

THE EFFECT OF *INTELLECTUAL CAPITAL* ON *MARKET VALUE* IN BANKING SECTORS LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) FOR THE 2020-2024 PERIOD

Yella Deswita¹, Dina Patrisia²
Universitas Negeri Padang, Indonesia^{1,2}
Email: yelladeswita126@gmail.com

Keywords

*Intellectual Capital,
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Abstract

This study aims to analyze the influence of intellectual capital on market value in banking sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period. Intellectual capital is measured using the Value Added Intellectual Coefficient (VAIC) which consists of the components Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA). The analysis method used is multiple regression by considering the control variables of company size (Size) and leverage. The results of the study show that VAIC has a significant positive influence on the company's market value. This indicates that effective intellectual capital management, through human resource development, innovation, and structural efficiency, can increase stakeholder trust and drive increased market value. This study emphasizes the importance of intellectual capital management as a strategy to strengthen the competitiveness and financial performance of banking companies in the knowledge-based economy era.

1. INTRODUCTION

In an era of increasingly advanced globalization and the increasing use of technology, companies need to develop appropriate strategies to compete and survive in an increasingly competitive and dynamic market. Innovation is currently considered a necessity for every company due to increasingly fierce competition in the global market (Halim et al., 2021). One effort to face increasingly fierce business competition is through economic transformation from a resource-based economy to a knowledge-based economy (Ul Rehman et al., 2023). This is in line with the global trend where intangible assets such as knowledge, innovation, and technology are key factors in creating competitive advantage (Tarigan et al., 2019).

The shift from a knowledge-based economy to the implementation of knowledge management has sparked growing interest in intellectual capital disclosure (Weqar et al., 2020). Intellectual capital (IC) is a company's most important resource (Rosa et al.,

2022). With numerous foreign companies operating on the Indonesian stock exchange, domestic companies are required to further enhance their value and performance to face increasingly fierce competition. The banking industry is one sector that relies heavily on human resources, technology, and service innovation, making intellectual capital a key factor in increasing company value. (Weqar et al., 2020).

Investors and shareholders highly expect company management to be able to acquire, manage, maintain resources, and be able to create added value from the company's resources. In order to create added value, the company can utilize all the potential owned by the company including employees (human capital), physical assets (physical capital), and structural capital (Pulic, 1998). The better the company is in utilizing the company's potential, the higher the added value generated will be which will lead to increased financial performance (Silviani & Noekent, 2020). In accordance with stakeholder theory, companies with high added value can drive financial performance for the benefit of stakeholders (Silviani & Noekent, 2020). Simply put, managing and investing intellectual capital effectively has the potential to give an organization a competitive advantage (Jayasundara & Weerasinghe, 2023).

Value Added Intellectual Coefficient (VAIC) is a method developed by Pulic (1998) to measure the efficiency of utilizing intellectual capital in creating added value in a company. The VAIC method is widely used to quantitatively assess a company's intellectual capital performance using financial report data, and has been applied in various sectors, including the banking sector in Indonesia. VAIC helps reveal how effectively a company manages intellectual and physical assets in creating economic value. In short, VAIC is a measuring tool that integrates the efficiency of human capital, structural capital, and physical capital to assess the contribution of intellectual capital to the creation of added value of a company (Pulic 1998).

The assessment of a company's market value is no longer based solely on physical assets, but also on the company's innovation capacity, knowledge and external relations. Market value is a reflection or perception of the level of success and public or investor trust in a company, as reflected in stock market prices or other financial indicators (Kiprono et al., 2024; Brigham and Houston, 2019).

The method of measuring market value can be done by using MBV (market to book value). A company's market value is the actual price of a company established in the open market based on an agreement between buyers and sellers. This value reflects

investors' perceptions and expectations of the company's future prospects and performance. A high MBV indicates that investors view the company as having good prospects and are willing to pay a higher share price than its book value. Conversely, a low MBV may indicate that the company's shares are considered less attractive or undervalued by the market (Silviani & Noekent, 2020).

The following is the MBV data for five major banks listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period.

Table 1.1 MBV Value of Banks Listed on the IDX for the 2020-2024 Period

BANK NAME	2020	2021	2022	2023	2024
BCA	4.39	4.33	4.64	4.64	4.39
INDEPENDENT	0.83	0.82	1.03	1.09	0.94
BRI	1.96	2.13	2.47	2.74	1.91
BSI	0.13	0.41	0.26	0.30	0.42
BNI	0.79	0.99	1.23	1.30	0.97

Source: Data Processed by Researchers

Based on the table above, it can be seen that BCA consistently has the highest MBV among other banks, with a value above 4 for the past five years. Banks with high MBV, such as BCA, are likely to have managed their intellectual capital effectively, so the market assesses their growth prospects and competitiveness better than other banks (Uns, 2012). Meanwhile, other banks such as Mandiri, BRI, BSI, and BNI have much lower MBVs, generally below 3. Although there are annual fluctuations, the MBV pattern tends to be stable for each bank, with little increase or decrease. Banks with an MBV value below 1 indicate that the company's market value is lower than its book value. This indicates that the company is undervalued by the market or has poor prospects. When banks are able to manage and utilize their intellectual capital (for example, through product innovation, process efficiency, and human resource development), the market will give them a higher appreciation, reflected in a higher MBV ratio (Barokah et al., 2023). Research on intellectual capital has been widely conducted by researchers both at home and abroad, but the results still show contradictory results. Below you can see some previous research regarding the influence of intellectual capital on a company's market value.

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Numerous researchers have explained the influence of IC on market value. Several studies conducted in various sectors, such as Lotfy Abd El Aal Abied & Badr El Din El-Sharawy (2020), found that IC had a positive and significant effect on market value in Egyptian companies listed on the stock exchange. However, findings from Jayasundara & Weerasinghe (2023), in the financial sector listed in Colombo, found that IC had a significant negative effect on market value.

Based on the above problems, the author is interested in conducting research with the title "The Influence of Intellectual Capital on Market Value in the Banking Sector Listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 Period."

LITERATURE REVIEW

Grand Theory

a. Stakeholder Theory

This theory was first introduced in 1963 by the Stanford Research Institute and later developed by RE Freeman in 1984. According to Freeman, a stakeholder is "any group or individual who can affect or is affected by the achievement of the organization's objectives."

This theory can serve as a basis for explaining that intellectual capital encompasses human resources, social relationships, and organizational structures that play a role in creating value for a company. This capital is important not only for company owners but also for other stakeholders such as employees, customers, suppliers, and the communities involved in the company's ecosystem.

b. Resource-based theory / Resource-Based View (RBV)

Resource-Based View (RBV) is a theory that explains that a company's competitive advantage and success are determined by the company's ability to manage and utilize its internal resources effectively and efficiently. This theory was first proposed by Wernerfelt (1984) and later developed by Barney (1991). According to the RBV, a company's resources can be tangible assets (such as machinery, land, buildings) or intangible assets (such as expertise, organizational culture, intellectual capital). Resources that are valuable, rare, difficult to imitate, and non-substitutable (known as the VRIN criteria: Valuable, Rare, Inimitable, Non-substitutable) are key to creating sustainable competitive advantage. The RBV emphasizes the importance of managing

internal resources—including human resources, technology, information, and intellectual capital—as the main foundation for improving company performance, growth, and company value.

Market Value

a. Definition of Market Value

Market Value is a ratio that describes conditions in the market. This ratio is often used to see the potential profit conditions of the company in the future (Fahmi, 2014:70). The market value of a company is the price that prospective buyers are willing to pay if the company is sold. This value can also be interpreted as the market value of the company's equity plus the market value of debt. Overall, market value can be interpreted as the perception or assessment given by the public, investors and the market regarding the success, prospects and performance of a company, which is usually reflected in the company's share price or market value. This value is important as an indicator of investment attractiveness and shareholder welfare, and is influenced by factors such as cash flow, growth, and management policies.

$$\text{MBVR Formula} = \frac{\text{Market capitalization}}{\text{nilai buku persaham}}$$

Intellectual Capital (IC)

a. Definition of Intellectual Capital (IC)

IC is a set of dynamic resources that create competitive advantages for companies to improve their performance (Rehman et al., 2021). Stewart (1997) defines intellectual capital as intellectual material in the form of knowledge, information, intellectual property, and experience used to create company prosperity. Meanwhile, according to Edvinsson and Malone (1997), intellectual capital is the difference between the market value and book value of a company, which consists of human capital and structural capital. Intellectual capital encompasses three main components: human capital, structural capital, and relational/customer capital. With optimal management, intellectual capital enables companies to effectively execute strategies, improve performance, and deliver added value, which can increase stakeholder trust and the company's overall value.

IC measurement used $VAIC = VACA + VAHU + STVA$

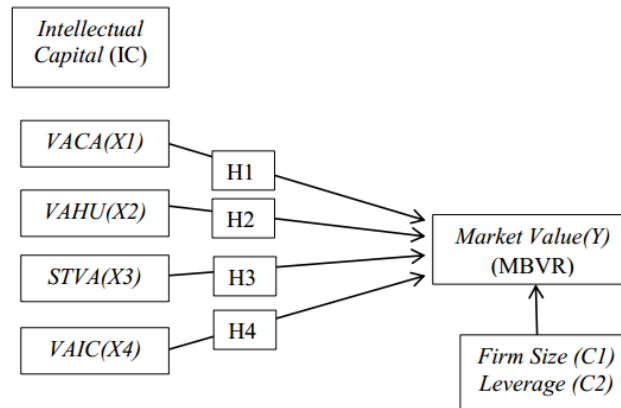


Figure 1 Conceptual Framework

2. RESEARCH METHOD

This type of research is quantitative research with a descriptive approach. The research subjects were banking sector companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period. The population consisted of 47 banking sector companies. Banks listed on the Indonesian Stock Exchange for the 2020-2024 period. The sample was selected using a purposive sampling technique, resulting in a sample of 28 companies. The type of data used is secondary data, namely financial reports of banking sector companies listed on the Indonesia Stock Exchange, which were obtained through the official BEI website, namely www.idx.co.id. The data to be used, the researcher uses a data collection method in the form of a documentation study. This study consists of a dependent variable (Y), an independent variable (X), a variable and a Control Variable (C). The data analysis technique in this study uses multiple linear regression analysis, data processing is done using the Statistical Program for Social Science (SPSS) program.

The research hypothesis will be tested using partial regression analysis (t-test) and simultaneous test (f-test) with the following multiple regression equation.

$$(1) Y = \alpha + b_1VACA + b_2VAHU + b_3STVA + b_4Size + b_5Lev + e$$

$$(2) Y = \alpha + b_1VAIC + b_2Size + b_3Lev + e$$

3. RESULTS AND DISCUSSION

Results of testing the hypothesis of equation 1

Model	Coefficients ^a		t	Sig.
	Unstandardized Coefficients	Standardized Coefficients		
	B	Beta		

1	(Constant)	3,437	1,142		3,010	.003
	Vaca	1,080	1,170	.109	.923	.358
	Vahu	.163	.096	.185	1,700	.092
	Stva	.022	.234	.008	.096	.924
	Leverage	-5,083	1,213	-.384	-4.191	<.001
	Size	.078	.043	.156	1,796	.075

a. Dependent Variable: mbv

Based on hypothesis table 1, the results of the partial test (t-test) are that VACA, VAHU and STVA have a positive but not significant effect on market value (MBV).

Regression Equation Results Equation 2

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
Model		B	Std. Error			
1	(Constant)	2,991	.933		3,205	.002
	vaic	.178	.057	.246	3.145	.002
	leverage	-4,745	1,053	-.358	-4,504	<.001
	size	.091	.040	.183	2,258	.026

a. Dependent Variable: mbv

In the 2 VAIC equation table, which is a combination of VACA, VAHU and STVA, as a whole has a positive and significant effect on market value (MBV).

Simultaneous test (F test)

Simultaneous Test Table of Equation 1

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45,182	5	9,036	7,396	<.001 ^b
	Residual	163,720	134	1,222		
	Total	208,901	139			

a. Dependent Variable: mbv

b. Predictors: (Constant), size, stva, leverage, vahu, vaca

Based on the F test table above, with the calculated F value of 7.396 > 2.29, the F table value with a significance of <.001 < 0.05 means that simultaneously there is a significant influence of SIZE, STVA, LEVERAGE, VAHU, VACA on MBV.

Simultaneous Test Results Table for Equation 2

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43,852	3	14,617	12,045	<.001 ^b
	Residual	165,050	136	1,214		
	Total	208,901	139			

- a. Dependent Variable: mbv
- b. Predictors: (Constant), size, value, leverage

Based on the F test table above, with the calculated F value of $12.045 > 2.28$, the F table value with a significance of $<.001 < 0.05$ means that simultaneously there is a significant influence of SIZE, VAIC, LEVERAGE on MBV.

Discussion

The Influence of Intellectual Capital (VACA, VAHU, STVA and VAIC) Against Market Value

The influence of Intellectual Capital (with VAIC indicators consisting of VACA, VAHU, and STVA) on Market Value in banking sector companies listed on the Indonesia Stock Exchange (IDX) this hypothesis is accepted. The significant simultaneous influence of VAIC on Market Value indicates that the synergy of these three components of intellectual capital strengthens trust and support from stakeholders. Intellectual capital performance helps meet stakeholder expectations through innovation, improved service quality, and operational efficiency, thereby triggering better market value. Thus, companies need to manage their intellectual capital to maintain healthy relationships with stakeholders and enhance their reputation and market value.

Resource-Based View (RBV) Theory (Resource-Based View) RBV views a company as a collection of resources and capabilities that are unique and not easily imitated by competitors as a source of competitive advantage. Intellectual capital is one of the key strategic resources in this theory.

VAIC, consisting of VACA, VAHU, and STVA, reflects strategic intellectual assets, which, if optimally utilized, will create a competitive advantage that leads to increased Market Value. The positive influence of VAIC on Market Value indicates that companies that effectively manage and optimize their intellectual resources will achieve higher market value. The insignificant partial influence on individual components may indicate that competitive advantage does not depend solely on one aspect of intellectual capital, but rather the collaboration of all integrated VAIC elements.

The results of this study support the findings of (Lotfy Abd El Aal Abied & Badr El Din El-Sharawy, 2020) in Egyptian companies listed on the stock exchange, which found that IC has a positive and significant effect on the company's market value and the findings by (Silviani & Noekent, 2020) in large trading companies in Indonesia.

4. CONCLUSION

1. Each component of the Value Added Intellectual Coefficient (VAIC), namely VACA, VAHU and STVA, has a positive but not significant effect on Market Value (MBV).
2. Intellectual Capital (IC) as measured by the Value Added Intellectual Coefficient (VAIC) has an overall positive effect on the Market Value (MBV) of banking companies.

5. REFERENCES

- Astuti, D., & Lestari, P. (2021). Intellectual capital, market value, and financial performance: Evidence from Indonesian public companies. *Jurnal Manajemen*, 25(3), 451–466. <https://eprints.umsida.ac.id/9030/>
- Pramono, H., & Rahayu, S. (2008). Intellectual capital performance sektor perbankan di Indonesia: Pengujian model VAIC™. *Jurnal Akuntansi dan Keuangan*, 10(2), 77–85. <https://jurnalakuntansi.petra.ac.id/index.php/aku/article/view/17081>
- Setyowati, T., & Jamilah. (2019). The value-added analysis of intellectual capital for banking financial performance. *AGREGAT: Jurnal Ekonomi dan Bisnis*, 3(1), 17–24. https://doi.org/10.22236/agregat_vol3/is1pp17-24
- Soewarno, N., & Tjahjadi, B. (2020). Measures that matter: An empirical investigation of intellectual capital and financial performance of banking firms in Indonesia. *Journal of Intellectual Capital*, 21(6), 1085–1106. <https://doi.org/10.1108/JIC-09-2019-0225>
- Ulum, I. (2013). iB-VAIC: Model pengukuran kinerja intellectual capital perbankan syariah di Indonesia. *Proceeding Seminar Nasional Ekonomi dan Bisnis*, 1–15. <https://www.researchgate.net/publication/258844724>
- Ulum, I., Ghazali, I., & Purwanto, A. (2014). Intellectual capital performance of Indonesian banking sector: A modified VAIC (M-VAIC) perspective. *Asian Journal of Finance & Accounting*, 6(2), 103–123. <https://doi.org/10.5296/ajfa.v6i2.5246>
- Wahyuningtias, E., & Kusumawardhani, R. (2024). The moderating effect of income diversification on intellectual capital and company performance: Case study of banking in Indonesia. *Journal of Intellectual Capital*, 22(1), 76–94. <https://doi.org/10.1108/JIC-11-2019-0259>