. Intellectual capital which is a company resource can be an value added for the company to increase the company's ability to compete in the global market.

Companies that have competitiveness will be able to generate profits for the company. Research conducted by Ming-Chin et al. (2005), Tan et al. (2007), Solikhah et al. (2010), Ze'ghal & Maaloul (2010), Maditinos et al. (2011), Fajarani & Firmansyah (2012), Faradina & Gayatri (2016), and Pongpearchan (2016) indicates that intellectual capital has a positive impact on profitability. The Higher the intellectual capital, the higher the profitability generated by the company.

Another factor that is estimated to affect profitability is financial leverage. Financial leverage is the use of funds that have a fixed burden to provide additional profits that are greater than the fixed costs so that it will increase earnings per share (Harjito & Martono, 2008). Research on the effect of financial leverage on profitability has been carried out by Rajkumar (2014), Ritonga et al. (2014), Avistasari et al (2016), and Ashari & Sampurno (2017).

Previous studies only examined the influence of intellectual capital, financial leverage, dan profitability on firm value, as well as the influence of intellectual capital and financial leverage on profitability, but did not test profitability as a mediator in the influence of intellectual capital and financial leverage on firm value. We identify a missing variable in previous studies, where profitability should be included as a mediating or an intervening variable but was not incorporated into the research model. To address this gap in previous studies, this study includes profitability as mediating variable contributing to the novelty of this study. Furthermore, since this study includes a mediating variable in the research model, path analysis is utilized to analyze the research data. This analysis model also distinguishes this study from previous studies, as earlier studies employed regression analysis model.

Based on previous explanations, it can be stated that profitability is thought to be able to mediate the influence of intellectual capital and financial leverage on firm value. In other words, intellectual capital and financial leverage are expected to influence on firm value, both directly and indirectly through profitability.

## THEORETICAL FRAMEWORK AND HYPOTHESES

### Effect of Intellectual Capital on Profitability

One of the company's intangible assets can increasing financial performance is intellectual capital. Intellectual capital is the overall amount of knowledge of a company that can be used in business processes to create value added for the company (Ze'ghal & Maaloul, 2010). Based on resource-based theory that considers knowledge as the most strategic and significant resource of the company. The company's value added can be achieved if the company can utilize the intellectual capital owned by the company as well as possible, which in turn will increase company's profitability.

Research conducted by Ming-Chin et al. (2005) and Tan et al. (2007) show that intellectual capital has a positive effect on profitability. Other research results that support the results of these studies include the results of the study of Ze'ghal & Maaloul (2010), Solikhah et al. (2010), Maditinos et al. (2011), Fajarani & Firmansyah (2012), Faja & Hidayah (2014), Faradina & Gayatri (2016), and Pongpearchan (2016) which shows that intellectual capital has a positive effect on company performance.

H1: Intellectual capital has a positive effect on profitability.

### Effect of Financial Leverage on Profitability

Financial leverage is one of the company's external resources. Based on the pecking order theory, companies make hierarchical funding decisions from internal to external funding, from funding with retained earnings, debt to issuing equity, starting from the lowest cost funding source (Frank & Goyal, 2007). Financial leverage play a role and influence the profitability of the company. The use of financial leverage will have a positive impact if the income received from the use of these funds is greater than the financial burden incurred. So that it will provide more benefits for the company which will have an impact on the company's profitability.

However, financial leverage will also have a negative impact if it causes the burden borne by the company, namely a fixed load or interest expense greater than the income to be received. Companies that are able to generate greater profits than fixed expenses will increase profits for the company. High financial leverage poses a high risk which usually also provide high profits.

Research conducted by Ritonga, et al. (2014) proves that financial leverage has a positive influence on company profitability. The results of these studies are supported by the findings of Rajkumar (2014), Avitasari et al. (2016), and Ashari & Sampurno (2017).

H2: Financial leverage has a positive effect on profitability.

### Effect of Intellectual Capital on Firm Value

Resource-based theory is a theory that considers knowledge as the most strategic and significant resource of a company. Resource Based Theory is a developing thought and considers that a company will achieve excellence if it has superior resources (Solikhah, et al., 2010). Intellectual capital is one of the intangible assets that is very valuable the company to increase firm value.

Ownership and utilization of intellectual capital resources enable companies to achieve competitive advantage and increase value added for the company. Intellectual capital has the advantage of being a tool for determining company value (Edvinsson & Malone, 1997).

The results of Handayani's research (2015) shows that intellectual capital has a positive effect on firm value. The results of these studies are also supported by the results of research by Sudibya & Restuti (2014), Faja & Hidayah (2014), Nuryaman (2015), Bemby et al. (2015). and Maryanto (2017).

H3: Intellectual capital has a positive effect on firm value.

### Effect of Financial Leverage on Firm Value

The main goal of a company is to maximize shareholder wealth. Based on the pecking order theory which assumes that the company aims to maximize shareholder welfare through its debt usage policy, financial leverage is one of the factors that play an important role in achieving the company's goals. Financial leverage is a financial tool that is widely used to increase the rate of return and value of the company (Adetunji et al., 2016).

Investors often judge that companies with high levels of financial leverage are companies that are in the growth phase. The higher the proportion of debt, the higher the stock price (Arfan & Pasrah, 2012). So, it will have an impact on increasing firm value.

Research conducted by Gill & Obradovich (2012), Adetunji et al. (2016), Ishari & Abeyrathna (2016), and Rahman & Nazneen (2017) prove that financial leverage has a positive effect on firm value.

H4: Financial leverage has a positive effect on firm value.

### Effect of Profitability on Firm Value

Profitability is an important thing for companies because companies can survive if the company is in a profitable condition. The higher the profitability means that the company has a better performance in generating net income from sales (ROA) and own capital (ROE) (Nurminda et al., 2017). To find out how well the company generates return on investment, investors will see the company's profitability, especially the value of the company's ROE (Arfan et al., 2014). Stakeholder theory which states that a company not only operates for its own sake, but also for the benefit of all stakeholders, it drive the company to do its best to increase company profitability.

Research conducted by Jusriani & Rahardjo (2013) states that profitability has a positive effect on firm value. Other research conducted by Arfan & Pasrah (2012), Dewi & Wirajaya (2013), Hermuningsih (2012), Pertiwi & Priyadi (2016), Dani & Utama (2017), and Nawaiseh (2017).

H5: Profitability has a positive effect on firm value.

### Effect of Intellectual Capital on Firm Value through Profitability

Efficiency in using resources will increase profits for the company. Knowledge possessed by employees is one of the potential resources for the company. Well managed knowledge will give birth to new innovations for the company. So that it can compete with other companies which will have an impact on increasing company profits.

The benefits of the company itself can be seen one of them from the high value of company profitability. Companies with high profitability can provide trust for investors. Investors will be interested in investing in companies with high profitability by buying company shares. High interest in the company's shares will increase the value of a company.

H6: Intellectual capital affects the value of the company through profitability.

### Effect of Financial Leverage on Firm Value through Profitability

Increasing shareholder wealth is one of the main goals of a company. Financial leverage is one of the factors can increasing shareholder wealth. Financial leverage is a financial source that is better than equity for companies that need long-term capital (Adetunji, et al., 2016). Financial leverage will benefit the company if the benefits received are greater than the burden that must be borne by the company.

High profits reflects by high profitability of the company. High profitability will have an influence on investors' interest to invest their capital, which will increase firm value.

H7: Financial leverage affects the value of the company through profitability.

## METHOD

This research is a hypothesis testing research that aims to examine the effect of intellectual capital and financial leverage on firm value which is mediated by profitability. The population are all banking companies listed on the Indonesia Stock Exchange in 2013-2016 based on specific criteria determined by

the researchers. The company criteria are companies whose financial report data is available at [www.idx.co.id](http://www.idx.co.id), and did not experience losses during the period observation, so that it obtained 143 companies. Because all units of analysis are examined, this study is a population research or census.

**Analysis Method**

In this study the data were analyzed quantitatively using the path analysis technique. This technique was chosen because in the path analysis the influence can be direct influence and indirect influence. The testing of the hypothesis in this study was conducted with a substructure model I (the effect of intellectual capital and financial leverage on profitability) and substructure II (the effect of intellectual capital, financial leverage, and profitability on firm value).

The model of substructure I is:

$$Y = \rho_{yx1} X1 + \rho_{yx2} X2 + \rho_{y\epsilon1} \epsilon1 \dots\dots\dots(1)$$

Where:

- Y : Profitability
- X1 : Intellectual Capital
- X2 : Financial Leverage
- $\rho_{yxi}$  (i = 1,2) : Independent variable path coefficient
- $\epsilon1$  : Other variables that affect Y (error term)
- $\rho_{y\epsilon1}$  : Path coefficient of another variable

The model of substructure II is:

$$Z = \rho_{zx1} X1 + \rho_{zx2} X2 + \rho_{zy} Y + \rho_{z\epsilon2} \epsilon2 \dots\dots\dots(2)$$

Where :

- Z : Firm' Value
- X1 : Intellectual Capital
- X2 : Financial Leverage
- Y : Profitability
- $\rho_{zxi}$  (i = 1,2) dan  $\rho_{zy}$  : Path variable / intervening coefficient
- $\epsilon2$  : Other variables that affect Z (error term)
- $\rho_{z\epsilon2}$  : Path coefficient of another variable

Mediation tests can be done using the Causal Step method (Baron & Kenny, 1986). In the causal step method, to test the presence of mediation, it is done by comparing the value of the path coefficient between the three regression equations. The first regression equation examines the effect of independent variables on the dependent variable, the second regression equation tests the effect of independent variables on intervening variables, while the third regression equation examines the effect of independent variables on the dependent variable by intervening, with the following equation:

$$\text{Equation I : } Z = \rho_{zx1} X1 + \rho_{zx2} X2 + \rho_{z\epsilon3} \epsilon3 \dots\dots\dots(3)$$

$$\text{Equation II : } Y = \rho_{yx1} X1 + \rho_{yx2} X2 + \rho_{y\epsilon1} \epsilon1 \dots\dots\dots(4)$$

$$\text{Equation III : } Z = \rho_{zx1} X1 + \rho_{zx2} X2 + \rho_{zy} Y + \rho_{z\epsilon2} \epsilon2 \dots\dots(5)$$

Requirements that must be met to achieve mediation are:

1.  $\rho_{zxi}$  (1,2)  $\neq$  0 (equation I)
2.  $\rho_{yxi}$  (1,2)  $\neq$  0 (equation II)
3.  $\rho_{zy}$   $\neq$  0 (equation III)

Mediation occurs when the path coefficient value in equation III is smaller or lower than the path coefficient value in equation I. If the path coefficient value in equation III is zero, then full mediation occurs. However, if the path coefficient value in equation III decreases (smaller) than equation I, but does not equal zero then partial mediation occurs.

**RESULTS AND DISCUSSION**

Classical assumption tests in this study were normality test, heteroscedasticity test, and autocorrelation test. Because this study uses a substructure model, the classical assumption test is done twice respectively. The normality test in this study used the KolmogorovSmirnov test. The test results in 143 observation populations produced each significance value of 0,000, where the significance value was less than 0.05. This shows that the data is not normally distributed. Therefore, outlier data is removed / discarded so that the data can be distributed normally and the study population changes to 107 companies. The results of heteroscedasticity test showed no interference with heteroscedasticity because the points in the Scatterplot graph were scattered randomly. Finally, the autocorrelation test obtained a DW value of 1.121, the value of dL (lower limit) 1.6470 and the value of dU (upper limit) 1.7231. Thus it can be seen that the DW value is smaller than the value of dL (1.121 < 1.6470) then autocorrelation occurs. To deal with the problem of autocorrelation, a lag transformation was performed using the Orcutt Cochrane method so that the research data automatically decreased by 1 to 106. After the data were confirmed to have no autocorrelation problems, the classical assumption test was performed again for 106 data.

The results of the normality test after the lag transformation show KolmogorovSmirnov values of 0.478 and 0.999 where the values of both are greater than 0.05 indicating that the data are normally distributed so that they meet the assumption of normality.

Furthermore, the results of heteroscedasticity tests show points on the Scatterplot graph spread both above and below 0 on the Y axis and do not form a clear pattern. So that they no longer experience heteroscedasticity disorders. Finally, the first autocorrelation test can be seen that the DW value is 1.917, the value of dL is 1.6470 and the value of dU is 1.7231. The dU value is smaller than the DW value, and the DW value is smaller than the value (4-dU), 4-dU = 4-1,7231 = 2,2769. Thus it can be said that there is no autocorrelation because the value dU < DW < (4-dU). While the second autocorrelation test obtained a DW value of 1,861, the value of dL (lower limit) 1.6277 and the value of dU (upper limit) 1.7428. Thus it can be seen that the DW value (1,861) is greater than the value of dL (1.6277) and smaller than the value (4-dU), 4-dU = 4-1,7428 = 2.2572. Thus it can be said that there is no autocorrelation because the value dU < DW < (4-dU).

**Testing Hypothesis Results of Substructure I**

The results of hypothesis testing of substructure I are presented in Table 1.

**Table 1. Path Coefficients of Substructure I**

Dependent Variable	Independent Variables	Standardized Coefficients Beta	R Square
Profitability	Intellectual Capital	0,449	0,637
	Financial Leverage	0,455	

Source: Data processed (2019)

Based on the results of statistical calculations in Table 1, the regression equation of substructure I is obtained, namely:

$$Y = 0,449X_1 + 0,455X_2 + 0,603E_1 \dots\dots\dots(6)$$

**Hypothesis Testing Results of Substructure II**

The results of hypothesis testing of substructure II are presented in Table 2.

**Table 2. Path Coefficients of Substructure II**

Dependent Variable	Independent Variables	Standardized Coefficients Beta	R Square
Firm Value	Intellectual Capital	0,274	0,751
	Financial Leverage	0,327	
	Profitability	0,383	

Source: Data processed (2019)

Based on the Table 2, the substructure II regression equation is obtained, namely:

$$Z = 0,274X_1 + 0,327X_2 + 0,383 Y + 0,499 E_2 \dots\dots\dots(7)$$

**Results of Hypothesis Testing of Mediation**

The results of hypothesis testing of mediation are presented in Table 3.

**Tabel 3. Coefficient Values for Mediation Testing**

Regression Equations	Dependent Variable	Independent Variabel	Path Coefficient	R Square
I	Firm Value (Z)	Intellectual Capital (X <sub>1</sub> ) (ρ <sub>ZX<sub>1</sub></sub> ) →	0,401	0,281
		Financial Leverage (X <sub>2</sub> ) (ρ <sub>ZX<sub>2</sub></sub> ) →	0,395	
II	Profitability (Y)	Intellectual Capital (X <sub>1</sub> ) (ρ <sub>YX<sub>1</sub></sub> ) →	0,449	0,637
		Financial Leverage (X <sub>2</sub> ) (ρ <sub>YX<sub>2</sub></sub> ) →	0,455	
III	Firm Value (Z)	Intellectual Capital (X <sub>1</sub> ) (ρ <sub>ZX<sub>1</sub></sub> ) →	0,274	0,751
		Financial Leverage (X <sub>2</sub> ) (ρ <sub>ZX<sub>2</sub></sub> ) →	0,327	
		Profitability (Y) (ρ <sub>ZY</sub> ) →	0,383	

Source: Data processed (2019)

Based on the results in Table 3, the regression equations I, II, and III are obtained as follows:

Equation I :  $Z = 0,401 X_1 + 0,395 X_2 + 0,848 E_1 \dots\dots\dots(8)$

Equation II :  $Y = 0,449 X_1 + 0,455 X_2 + 0,383 Y + 0,603 E_2 \dots\dots(9)$

Equation III :  $Z = 0,274 X_1 + 0,327 X_2 + 0,383 Y + 0,499 E_3 \dots\dots(10)$

Based on equation I, it is known that value of ρ<sub>ZXi</sub> (i = 1, 2) ≠ 0, while in equation II, it is known that value of ρ<sub>Yxi</sub> (i = 1, 2, 3) ≠ 0, and equation III shows the path coefficient ρ<sub>Zy</sub> ≠ 0, so that it meets the requirements for mediation. Furthermore, the path coefficient values of X<sub>i</sub> in equation III decreases (smaller) than

those in equation I, but does not equal zero so that partial mediation occurs.

**Effect of Intellectual Capital on Profitability**

The first hypothesis test is to test whether intellectual capital influences profitability. If ρ<sub>yx1</sub> = 0, H<sub>a</sub> is rejected; and If ρ<sub>yx1</sub> ≠ 0, H<sub>a</sub> is not rejected. The result shows that H<sub>a</sub> (alternative hypothesis) is not rejected (ρ<sub>yx1</sub> = 0.449 ≠ 0). Then, the coefficient value of ρ<sub>yx1</sub> (0.449) is positive. This means that intellectual capital has a positive effect on profitability. So, it can be concluded that the results of this study support the first hypothesis (H1).

This result is consistent with the research results of Ming-Chin et. al. (2005), Tan et. al. (2007), Ze'ghal & Maaloul (2010), Solikhah et. al. (2010), Maditinos et. al. (2011), Fajarini & Firmansyah (2012), Faja & Hidayah (2014), Faradina & Gayatri (2016), and Pongpearchan (2016). As previously mentioned, intellectual capital is the total amount of knowledge of a company that can be utilized in business processes to create value added for the company. In accordance with resource based theory, knowledge is the most strategic resource for companies that can increase value added for companies (Ze 'ghal & Maaloul, 2010). In other words, the maximum utilization of intellectual capital can increase the company's added value which in turn can increase the company's profitability.

**Effect of Financial Leverage on Profitability**

The second hypothesis test is to test whether financial leverage influences profitability. If ρ<sub>yx2</sub> = 0: H<sub>a</sub> is rejected; If ρ<sub>yx2</sub> ≠ 0: H<sub>a</sub> is not rejected. The path coefficient of financial leverage is 0.455 (ρ<sub>yx2</sub> ≠ 0), then H<sub>a</sub> is not rejected. The coefficient value of ρ<sub>yx2</sub> (0.455) is positive. This means that financial leverage has a positive effect on profitability. So it can be concluded that the results of this study support the second hypothesis (H2).

These results are consistent with the findings of Ritonga, et al. (2014), Rajkumar (2014), Avitasari et al. (2016), and Ashari & Sampurno (2017). This means that with the company's ability to manage funds with a fixed burden and generate profits that are greater than the burden itself will increase profits for the company. High profits reflect the company's high profitability. The results of this study support the pecking order theory which states that, companies make hierarchical funding decisions from internal to external funding, from funding sourced retained earnings, debt to equity issuance, and starting from the lowest cost funding source. With financial leverage, it is expected to be able to provide income greater than the burden, thus increasing the profitability.

**Effect of Intellectual Capital on Firm Value**

The third hypothesis test is to test whether intellectual capital influences firm value. If ρ<sub>zx1</sub> = 0: H<sub>a</sub> is rejected; If ρ<sub>zx1</sub> ≠ 0: H<sub>a</sub> is not rejected. The path coefficient value of intellectual capital is 0.274 (ρ<sub>zx1</sub> ≠ 0) and has a positive sign, then H<sub>a</sub> is not rejected, meaning that intellectual capital has a positive effect on firm value. So it can be concluded that the results of this study support the third hypothesis (H3).

This result is consistent with the findings of Sudibya & Restuti (2014), Faja & Hidayah (2014), Handayani (2015), Nuryaman (2015), Bemby et al. (2015). and Maryanto (2017). The results of this study support resource-based theory which states that, the company's resources affect the development of the

company. Intellectual capital as one of the company's intangible assets, is considered capable of providing more firm value.

#### Effect of Financial Leverage on Firm Value

The fourth hypothesis test is to test whether financial leverage influences the value of the company. If  $\rho_{zx2} = 0$ :  $H_a$  is rejected; If  $\rho_{zx2} \neq 0$ :  $H_a$  is not rejected. The path coefficient value of financial leverage is 0.327 ( $\rho_{zx2} \neq 0$ ) and has a positive sign, then  $H_a$  is not rejected, which means that financial leverage has a positive effect on firm value. So it can be concluded that the results of this study support the fourth hypothesis (H4).

This result is consistent with the findings of Gill & Obradovich (2012), Arfan & Pasrah (2012), Adetunji et al. (2016), Ishari & Abeyrathna (2016), and Rahman & Nazneen (2017). Investors assess companies with a high level of financial leverage is a company that is in the growth phase, so investors tend to give more attention to the company. This study support the pecking order theory which assumes that the company aims to maximize shareholder welfare through its debt usage policy. With financial leverage, it is expected to be able to deliver results greater than the burden.

#### Effect of Profitability on Firm Value

The fifth hypothesis test is to test whether profitability affects firm value. If  $\rho_{yz} = 0$ :  $H_a$  is rejected; If  $\rho_{yz} \neq 0$ :  $H_a$  is not rejected. The path coefficient value of profitability is 0.383 ( $\rho_{yz} \neq 0$ ), then  $H_a$  is not rejected which means that profitability has a positive effect on firm value. So it can be concluded that the results of this study support the fifth hypothesis (H5).

These results are consistent with the findings of Arfan & Pasrah (2012), Jusriani & Rahardjo (2013), Dewi & Wirajaya (2013), Hermuningsih (2012), Pertiwi & Priyadi (2016), Dani & Utama (2017), and Nawaiseh (2017). The results of this study support stakeholder theory which states that companies not only operate for their own interests, but also for the benefit of all stakeholders. The company will try its best to increase the profitability of the company which means an increase firm value.

#### Effect of Intellectual Capital on Company Values Mediated by Profitability

The sixth hypothesis test is to prove whether profitability can mediate the effect of intellectual capital on firm value. If  $\rho_{zx1}$  or  $\rho_{zy} = 0$ , then  $H_a$  is rejected; If  $\rho_{zx1}$  and  $\rho_{zy} \neq 0$ , then  $H_a$  is not rejected. Path coefficient value of  $\rho_{zx1} = 0.274$ , and  $\rho_{zy} = 0.383$  then  $H_a$  is not rejected. The next requirement to prove whether mediation occurs is by comparing the path coefficient values in Equation III ( $\rho_{zx1}$  in Equation III) with those in Equation I ( $\rho_{zx1}$  in Equation I). If the path coefficient value in Equation III is smaller than the path coefficient value in Equation I, then mediation occurs, and vice versa. Furthermore, if the path coefficient value in Equation III is not equal to zero ( $\rho_{zx1} \neq 0$  in Equation III), then partial mediation occurs, but if the path coefficient value in Equation III is equal to zero ( $\rho_{zx1} = 0$  in Equation III), then full mediation occurs. The results show that the path coefficient value in Equation III is smaller than that in Equation I, and not equal to zero. Thus, it can be stated that profitability acts as a mediator in the relationship between intellectual capital and firm value. So, it can be concluded that the results of this study support the sixth hypothesis (H6).

The mediation that occurs is partial mediation. This means that intellectual capital has an impact on firm value, both directly and indirectly through profitability. This also means that good intellectual capital management will provide high profits for the company, so that it will have an impact on firm value.

#### Effect of Financial Leverage on Company Values Mediated by Profitability

The seventh hypothesis test is to prove whether profitability can mediate the effect of financial leverage on firm value. If  $\rho_{zx2}$  or  $\rho_{zy} = 0$ , then  $H_a$  is rejected; If  $\rho_{zx2}$  and  $\rho_{zy} \neq 0$ , then  $H_a$  is not rejected. Path coefficient value  $\rho_{zx2} = 0.327$ , and  $\rho_{zy} = 0.383$ , so  $H_a$  is not rejected.

As mentioned earlier, an additional requirement to test for mediation is to compare the path coefficient values between Equation III and Equation I. Mediation occurs if the path coefficient value in Equation III is smaller than the path coefficient value in Equation I. Furthermore, partial mediation occurs if the path coefficient value in Equation III is not equal to zero and full mediation occurs if the path coefficient value in Equation III is equal to zero. The findings show that the path coefficient value in Equation III is smaller than the path coefficient value in Equation I, and not equal to zero. These findings indicate that profitability mediates the effect of financial leverage on firm value. So it can be concluded that the results of this study support the seventh hypothesis (H7).

The mediation that occurs is also partial mediation, which means that financial leverage has an impact on firm value, both directly and indirectly through profitability. This can also be interpreted as companies with high levels of financial leverage will increase the profitability of the company and subsequently increase the firm value.

#### CONCLUSION, RESEARCH IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

The results of hypothesis testing and previous discussion, it can be concluded that (1). Intellectual capital and financial leverage have a positive effect on profitability (2). Intellectual capital and financial leverage have a positive effect on firm value (3). Profitability have a positive effect on firm value (4). Profitability mediates the effect of intellectual capital and financial leverage on firm value in the form of partial mediation. In increasing firm value, it is necessary to increase the profitability of the company. This can be done by increasing intellectual capital and financial leverage.

For practitioners, this research is expected to provide additional information to investors as a consideration in investing, especially when investing in the capital market. The results of this study are also expected to provide an illustration of how the role of intellectual capital, financial leverage and profitability for the development of corporate value in today's digital economy era, is also expected to add insight to the company's management in deciding on the most effective funding source. So that it will add value to the company. Furthermore, for academics, this study adds literature to factors that can add to the competitive advantage of companies in the form of tangible assets or in the form of intangible assets such as intellectual capital. And also how the influence of management's accuracy in determining funding sources. So that financial leverage benefits the continuity of the company. Then, the existence of this research will encourage the emergence of further research in the future.

The limitation in this study is the selection of variables that are thought to influence profitability and the impact on firm value consists of only two variables. The research period is only four years which has an impact on the small number of

companies studied, and this study has a limited unit of analysis, namely only in banking companies, so there are still many other sectors of the company that have not been included in this research model.

Thus, further research is expected to add other variables that are also thought to influence the profitability and value of the company such as market share (market share), and capital intensity. Expand the unit of research analysis, not only in banking companies so that the population taken is broader and the research results can be generalized to all types of companies. Furthermore, it is expected to use a longer time span to get more data, so that it can provide more complete results.

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