

The impact of intellectual capital on company value

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ABSTRACT

This study aims to analyze the partial effect of Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), Structural Capital Value Added (STVA) on Firm Value. This research is quantitative research. The research object is Property and Real Estate Companies listed on the Indonesia Stock Exchange (IDX) for 2015 to 2019 with a research sample of 18 companies that meet the criteria. The analysis using descriptive statistical techniques and Multiple Linear Regression aided by SPSS 25.0. The results showed that partially and simultaneously, VACA, VAHU, and STVA positively and significantly affect PBV.

INTRODUCTION

Due to technological breakthroughs, companies are obligated to be innovative and creative in running their business in response to technological innovations and tighter competition between companies. To survive, industries shift from labor to an industry based on technology, science, and knowledge. The resources-based theory explains that the company with the most resources can have the best chance of being more successful than the average company (Benny & Syafruddin, 2008). These issues lead to companies having to pay attention to employee's intellectual ability in managing company resources. Through its intangible assets, the results created by the company, intellectual capital, in particular, are its main asset.

The capital market is an activity carried out by companies related to public offerings and securities trading to facilitate trade and company business (Husni, 2020). Every company is expected to join the capital market both as a form of proof of increasing company productivity and a form of business expansion (Ahmad, Mappatempo & Muslim, 2018). The consequence of buying and selling shares in the capital market shows that the company has demonstrated good corporate value (Tangngisalu, 2020). According to (Kholis et al., 2018), Company value is investors' perception of the company's success rate closely related to its share price. In other words, a good company value will be the primary consideration in any investment activity. Firm value is a determining factor for a company in maintaining its survival (Tangngisalu, 2020). High corporate value can increase shareholders' prosperity so that their capital investment in the company continues to grow. Firm value can be measured by Price Book Value (PBV) by comparing the share price with the book value of shares. A high PBV will increase market confidence in the company's prospects and indicate shareholders' prosperity (Putri, 2019). The company's value can be maximized by professional work based on intellectual capital.

Several trends in property and real estate companies being examined which show a stagnant trend and even offering a downward trend. This can be indicative of failure to appropriately increase total company value.

Table 1. Price Book Value (PBV) of Property and Real Estate Companies 2016-2018 (%)

No	Code	2016	2017	2018
1	APLN	0,43	0,37	0,17
2	ASRI	0,96	0,82	0,67
3	BAPA	0,31	0,48	0,56
4	BKDP	0,65	0,70	0,88
5	BKSN	0,28	0,48	0,59
6	CTRA	1,44	1,42	1,17
Average		0,68	0,71	0,67

Intellectual capital is an important factor that contributes to the sustainability of the company. According to Benny and Syafruddin (2008), Intellectual capital is comprised of three components - Employee Intellectual Capital (EIC), Human Capital (HC), and Structural Capital (SC). Intellectual capital is the wealth that comes from a company's knowledge base. Through the formulation of Intellectual Capital, the company will be able to more efficiently utilize available resources. Capital's intellectual property is understood by explaining the theory of its relationship to firm value. The resources-based theory explains that company value is provided by using necessary resources to provide necessary outputs. Stakeholder theory supports the idea that employing stakeholders can produce benefits for the company (Lestari & Satyawan, 2019). According to Ulum (2013), Intellectual Capital contributes to firm value because it increases the firm's efficiency, which in turn increases the firm's value.

Research on intellectual capital has generated mixed results; many economists and researchers interested in intellectual capital are located in Indonesia. Research results indicate that intellectual capital is a major determinant of a firm's value (Berzkalne & Zelgalve, 2014; Chizari et al., 2016; Oktari et al., 2016; Hariyati et al., 2017; Sayyidah & Saifi, 2017; Anggraini, 2020; Ahmed et al., 2019; Rahmita Dwinesia Papatungan, Bambang Subroto, 2020). The results indicate that increasing both physical and intellectual capital is conducive to greater returns. Different findings were suggested by research from (Yuniasih et al., 2018; Mehralian et al., 2012; Sunarsih & Mendra, 2017; Nirmalasari & Safitri, 2020) found that Intellectual Capital had no significant effect on firm value. The meaning of market awards in a company is based more on its physical resources, and investors tend not to focus on the intellectual resources they have.

Objectively, this study will examine in more detail three essential elements of intellectual capital, namely Value Added Capital Employee (VACA), Value Added Human Capital (VAHU), Structural Capital Value Added (STVA) on firm value. Research results (Septia, 2018) found that VACA and VAHU significantly affect firm value, while STVA has no significant impact on firm value. The study results (Yulandari & Gunawan, 2019) show that VACA has a substantial effect on Firm Value, while VAHU and STVA have no significant impact on Firm Value. The study results (Subagyo & Waluyo, 2020) found that VACA affects Business Performance, while VAHU and STVA have no considerable effect on Firm Value.

In a study, the researchers believe that intellectual capital is one factor that drives property and real estate companies' value. Secondly, there is a lack of research (inconsistency of research findings). Specifically, the argument that capital does not always increase as of value. Thus, researchers are interested in determining whether higher levels of intellectual capital affect property and stock price. The choice of property and sectors real estate as research objects is due to companies' value in these sectors, which tend to be stagnant and even experience a decline. The property and real estate industry is notable because it is a major contributor to its economy. The wealthier the sector, the greater its contribution to the economy as a whole.

Assessment of Intellectual Capital (IC) uses three proxies that form IC, namely Value added Capital Employed (VACA), Value added Human Capital (VAHU), and Structural Capital Value added (STVA). Meanwhile, the valuation of company value uses the Price to Book Value Proxy. This research is based on Resource-based Theory (RBT). RBT theory is used to propose a Research Hypothesis to describe the relationship between research variables. Meanwhile, hypothesis testing is carried out partially on three independent variables: the VACA variable, the VAHU variable, and the STVA variable for the dependent variable, namely the firm Value as proxied by PBV.

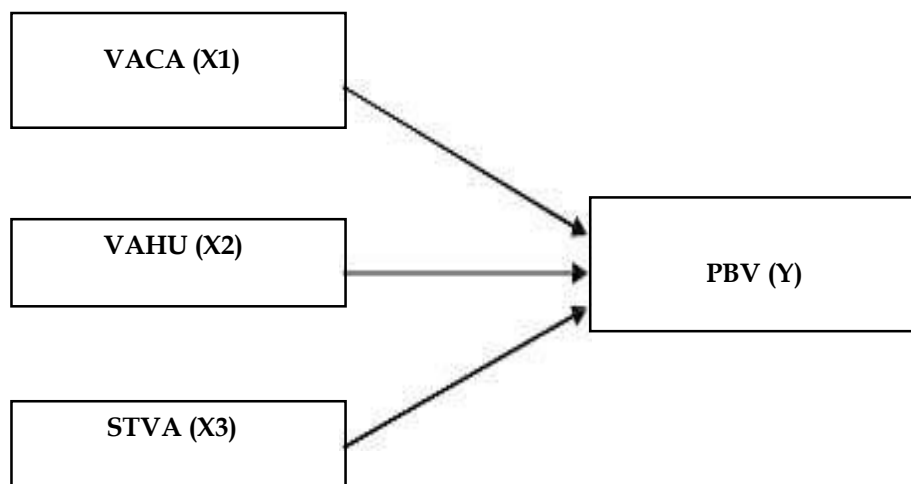


Figure 1. Research Concept Framework

RESEARCH METHOD

This research is a quantitative research method used in examining a particular population or sample, data collection using research instruments, and statistical data analysis to test the established hypothesis. This study aims to provide an overview of intellectual capital's effect on firm value using data analysis techniques using SPSS 25.0. This research was conducted at property and real estate companies listed on the Indonesia Stock Exchange for 2015-2019 with a total of 46 companies which were determined based on purposive sampling by determining research considerations or criteria. The research analysis method used a descriptive qualitative approach with multiple linear regression analysis as a test analysis tool. Several stages in testing in this study are (e.g., classical assumption test, F test, T-test, and hypothesis testing)

Table 1. Sample Criteria

Criteria	Total
Property and Real Estate Companies listed on the IDX From 2015-2019	46
Less property and real estate companies listed on the Indonesia Stock Exchange that inconsistently publish audited financial reports or are presented in Rupiah currency during 2015 - 2019	(16)
Less property and real estate companies that are consistently not included in the KOMPAS 100 index during the 2015-2019 period	(12)
Total Sample	18

RESULTS AND DISCUSSION

Research Analysis

In this study, multiple regression analysis models were used to determine the magnitude of the influence of all the independent variables on the dependent variable. Multiple linear regression analysis was performed to determine the direction of power between several independent variables, namely VACA, VAHU, and STVA on PBV. The partial test is used to determine whether the independent variable significantly affects the dependent variable by using a significance level of 0.05 ($\alpha = 5\%$). Acceptance or rejection of the hypothesis is carried out with the criteria 1) If the significance value of $t > 0.05$, the idea is rejected (the regression coefficient is not significant). This means that partially the independent variable does not have a substantial effect on the dependent variable. 2) If the significance value of $t \leq 0.05$, the hypothesis is accepted (significant regression coefficient). This means that partially the independent variable has a significant effect on the dependent variable.

Table 2. Partial Test and Regression Coefficient

Variable	Coefficient	t-ratio	Probability Significancy	Decition	VIF
VACA (X1)	1.194	3.009	0.003	Signifikan	1.229
VAHU (X2)	0.328	5.227	0.000	Signifikan	1.201
STVA (X3)	0.088	2.122	0.037	Signifikan	1.083
Constant	0.338	3.962	0.000		
Adjusted R ²	0.402				
F- ratio	-				
(Prob- rasio)	-				
N	90				

Table 2 shows that the VACA variable has a significant probability level of 0.003, which is less than 0.05. These results mean that VACA has a substantial effect on PBV. The value of B, which is 1.194, indicates that the product is positive on the dependent variable. Based on these

two results, it can be said that VACA has a positive and significant effect on PBV. This means H1 is accepted. The VAHU variable has a considerable probability level of 0,000, which is smaller than 0.05. These results suggest that VAHU has a significant effect on PBV. The coefficient value of 0.328 indicates that the product is positive on the dependent variable. Based on these two results, it can be said that VAHU has a positive and significant effect on PBV. This means H2 is accepted. The STVA variable has a significant level of 0.037, which is less than 0.05. These results suggest that STVA has a substantial effect on PBV. The value of B, which is 0.088, indicates that the product is positive on the dependent variable. Based on these two results, it can be said that STVA has a positive and significant effect on PBV. This means that H3 is accepted.

The determination analysis coefficient aims to measure how far the model's ability to explain variations in the dependent variable. The greater the coefficient of determination, the better the independent variables' power to describe and explain the dependent variable. In the SPSS output, the coefficient of determination lies in the model summary table. Determination coefficient test results show that the Adjustment R square value obtained is 0.402, which indicates that PBV can be explained by the variables VACA, VAHU, and STVA, which is 40.2%.

Discussion

The test results show that VACA is significantly associated with better performance by firms in PBPV. The data indicate that Intellectual Capital is related to maximizing Company Value. Added-value capital employed (value-added capital employed) is capital used in physical, financial capital based on added value. This paper discusses how property and real estate companies are managed effectively with efficient processes leading to favorable conditions for the company and customers. The more efficiently the company's management uses the capital it owns, the greater the value to the shareholders. The theory of resources based on the resources of this study is supported. The meaning of the Resources-based approach explains that VACA is the cause of both the cost and benefits increase. If the company can further maximize its value-added capital employed, this will demonstrate progress in building intellectual capital. In that case, based on the stock price, the company will receive an indication of what its value is. Value Added Capital Employed can add to the value of the company (PBV). The findings of this study are supported by and concurrent with other studies (2019). The theory that capital employed by Value Added Capital Employed firms has an impact on firm value. The value of the company rose with its increased added value. The additional value received by property and real estate companies indicates that the physical capital (money) is being put to optimal use; the higher the utilization of the physical capital, the greater the value. The addition of the larger property will increase the property and real estate company's stock price because investors believe that they will earn sizeable dividends from the property and real estate company. This study's results are in line with the findings of previous research presented by (Septia 2018), that Value Added Capital Employed (VACA) has a significant effect on firm value. Also, other findings that support this study's results are stated by research (Oktari et al., 2016) with the findings that Value Added Capital Employed (VACA) has a significant effect on firm value. Company value as measured by price

to book value (PBV) can be increased by maximizing the Value Added Capital Employed (VACA) as seen from the price to book value (PBV) per share. In this study, property and real estate companies can show good capital management and increased shareholder prosperity. VAC value is positively related to the value of property and real estate companies.

The test results show that Value Added Human Capital (VAHU) has a positive and significant effect on firm value. Thus, the hypothesis in this study can be accepted as seen from the results of the coefficient of determination test shows a positive relationship, which means that the higher the Value Added Human Capital (VAHU) by the company, the higher its value the property and real estate companies. Meanwhile, based on a partial test, it is known that the Value Added Human Capital (VAHU) has a significant effect on the value of the company property and real estate, which is proxied by price to book value (PBV). Value Added Human Capital (VAHU) shows how much added value can be generated using labor funds. In this study, the Property and Real Estate Companies have efficiently used human capital, meaning that they get a more excellent added value than the employee costs incurred by the Property and Real Estate Companies. This finding is in line with the theory of Resources based theory. Based on the meaning of Resources based theory, Value Added Human Capital can increase company value. Companies that manage and utilize useful intellectual resources can achieve competitive advantage and added value, both tangible and intangible resources. Good management of supernatural sources, namely Human Capital in the company, can increase employee productivity. By having a competitive advantage, market perceptions of company value will increase because it is believed that companies that have a competitive advantage can compete and survive in a dynamic business environment. This study's results are in line with the findings of previous research presented by (Septia 2018) that Value Added Human Capital (VAHU) has a significant effect on firm value. This result implies that the VAHU value will determine the firm's value. Other research results that support these research findings are the results of a study presented by (Putri 2019) with the findings that Value Added Human Capital (VAHU) has a significant effect on firm value. These results mean the value of Value Added Human Capital (VAHU) can increase firm value. Human capital is a resource responsible for the success of the company, namely by employing a workforce who has the knowledge, innovation, expertise, and abilities so that it provides opportunities for companies to take advantage of their human capital to generate profits. Investment opportunities, in this case, Human Capital, are maximally able to provide positive signals for investors to increase company value, so the company will get an advantage in competing with other companies. Firm value as measured by price to book value (PBV) can be increased by optimizing the company's Value Added Human Capital (VAHU) for every rupiah issued to employees or Human Capital so that it can be said that Value Added Human Capital (VAHU) affects positive and significant towards firm value.

The results showed that Structure Capital Value Added (STVA) has a positive regression coefficient, which means that Structure Capital Value Added (STVA) affects increasing Firm Value as measured by PBV. This means that the higher the Structure Capital Value Added (STVA), the higher the PBV value. Meanwhile, based on a partial test, it is known that the Structure Capital Value Added (STVA) has a significant effect on Firm Value as measured by the value of price to book value (PBV). Structure Capital Value Added (STVA) indicates the contribution of structural capital (SC) in the creation of company value. The ratio is used to

measure the amount of Structure Capital needed to generate one rupiah from Value Added and indicate how successful Structure Capital is in value creation. Structural Capital also shows an organization or company's ability to fulfill routine corporate processes and structures that support employees' efforts to produce optimal intellectual performance and overall business performance. Based on the meaning of the Resources based theory that supports this research, it states that companies that can meet the needs of routine processes and structures that support employee efforts in producing optimal business performance and academic performance will create added value for the company so that the Structure Capital Value Added (STVA) as one of the bases of intellectual capital, the company will enjoy an increase in company value. Company value as measured by price to book value (PBV) as seen from share price to book value per share can be increased by optimizing the Structure Capital Value Added (STVA) owned by property and real estate companies. This study's results are in line with the findings of previous research presented by (Putri 2019) that the Structure Capital Value (STVA) Added affects firm value. These results mean that the better the value of Structure Capital Value Added (STVA) will increase firm value. Other research that supports the results of this study was stated by (Oktari et al., 2016) in their research findings that the structure capital value-added (STVA) affects firm value; the better the company is managing the company's structural capital, the better it will be able to produce good performance so it can improve the value of the company.

CONCLUSIONS

The results of this study indicate that if the company's higher or better added Capital Employed (VACA) applied, the Company Value at the Property and Real Estate Companies listed on the Indonesia Stock Exchange (BEI) would also increase. Intellectual capital with the proxy of Value added Human Capital (VAHU), namely X2, also has a positive and significant effect on Company Value, which is proxied by price to book value (PBV), namely Y in Property and Real Estate Companies for the 2015-2019 period. This study's results indicate that if the higher or better the Value added Human Capital (VAHU) applied by the company, the Value of Property and Real Estate Companies listed on the Indonesia Stock Exchange (BEI) would increase. Intellectual capital with the proxy Value added Structure Capital (STVA), namely X3, has a positive and significant effect on Company Value, which is proxied by price to book value (PBV), namely Y in Property and Real Estate Companies for the 2015-2019 period. The results of this study indicate that if The higher or better the Value added Structure Capital (STVA) applied by the company, the Value of Property and Real Estate Companies listed on the Indonesia Stock Exchange (IDX) would increase in Property and Real Estate Companies which determine the increase in Company Value.

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