



## Intellectual Capital's Influence on Company Value with Company Performance as an Intermediary Variable: A Study of the Indonesia Stock Exchange (IDX)

Abdul Rohim<sup>1\*</sup>, Achmad Hilal Akbar Ramadhan<sup>2</sup>, Hadi Sucipto<sup>3</sup> and Widy Taurus Sandy<sup>4</sup>

### Abstract

This study aimed to analyze how firm value is influenced by intellectual capital, with firm performance serving as the intermediary variable. The research sample consisted of 301 companies on the Indonesia Stock Exchange (IDX). Data analysis was performed by utilizing Structural Equation Modeling (SEM) with SmartPLS 3.0 software.

The research findings reveal that intellectual capital does not increase company value on the IDX, indicating that Value-Added Intellectual Coefficient (VAICTM) indirectly affects firm value.

Additionally, intellectual capital was found not to improve company performance, indicating that VAICTM is ineffective in boosting performance. The loading factor values for each CA proxy were: CA 0.872, HU 0.655, PBV 0.901, Tobin's Q 0.869, ROA 0.945, and ROE 0.976.

Company performance has the potential to boost firm value, implying that performance metrics such as Return on Equity, as well as Return on Assets, can contribute to increasing firm value. The study demonstrates that company performance does not serve as a mediator between firm value and intellectual capital in Indonesia. Therefore, companies should concentrate on other improvement areas, such as optimizing organizational culture management, leveraging technology, and strengthening business relationships or networks.

**JEL:** O34, L25, G32

**Keywords:** Company performance, Intellectual capital, Company value.

---

<sup>1</sup> (Corresponding Author)

Department of Management, STIE PGRI Dewantara Jombang  
Email: abdulrohim1304@gmail.com

<sup>2</sup> Department of Management, STIE PGRI Dewantara Jombang  
Email: achmadhilal007@gmail.com

<sup>3</sup> Department of Management, STIE PGRI Dewantara Jombang  
Email : hadisucipto@stiedewantara.ac.id

<sup>4</sup> Department of Management, STIE PGRI Dewantara Jombang  
Email: widytaurus@gmail.com

## INTRODUCTION

A company has both long- and short-term objectives. In determining to obtain maximum profit, the short-term goal of a company is to optimize its resources; a company's long-term goal is to optimize the value of the company. The increasing company value reflects the increasing prosperity of its owners (Bajo et al., 2020; Huynh et al., 2020; Vintilă & Gherghina, 2015). Firm value is a crucial concept for creditors and investors, serving as a key indicator in evaluating the overall health of a company. Company value has a vital role because it can describe a company's performance, which can influence an investor's thinking about the company. The company hopes that the financial manager will take the best action for the company by maximizing company value so that the welfare/prosperity of the shareholders or owners can be achieved.

Company value has added value for shareholders; company value is reflected in the stock market price, which can provide wealth for shareholders. Optimal outcomes are achieved when the stock price consistently rises, as a higher share price can generate greater wealth for shareholders. In order to achieve maximum company value, all aspects of the company require good performance, because through the performance of all aspects, especially good financial performance, a company is able to further increase its company value.

Investors often base their investment decisions on a company's financial performance. Therefore, enhancing the performance of finances is essential for maintaining a high firm value and attracting investors. Conversely, a company's share price development is closely linked to the performance of its finances. The stock price of a strong company is likely to increase. (García-Ramos & Díaz, 2020; Moon & Min, 2020; Zhicheng et al., 2016) However, stock prices do not always accurately reflect a company's performance, as other factors may influence them. An important factor for a company's competitiveness is increasing the company's ability in the field of technology and knowledge (González-Ramos et al., 2018).

Knowledge and human resources can generate added value and provide a competitive edge for a company. In line with the development of technology and science, business processes have also developed. In the past, business was based only on labor, but now business is based on knowledge, and in the end, the main characteristics of the company are based on knowledge.

Knowledge-based business aims to provide added company value, but if one wants to create value, one needs to measure it in terms of intellectual potential and physical capital (Capatina et al., 2017; Nazir et al., 2020; Nuryaman, 2015; Ozkan et al., 2017; Villegas González et al., 2017)

A company's ability and efficiency in generating and communicating information and knowledge will significantly determine its long-term value and overall competitive advantage (Barrena-Martínez et al., 2020; Capatina et al., 2017; Costa Santos, 2020; Jordão et al., 2017).

In many cases, intellectual capital can be interpreted as resources from knowledge in the form of customers, processes, technology, or employees used in the process to create company value (Jordão et al., 2017). Intellectual capital is perceived as a knowledge and also in terms of its potential to create wealth (Barrena-Martínez et al., 2020; Grover et al., 2019; Jordão et al., 2017; Nemin & Gempes, 2018). Identification of the intellectual capital can lead to an intangible set of resources that can act as a driving force for a business unit to create good performance and a company that has value (Barrena-Martínez et al., 2020; Capatina et al., 2017; Costa & Santos, 2020; Jordão et al., 2017)

Company performance should be used as a result that can be measured and is able to provide an overview of the company's empirical conditions, starting from various agreed-upon measures. It is important to carry out performance assessment as the basis of expert appraisals. A company's performance is evaluated over a certain period in relation to predetermined standards. Therefore, company performance assessment refers to a process for assessing the implementation of company performance capabilities based on standards that have been created (Nazir et al., 2020; Ozkan et al., 2017; Vintilă & Gherghina, 2015)

A company's intellectual capital is important to achieve economic success. Its role in enhancing firm value is significant, as it supports competitive advantage and reflects strong financial performance through human, relational, and structural capital. Human capital includes employee knowledge gained through formal training and education, as well as innovation, satisfaction, motivation, tolerance, learning capacity, flexibility, and loyalty. Firm value is connected to structural and human capital, which are the components of intellectual capital (Bemby et al., 2015; Ozkan et al., 2017)

Nuryaman (2015) found that intellectual capital positively influences firm value and profitability, indicating that profitability acts as an intermediary variable between firm value and intellectual capital. Ozkan et al. (2017) discovered that Value-Added Intellectual Coefficient (VAIC)-measured intellectual capital can impact company performance. Villegas González et al. (2017) found that VAIC<sup>TM</sup> serves as a tool that contributes to achieving corporate objectives and influences financial profitability, market capitalization, and share value.

The impacts of intellectual capital efficiency on financial institutions' profitability are significantly positive (Nazir et al., 2020). Bemby et al. (2015) concluded that intellectual capital affects firm value positively and significantly. Capatina et al. (2017) demonstrated that intellectual capital plays a supportive role in enhancing both company performance and value.

Previous research consistently demonstrates a causal relationship between firm value and intellectual capital, as well as between intellectual capital and firm performance (Bemby et al., 2015; Capatina et al., 2017; Nazir et al., 2020; Nuryaman, 2015; Ozkan et al., 2017; Villegas González et al., 2017). These findings suggest that firm performance could potentially act as an intermediary variable in the causal relationship between firm value and intellectual capital.

It is uncommon in research to explore financial performance as an intermediary variable between firm value and intellectual capital. This study aims to determine whether financial performance can serve as an intermediary variable between firm value and intellectual capital. Other studies have shown that a company's financial performance can be enhanced through intellectual capital.

Previous studies have demonstrated that intellectual capital positively influences financial performance, as indicated by company profitability (Bemby et al., 2015; Capatina et al., 2017; Nazir et al., 2020; Nuryaman, 2015; Ozkan et al., 2017; Villegas González et al., 2017). The conclusions from these studies consistently show a causal relationship between firm value and intellectual capital, as well as between firm performance and intellectual capital. These findings suggest that financial performance could potentially act as an intermediary variable in the causal relationship between firm value and intellectual capital, particularly in the Indonesian Stock Exchange.

The Market-Based View (MBV) perspective emphasizes that the characteristics and conditions of the external environment are crucial inputs and form the basis of strategies aimed at achieving strong performance. In contrast, the Resource-Based View (RBV) perspective focuses on the company's resources or internal environment as key inputs for formulating strategies that lead to good performance (Chahal et al., 2020). This aligns with the strategic management approach, which integrates both the internal and external environments as inputs in strategy formulation (Campbell & Kubickova, 2020; Cruz & Haugan, 2019). Resource-Based Theory (RBT) has evolved within the field of strategic management and is considered a source of competitive advantage. It posits that a company becomes superior if it possesses unique and advantageous resources.

Intellectual capital (IC) can enhance the performance of a company's finances, particularly its profitability. Previous studies show that IC impacts financial performance positively, which can be calculated based on profitability indicators, namely revenue growth, return on equity, and return on assets (Capatina et al., 2017; Nazir et al., 2020; Nuryaman, 2015; Ozkan et al., 2017; Villegas González et al., 2017). These studies consistently demonstrate a causal relationship between firm value and intellectual capital, as well as between profitability and intellectual capital. These findings suggest that firm performance potentially acts as an intermediary variable in the causal relationship between firm value and intellectual capital.

Intellectual capital is one of the most renowned terms in managerial literature. Intellectual capital is a knowledge resource in the form of a process, customer, employee, or technology that can be used for the process of creating value for the company (Barrena-Martínez et al., 2020). Therefore, intellectual capital is a company resource that is able to provide future benefits. Intellectual capital is categorized into two different types of knowledge, namely knowledge related to employees, customers, and knowledge that has a relationship with the company. These categories become intellectual capital (Jordão et al., 2017)

Intellectual capital is information and knowledge that is applied in a job in order to provide value (Costa & Santos, 2020). Three main constructs have been identified by researchers regarding intellectual capital: structural capital (SC), customer capital (CC), and human capital (HC) (Barrena-Martínez et al., 2020; Costa & Santos, 2020; Jordão et al., 2017). Human capital provides an overview of the individual knowledge stock in an organization that can be seen through its employees. Human Capital encompasses a combination of experience, education, attitudes, and genetic inheritance in relation to business and life. Structural Capital refers to an organization's non-human reservoirs of knowledge, including strategies, process manuals, organizational charts, database routines, and other elements that contribute to enhancing the company's value beyond its material assets. The VAIC™ method developed by Pulic is utilized to provide information on the value creation efficiency from intangible and tangible assets. The use of VAIC™ means that VAIC™ is able to provide a basis for standard financial figures generally available in financial reports as well as standard and consistent measures (Bemby et al., 2015; Capatina et al., 2017; Nazir et al., 2020; Nuryaman, 2015; Ozkan et al., 2017; Villegas González et al., 2017).

Pulic (1998) provides an explanation of value-added, which is derived from the input and output difference. Zhicheng et al. (2016) explain that output describes income from all services and products sold, while input refers to all expenses incurred in obtaining income.

Labor expenditures are not calculated as costs but represent an active component of value creation, where employee expenses are not recognized as costs because they are part of what arises in creating value (value creation), which in turn refers to costs that are directly related to the employee and cannot be recorded as an expense but instead as an investment (Pulic, 1998).

The development of VAIC™ by Pulic (1998) has been used in research (Bemby et al., 2015; Ozkan et al., 2017; Villegas González et al., 2017), using concepts such as company resources, including physical capital (Value Added Capital Employed), structural capital (Structural Capital Value Added), and human capital (VAHU – Value Added Human Capital). VAIC™ is an indicator that can be used to determine the efficient value obtained by a company through CEE (Capital Employed Efficiency), SCE (Structure Capital Efficiency), and HCE (Human Capital Efficiency).

Success at work can be seen through the gains from that work. Lopes-Costa & Munoz-Canavate (2015) stated that performance is: (1) a notable action or achievement, (2) the performing of a play or other entertainment, (3) the process or manner of performing. Company performance includes everything the company produces in a period that is guided by established standards. In a company, performance should be measurable and accurately reflect the company's true condition across various metrics. To gain insight into the performance achieved, it is necessary to conduct a performance assessment. As such, company performance assessment refers to a process and system that provides value related to the implementation of company performance based on established standards (Boakye et al., 2021; García-Ramos & Díaz, 2020; Moon & Min, 2020; Ullah et al., 2020).

Company value is often related to share prices; this includes the condition of the company as seen from investors' thoughts. The higher the company value, the higher the share prices. This happens because the share price reflects investors' assessment of any existing capital (Ullah et al., 2020; Adwan et al., 2020; Bajo et al., 2020). If a company has high value, then market confidence in its performance will be high, and the company's condition will improve in the future.

Maximizing company value is an important task because it leads to shareholders experiencing prosperity in accordance with the company's goals. The company's goal is in accordance with the company's theory by maximizing the company's value or wealth. This is in accordance with Elvin et al. (2016), who state that the company's main goal is not to maximize profits. However, maximizing shareholder prosperity by maximizing the assessment of a company can achieve company value maximization and thus further improve in the future (Bayer et al., 2020; Hang et al., 2020; Vintilă & Gherghina, 2015; Yadav et al., 2016).

Intellectual capital significantly impacts both firm value and company performance. Additionally, firm value is significantly affected by company performance and can mediate between firm value and intellectual capital.

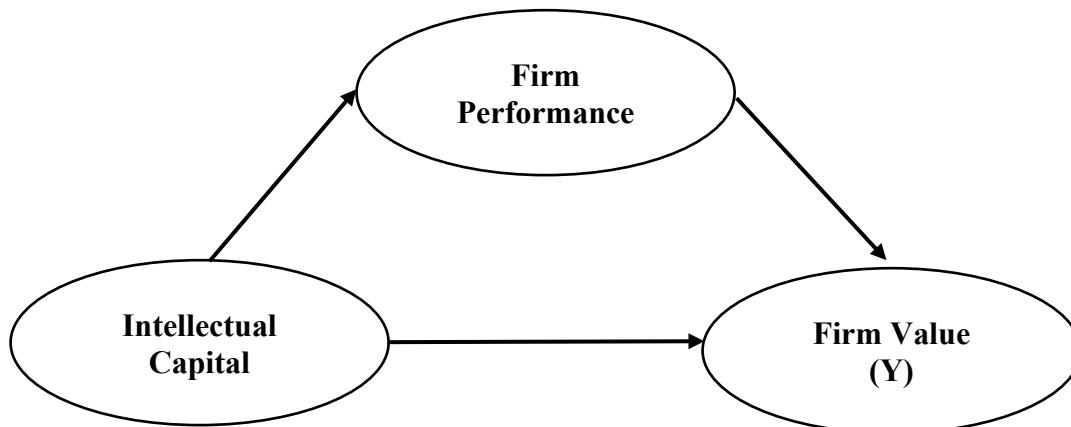


Figure 1: conceptual framework

## METHODOLOGY

This research was carried out using a quantitative approach, which is explanatory research as outlined by Benitez et al. (2020). Explanatory research emphasizes testing theories and concepts by measuring variables as well as employing data analysis procedures using statistical tools for the purpose of testing hypotheses. Company value in this research was measured using Tobin's Q (Bemby et al., 2015).

The researchers incorporated the Price Book Value (PBV) metric into their analysis. Tobin's Q was derived by comparing the Equity Market Value (EMV), calculated by multiplying the year-end closing price by the number of outstanding shares and adding the total debt (based on the book value of total debt), to the Equity Book Value (EBV). The EBV was determined by subtracting the company's total liabilities from its total assets and then adding the total debt based on the book value. Additionally, the PBV was calculated by comparing the closing share price to the book value per share.

The value of a firm represents the amount prospective buyers are willing to pay if ownership of the company changes. This value also reflects the growth in the company's capital relative to its debt (Adwan et al., 2020; Hang et al., 2020; Yadav et al., 2016). The value of the company is obtained from the value of present and future profits that are expected and recalculated through the right interest rate.

Researchers incorporate the Price to Book Value (PBV) ratio into their analysis. Tobin's Q was computed by evaluating the ratio of the Equity Market Value (EMV)—obtained by multiplying the closing share price at the end of the year by the total number of shares outstanding and adding the total debt—to the Equity Book Value (EBV), which was calculated as the company's total assets minus its total liabilities, plus total debt. In addition, the PBV ratio is established by comparing the closing share price with the book value per share.

The VAIC™ (Value Added Intellectual Coefficient) method was used to measure the independent variable, which assesses the value added based on the efficiency of capital employed (CEE), structural capital (SCE), and human capital (HCE) (Pulic, 1998). For measuring mediating variables related to company performance, the research used Return on Equity (ROE) and Return on Assets (ROA) (Nuryaman, 2015). Return on Assets was calculated by comparing after-tax profit to the company's total assets, while ROE was determined by comparing after-tax profit to the company's total equity.

In this research, the type of data used was secondary data, which was obtained indirectly from other parties or through intermediary media. Furthermore, the data source used was in the form of financial reports obtained from the Indonesian Stock Exchange (BEI), through the collection and examination of the required documents and data, followed by calculations to solve problems based on relevant data. This process was performed for all companies on the Indonesian Stock Exchange.

Data processing using WarpPLS 3.0 was carried out in several stages to identify the relationship between mediating, independent, and dependent variables. To assess the outer model, we identified reflective indicators and gave them a value based on the component or item score relationship, which was estimated by assessing the outer loading factor. The outer model was further characterized through discriminant and convergent validity and composite reliability, as described below.

The validity of the measurement model was determined by examining the correlation between the loading factors (construct scores) and the indicator scores. To assess convergent validity, the criteria for the outer model must be met, with loading factors for all indicators exceeding 0.70, indicating validity. Additionally, a <0.05 p-value was considered significant.

**Table 1**  
*Loading Factor of Intellectual Capital*

Proxy	Loading factor	Description
CA	0.872	Significant
HU	0.655	Significant
SC	0.288	Not Significant

Table 1 indicates that the MI has a CA loading factor of 0.872, HU of 0.655, and SC of 0.288. This data shows that the SC indicator, with an outer loading value below 0.5, was not used in further analysis in this research. Conversely, the CA and HU indicators, which have outer loading values above 0.5, were considered valid and suitable for further analysis. Therefore, it can be concluded that the CA and HU indicators meet the convergent validity criteria.

**Table 2**  
*Loading Factor of Firm Value*

Proxy	Loading factor	Description
PBV	0.901	Significant
Tobin's Q	0.869	Significant

Table 2 shows that PBV had a loading factor of 0.901 and Tobin's Q had a loading factor of 0.869. The data above shows that there were no variables that had an outer loading value of less than 0.5, which means that all indicators could be considered valid and suitable for further analysis. Based on these results, it can be concluded that the PBV and Tobin's Q indicators met the convergent validity criteria.

**Table 3**  
*Loading Factor of Firm Performance*

Proxy	Loading factor	Description
ROA	0.945	Significant
ROE	0.976	Significant

Table 3 shows that the ROA loading factor was 0.945, and ROE had a loading factor of 0.976. This data shows that there were no variables that had an outer loading of less than 0.5, and, therefore, all indicators were valid and suitable. Based on these results, ROA and ROE indicators met the convergent validity criteria.

## RESULTS AND DISCUSSION

The results of the processed data have shown that there is one indicator that did not meet the convergent validity criteria and therefore had to be deleted, namely the SC indicator on the Intellectual Capital variable. Table 4 shows the results of the loading factor after elimination.

**Table 4**  
*Loading Factor: All of the Research Variables After Elimination*

Variable	Proxy	Loading-factor	Description
MI	CA	0.872	Convergence
	HU	0.655	Convergence
NP	PBV	0.901	Convergence
	Tobin's Q	0.869	Convergence
KP	ROA	0.945	Convergence
	ROE	0.976	Convergence

**Table 5**  
*Loading Factor of Other Variables*

Indicator	Loading	> Loading Factor of Variable			Description
		MI	NP	KP	
CA	0.872	>	0.221	-0.366	Satisfy
HU	0.655	>	0.171	-0.217	Satisfy
PBV	0.901	> 0.251		0.168	Satisfy
Tobin's Q	0869	> 0.198		0.176	Satisfy
ROA	0.945	> -0.216	0.298		Satisfy
ROE	0.976	> -0.484	0.111		Satisfy

If the relationship between the construct and its proxies has a higher value than the proxies through other constructs, then the discriminant validity standard is met. If there is a proxy that has a lower loading factor value than other constructs, then this proxy can be taken into consideration and eliminated. Intellectual capital had two proxies, consisting of CA and HU proxies. The intellectual capital variable with the CA proxy had a loading factor of 0.872, which is higher than -0.366, and 0.221. Therefore, it can be stated that the CA proxy meets the criteria for discriminant validity. The intellectual capital proxy with HU had a loading factor of 0.655, which is higher than the values of -0.217 and 0.171. Consequently, it can be concluded that HU also surpassed the criteria for discriminant validity.

The company value had proxies, which included PBV and Tobin's Q. The company value variable with PBV as a proxy had a loading factor with a value of 0.901, which was higher than

0.251 and 0.168. This meant that PBV exceeded the criteria for discriminant validity. The company value using the Tobin's Q proxy had a loading factor of 0.869, which is higher than 0.198 and 0.176. Furthermore, the Tobin's Q proxy exceeded the criteria for discriminant validity.

Company performance had proxies, namely ROA and ROE. The company performance variable, using ROA as a proxy, had a loading factor of 0.945, which was higher than -0.216 and 0.298. Therefore, the ROA proxy met the discriminant validity criteria. Similarly, company performance measured by ROE had a loading factor of 0.976, surpassing -0.484 and 0.111. Consequently, the ROE proxy also exceeded the criteria for discriminant validity.

A latent variable is considered to have met the criteria for discriminant validity if the value in the diagonal column is greater than the values representing the relationships between the latent variables within the same column.

**Table 6**  
Comparison of the AVE Square of the latent Variable

	MI	NP	KP
MI	1.000	0.256	-0.390
NP	0.256	1.000	0.194
KP	-0.390	0.346	1.000

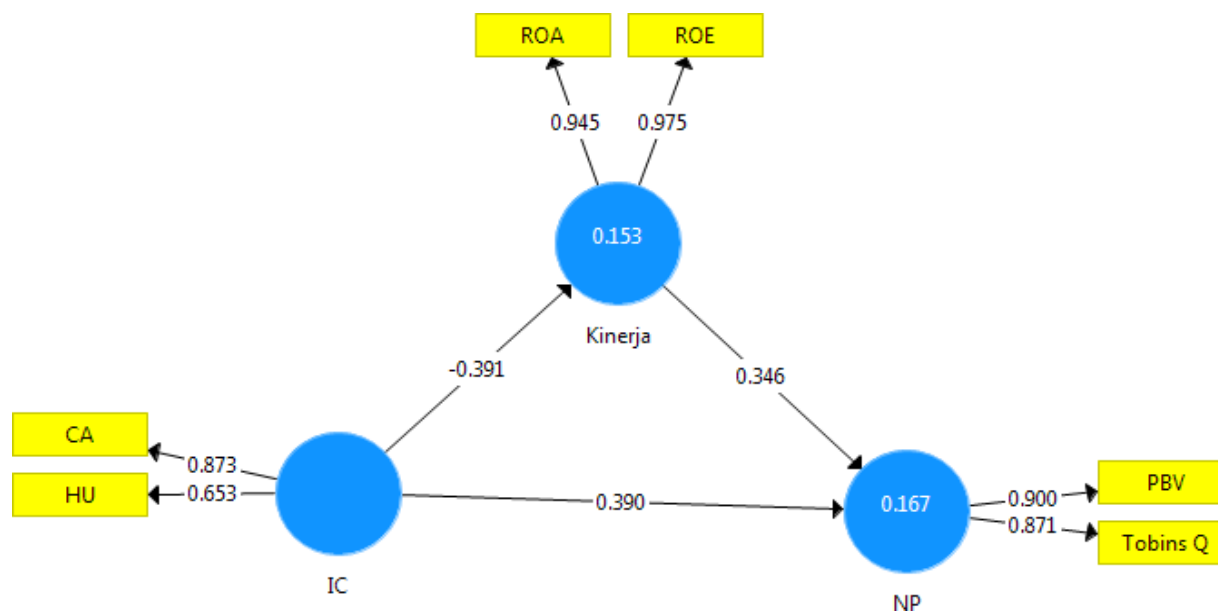
Table 6 shows that all variables met the criteria for discriminant validity. Intellectual capital had a square root AVE value of 1.000, which was higher than 0.256 and -0.390. The company value had a square root AVE value of 1.00, which was higher than 0.256 and 0.194. Company performance had a square root AVE value of 1.000, which was greater than -0.390 and 0.346.

**Table 7**  
Composite reliability of coefficients

	MI	NP	KP	Criteria	Description
Composite reliability	0,656	0,879	0,960	0,60	Significant

The purpose of composite reliability testing is to reliably measure each construct. Each construct tested must have a composite reliability value of 0.70 to be said to be reliable, but a value of 0.60 can still be met (Hair et al., 2006). Table 7 shows that the composite reliability test results for each construct are 0.656 for intellectual capital, 0.879 for company value, and 0.960 for company value. Based on the results of these values, all constructs met the composite reliability criteria.

The Partial Least Squares (PLS) method was employed for hypothesis testing. The Partial Least Squares method is a type of Structural Equation Modeling (SEM). In this study, the evaluation of the PLS model utilized the inner model. The inner model is a structural model designed to forecast causal relationships among the latent variables. The inner model is in the form of latent variable correlations (feasible if  $r = 0.05$ ), path coefficients (if  $r$  is feasible, then the path coefficient is significant), and R-square ( $R^2$  is defined as the diversity of exogenous constructs together). The image below is the result of evaluating the inner model using Partial Least Squares (PLS):



**Figure 1**

The Structural Model (inner model) was evaluated to predict the influence between latent variables (Ghozali and Latan, 2015). The inner model is the value of latent variable correlations (feasible when the  $r$  value is less than 0.05), path coefficients (if  $r$  is feasible, then the path coefficients are significant), and R-square (can be interpreted as the diversity of exogenous constructs together). According to Jogiyanto (2014), measuring the structural model can be done through  $R^2$  on the dependent construct, and path coefficients, or  $t$ -values on all paths, in order to test the significant level of influence on all constructs. The following are the evaluation results regarding the structural model (inner model) in this research.

Hypothesis testing in this research used several criteria that must be achieved, including the original sample,  $t$ -statistics, and  $p$ -values. If the hypothesis had a direction (one-tailed), it meant the  $t$ -statistic value must be 1.64, and if it had no direction (two-tailed), it meant the  $t$ -statistic value must be 1.96. In this research, all hypotheses that were constructed had a direction (one-tailed). Therefore, for the hypothesis to be accepted, the  $t$ -statistic value must have been 1.64 or higher. Additionally, a  $p$ -value of 5% (0.05) or lower had to be achieved to confirm the significance level of the results. To conclude that a hypothesis can be accepted, these three criteria must be met. If one or more of the criteria cannot be achieved, then the alternative hypothesis ( $H_a$ ) is considered having been rejected.

**Table 8**  
Hypothesis examination

	Original Sample (O)	T-Statistics ( O/STDEV )	P Values
MI -> NP	0.390	1.949	0.052
MI -> FP	-0,391	0.671	0.502
PF -> NP	0.346	3.452	0.001

Table 8 shows that the original sample had a value of -0.391, which meant that this test did not support the proposed hypothesis. Furthermore, the t-statistic had a value of 0.671 or 1.64, and the p-value had a value of 0.502 ( $>0.05$ ). Therefore, MI (intellectual capital) affected KP (company performance) with a p-value of 0.502 and original sample value of -0.391. Hypothesis 2 had a p-value of 0.05 with a negative original sample value. This meant that company performance was not influenced by intellectual capital. Hypothesis 2 was rejected.

Intellectual capital (MI) to NP (company value) had a positive original sample value of 0.390, then t-statistics had a value of 1.949 or 1.64, and p-values had a value of 0.052 or 0.05. Having a p-value of 0.05 with a positive original sample value meant that intellectual capital was unable to influence company value. Intellectual capital (MI) to NP (company value) had an original sample value of -0.391, then the t-statistics had a value of 0.671 or 1.64, and the p-values had a value of 0.502 or 0.05. Having a p-value of 0.05, with the original sample value showing a negative direction, meant that intellectual capital was able to influence company performance.

Company performance (KP), NP (company value) had an original sample value in a positive direction, with a value of 0.346. Next, the t-statistics had a value of 3.452 or 1.64, with p-values having a value of 0.001 or 0.05. Results also showed that KP (company performance) affected NP (company value) with p-value of 0.001, and the original sample value of 0.346 had a p-value of 0.05, which had a positive original sample value, which meant that company performance affected company value. Entering the original sample value, standard error, indirect effect, and total effect in the Interactive Mediation Test (Sobel Test), showed Non-Mediation results, which meant that MI (intellectual capital) was not able to be a mediating variable for the relationship between KP (company performance) and NP (company value), and, therefore, hypothesis 4 was rejected.

This research focused on the influence of KP (company) performance and MI (intellectual capital) on NP (company value). Apart from discussing the direct influence between variables, this research also addressed the indirect influence of MI (intellectual capital) on NP (company value), which is through a company's performance (KP). This research found that the results of company value cannot be influenced by intellectual capital in a company. Stakeholder theory explains the basis for all company activities related to the creation of value, ownership, and intellectual resources; they are utilized optimally to enable the company to gain an advantage in competition and increase the company's added value.

An investor appreciates a company that can achieve value, not just profit. By creating good value, the company will better fulfill the interests of all interested parties. As a result, investors will be able to gain appreciation and interest in the company's superior intellectual capital. As such, this increase in investment can have an impact on increasing the value of a related company.

The findings from this research are not supported by research from Nuryaman (2015) and Bemby et al., (2015), as this research found evidence that intellectual capital is able to positively

influence the performance and market value of a company. This research was unable to prove that intellectual capital affects company value. Therefore, the market is unable to provide a higher assessment of a company with high intellectual capital. In this case, it could be concluded that this indicates that market appreciation of a company only comes from physical resources, and investors pay less attention to its intellectual resources. It can be deduced that intellectual capital related to business, technology, culture, organizational capabilities, and networks is more attractive to investors.

These findings show that a company's performance is not influenced by the intellectual capital of the company, in contrast to previous research findings by Nuryaman, 2015; Bemby et al., 2015; and Ozkan et al., 2017, who conducted research related to human capital and technological capital factors, measured Intellectual capital and its influence on improving a company's performance. The results of his research found that Social Capital (CE), Human Capital (HC), Technological Capital (TC), and Structural Capital (SC) affect the performance increase of a company. It can be concluded that if a company is highly efficient in managing its intellectual resources in relation to structural, human, and physical capital, the company is not able to improve its performance. This shows that intellectual capital in this research is neutral.

This research shows that company value can be influenced by company performance. This shows that the better and higher the performance of a company, the more attractive it is to investors, because good performance is the main factor considered by investors in determining investment activities. Financial performance is part of the corporate governance mechanism, which can increase a company's value (Weng & Chen, 2017). This means that the company's financial performance scales with company value. The results of this research support the research conducted by Bemby et al., (2015) and Boakye et al. (2021), which shows a significant positive correlation between company value and performance.

The fourth hypothesis states that company performance cannot be a mediating variable between the influence of intellectual capital on company value. The findings tested with Partial Least Squares (PLS) 3.0 software showed that there was an insignificantly positive effect of intellectual capital on company performance. The results showed that there were insignificant negative influences of intellectual capital on company performance, as well as a significantly positive influence of performance on company value. Testing using the Interactive Mediation Test (Sobel Test) showed Non-Mediation results, which meant that intellectual capital was unable to mediate the relationship between company value and performance. This research showed that intellectual capital did not improve company performance.

This research shows that intellectual capital does not improve company performance. Using stakeholder theory, it is discussed that all company activities ultimately result in company value creation. Therefore, in the end, the main goal of company managers is to increase company value. Existing intellectual capital, including structural, relational, and human capital, must not be a priority resource to achieve economic success. On the other hand, the company value created by intellectual capital does not show that intellectual capital is crucial for a competitive advantage. The intellectual capital owned by the company did not affect the company's performance and was unable to increase the company's value. However, the company's intellectual capital can add value to the company.

## **CONCLUSION**

Company performance, which is used as an intermediary variable, cannot be a mediator between company value and intellectual capital; it cannot be used as evidence related to researchers'

suggestion that there is an influence of financial performance, which can be a mediating variable between company value and intellectual capital.

These results show that the market is unable to provide a good assessment of a company with high performance. Furthermore, the company's performance can increase not only due to the company's intellectual resources being managed effectively and efficiently, but also due to other factors that are thought to be able to increase the company's value, including the ability to manage organizational culture, technology, and relationships or networks.

## REFERENCES

- Adwan, S., Alhaj-Ismael, A., & Girardone, C. (2020). Fair value accounting and value relevance of equity book value and net income for European financial firms during the crisis. *Journal of International Accounting, Auditing and Taxation*, 39, 100320. <https://doi.org/10.1016/j.intaccudtax.2020.100320>
- Bajo, E., Croci, E., & Marinelli, N. (2020). Institutional investor networks and firm value. *Journal of Business Research*, 112(February 2019), 65–80. <https://doi.org/10.1016/j.jbusres.2020.02.041>
- Barrena-Martínez, J., Cricelli, L., Ferrándiz, E., Greco, M., & Grimaldi, M. (2020). Joint forces: Towards an integration of intellectual capital theory and the open innovation paradigm. *Journal of Business Research*, 112(June), 261–270. <https://doi.org/10.1016/j.jbusres.2019.10.029>
- Bayer, E., Srinivasan, S., Riedl, E. J., & Skiera, B. (2020). The impact of online display advertising and paid search advertising relative to offline advertising on firm performance and firm value. *International Journal of Research in Marketing*, xxx. <https://doi.org/10.1016/j.ijresmar.2020.02.002>
- Bemby S., B., Mukhtaruddin, Hakiki, A., & Ferdianti, R. (2015). Intellectual capital, firm value and ownership structure as moderating variable: Empirical study on banking listed in indonesia stock exchange period 2009-2012. *Asian Social Science*, 11(16), 148–159. <https://doi.org/10.5539/ass.v11n16p148>
- Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information and Management*, 57(2), 103168. <https://doi.org/10.1016/j.im.2019.05.003>
- Boakye, D. J., Tingbani, I., Ahinful, G. S., & Nsor-Ambala, R. (2021). The relationship between environmental management performance and financial performance of firms listed in the Alternative Investment Market (AIM) in the UK. *Journal of Cleaner Production*, 278, 124034. <https://doi.org/10.1016/j.jclepro.2020.124034>
- Campbell, J. M., & Kubickova, M. (2020). Agritourism microbusinesses within a developing country economy: A resource-based view. *Journal of Destination Marketing and Management*, 17 (May 2019), 100460. <https://doi.org/10.1016/j.jdmm.2020.100460>
- Capatina, A., Bleoju, G., Matos, F., & Vairinhos, V. (2017). Leveraging intellectual capital through Lewin's Force Field Analysis: The case of software development companies. *Journal of Innovation and Knowledge*, 2(3), 125–133. <https://doi.org/10.1016/j.jik.2016.07.001>
- Chahal, H., Gupta, M., Bhan, N., & Cheng, T. C. E. (2020). Operations management research grounded in the resource-based view: A meta-analysis. *International Journal of*

- Production Economics*, 230 (May), 107805. <https://doi.org/10.1016/j.ijpe.2020.107805>
- Costa, R. V., & Santos, A. (2020). Describing the process of creating an intellectual capital management framework: An interventionist case study. *Knowledge and Process Management*, 27(1), 43–52. <https://doi.org/10.1002/kpm.1619>
- Cruz, A. M., & Haugan, G. L. (2019). Determinants of maintenance performance: A resource-based view and agency theory approach. *Journal of Engineering and Technology Management - JET-M*, 51(August 2016), 33–47. <https://doi.org/10.1016/j.jengtecman.2019.03.001>
- Elvin, P., Intan, N., Bt, N., & Hamid, A. (2016). International Journal of Economics and Financial Issues Ownership Structure, Corporate Governance and Firm Performance. *International Journal of Economics and Financial Issues*, 6(S3), 56. García-Ramos, R., & Díaz, B. D. (2020). Board of directors structure and firm financial performance: A qualitative comparative analysis. *Long Range Planning*, November 2019. <https://doi.org/10.1016/j.lrp.2020.102017>
- González-Ramos, M. I., Donate, M. J., & Guadamillas, F. (2018). The Effect of Technological Posture and Corporate Social Responsibility on Financial Performance Through Corporate Reputation. *International Journal of Innovation*, 6(2), 164–179. <https://doi.org/10.5585/iji.v6i2.244>
- Grover, P., Kar, A. K., & Ilavarasan, P. V. (2019). Impact of corporate social responsibility on reputation—Insights from tweets on sustainable development goals by CEOs. *International Journal of Information Management*, 48(November 2018), 39–52. <https://doi.org/10.1016/j.ijinfomgt.2019.01.009>
- Hang, M., Geyer-Klingeberg, J., Rathgeber, A. W., & Stöckl, S. (2020). Rather complements than substitutes: Firm value effects of capital structure and financial hedging decisions. *International Journal of Finance and Economics*, July 2018, 1–23. <https://doi.org/10.1002/ijfe.2045>
- Huynh, T. L. D., Wu, J., & Duong, A. T. (2020). Information Asymmetry and firm value: Is Vietnam different? *Journal of Economic Asymmetries*, 21(September 2019), e00147. <https://doi.org/10.1016/j.jeca.2019.e00147>
- Jordão, R. V. D., Melo, V. L. T., Pereira, F. C. M., & Carvalho, R. B. de. (2017). Intellectual capital in mergers and acquisitions: a case study in a world-class financial institution. *Revista de Administração*, 52(3), 268–284. <https://doi.org/10.1016/j.rausp.2017.05.007>
- Lopes-Costa, J. A., & Munoz-Canavate, A. (2015). Relational Capital and Organizational Performance in the Portuguese Hotel Sector (NUTS II Lisbon). *Procedia Economics and Finance*, 26(15), 64–71. [https://doi.org/10.1016/s2212-5671\(15\)00839-4](https://doi.org/10.1016/s2212-5671(15)00839-4)
- Moon, H., & Min, D. (2020). A DEA approach for evaluating the relationship between energy efficiency and financial performance for energy-intensive firms in Korea. *Journal of Cleaner Production*, 255, 120283. <https://doi.org/10.1016/j.jclepro.2020.120283>

- Nazir, M. I., Tan, Y., & Nazir, M. R. (2020). Intellectual capital performance in the financial sector: Evidence from China, Hong Kong, and Taiwan. *International Journal of Finance and Economics*, April 2018, 1–21. <https://doi.org/10.1002/ijfe.2110>
- Nemin, R. C., & Gempes, G. P. (2018). The moderating effect of intellectual capital on the relationship between corporate reputation and knowledge sharing of commercial banks. *Journal of Administrative and Business Studies*, 4(3), 145–155. <https://doi.org/10.20474/jabs-4.3.3>
- Nuryaman. (2015). The Influence of Intellectual Capital on The Firm's Value with The Financial Performance as Intermediary Variable. *Procedia - Social and Behavioral Sciences*, 211(September), 292–298. <https://doi.org/10.1016/j.sbspro.2015.11.037>
- Ozkan, N., Cakan, S., & Kayacan, M. (2017). Intellectual capital and financial performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review*, 17(3), 190–198. <https://doi.org/10.1016/j.bir.2016.03.001>
- Pulic, A. (1998). No Title. *International Journal of Technology Management*, 2(Measuring the performance of intellectual potential in knowledge economy), 702–714.
- Ullah, A., Pinglu, C., Ullah, S., Zaman, M., & Hashmi, S. H. (2020). The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. *Heliyon*, 6(8), e04741. <https://doi.org/10.1016/j.heliyon.2020.e04741>
- Villegas González, E., Hernández Calzada, M. A., & Salazar Hernández, B. C. (2017). La medición del capital intelectual y su impacto en el rendimiento financiero en empresas del sector industrial en México. *Contaduría y Administración*, 62(1), 184–206. <https://doi.org/10.1016/j.cya.2016.10.002>
- Vintilă, G., & Gherghina, C. (2015). International Journal of Economics and Financial Issues Does Ownership Structure Influence Firm Value? An Empirical Research towards the Bucharest Stock Exchange Listed Companies. *International Journal of Economics and Financial Issues* |, 5(2), 501–514. <http://www.econjournals.com>
- Weng, P. S., & Chen, W. Y. (2017). Doing good or choosing well? Corporate reputation, CEO reputation, and corporate financial performance. *North American Journal of Economics and Finance*, 39, 223–240. <https://doi.org/10.1016/j.najef.2016.10.008>
- Yadav, P. L., Han, S. H., & Rho, J. J. (2016). Impact of Environmental Performance on Firm Value for Sustainable Investment: Evidence from Large US Firms. *Business Strategy and the Environment*, 25(6), 402–420. <https://doi.org/10.1002/bse.1883>
- Zhicheng, L., Zhuoer, C., Shing, L. T. T., & Wah, C. S. K. (2016). The impact of intellectual capital on companies' performances: A study based on MAKE award winners and non-MAKE award winner companies. *Procedia Computer Science*, 99, 181–194. <https://doi.org/10.1016/j.procs.2016.09.110>