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## Intellectual Capital, Market Value, and Financial Performance: Indonesia and Malaysia's Banking Companies

Sigit Hermawan<sup>1</sup>, Nur Ravita Hanun, Nihlatul Qudus Sukma Nirwana, Clarisa Ika  
Candrawati

Accounting Department, Faculty of Business Law and Social Science, Universitas  
Muhammadiyah Sidoarjo, Jl. Mojopahit No.666 B, Sidowayah, Celep, Kec. Sidoarjo, Kabupaten  
Sidoarjo, Jawa Timur 61215, Indonesia

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### Abstract

<sup>1</sup>  
This study aims to determine the effect of intellectual capital on market value with financial performance as an intervening variable: evidence from banking companies in Indonesia and Malaysia. The analysis tool uses Partial Least Square to test hypotheses. The results of this study are intellectual capital affects the financial performance of banking companies in Indonesia but does not affect the banking companies in Malaysia. Intellectual capital does not affect the market value of banking companies in Indonesia but affects banks in Malaysia. Financial performance affects market value in Indonesian banking companies but does not affect banking companies in Malaysia. For indirect or mediation effects, the result is that financial performance can mediate the effect of intellectual capital on market value in banking companies in Indonesia but not for banks in Malaysia. Banking companies must pay attention to intellectual capital management because of its impact on financial performance and market value. The market will give a higher valuation to companies that have increased financial performance. Next, companies with improved financial performance will be responded positively to the market so that it will increase market value.

**Keywords:** Intellectual Capital, Market Value, Financial Performance, Banking Companies.

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## INTRODUCTION

Business companies are no longer based on labor (labor-based business) but have changed to knowledge-based business, especially in the era of the industrial revolution 4.0. Companies like this rely more on intangible assets than tangible assets. One knowledge-based company is a banking company. According to James Woodcock & Whiting (2009), banking companies are included in

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<sup>1</sup> Sigit Hermawan

E-mail: [sigithermawan@umsida.ac.id](mailto:sigithermawan@umsida.ac.id)

the category of high intellectual capital (IC) intensive industries and are full of technological innovations and high interactions with customers (Veltri, 2017).

Meanwhile the financial performance of Indonesian banks is still far behind that of other ASEAN countries. Based on Indonesian Banking Statistics (SPI) data issued by the Financial Services Authority (OJK), January 2019 shows, the Net Interest Margin (NIM) or the difference between the loan interest rate and the interest rate of funds from conventional commercial banks in Indonesia is at 5.72%. This is too high compared to Thai banks which has a NIM of only 2.84%. The comparison in 2015 also produced the same thing, namely Thailand's NIM of 3.07%, Malaysia of 1.72%, and the Philippines 3.58% and Indonesia of 5.39%. This data shows the fact that Indonesian banks are too high in taking profit margins. As a result, credit disbursement is not optimal (Shonhadji, 2020; Wibowo, 2016).

In addition to facing business challenges as above, Indonesian and Malaysian banks also face the challenges of the industrial revolution 4.0. In fact, according to one of the professions affected by the industrial revolution 4.0 is a banker. With such challenges, the banking industry must be innovative in managing its human capital (HC). Not only that the banking industry must also be able to effectively manage structural capital (SC) and have extensive relational capital (RC) with various parts. Or in other words, the banking industry must be able to utilize and manage its intellectual capital (IC) (M. C. Chen, Cheng, & Hwang, 2005).

With a knowledge-based business, the business initially relied on tangible assets to become dependent on intangible assets. One approach used in the valuation and measurement of intangible assets is intellectual capital. In Indonesia the phenomenon of intellectual capital has been listed in SFAS No. 19 revisions as of 1 January 2017 concerning intangible assets which include knowledge of technology, design and implementation of new systems or processes, licenses, intellectual property rights, knowledge of markets and trademarks (including product brands and publicity titles), in addition to that computer software, patents, copyrights, movies, customer lists, warranty service rights, fishing permits, import quotas, franchises, relationships with suppliers or customers, customer loyalty, market shares, and marketing rights. In Malaysia, it also states intellectual capital as an intangible principle that includes technology, customer information, brand name, reputation, and corporate culture for competitiveness. In Malaysia, the role of human resources is very important for the development of world-class capital markets. Increasing company awareness of the importance of intellectual capital is the foundation for a company to be superior and competitive. The excellence of the company by itself will provide added value so that it will increase the company's market value (Manuel & Sardo, 2018).

There have been many studies that examine the effects of IC on performance. The results of IC affect the performance of companies both service and manufacturing, such as research of ((Sigit Hermawan, Hariyanto, & Biduri, 2020), (Masoomzadeh, Wan, & Zakaria, 2020), (Sigit Hermawan, 2019), (Tarigan, Stephanie Listijabudhi, & Elsy Hatane, 2019), (Octavio & Soesetio, 2019), (Windu & Murwaningsari, 2019), (Ozkan & Cakan, 2017), Several studies on the effect of IC on market value have also been conducted by ((Shubita, 2019), (Ardila & Isna, 2019), (Suprpti, Qonita & Hidayat, 2019), (Yovita, 2018), (Zeng, 2018)). This research is different from research of IC, financial performance, and market value that has been done by previous researchers. In this

study using financial performance as an intervening variable for the influence of IC on market value. This study also tested two countries, namely the banks of Indonesia and Malaysia, then compared them. This is what makes the difference between this research and previous research.

Meanwhile, in the era of industrial evolution 4.0 is characterized by the strengthening of intangible assets and information technology requires companies to be able to manage intangible assets including intellectual capital. Intellectual capital is an intangible asset that is a resource of knowledge, which can affect a company's performance both in decision making for now and future benefits. Bontis (1998) explain that Intellectual capital is difficult to understand, but once discovered and exploited, it will provide the organization with a new resource to compete and win. Utilization of intellectual capital must be carried out by companies for financial interests and market value. This model starts with the company's ability to create value added (VA). VA is calculated as the difference between output and input. Output (OUT) represents revenue and covers all sold products and services. Input (IN) covers all expenses used in obtaining revenue. The important thing in this model is that employee burdens are not included in the IN. Because of its active role in the value creation process, intellectual potential (which is represented by labor expenses) is not counted as a fee. Therefore, a key aspect in the Public model is treating labor as a value creation entity (Sigit Hermawan, 2019).

Relationship between intellectual capital and financial performance empirically proven by several researchers in various ways approach in several countries. (M.-C. Chen, Cheng, & Hwang, 2005) found that intellectual capital has a positive effect on financial performance and can be an indicator for future financial performance. (Ting & Lean, 2019) conducted a study of intellectual capital with using a sample of banking companies in Malaysia. Result of the study states that intellectual capital is measured with VAIC<sup>TM</sup> proven to have a positive effect on performance finance as measured by ROA. Therefore, it is necessary to maximizing the utilization of resources especially intellectual capital to banking companies to maximize profits.

Most research about intellectual capital using financial statement data (annual) and some researchers use VAIC<sup>TM</sup> both to measure performance intellectual capital itself and to see the relationship between intellectual capital with the company's financial performance.

**H<sub>1</sub>: Intellectual capital affects financial performance at banking company in Indonesia.**

**H<sub>5</sub>: Intellectual capital affects financial performance at banking company in Malaysia.**

One of the roles of intellectual capital is to help the company in value creation process. Investors will give a positive response towards companies that have high intellectual capital with invest in the company. This will have an impact on increasing company value. In the context of intellectual capital, value creation is done by maximizing utilization intellectual capital components, namely human capital, structural capital, and customer capital. Research by (Sigit Hermawan, 2019) and (Zeng, 2018) states that IC affects market value.

**H<sub>2</sub>: Intellectual capital affects the market value of the company banking in Indonesia.**

**H<sub>6</sub>: Intellectual capital affects the market value of the company banking in Malaysia.**



The higher financial performance seen from the financial ratios the higher the value of the company. Through these financial ratios can be seen the level of success of company management. If performance financial increase marked by increased profitability then this will attract the attention of investors. Its influence is the value of the company increased because investors became interested in investing in the company. Investment in intellectual capital presented in financial statements resulting from an increase in the difference between values market and book value. Research by (Rangkuti, (2020), Bidhari & Salim, (2015), and Oktarina, (2018)) states that financial performance influences market value.

**H3: Financial performance affects the market value of the company banking in Indonesia.**  
**H7: Financial performance affects the market value of the company banking in Malaysia.**

Intellectual capital is believed to have an important role in increase in company value and financial performance. By using intellectual capital owned by the company can use it to manage the assets owned to make it more efficient. The more efficient the company is in managing its assets profitability will increase so that the company's financial performance as well will increase. Improved financial performance will be responded positively market so that the value of the company will increase. Research by (Gunawan, 2016) who states that the financial performance as intervening variable mediated the relationship between intellectual capital and company value.

**H4: Intellectual capital affects market value through performance finance as an intervening variable in banking companies in Indonesia.**

**H8: Intellectual capital affects market value through performance finance as an intervening variable in banking companies in Malaysia.**

Based on the background, previous research, and empirical studies, the aim of this research is to find evidence that intellectual capital influences market value with financial performance as an intervening variable. This study uses a sample of banking companies listed on the Indonesia Stock Exchange and Malaysia Stock Exchange (Ting & Lean, 2019).

The practical benefit of this research is to provide evidence to banking companies in Indonesia and Malaysia about the importance of intellectual capital management for market value and financial performance (Setyawati, Widyastuti, Suryati, & Hartani, 2019). Banking companies must be able to optimize the role of IC as intangible assets that can increase ROA, ROE and PBV. The theoretical benefits of this research are for accounting and finance. For accounting science, it is related to the strengthening of the role of intellectual capital as intangible assets, which is one of the assets on the balance sheet. For financial science related to market value and financial performance which are interrelated and also influenced by intellectual capital (Hariyati, Tjahjadi, & Soewarno, 2019).

## RESEARCH METHOD

This study uses a quantitative research approach (Creswell, 2015). Quantitative research aims to conduct a theoretical proof of the hypothesis and to obtain conclusions. There are three variables in this research, namely intellectual capital, market value, and financial performance. Intellectual capital there were formula of VAIC<sup>TM</sup>, market value there were PBV, and financial performance there were formula of ROA.

a. Market value

Market value in this study is defined as market value company. Firm value is reflected in the market value of a corporate equity and debt market value. It can be said that the higher the prices of equity and debt, the higher the value company, and vice versa. In this study, firm value is measured using Price to Book Value (PBV). PBV is a market price comparison of a stock at its book value. Based on the PBV ratio it can be seen that the firm value is good when the PBV value is at on one, namely the market value greater than the company's book value. This ratio can be formulated as follows:  $PBV = \text{Price Per Share} / \text{Book Value Per Share}$  (Yilmaz & Acar, 2018)

b. Intellectual Capital

The independent variable in this study is intellectual capital proxied by VAIC<sup>TM</sup>. Measurement of intellectual capital developed by (Pulic, 2000) where intellectual capital is measured based on the added value created by physical capital (VACA), human capital (VAHU), and structural capital (STVA).

c. Financial Performance

Financial performance is an analysis carried out for see to what extent the company has carried out with use the rules of financial implementation properly and correctly (Halim & Hanafi., 2009). Financial performance assessment can be seen from information that is reflected in a company includes balance sheets, income statement, cash flow statement and other things that follow support as a reinforcement for the assessment of financial performance. In this study, financial performance is measured using return on assets (ROA) and return on equity (ROE). ROA is used to measure the company's ability generate net income based on a specific asset level and can be formulated as follows:  $ROA = \text{Net Profit} / \text{Total Assets}$  (Hutagalung et al., 2013). ROE is a comparison between net income to equity. This ratio is a measure of profitability from that point of view shareholders and can be formulated as follows:  $ROE = \text{Net Profit} / \text{Total Equity}$  (Hutagalung et al., 2013).

The population in this study are banking companies listed on the Indonesia Stock Exchange and Malaysia Stock Exchange in 2014-2019, each consisting of 41 companies and 19 companies. The reason for choosing a banking company in this study is because it is one of the high IC intensive companies according to (Vodcock & Whiting, 2009) recommendation. Researchers used purposive sampling method in order to obtain a number of 10 companies in Indonesia and 10 companies in Malaysia that meet the criteria. Data analysis was carried out in several stages, namely outer model measurement, inner model management, hypothesis testing,

and analysis of differences. For data processing using Partial Least Square (Smart PLS 3.0) (Sholihin & Ratmono, Dwi, 2013).

## RESULTS AND DISCUSSION

### Results

#### *Structural Model Testing (Inner Model)*

The structural model testing (inner model) aims to predict the relationship between latent variables. The inner model is evaluated by looking at the percentage of variance described by looking at the R-square value for endogenous latent constructs. In assessing the model with PLS begins by looking at the R-square value for endogenous latent variables. Tables 1 and 2 are the results of the R-square estimation using SmartPLS.

**Table 1. The R-Square Value of Indonesian Banking Companies**

|                       | R Square | Adjusted R Square |
|-----------------------|----------|-------------------|
| Financial performance | 0.165    | 0.136             |
| Market Value          | 0.196    | 0.182             |

Source: Data processed by PLS

**Table 2. Malaysian Banking Company R-Square Value**

|                       | R Square | Adjusted R Square |
|-----------------------|----------|-------------------|
| Financial performance | 0.426    | 0.608             |
| Market Value          | 0.500    | 0.517             |

Source: Data processed by PLS

The R-square result on the variable of Indonesian banking financial performance shows a value of 0.165, which means that the financial performance of 16.5% can be explained by intellectual capital (VAIC) and the remaining 83.5% is explained by other variables. Meanwhile, the variable of Malaysian banking financial performance shows a value of 0.426, which means that at the financial performance of only 42.6% can be explained by intellectual capital (VAIC) and the remaining 57.4% is explained by other variables.

The R-square result of the Indonesian banking market value variable shows a value of 0.196, which means that the market value of 19.6% can be explained by intellectual capital (VAIC) and financial performance (ROA and ROE) and the remaining 80.4% is explained by other variables. Meanwhile, the Malaysian banking market value variable shows an R-square value of 0.500, which means that 50.0% can be explained by intellectual capital (VAIC) and financial performance (ROA and ROE) and the remaining 50.0% is explained by other variables.

### Path Coefficient

From data processing, hypothesis testing can be done by paying attention to the t statistical value and the p value of the latent variable. The hypothesis proposed is to determine the relationship of each hypothesized variable. Decision making is based on the level of significance of the test model and the correlation between variables. The following is the output of the path coefficient using SmartPLS 3.0:

**Table 3. Indonesian Banking Company Path Coefficient**

|                                       | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistic ( O/STDEV ) | P Values |
|---------------------------------------|---------------------|-----------------|----------------------------|-------------------------|----------|
| IC -> Financial performance           | 0.443               | 0.474           | 0.118                      | 3.758                   | 0.000    |
| IC-> Market Value                     | 0.053               | 0.052           | 0.053                      | 1.004                   | 0.316    |
| Financial performance -> Market Value | 0.380               | 0.378           | 0.092                      | 4.113                   | 0.000    |

Source: Data processed by PLS

**Table 4. Malaysian Banking Companies Path Coefficient**

|                                       | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistic ( O/STDEV ) | P Values |
|---------------------------------------|---------------------|-----------------|----------------------------|-------------------------|----------|
| IC -> Financial performance           | 0.124               | 0.090           | 0.081                      | 1.988                   | 0.027    |
| IC-> Market Value                     | 0.016               | 0.046           | 0.169                      | 2.096                   | 0.024    |
| Financial performance -> Market Value | 0.103               | 0.125           | 0.215                      | 0.480                   | 0.631    |

Source: Data processed by PLS

So that the correlation between variables that form a hypothesis in banking companies in Indonesia can be stated as follows:

**Table 5. Decision on the Path Coefficient of Indonesian Banking Companies**

|                                       | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistic ( O/STDEV ) | P Values | Decision     |
|---------------------------------------|---------------------|-----------------|----------------------------|-------------------------|----------|--------------|
| IC -> Financial performance           | 0.443               | 0.474           | 0.118                      | 3.758                   | 0.000    | accepted     |
| IC-> Market Value                     | 0.053               | 0.052           | 0.053                      | 1.004                   | 0.316    | not accepted |
| Financial performance -> Market Value | 0.380               | 0.378           | 0.092                      | 4.113                   | 0.000    | accepted     |

Source: Data processed by PLS



The results of hypothesis testing (see table 5) for banking companies in Indonesia in this study are as follows:

a. Hypothesis 1

The first hypothesis in this study is that intellectual capital (VAIC) has an effect on financial performance (ROA and ROE) in banking companies in Indonesia. Based on table 5, the statistical t value of the relationship between intellectual capital and financial performance is 3.758 and the p value is 0.000. At the level of t statistic > 1.96, the relationship between intellectual capital and financial performance, both ROA and ROE, is significant because the p value is <0.05, so it can be interpreted that intellectual capital has an effect on financial performance (ROA and ROE) in banking companies in Indonesia. the first hypothesis of this research is accepted. The t statistical value was 3.758 > 1.96 and the p value was 0.000 < 0.05.

b. Hypothesis 2

The second hypothesis in this study is that intellectual capital (VAIC) affects the market value (PBV) of banking companies in Indonesia. Based on table 5, the t-value statistic, the relationship between intellectual capital (VAIC) and market value (PBV) is 1.004 and the p value is 0.316. At the t statistic level <1.96, it is not significant because the p value is > 0.05, so it means that intellectual capital (VAIC) has no effect on the market value (PBV) of banking companies in Indonesia so that the second hypothesis of this study is not accepted. The t statistical value was 1.004 < 1.96 and the p value was 0.316 > 0.05.

c. Hypothesis 3

The third hypothesis in this study is that financial performance (ROA and ROE) affects the market value of banking companies in Indonesia. Based on table 5, the statistical t value of the relationship between financial performance (ROA and ROE) to market value (PBV) is 4.113 and the p value is 0.000. At the level of t statistic > 1.96, it is significant because the p value < 0.05 means that financial performance (ROA and ROE) affects the market value (PBV) of banking companies in Indonesia, so the third hypothesis.

d. Hypothesis 4

Table 13 explains the magnitude of the direct effect (PL), indirect effect (PTL), and total effect (PT) intellectual capital (VAIC) on market value (PBV) with financial performance (ROA and ROE) as intervening variables in banking companies in Indonesia. From the results above, it can be seen that Market Value Mediates IC on Financial Performance.

**Table 6. Direct Influence, Indirect Influence, and The Influence of Total Intellectual Capital on Market Value with Financial Performance as an Intervening Variable of Indonesian Banking Companies**

|             | Original Sample<br>(O) | Sample Mean<br>(M) | Standard<br>Deviation<br>(STDEV) | T Statistic<br>(O/STDEV) | P Values |
|-------------|------------------------|--------------------|----------------------------------|--------------------------|----------|
| X -> Z -> Y | 0.168                  | 0.179              | 0.068                            | 2.489                    | 0.013    |

Source: Data processed by PLS

Meanwhile, the correlation between variables which forms a fifth to seventh hypothesis in banking companies in Malaysia can be stated as follows:

**Table 7. Malaysian Banking Companies Path Coefficient**

|                                             | Original<br>Sample<br>(O) | Sample<br>Mean<br>(M) | Standard<br>Deviation<br>(STDEV) | T Statistic<br>(O/STDEV) | P<br>Values | Decision     |
|---------------------------------------------|---------------------------|-----------------------|----------------------------------|--------------------------|-------------|--------------|
| IC -> Financial<br>performance              | 0.124                     | 0.090                 | 0.081                            | 1.988                    | 0.027       | accepted     |
| IC-> Market Value                           | 0.016                     | 0.046                 | 0.169                            | 2.096                    | 0.024       | accepted     |
| Financial<br>performance -><br>Market Value | 0.103                     | 0.125                 | 0.215                            | 0.480                    | 0.631       | not accepted |

Source: Data processed by PLS

e. Hypothesis 5

The fifth hypothesis in this study is that intellectual capital (VAIC) affects the financial performance of banking companies in Malaysia. Based on the t-value table, the relationship between intellectual capital (VAIC) and financial performance (ROA and ROE) is 1.988 and the p value is 0.027. At the t statistic level <1.96, it is not significant because the p value <0.05 means that it means that intellectual capital (VAIC) has no effect on financial performance (ROA and ROE) in banking companies in Malaysia so that the fifth hypothesis in this study is not accepted. . The t statistical value was 1.988 <1.96 and the p value was 0.027 > 0.05.

f. Hypothesis 6

The sixth hypothesis in this study is that intellectual capital (VAIC) affects the market value (PBV) of banking companies in Malaysia. Based on table 7 the statistical t value is 2.096 and the p value is 0.024. At the level of t statistic > 1.96 it is significant because the p value <0.05, which means that intellectual capital (VAIC) affects the market value (PBV) of banking companies in Malaysia so that the sixth hypothesis in this study is accepted. The t statistical value is 2.096 > 1.96 and the p value is 0.024 <0.05.

g. Hypothesis 7

The seventh hypothesis in this study is that financial performance (ROA and ROE) affects the market value (PBV) of banking companies in Malaysia. Based on table 7, the statistical t value is 0.480 and the p value is 0.631. At the t statistic level <1.96, it is not significant because the p value <0.05, which means that financial performance (ROA and ROE) has no effect on the market value (PBV) of banking companies in Malaysia so that the seventh hypothesis in this study is not accepted. Statistical t value 0.480 > 1.96 and p value 0.631 > 0.05.

h. Hypothesis 8

Table 13 explains the magnitude of the direct effect (PL), indirect effect (PTL), and total effect (PT) intellectual capital (VAIC) on market value (PBV) with financial performance (ROA and ROE) as intervening variables in banking companies in Malaysia.

**Table 8. Direct Influence, Indirect Influence, and The Influence of Total Intellectual Capital on Market Value with Financial Performance as an Intervening Variable of Malaysian Banking Companies**

|             | Original Sample<br>(O) | Sample Mean<br>(M) | Standard<br>Deviation<br>(STDEV) | T Statistic<br>( O/STDEV ) | P Values     |
|-------------|------------------------|--------------------|----------------------------------|----------------------------|--------------|
| X -> Z -> Y | 0.002                  | 0.026              | 6.040                            | .041                       | <b>0.227</b> |

Source: Data processed by PLS

#### *Difference Analysis*

The difference analysis is carried out by descriptively analyzing the relationship between intellectual capital and market value and financial performance as an intervening variable in banking companies in Indonesia and Malaysia. Based on tables 6 and 8, it shows that in Indonesia financial performance can mediate the relationship between intellectual capital and market value because the value of the indirect effect is 0.013. Whereas in Malaysia, financial performance cannot mediate the relationship between intellectual capital and market value because the value of the indirect effect is 0.227.

#### **Discussion**

##### *The Effect of Intellectual Capital on The Financial Performance of Banking Companies in Indonesia*

Intellectual capital that is managed effectively and efficiently can create value added and an advantage over its competitors. This is in accordance with the stakeholder theory which states that corporate managers will try to obtain value added which will then be distributed back to stakeholders. Stakeholders will play a role in the use and management of company resources, including intellectual capital. The results of this study are consistent with the research of ((Chen et al., 2005) , (Ting & Lean, 2019), (Fitriyani & Amalia, 2018), (Yuskar & Novita, 2013), and (Hermawan & Mardiyanti, 2016)) which state that intellectual capital affects financial performance. By utilizing intellectual capital, the company can improve financial performance by increasing revenue without increasing expenses and costs proportionately or reducing the company's operating expenses (Fitri, 2017). So, it can be concluded that in Indonesia intellectual capital which is managed properly by the company will be able to improve the company's performance.

##### *The Effect of Intellectual Capital on The Market Value of Banking Companies in Indonesia*

Stakeholder theory explains that all company activities lead to value creation. Ownership and utilization of intellectual resources allows companies to achieve competitive advantage and increase added value. One of the advantages of intellectual capital is as a tool to determine company value. The results of this study are supported by research conducted by (Fitriasari & Sari, 2019) which states that intellectual capital has no effect on firm value. This means that the market does not give a higher valuation to companies with a higher intellectual capital value. The market reward of a company is based more on its physical resources. Investors tend not to prioritize the intellectual capital owned by the company. Effective management and use of intellectual capital should be able

to increase <sup>15</sup> market value, which in this study is measured by the price to book value (PBV) ratio. In assessing companies, investors also consider their share price. The share price of banking companies in Indonesia is lower or far below the share price of Malaysian banking companies (Ting & Lean, 2019).

#### *The Effect of Financial Performance on The Market Value of Banking Companies in Indonesia*

In the stakeholder theory, company sustainability requires the support of stakeholders, their interests must be considered, and the company's activities should be directed to meet their expectations. One of the hopes of investors as stakeholders is to get benefits in the form of dividends. Therefore, investors prefer companies that are profitable because they believe they will benefit from the results of their investment. Stakeholders also have the right to be treated fairly by the organization and managers must be able to manage the organization optimally, especially in an effort to create company market value. The results of this study are also supported by research that has been conducted by (Yuskar & Novita, 2013) which states that financial performance affects firm value (PBV). Investors make an overview of a company by looking at financial ratios as an investment evaluation tool. ROA is a measure of profitability that can calculate a company's ability to generate returns on its assets. Based on the results of this study, the management's performance in using the company's assets has been managed efficiently and effectively so as to produce large profits. Then ROE is used to see how much the company produces a return on investment invested. If the ROE is high, the share price will also tend to be high which increases shareholder value so that it will also increase the attractiveness of investors because the level of profit will increase. Based on the results of the study, it can be concluded that when the level of profit in financial performance achieved by the company is getting better, it will have an effect on increasing market value, which means that the higher the ROE, the better the net profit that the company can achieve when running its operations (Sardo & Serrasqueiro, 2017).

#### *The Influence of Intellectual Capital on Market Value Through Financial Performance as an Intervening Variable in Banking Companies in Indonesia*

The results of this study indicate that the intellectual capital disclosed in the financial statements can increase market value which is reflected in the company's stock price. This study discusses the effect of intellectual capital on market value with financial performance as an intervening variable, where the results of this study are expected to provide information and knowledge about how intellectual capital affects market value, either directly or indirectly. The results of this study are also supported by research conducted by (Sudibya & Restuti, 2014, Yuskar & Novita, 2013) which states that financial performance can mediate the relationship between intellectual capital and firm value.

#### *The Effect of Intellectual Capital on The Financial Performance of Banking Companies in Malaysia*

Stakeholder theory states that corporate managers will try to get value added which will then be distributed back to stakeholders. Stakeholders will play a role in the use and management of company resources, including intellectual capital. The results of this study cannot prove that intellectual capital has an effect on financial performance (ROA and ROE) in banking companies



in Malaysia. The results of the study are not in accordance with the research conducted by (Ting & Lean, 2019) which can prove that intellectual capital has an effect on financial performance. This difference is thought to be due to the fact that banking companies in Malaysia have not been able to fully manage and utilize their intellectual property to create added value for the company (Akgun & Samiloglu, 2018).

#### *The Effect of Intellectual Capital on The Market Value of Banking Companies in Malaysia*

Stakeholder theory explains that all company activities lead to value creation. Ownership and utilization of intellectual resources allows companies to achieve competitive advantage and increase added value. One of the advantages of intellectual capital is as a tool to determine company value. The results of this study are also supported by research conducted by (Sudibya & Restuti, 2014) which proved that intellectual capital has a positive effect on company value. The market in Malaysia has given a higher valuation to banking companies that have higher intellectual capital. The results of this study indicate that the market reward of a company is not only based on physical resources, but also on the intellectual capital owned by the company, investors also focus on the intellectual resources owned by the company. Therefore, when intellectual capital is managed optimally, it can deliver the company to a good performance. By having a good performance, it will attract many investors to invest in the company so that the market value will increase. Intellectual property that is managed efficiently by the company will increase market appreciation of market value to increase company value. Effective management and use of intellectual capital are proven to increase the market value of companies in Malaysia, which in this study is measured by PBV. So, in appreciating the market value, investors in Malaysia have considered the influence of intellectual property owned by the company. So that in assessing companies, investors do not only look at the company's stock price. The higher the share price, the investor will place a high value on the company (Saeidi et al., 2020).

#### *The Effect of Financial Performance on The Market Value of Banking Companies in Malaysia*

Stakeholder theory states that the sustainability of a company requires the support of stakeholders, their interests must be considered, and company activities should be directed to meet their expectations. One of the hopes of investors as stakeholders is to get benefits in the form of dividends. Therefore, investors prefer companies that are profitable because they believe they will benefit from the results of their investment. Stakeholders also have the right to be treated fairly by the organization and managers must be able to manage the organization optimally, especially in an effort to create company market value. The results of this study are also supported by research conducted by (Nikolić, Perić, & Bovan, 2020) which also proves that financial performance has no effect on firm value. Financial performance in theory is negatively related to market value. The higher the financial performance, the lower the market value and the lower the financial performance, the higher the market value of banking companies in Malaysia. Management must be careful about the use of debt, because the bigger the debt, the lower the market value.

### <sup>1</sup> *The Effect of Intellectual Capital on Market Value Through Financial Performance as an Intervening Variable in Banking Companies in Malaysia*

The results of this study indicate that there is no influence because the indirect effect (PTL) of intellectual capital on market value with financial performance as an intervening variable in banking companies in Malaysia is smaller than the direct effect (PL) of intellectual capital on market value. The results of this study are supported by research conducted by (Amin, Usman, & Nadeem Sohail., 2018) which also proves that intellectual capital has a significant negative effect on financial value through financial performance as an intervening variable. The market will provide a higher assessment to companies that have increased financial performance, increased financial performance will be responded positively by the market, thereby increasing company value.

### <sup>1</sup> *The Difference in The Effect of Intellectual Capital on Market Value and Financial Performance as an Intervening Variable in Banking Companies in Indonesia and Malaysia*

Based on the results of these studies, it shows that intellectual capital has an indirect effect on market value through financial performance, so that financial performance can be used as an intervening variable in banking companies in Indonesia. Whereas for banking companies in Malaysia, the results shown are that the indirect effect of intellectual capital on market value through financial performance is smaller than the direct effect of intellectual capital on market value. It can be said that the actual relationship is a direct relationship, so that financial performance cannot be used as an intervening variable in banking companies in Malaysia (Ting & Lean, 2019).

The market will provide a higher assessment to companies that have increased financial performance, increased financial performance will be responded positively by the market so that it will increase market value. From the research results, where the researcher first discusses how the intellectual capital performance as measured by the method proposed by (Pulic, 1998) using VAIC<sup>TM</sup> shows an increase in the intellectual capital performance of banking companies in Indonesia. The increase in the intellectual capital performance value of Indonesian banks shows that Indonesian banks are starting to pay attention to their intangible assets. So, it can be concluded that there are differences in the effect of intellectual capital on market value and financial performance as an intervening variable. The financial performance of banking companies in Indonesia can be said to be better than the financial performance of banking companies in Malaysia which can be seen from the financial performance ratios in the financial statements in Indonesia which are greater than Malaysia. Improved financial performance because the company is able to manage its intellectual resources effectively and efficiently (Yovita, 2018).

## CONCLUSIONS

The results of this study are intellectual capital (VAIC<sup>TM</sup>) affects financial performance (ROA and ROE) in banking companies in Indonesia. Intellectual capital (VAIC<sup>TM</sup>) has no effect on the market value (PBV) in banking companies in Indonesia. Financial performance (ROA and ROE) affects the market value (PBV) in banking companies in Indonesia. Financial performance can mediate the relationship between intellectual capital (VAIC<sup>TM</sup>) and market value (PBV) in the company

banking in Indonesia. Intellectual capital ( $VAIC^{TM}$ ) has no effect on performance finance (ROA and ROE) in banking companies in Malaysia. Intellectual capital ( $VAIC^{TM}$ ) has an effect on market value (PBV) in a banking company in Malaysia. Financial performance (ROA and ROE) has no effect on the market value (PBV) in banking companies in Malaysia. Financial performance cannot mediate the intellectual capital ( $VAIC^{TM}$ ) and market value (PBV) in banking companies in Malaysia. There are differences in the effect of intellectual capital on market value with financial performance as an intervening variable on banking companies in Indonesia and Malaysia. Judging from the variables financial performance in Indonesia which has increased from the year 2014-2019 and it can be said that Indonesia's financial performance better than Malaysia.

The suggestion for the next research is that the researcher can add financial performance proxies others such as Net Profit Margin (NPM). While the proxy for market value such as Tobins'Q and Price Earning Ratio (PER). Future research should also be considered in choosing the type industry and add to the period used to order research results obtained more consistently. This study only analyzes the effect of intellectual capital and financial performance against market value. There are several other variables which may affect the share value such as market conditions, structure ownership, the public's view of the company, and others.

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