

## THE INFLUENCE OF INTELLECTUAL CAPITAL ON COMPANY PERFORMANCE WITH ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) AS MODERATOR

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### *Abstrak*

Penelitian ini melihat bagaimana modal intelektual mempengaruhi kinerja perusahaan di sektor perbankan Indonesia. Fokusnya adalah pada entitas bisnis yang terdaftar secara resmi di BEI dalam rentang waktu tahun 2019 sampai dengan tahun 2023. Dengan menggunakan metode pengukuran Nilai tambah modal manusia (Value Added Human Capital/VAHU) merepresentasikan kontribusi sumber daya manusia dalam menciptakan nilai tambah bagi organisasi dengan itu VAHU ditempatkan sebagai variabel independen utama dalam penelitian ini, kinerja perusahaan diidentifikasi dan diukur melalui indikator Retur non Assets (ROA) sebagai representasi efisiensi perusahaan dalam memanfaatkan aset untuk menghasilkan laba. Sebanyak 195 data observasi diperoleh dari data sekunder dalam penelitian ini diperoleh dari laporan keuangan serta laporan tahunan 39 lembaga perbankan. Analisis statistik dilakukan dengan menggunakan metode regresi linier berganda melalui perangkat lunak IBM SPSS. Hasil analisis menunjukkan bahwa modal intelektual memiliki pengaruh positif dan signifikan terhadap kinerja sektor perbankan di Indonesia. Temuan ini menekankan pentingnya mengelola dan berinvestasi dalam sumber daya intelektual untuk meningkatkan efisiensi operasional dan mempertahankan keunggulan kompetitif di industri perbankan. Dari perspektif praktis, manajemen perbankan disarankan untuk memprioritaskan pengembangan sumber daya manusia yang berkelanjutan sebagai strategi utama dalam meningkatkan kinerja organisasi.

**Kata Kunci:** Intellectual Capital, Human Capital, Kinerja Perusahaan, Return on Assets, Perbankan Indonesia

## *Abstract*

*This study examines how intellectual capital influences this study analyzes the performance of companies operating in the banking sector in Indonesia, with a focus on companies listed on the Indonesia Stock Exchange during the period 2019 to 2023. Using the Value-Added Human Capital (VAHU) measurement method, human resources are positioned as the primary independent variable in this study. Company performance measurement is carried out using the Return on Assets (ROA) indicator as a proxy for financial performance. as the main indicator. The analysis was carried out based on 195 observational data that had been collected obtained from originating from financial statements and annual reports of 39 banking institutions. Statistical analysis was conducted using data analysis was performed using multiple linear regression ewith the aid of IBM SPSS statistical software. The result indicate that intellectual capital has a positive and significant impact on the performance of the banking sector in Indonesia. These findings underscore the urgency of optimal management and investment in intellectual resources to improve operational efficiency and maintain competitive advantage in the banking industry. From a practical perspective, banking management is advised to prioritize sustainable human resource development as a key strategy in improving organizational performance.*

**Keywords:** *Intellectual Capital, Human Capital, Company Performance, Return on Assets, Indonesian Banking*

## **A. INTRODUCTION**

In the context of today's knowledge-oriented economy, Intellectual Capital plays an important role as a strategic resource in creating competitive advantage and sustainable innovation. has become an essential strategic resource for organizations, particularly in the banking sector. IP consists of three main components: Human capital, which includes the skills, competencies, and experience possessed by employees, and structural capital, which includes technological infrastructure and organizational systems, are two main components that play an important role in supporting organizational effectiveness and excellence, Relational Capital (i.e., relationships and networks with stakeholders) (Edvinsson, 1997). Various studies have shown that effective IP management the results of the analysis show that effective management practices have a significant and positive relationship with the company's financial performance organizational value creation (Ousama et al., 2020). This study focuses more on Human Capital, which is considered a crucial element reflecting employee competencies and skills and a key factor in driving innovation and

value creation (Eliana et al., 2017). Previous studies have also shown human capital plays a significant role determining the observed outcome variables banking performance various countries, including Indonesia (Mention, 2013; Nawaz, 2017). Furthermore, the Environmental, Social, and Governance (ESG) framework been recognized aspect in assessing sustainability and ethical aspects, contributing to risk management strategies, organizational reputation, and long-term value creation in the banking sector (Friede, 2015; Weber et al., 2014).

Overall, in the modern in knowledge-oriented economy, intellectual capital is sees strategic asset that plays role in supporting competitive advantage and company performance, including financial institutions. Intellectual capital includes three main components, namely human capital, which includes individual knowledge, skills, and competencies that play a role in creating value and supporting organizational performance, abilities; Structural Capital, which encompasses organizational processes and technology; and Relational Capital, which describes relationships with various stakeholders. Empirical evidence.

The focus is Human Capital, which is seen as a crucial dimension reflecting the capacity and competence of the workforce, as well as being a key driver of innovation and organizational value creation. Previous research has demonstrated that Human Capital contributes significantly to banking performance in various countries, including Indonesia. Furthermore, ESG principles have become a key factor in measuring an organization's sustainability and ethical impact. ESG implementation impacts risk management, corporate reputation, value banking industry.

### **Theoretical Framework**

#### **Intellectual Capital**

The Resource-Based View (RBV) states that rare, valuable, and difficult-to-imitate internal resources can generate a sustained advantage over competitors (Vance, 2012; Barney, 2001). The key resources contributing to organizational performance are intellectual capital (IP), particularly human capital reflects the accumulation of employee knowledge and skills, structural capital

indicates the efficiency of organizational processes and systems, while relational capital represents the value of partnerships, external networks (Soewarno et al., 2020). Intellectual Capital comprises

## **Company Performance**

Performance assessments are conducted using financial metrics such as Return on Assets (ROA), which assesses how effectively management utilizes its assets (Gitman & Zutter, 2015). ROA acts as a comprehensive indicator that describes a company's operational efficiency without taking into account its capital structure (Brigham et al., 2019).

## **Environmental, Social, and, Governance**

ESG is a comprehensive framework encompassing sustainability aspects beyond financial aspects, including:

1. The environmental dimension, which encompasses climate change policies and strategies to optimize resource utilization.
2. The social dimension, which encompasses labor practices, occupational safety and health, community engagement, and customer data protection.
3. The governance dimension, which encompasses leadership structures, ethical business principles, transparency efforts, and risk management protocols (Van et al., 2016).

Compliance with ESG principles is increasingly becoming a requirement in sustainable finance regulations and has been shown improved performance and increased legitimacy among stakeholders (Aulia et al., 2020).

## **B. METHOD**

Quantitative study analyzes 39 banks research data consists of 195 observations obtained from companies on the IDX during period 2019-2023. The Value Added to Human Capital (VAHU) method, assesses contribution human capital to creation, is used to measure intellectual capital (IP). Environmental, Social, and Governance (ESG) variables are assessed based on sustainability report scores prepared in accordance with Global Reporting Initiative (GRI)

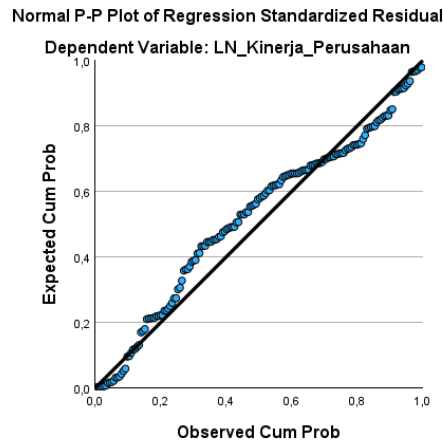
standards. One of the most significant indicators is ROA, reflects the company's level of effectiveness in utilizing its total assets generate profits.

The research data comes from sustainability documents and official financial reports collected from the (IDX), (OJK), and each bank's official website. The data were considered. direct impact of intellectual capital on company performance was analyzed pass multiple linear regression. Furthermore, Moderated Regression Analysis (MRA) was used to test the moderating effect of ESG on the relationship between IP, staging. Several tests, including normality, multicollinearity, heteroscedasticity, autocorrelation, were conducted validate analysis model and meet statistical assumptions, several tests including normality, multicollinearity, heteroscedasticity, autocorrelation checks were performed.

### C. RESULTS AND DISCUSSIONS

#### Classical Assumption Test

##### Normality Test



Gambar 1. Test Result (Normal P-P Plot)

The regression model satisfies normality assumptions, as demonstrated in the Normal P-P plot of regression standardized residuals, the observation points appear to follow a diagonal pattern, indicates that the assumption of residual normality is met.

## Multicollinearity Test

*Coefficients<sup>a</sup>*

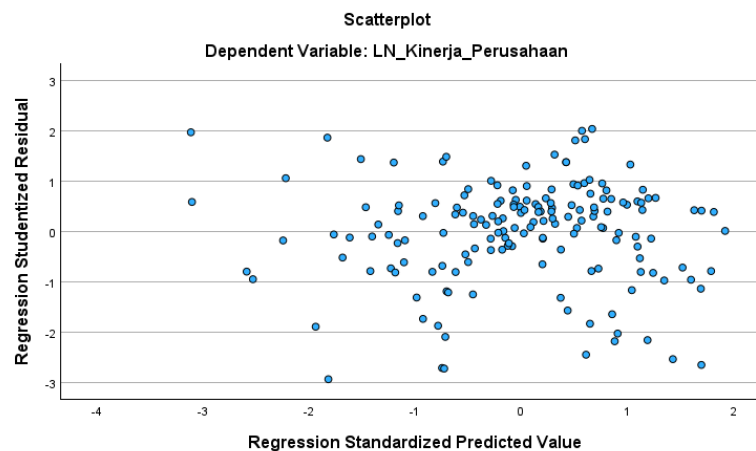
Model	<i>Collinearity Statistics</i>	
	<i>Tolerance</i>	VIF
1 (Constant)		
LN_Intellectual Capital	,992	1,008
LN_ESG	,927	1,079

a. Dependent Variable: LN\_Transfer\_Pricing

Gambar 2. Multicollinearity Test

Multicollinearity based on test result, was found that all variables had VIF values below 10 and tolerance values that were still within the acceptance limits exceeding 0.10, confirming that independent variables in the regression model demonstrate no multicollinearity issues.

## Heteroscedasticity Test



Gambar 3. Heteroscedasticity Test Results (Scatterplot)

Heteroscedasticity test results demonstrate that scatterplot points exhibit no specific patterns and are randomly distributed around the Y-axis and zero point, indicating no heteroscedasticity concerns in this investigation.

### Hypothesis Testing

#### Multiple Linear Regression t-Test

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-3,368	,823		4,092	<,001		
LN_Intellectual_Capital	,523	,106	,359	4,941	<,001	,992	1,008
LN_ESG	,129	,157	,062	2,820	,041	,927	1,079

a. Dependent Variable: LN Kinerja Perusahaan

Multiple linear regression t-test results indicate elements intellectual capital demonstrates significance <0.001, which is below 0.05, confirming that intellectual capital influences corporate performance. However, the ESG variable shows a significance 0.041, exceeding 0.05, suggesting ESG variable lacks significant effect.

#### Moderated Regression Analysis (MRA) t-Test

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-2,788	,784		-3,555	<,001
LN_Intellectual_Capital	-,103	,459	-,071	-,225	,822
X1M	,191	,136	,679	1,348	,162

a. Dependent Variable: LN Kinerja Perusahaan

Moderated regression analysis (MRA) t-test results demonstrate that ESG cannot moderate the correlation between intellectual capital and company performance significance values exceeding 0.05 ( $0.162 > 0.05$ ).

## **D. CONCLUSIONS**

This scientific work shows that IP improves the performance of Indonesian banking IDX from 2019-2023. Focus of study is Value Added to Human Capital (VAHU) metric. The study found that improving human capital, which includes improving employee skills, increasing knowledge, and enhancing capabilities, improves business operational efficiency. With this higher efficiency, companies can increase their profitability, as indicated by an increase in Return on Assets (ROA). In short, this study shows that human capital management is factor improving the performance and success of banking institutions in Indonesia.

## **E. SUGGESTIONS**

### **1. For Practitioners**

Banking management needs to prioritize human resource development by implementing ongoing training programs and enhancing digital capabilities to strengthen performance and competitiveness. Furthermore, intellectual asset management must be thoroughly integrated into corporate strategy development.

### **2. For Researchers**

Future research could expand the variables by adding structural and relational capital dimensions, and using a longitudinal approach to examine the long-term effects of intellectual capital on firm performance. It is also recommended that research be conducted in other financial services sectors to broaden the generalizability of the findings.

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# SIMBA

**7<sup>th</sup> SEMINAR INOVASI  
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