

## CHAPTER IV

### RESULT AND DISCUSSION

#### A. Research's Object/Subject Description

This research uses all banking companies listed in Bursa Efek Indonesia (BEI) and Bursa Malaysia (BM) in 2013-2016 as the sample. The samples consist of 44 companies in Indonesia and 32 companies in Malaysia. All of the companies fit the criteria through the used purposive sampling technique.

The procedure in selecting the sample is presented in Table 4.1 and 4.2 below:

**Table 4.1**  
Sample Selection Procedure in Indonesia and Malaysia

No	Description	Total
1	Banking Companies listed in Bursa Efek Indonesia (BEI) in 2013-2016.	136
2	Banking Companies that didn't issue the audited annual report in 4 years (2013-2016).	(36)
3	Banking Companies that didn't disclose intangible asset in 4 years (2013-2016).	(56)
4	Total of Sample	44

*Source: Data Analysis Result 2017*

Indonesia has 136 sample companies listed in Bursa Efek Indonesia (BEI) from 2013 until 2016. But, 36 of sample companies did not issue audited annual report in the course of 4 years. Then, 56 sample companies did not disclose their intangible assets. Thus, it makes the total sample for Indonesia is 44 sample companies.

**Table 4.2**  
Sample Selection Procedure in Malaysia

No	Description	2013
1	Banking Companies listed in Bursa Malaysia (BM) in 2013-2016.	64
2	Banking Companies that didn't issue the audited annual report in 4 years (2013-2016).	(32)
3	Banking Companies that didn't disclose intangible asset in 4 years (2013-2016).	(0)
4	Total of Sample	32

*Source: Data Analysis Result 2017*

Malaysia has 64 sample companies listed in Bursa Malaysia (BM) from 2013 until 2016. But, 32 of sample companies did not issue audited annual report in the course of 4 years. Thus, it makes the total sample for Malaysia is 32 sample companies.

## **B. Instrument and Data Testing**

### **1. Descriptive Statistics Test**

The descriptive statistics test provides the total of data, minimum value, maximum value, mean, and standard deviation from an independent and dependent variable. The result of descriptive statistics test is presented in Table 4.3 and 4.4 below:

**Table 4.3**  
Descriptive Statistics Test Result  
Indonesia

	N	Minimum	Maximum	Mean	Std. Deviation
VAIC	44	,35	4,07	2,0389	,82361
PER	44	,02	,34	,1060	,05066
MV	44	,77	8,11	3,4976	1,76665
Valid N (listwise)	44				

*Source: SPSS' Output*

Table 4.3 shows that there are 44 companies used as sample in Indonesia. VAIC as the measurement of Intellectual Capital has minimum value 0,35 and its maximum value 4,07. The average of the variable is 2,0389 while its standard deviation is 0,82361. PER variable that is obtained from ROA has the minimum value 0,02 while its maximum value is 0,34. The mean or the average of PER variable is 0,1060 and the standard deviation is 0,05066. MV variable that uses the M/B measurement on market value has minimum value 0,77 with the maximum reaches 8,11. The average of this variable is 3,4976 and the standard deviation is 1,76665.

**Table 4.4**  
Descriptive Statistics Test Result  
Malaysia

	N	Minimum	Maximum	Mean	Std. Deviation
VAIC	32	1,24260	86,67730	11,02385	17,32960
PER	32	-,00087	,07286	,0225551	,01521493
MV	32	1,15891	66,56410	28,60035	16,58790
Valid N (listwise)	32				

*Source: SPSS' Output*

Table 4.4 shows that the sample in Malaysia consists of 32 companies. The gauge of Intellectual Capital –VAIC has the minimum value 1,24260 and the maximum value is 86,67730. The average of the variable is 11,02385 with standard deviation 17,32960. For the PER variable which is measured with the ROA, it has minimum value -0,00087 while the maximum value is 0,07286. For the average, PER variable has 0,0225551 and the standard deviation is 0,01521493. For the MV variable that is measured by M/B on market value, it has 1,15891 in minimum and 66,56410 in maximum value. The mean of MV variable is 28,60035 and the standard deviation is 16,58790.

## 2. Classical Assumption Test

The classical assumption tests used in this research are Normality Test, Autocorrelation Test, Heteroskedastisity Test, and Multicollinearity Test.

### a. Normality Test

Normality test is used for determining the collected data whether it is distributed normally or taken from normal population. Classical method used in this test is Kolmogorov-Smirnov (K-S) Test. The result of Kolmogorov-Smirnov (K-S) Test can be seen from Table 4.5:

**Table 4.5**  
Normality Test Result  
Financial Performance and Firm Value Dependent Variable  
Indonesia and Malaysia

Variables	Asymp. Sig. (2-tailed)
PER – Indonesia	,169
MV – Indonesia	,958
PER – Malaysia	,062
MV – Malaysia	,558

*Source: SPSS' Output*

Table 4.5 is the result of normality test for PER (Financial Performance) and MV (Firm Value) dependent variable in Indonesia and Malaysia. The test of Indonesian PER variable which uses Kolmogorov-Smirnov (K-S) Test shows that the data is normally distributed. It is strengthened by *Asymp. Sig. (2-tailed)* that reached 0,169. The value is greater than alpha value (0,05). Based on the test, it can be conclude the regression model in complies the normality assumption.

For MV (Firm Value) dependent variable in Indonesia, the result shows that the data is normally distributed. The *Asymp. Sig. (2-tailed)* for

this variable is 0,958. The value is greater than alpha value (0,05). Based on the test, it can be concluded that the regression model complies the normality assumption.

Meanwhile, the result of normality test for PER (Financial Performance) dependent variable in Malaysia. The test which uses Kolmogorov-Smirnov (K-S) Test shows that the data is normally distributed. The *Asymp. Sig. (2-tailed)* has 0,062 in value. It is greater than alpha value (0,05). Based on the test, it can be concluded that the regression model fulfills the normality assumption.

Then, the result of MV (Firm Value) dependent variable in Malaysia shows that the data is normally distributed. It has 0,558 for *Asymp. Sig. (2-tailed)* value. It is greater than alpha value (0,05). Based on the test, it can be concluded that the regression model fulfills the normality assumption.

#### **b. Autocorrelation Test**

Autocorrelation test is used to find out the classical autocorrelation deviation, that is the correlation between two residuals on an observation with another observation in regression model. The used testing method is Durbin Watson Test (D-W Test). Result of the autocorrelation test can be seen from Table 4.6:

**Table 4.6**  
Autocorrelation Test Result  
Financial Performance and Firm Value Dependent Variable  
Indonesia and Malaysia

Model	Durbin Watson
PER – Indonesia	2,048
MV – Indonesia	2,145
PER – Malaysia	1,958
MV – Malaysia	2,318

*Source: SPSS' Output*

In Table 4.6 for PER (Financial Performance) dependent variable in Indonesia, the value of the Durbin Watson (DW) is 2,048. Based on Durbin Watson table for 44 samples with 1 variable, the du value is 1,562. Then, it makes the 4-du value for this research 2,438. The test result shows there is no autocorrelation in this regression model because  $du < dw < 4-du$  or  $1,562 < 2,048 < 2,438$ .

The MV (Firm Value) dependent variable in Indonesia' Durbin Watson (DW) is 2,145. Based on Durbin Watson table for 44 samples with 1 variable, the du value is 1,562. Then, it makes the 4-du value for this research is 2,438. The test result reveals that there is no autocorrelation in this regression model because  $du < dw < 4-du$  or  $1,562 < 2,145 < 2,438$ .

For the PER (Financial Performance) dependent variable in Malaysia, the value for Durbin Watson (DW) is 1,958. Based on Durbin Watson table for 32 samples with 1 variable, the du value is 1,502. Then, it makes the 4-du value for this research 2,498. The test result shows there is

no autocorrelation in this regression model because  $du < dw < 4-du$  or  $1,502 < 1,958 < 2,498$ .

Then, the MV (Firm Value) dependent variable in Malaysia has 2,318 for its Durbin Watson (DW) value. Based on Durbin Watson table for 32 samples with 1 variable, the  $du$  value is 1,502. Then, it makes the  $4-du$  value for this research 2,498. The test result shows there is no autocorrelation in this regression model because  $du < dw < 4-du$  or  $1,502 < 2,318 < 2,498$ .

### c. Heteroskedastisity Test

Heteroskedastisity Test is used to find out the variance dissimilarity from the residual for researching all regression models. Heteroskedastisity Test used to discover the deviation from classical assumption conditions in regression model, where in regression model, heteroskedastisity should be fulfilled. Heteroskedastisity Test is undertaken with Glejser Test. The result of heteroskedastisity test can be seen in Table 4.7:

**Table 4.7**  
Heteroskedastisity Test Result  
Financial Performance and Firm Value Dependent Variable  
Indonesia and Malaysia

Model	Sig.
PER – Indonesia	1,000
MV – Indonesia	1,000
PER – Malaysia	,816
MV – Malaysia	,510

*Source: SPSS' Output*



The first line of Table 4.7 is the result of heteroskedastisity test for PER (Financial Performance) dependent variable in Indonesia. The significance value of VAIC variable shows 1,000 which is greater than the alpha value (0,05). From the result, it can be concluded that there is no heteroskedastisity found in this regression.

Then the result of heteroskedastisity test for MV (Firm Value) dependent variable in Indonesia. The significance value of VAIC variable shows 1,000 which is greater than the alpha value (0,05). From the result, it can be concluded that there is no heteroskedastisity found in this regression.

For PER (Financial Performance) dependent variable in Malaysia, the significance value of VAIC variable shows 0,816 which is greater than the alpha value (0,05). From the result, it can be concluded that there is no heteroskedastisity found in this regression.

Meanwhile, the MV (Firm Value) dependent variable in Malaysia has significance value of VAIC variable shows 0,510 which is greater than the alpha value (0,05). From the result, it can be concluded that there is no heteroskedastisity found in this regression.

#### **d. Multicollinearity Test**

Multicollinearity Test is used to ascertain whether there is a correlation between the independent variables in the regression model. This test is for the research with more than one independent variable. Multicollinearity Test can be found by analyzing the Variance-Inflation

Factor (VIF) value. The result of multicollinearity test can be seen in Table 4.8:

**Table 4.8**  
Multicollinearity Test Result  
Financial Performance and Firm Value Dependent Variable  
Indonesia and Malaysia

Model	VIF	Tolerance
PER – Indonesia	1,000	1,000
MV – Indonesia	1,000	1,000
PER – Malaysia	1,000	1,000
MV – Malaysia	1,000	1,000

*Source: SPSS' Output*

Table 4.8 shows the result of multicollinearity test for PER (Financial Performance) and MV (Firm Value) dependent variable in Indonesia and Malaysia. This test reveals that each variable's tolerance and VIF value for VAIC is  $1,000 > 0,10$  for tolerance and  $1,000 < 10$ . From this result it can be concluded that there is no multicollinearity found in the regression.

### C. Research's Result (Hypotheses Testing)

Hypotheses testing is undertaken to find out how independent variable significance level influences the dependent variable. In this test, hypothesis is tested with Regression Analysis, Determinant Coefficient ( $R^2$ ), T Test, and Independent Sample T Test.

### 1. Coefficient Determination Test ( $R^2$ )

Determination coefficient is declared in  $R^2$ . It functions to measure how far the model is able to elucidate the variation of independent variable. The influence of independent variable can be seen on the value of R Square. The result of coefficient determination test is presented in Table 4.9:

**Table 4.9**  
Coefficient Determination Test Result  
Financial Performance and Firm Value Dependent Variable  
Indonesia and Malaysia

Model	R Square
PER – Indonesia	,125
MV – Indonesia	,055
PER – Malaysia	,561
MV – Malaysia	,000

*Source: SPSS' Output*

Table 4.9 is the result of coefficient determination test for PER (Financial Performance) and MV (Firm Value) dependent variable in Indonesia and Malaysia. Based on this table, the value of coefficient determination (R Square) of Indonesian PER variable is 0,125. This result implies that 12,5% of the dependent variable can be clarified by the independent variable and the other 87,5% is explained by other factors out of the research.

Then the result of coefficient determination test for MV (Firm Value) dependent variable in Indonesia. Based on this table, the value of

coefficient determination (R Square) is 0,055. This result implies that 5,5% of the dependent variable can be clarified by the independent variable and the other 94,5% is explained by other factors out of the research.

Based on the table, the value of coefficient determination (R Square) for PER (Financial Performance) in Malaysia is 0,561. This result implies that 56,1% of the dependent variable can be clarified by the independent variable and the other 43,9% is explained by other factors out of the research.

Meanwhile the result of coefficient determination test for MV (Firm Value) dependent variable in Malaysia. Based on this table, the value of coefficient determination (R Square) is 0,000. This result implies that 0% of the dependent variable can be clarified by the independent variable and the other 100% is explained by other factors out of the research.

## **2. T Test (Partial Regression Coefficient Test)**

The hypothesis testing was done with statistics software SPSS 24.0. The test is undertaken through testing the regression equation individually to each dependent variable. Regression result is presented below:

## a) First Hypothesis

**Table 4.10**  
T Test Result  
Financial Performance Dependent Variable  
Indonesia

	B	Beta	Sig.
(Constant)	,062		
VAIC	,022	,353	,019

*Source: SPSS' Output*

Table 4.10 is the result of T Test for banking companies in Indonesia. VAIC variable has coefficient beta value 0,353 with significance 0,019 < alpha (0,05). The significance of the variable is lesser than alpha value. Thus, it can be concluded that hypothesis (**H<sub>1a</sub>**) is **accepted**.

$$PER = 0,062 + 0,353 VAIC$$

**Table 4.11**  
T Test Result  
Financial Performance Dependent Variable  
Malaysia

	B	Beta	Sig.
(Constant)	,015		
VAIC	,001	,749	,000

*Source: SPSS' Output*

Table 4.11 is the result of T Test for banking companies in Malaysia. VAIC variable has coefficient beta value 0,749 with significance 0,000 < alpha (0,05). The significance of the variable is lesser

than alpha value. Thus, it can be concluded that hypothesis (**H<sub>1b</sub>**) is **accepted**.

$$PER = 0,015 + 0,749 VAIC$$

b) Second Hypothesis

**Table 4.12**  
T Test Result  
Firm Value Dependent Variable  
Indonesia

	B	Beta	Sig.
(Constant)	4,520		
VAIC	-,502	-,234	,127

*Source: SPSS' Output*

Table 4.12 is the result of T Test for banking companies in Indonesia. VAIC variable has coefficient beta value -0,234 with significance 0,127 > alpha (0,05). The significance of the variable is greater than alpha value. Thus, it can be concluded that hypothesis (**H<sub>2a</sub>**) is **rejected**.

$$MV = 4,520 - 0,234 VAIC$$

**Table 4.13**  
T Test Result  
Firm Value Dependent Variable  
Malaysia

	B	Beta	Sig.
(Constant)	28,813		
VAIC	-,019	-,020	,913

*Source: SPSS' Output*

Table 4.13 is the result of T Test for banking companies in Malaysia. VAIC variable has coefficient beta value  $-0,020$  with significance  $0,913 > \alpha (0,05)$ . The significance of the variable is greater than alpha value. Thus, it can be concluded that hypothesis (**H<sub>2b</sub>**) is **rejected**.

$$MV = 28,813 - 0,020 \text{ VAIC}$$

c) Third Hypothesis

**Table 4.14**  
Independent Sample T Test Result  
Financial Performance Dependent Variable  
Indonesia – Malaysia

Equal Variances Assumed	F	Sig.	Sig. (2-tailed)	Mean	
				PER	9,301
				Malaysia	,0226

*Source: SPSS' Output*

From Table 4.14 the result of F value in Levene's test for equality of variance is 9,301 with significance value 0,000. Because of the significance value  $0,000 < \alpha (0,05)$ , it can be concluded that Indonesia and Malaysia do not have the same financial performance value. Thus, it can be conformed that there is a different financial performance in Indonesia and Malaysia. Therefore the hypothesis is **accepted**.

The table presents the mean of PER (Financial Performance) variable for both countries. The mean for Indonesia' PER variable is

0,1060 while for Malaysia is 0,0226. Indonesian mean is greater than the one Malaysia had. Thus, the result shows that banking companies' financial performance in Indonesia is better than in Malaysia.

d) Fourth Hypothesis

**Table 4.15**  
Independent Sample T Test Result  
Firm Value Dependent Variable  
Indonesia – Malaysia

Equal Variances Assumed	F	Sig.	Sig. (2- tailed)	Mean	
				PER	77,650
				Malaysia	28,6003

*Source: SPSS' Output*

From Table 4.15 the result of F value in Levene's test for equality of variance is 77,650 with significance value 0,000. Because of the significance value  $0,000 < \alpha (0,05)$ , it can be concluded that Indonesia and Malaysia do not have the same firm value. Thus, it can be conformed that there is a different firm value in Indonesia and Malaysia. Therefore the hypothesis is **accepted**.

The table presents the mean of MV (Firm Value) variable for both countries. The mean for Indonesia' MV variable is 3,4976 while for Malaysia is 28,6003. Malaysia has much higher firm value mean than Indonesia had. Thus, the result shows that Malaysian banking companies' firm value is better than Indonesian.



**Table 4.16**  
Hypotheses Testing Summary

Code	Hypotheses	Result
H <sub>1a</sub>	Intellectual Capital positively influenced Financial Performance in Indonesia	Accepted
H <sub>1b</sub>	Intellectual Capital positively influenced Financial Performance in Malaysia	Accepted
H <sub>2a</sub>	Intellectual Capital positively influenced Firm Value in Indonesia	Rejected
H <sub>2b</sub>	Intellectual Capital positively influenced Firm Value in Malaysia	Rejected
H <sub>3</sub>	There is a difference of banking companies' Financial Performance in Indonesia and Malaysia	Accepted
H <sub>4</sub>	There is a difference of banking companies' Firm Value in Indonesia and Malaysia	Accepted

#### **D. Discussion (Intrepretation)**

This research aims to verify the effect of intellectual capital towards the financial performance and firm value. From the result of hypotheses testing, it can be concluded that independent variable only significantly affects one of the dependent variable whereas the other is not significantly affected.

##### 1. First Hypothesis (H<sub>1</sub>)

First hypothesis (H<sub>1</sub>) is Intellectual Capital positively influenced Financial Performance in Indonesia and Malaysia. The result of this research shows that intellectual capital significantly influenced financial

performance. Then, it can be concluded that the higher intellectual capital is, the higher the financial performance is. It also synchronizes with intellectual capital theory which states that intellectual capital will offer a robust contribution towards the stakeholder theory which emphasizes accounting profit. The result of the research is in accordance with the first hypotheses ( $H_{1a}$ ) and ( $H_{1b}$ ) stated that intellectual capital positively influenced financial performance in Indonesia and Malaysia. Thus, the result makes **( $H_{1a}$ ) and ( $H_{1b}$ ) accepted.**

This result is consistent with the research undertaken by Chen (2005), Ulum (2009), Sholikhah et al (2010), Sunarsih and Mendra (2012), Al Musali and Ismail (2014), Kamath (2015), Nikmah and Irsyahma (2016) and Kamal et al (2016). Those studies stated that intellectual has positive influence to companies' financial performance.

## 2. Second Hypothesis ( $H_2$ )

Second hypothesis ( $H_2$ ) stated that Intellectual Capital positively influences Firm Value. The result of this research shows that intellectual capital doesn't significantly influence firm value. Intellectual capital cannot directly influence firm value of a company. It means the company doesn't have the ability to use the intellectual capital properly. The result of the research is in contrast with the second hypotheses ( $H_{2a}$ ) and ( $H_{2b}$ ) stated that intellectual capital positively influenced financial performance in Indonesia and Malaysia. Thus, the result makes **( $H_{2a}$ ) and ( $H_{2b}$ ) rejected.**

Iranmahd et. al. (2014) states that intellectual capital does not affect firm value because company may not be very flexible to adapt to the changes in economy condition where IC is in. While Khasanah (2016) opines that intellectual capital owned by a company may not affect in creating fine points in stakeholder's point of view.

This result is consistent with the research that has been done before by Sunarsih and Mendra (2012), Khanqah et. al. (2012), Suhendra (2015) and Khasanah (2016). But it is not consistent with the research undertaken by Nikmah and Irsyahma (2016). Their study stated that intellectual has positive influence towards firm value of a company.

### 3. Third Hypothesis (H<sub>3</sub>)

Third hypothesis (H<sub>3</sub>) is the difference of banking companies' Financial Performance Indonesia and Malaysia. The result of this research shows that there is a difference of financial performance in Indonesian and Malaysian banking company. In the Human Development Index, Indonesia is classified as the country with medium human development and Malaysia is classified as the country with high human development.

From the index, it can be seen that Indonesia and Malaysia have differences in the components of human development: life expectancy, education and Gross National Income (GNI). All of the aspects are different between Indonesia and Malaysia. Then, it is possible that they have different financial performance.

The result shows that Indonesian banking companies has better financial performance than Malaysian banking companies. It is likely caused by the high of Indonesian average net interest margin (NIM), which is the highest even in global (Rimbo et al, 2016). NIM itself is a performance metric that examines how successful a firm's investment decision compared to its debt situation. A positive value of NIM means that company makes an optimal decision because the return of investment is greater than the interest expense. The condition reflects that Indonesian banking companies tend to make an optimal decision in increasing the investment return. The result of the research is in accordance with the third hypotheses ( $H_3$ ) which stated that there is a difference of financial performance of banking company in Indonesia and Malaysia. Thus, the result makes **( $H_3$ ) accepted.**

#### 4. Fourth Hypothesis ( $H_4$ )

Fourth hypothesis ( $H_4$ ) is the difference of banking companies' Firm Value in Indonesia and Malaysia. The result of this research shows that there is a difference of firm value in Indonesian and Malaysian banking company. In the Human Development Index, Indonesia is classified as the country with medium human development and Malaysia is classified as the country with high human development.

From the index, it can be seen that Indonesia and Malaysia have differences in the components of human development: life expectancy, education and Gross National Income (GNI). All of the aspects are

different between Indonesia and Malaysia. Then, it is possible that they have different firm value. Banking companies in Malaysia has higher firm value than banking companies in Indonesia.

In Malaysia, banking companies collaborated with FinTech companies in order to make innovations. Banking companies in Malaysia use program accelerator to support customer relationships. They make customer easier to reach their service. This, indeed, catches stakeholder's attention because the great future is arisen already. The market value of the banking companies will increase because of the innovations they made. The result of the research is in accordance with the fourth hypotheses (H<sub>4</sub>) which stated that there is a difference of firm value of banking company in Indonesia and Malaysia. Thus, the result makes **(H<sub>4</sub>) accepted**.