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The effect of intellectual capital on financial performance in non-cyclical consumer sector companies listed in IDX

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Abstract

The purpose of this study was to determine the effect of intellectual capital on financial performance. Intellectual capital is proxied by 3 variables namely human capital, structural capital, and customer capital on financial performance which is proxied by ROA. There were 30 sample companies selected from 87 companies in the consumer non-cyclical sector with observational data for the 2019-2022 period. The research used is a type of quantitative research and uses a purposive sampling method. The data analysis technique in this study was used multiple linear regression. The results of this study partially show that human capital significant effect on financial performance, structural capital significant effect on financial performance, and customer capital significant effect on financial performance. The results of the study simultaneously show that human capital, structural capital and customer capital has an effecton financial performance.

Introduction

Intellectual capital has become a valuable asset in modern business (Dewi & Rahayu, 2020). The emergence of intellectual capital in Indonesia gained momentum, particularly with the introduction of PSAK No. 19 (revised 2014). Intellectual capital, an intangible asset, encompasses knowledge and information technology, providing competitive advantages for companies to achieve their goals by delivering added value to stakeholders (Widyawati, 2022). It plays a crucial role in fostering excellence and generating added value for companies (Aprilyani, 2020). Intellectual capital can be divided into three categories: human capital, structural capital/organizational capital, and customer capital/relational capital (Aprilyani, 2020).

Human capital pertains to knowledge, skills, and abilities beneficial to the company (Farhanah, 2022). Customer capital, also known as physical capital, encompasses knowledge related to marketing relationships with customers and partners, including suppliers, satisfied customers, and the company's interactions with the government and society (Dewi & Rahayu, 2020). Aprilyani (2020) defines customer capital as the company's relationships with its partners, emphasizing trustworthy and quality suppliers.

Financial performance in the non-cyclical consumer sector can be assessed by profitability, specifically the Return on Assets (ROA) ratio. Human capital, as a component of intellectual capital, plays a significant role in enhancing the company's capabilities and innovation, supported by structural capital to ensure the smooth functioning of the company's systems, while

customer capital fosters harmonious relationships with partners. A higher value of a company's intellectual capital enables it to leverage its resources effectively to create added value. Despite the increasing need to measure intellectual capital as a driver of financial performance, direct measurement remains challenging, necessitating the development of the Value Added Intellectual Capital (VAIC) method by Pulic (1998) for assessing a company's intellectual capital (Shadeni, 2022). These components are proxied as follows: human capital (Value Added Human Capital - VAHU), structural capital (Structural Capital Value Added - STVA), and customer capital/capital employed (Value Added Capital Employed - VACA) (Widyawati, 2022).

Shadeni et al. (2022) discuss the impact of intellectual capital on financial performance, indicating that its components, human capital, structural capital, and customer capital do not significantly affect financial performance. However, Widyawati (2022) suggests that customer capital and human capital do influence financial performance. Arafah and Hapsari (2021) propose that human capital and structural capital have a positive effect on financial performance.

Given the varying results of previous research on intellectual capital components, further investigation is warranted. Additionally, this study distinguishes itself by focusing on the non-cyclical consumer sector, whereas prior research centered on banking companies. Based on the aforementioned rationale and insights from several previous studies, this research seeks to examine the impact of intellectual capital on financial performance in non-cyclical consumer sector companies.

Literature Review

Stakeholder Theory

Stakeholder theory encompasses a group of individuals who have the capacity to impact or be impacted by the operations and activities of a company in pursuit of specific organizational objectives (Shadeni, 2022). Stakeholders play a pivotal role in ensuring the sustainability of the company, as they possess the ability to influence the resources essential for the company's survival.

The theory delineates the relationship between financial performance and the VAIC method, which must be analyzed through both ethical and managerial lenses. Stakeholder theory serves as the primary framework for elucidating the correlation between intellectual capital and company performance. The generation of added value is achieved by harnessing all of the company's potentials, including human capital, structural capital, physical capital, and the optimal utilization of company resources alongside strategic information pertaining to intellectual capital (Shadeni, 2022).

Effective collaboration between stakeholders and the company can optimize the management of all organizational potentials, including human capital and structural capital, as well as existing physical assets, thereby enhancing the value of intellectual capital measured by VAIC and driving improvements in company performance. Thus, underscores the critical relationship between this theory and the variable of intellectual capital.

Resource-Based Theory

Resource-Based Theory (RBT) is a theory developed to analyze sustainable competitive advantage, aiming to create value for companies and generate profits through strategic assets, both tangible and intangible (Shadeni, 2022). RBT posits that companies capable of effectively managing intellectual capital across all their resources be it structural, human, or physical capital will enhance the company's financial performance, market value, and overall growth (Kurniawati, 2018).

RBT, also known as resource theory, elucidates whether a company's resources are managed and utilized efficiently to optimize performance. Effective resource management enables companies to attain competitive advantages, leading to value creation. Companies possessing unique resources can develop distinct strategies, enabling them to outperform

competitors. RBT outlines how companies can generate added value by effectively managing existing resources according to their capabilities (Pulic, 1998). Proper measurement of physical capital, in the form of financial funds, and intellectual potential, reliant on the skills and abilities of employees, is essential to create value-added.

The Effect of Human Capital on Financial Performance

Human capital represents a valuable asset that fosters the development of knowledge, abilities, and skills advantageous to the company. It has the potential to provide additional value and positively influence company performance. In this research, human capital will be evaluated through the utilization of VAHU, which juxtaposes the value added against the company's human capital. According to RBT, firms adept at managing intellectual assets, including human capital, will generate extra value for the organization, consequently impacting its financial performance (Kurniawati, 2018).

Dewi and Rahayu (2020) and Thalia and Hutabarat (2022) indicate that human capital does not influence company performance. However, Widyawati (2022) presents evidence suggesting that human capital significantly and positively impacts company financial performance. This finding is corroborated by several previous studies, including those by Heryustitriasputri (2019), Azahra and Gustyana (2020), Sari (2021), and Monica et al. (2021), which also assert the significant effect of human capital on financial performance. The greater the level of human capital, the more substantial the increase in financial performance.
H_1: Human capital has a positive effect financial performance.

The Effect of Structural Capital on Financial Performance

Structural capital refers to the organization's capacity to sustain its routine operations and frameworks that facilitate employees in achieving optimal intellectual and business performance. This encompasses technologies, methodologies, and processes that effectively address market demands and challenges. In this study, Structural capital will be assessed using STVA, which quantifies the relationship between structural capital and value added. According to RBT, proficient management of intellectual capital, including structural capital, enables companies to generate additional value, thereby influencing the organization's financial performance (Kurniawati, 2018).

Widyawati (2022) and Thalia and Hutabarat (2022) suggests that structural capital does not impact financial performance, a finding corroborated by prior studies such as Azahra and Gustyana (2020). However, contrasting results are evident in the research conducted by Sari (2021), indicating a positive and significant relationship between structural capital and financial performance. This perspective is further supported by studies conducted by Ramadhan (2020) and Sukmana (2019), both concluding that structural capital exerts a positive and significant influence on financial performance. According to these findings, higher levels of structural capital correspond to increased financial performance.
H_2: Structural capital has a positive effect on financial performance.

The Effect of Customer Capital on Financial Performance

Customer capital, also referred to as relational capital, represents a valuable asset acquired by the company from external sources. It serves as a resource linking the company with external entities such as customers and suppliers. This form of capital encompasses the knowledge embedded in marketing strategies and customer relationships, which is quantified through Value Added Capital Employed (VACA). In this study, customer capital will be assessed using VACA, a metric that gauges the relationship between value added and capital employed. According to RBT, effective management of intellectual capital, including customer capital or capital employed, generates added value for the company, thereby influencing its financial performance (Kurniawati, 2018).

Shadeni (2022) and Monica et al. (2021) indicate that there is no influence of customer capital on company performance. Conversely, Thalia and Hutabarat (2022) argue that customer capital significantly impacts a company's financial performance, a view supported by earlier studies conducted by Muchlis and Suzan (2020) and Sukmana (2019), which similarly conclude that customer capital has a substantial effect on financial performance. According to this perspective, higher levels of customer capital correspond to increased financial performance.

H₃: Customer capital has a positive effect on financial performance.

Research Method

Research Design

This study is causal research, aiming to determine the relationship and effects among two or more variables (Sugiyono, 2016). It employs descriptive quantitative methods, which involve describing statistical figures and outlining the characteristics of the research variables. The study was conducted to assess the impact of human capital, structural capital, and customer capital on the financial performance of companies in the non-cyclical consumer sector listed on the Indonesia Stock Exchange (IDX). The population comprises non-cyclical consumer sector companies listed on the IDX, totaling 87 firms. Sampling involves selecting a small portion of the population for research purposes, and in this case, purposive sampling is used. The sample includes all non-cyclical consumer sector companies listed on the IDX between 2019 and 2022. Data collection for this study involves documentation, specifically downloading financial report data from the IDX.

The selection criteria for the sample in this study are outlined as follows: (1) Non-cyclical consumer sector companies listed on the IDX from 2019 to 2022. (2) Companies in the non-cyclical consumer sector with consecutive, comprehensive financial reports and annual reports spanning the period from 2019 to 2022. (3) Non-cyclical consumer sector companies that did not incur losses during the 2019-2022 period. (4) Firms that include salary and allowance information in their financial reports. (5) Incomplete or unprocessable data from financial reports will be excluded. Based on these criteria, a total of 30 non-cyclical consumer sector companies listed on the IDX were selected as samples for this study.

Results and Discussion

Descriptive Statistics

Table 1. Descriptive Statistic

Variable	Minimum	Maximum	Mean
VAHU (X_1)	1.03	5.14	2.18
STVA(X_2)	0.03	0.81	0.46
VACA (X_3)	0.08	1.96	0.39
ROA (Y)	0.01	0.36	0.10

Source: Results of data processing using SPSS 26 (2023)

Table 1 displays the primary independent variable, VAHU, spanning from a minimum value of 1.03 to a maximum value of 5.14, with an average score of 2.18. The second independent variable, STVA, varies from a minimum of 0.03 to a maximum of 0.81, with an average value of 0.46. Meanwhile, the third independent variable, VACA, ranges from 0.08 to 1.96, with an average score of 0.39. As for the dependent variable, financial performance, its values fluctuate between 0.01 and 0.36, averaging at 0.10.

Normality Test Result

Normality testing in this study used the Kolmogorov Smirnov test using the Exact Sig p-value approach. (2 tailed). From the test results obtained 0.457 where the value is ≥ 0.05. So it can be concluded that the sample data used is normally distributed.

Multicollinearity Test Result

Table 2. Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
VAHU (X_1)	,128	7,831
STVA (X_2)	,131	7,639
VACA (X_3)	,838	1,194

Source: Results of data processing using SPSS 26 (2023)

Based on the test results in table 2, it shows the same results, namely that none of the independent variables have a Tolerance value < 0.10 and a VIF value > 10. The Tolerance value results are shown by VAHU (0.128), STVA (0.131), VACA (0.838) and the The VIF shown by VAHU (7.831), STVA (7.639), VACA (1.194) so that the conclusion from the test results is that the variables VAHU, STVA, and VACA pass the classic assumption test of the multicollinearity test.

Heteroscedasticity Test Result

Table 3. Heteroscedasticity Test

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.006	.006		.997	.321
VAHU (X_1)	-.001	.006	-.043	-.176	.860
STVA(X_2)	.051	.030	.406	1.704	.091
VACA (X_3)	.002	.007	.035	.366	.715
a. Dependent Variable: ROA					

Source: Results of data processing using SPSS 26 (2023)

Based on the test results in Table 3, it can be concluded that the data does not experience symptoms of heteroscedasticity because the significance value (Sig.) of each independent variable is more than 0.05. The results of the VAHU variable show a sig value of 0.860 which means it is greater than 0.05, then the results of the STVA variable show a sig value of 0.091 which means it is greater than 0.05 and the VACA variable shows a sig value of 0.715.

Determination Coefficient Test

Based on the test results using the coefficient of determination in Table 4, it shows that the value of adjusted R^2 is 0.733. This states that the ability of the independent variables human capital, structural capital and customer capital in explaining variations in changes in company performance variables is 73.3% while the remaining 26.7% (100-73.3%) is explained by other external factors. regression model analyzed in this study.

Partial Regression Testing (T test)

Partial hypothesis testing aims to determine whether each independent variable, namely human capital, structural capital, and customer capital, has an effect on the dependent variable, financial performance. The results of the t-test can be seen in Table 4.

Table 4. T-Test Result

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	-.060	.010		-6.254	.000
VAHU	.021	.010	.272	2.053	.042
STVA	.150	.048	.406	3.101	.002
VACA	.105	.011	.505	9.770	.000
R^2	0.753				
F test	110.023				
Sig	.000[b]				

Source: Results of data processing using SPSS 26 (2023)

The results presented in Table 4 indicate that the t-count values for VAHU, STVA, and VACA are 2.053, 3.101, and 9.770, respectively. Comparing these values with the critical t-table value at $\alpha = 5\%$ and df = 116, which is 1.980, it is evident that for VAHU, STVA, and VACA, the t-count values exceed the t-table value (2.053) > 1.980, 3.101 > 1.980, and 9.770 > 1.980, respectively). Additionally, the significance values (sig) for VAHU, STVA, and VACA are 0.042, 0.002, and 0.000, respectively. Since these significance values (0.042 < 0.05, 0.002 < 0.05, and 0.000 < 0.05) indicate that VAHU, STVA, and VACA variables have a significant effect on company performance, hypotheses H1, H2, and H3 are supported, respectively.

Simultaneous Regression Testing (F Test)

The findings presented in Table 4 indicate that the Fcount value is 91.401 with a significance value of 0.000. Comparing this with the Ftable value of 2.71, it is evident that Fcount exceeds Ftable (91.401 > 2.71), and the significance value (0.000 < 0.05) suggests that the Human Capital, Structural Capital, and Customer Capital variables collectively influence the financial performance variables.

Discussion

The effect of human capital on financial performance

Based on the multiple linear regression test results outlined earlier, it is evident that human capital significantly influences financial performance, as indicated by the t-count value of 2.053 and a significance value of 0.042, which is below the threshold of 0.05. Consequently, the initial hypothesis H1, positing that human capital impacts financial performance, is upheld. This finding aligns with RBT, which asserts that effective management of human capital leads to added value for the company, thereby enhancing financial performance, particularly in terms of profits.

The research outcomes further demonstrate that Human Capital value correlates with a company's financial performance. This implies that higher Human Capital value corresponds to increased financial performance and higher income generation. These findings are consistent with Monica et al.'s (2021) research, which underscores the significant influence of Human Capital on financial performance. Additionally, Sari's (2021) study similarly affirms the substantial impact of Human Capital on a company's financial performance.

The effect of structural capital on financial performance

According to the findings from the multiple linear regression test previously discussed, it is evident that structural capital significantly influences financial performance, as indicated by the t-count value of 3.101 and a significant value of 0.002, falling below the 0.05 threshold. Therefore, the second hypothesis H2, which posits that structural capital impacts financial performance, is corroborated. These results align with RBT, which asserts that adept management of structural

capital contributes to value addition for the company, thereby enhancing financial performance, particularly in terms of company profits.

The study's outcomes further demonstrate that the value of structural capital impacts a company's financial performance. This suggests that higher structural capital value corresponds to increased financial performance and higher income generation for the company. These findings resonate with Ramadhan (2020), which highlights the significant impact of structural capital on a company's financial performance. Additionally, Sari (2021) also affirms the considerable effect of structural capital on the company's financial performance.

The effect of customer capital on financial performance

According to the findings from the linear multiple regression analysis outlined previously, it is evident that customer capital significantly influences financial performance, as indicated by the t-count value of 9.770 and a significant value of 0.000, which is less than the threshold of 0.05. Consequently, the initial hypothesis H3, asserting that human capital affects financial performance, is confirmed. These results align with the RBT, suggesting that effective management of customer capital leads to added value creation for the company, thus enhancing its financial performance.

The study findings demonstrate that the magnitude of customer capital value directly impacts the company's financial performance. This implies that higher customer capital value corresponds to increased financial performance and revenue generation. These results corroborate with previous studies by Sukmana (2019) and Muchlis and Suzan (2020), which similarly emphasize the significant influence of Customer Capital on a company's financial performance.

Conclusion

According to the research findings, VAHU, STVA, and VACA have an impact on the financial performance of companies. However, it's important to note that this study is subject to limitations, including a small sample size of only 30 companies.

This study highlights several implications. Firstly, companies are encouraged to develop effective strategies for managing their human resources, including providing specialized training to enhance employee performance, thereby positively influencing financial performance. Additionally, there's a need for value creation to drive product innovation and uniqueness, ultimately leading to increased profitability.

Moving forward, future research endeavors should aim to expand the sample size, explore analysis across different sectors, and incorporate additional variables such as moderating or intervening factors.

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