

The Moderating Role of Profitability in the Relationship Between Intellectual Capital and Firm Value

Fanny Anggraeni^{1*}, Annisa Kanti², Nico Alexander³, Amin Wijoyo⁴

Trisakti School of Management, Jakarta Indonesia^{1,2,3}

Universitas Tarumanagara, Jakarta, Indonesia⁴

fanny@stietrisakti.ac.id^{1*}, annisa@stietrisakti.ac.id², alexanderocin@gmail.com³,

aminw@fe.untar.ac.id⁴



Article History

Received on 07 August 2026

1st Revision on 13 August 2026

2nd Revision on 21 August 2026

3rd Revision on 31 August 2026

Accepted on 01 September 2026

Abstract

Purpose: This study examines the effect of intellectual capital on firm value and the moderating role of profitability. Due to inconsistent findings regarding the value-creating role of intellectual capital, this study investigates whether profitability strengthens the relationship between intellectual capital and firm value.

Research Methodology: This study uses secondary data from manufacturing companies listed on the Indonesia Stock Exchange during 2022–2024. Hypotheses were tested using moderated regression analysis with the Hayes test in SPSS version 26.

Results: The findings show that intellectual capital has a significant negative effect on firm value, while profitability has a significant positive effect. Furthermore, the interaction between intellectual capital and profitability positively affects firm value, indicating that profitability strengthens this relationship.

Conclusions: Intellectual capital does not directly create firm value and may initially be perceived as a cost. However, higher profitability enables firms to maximize the value-creating potential of intellectual capital.

Limitations: This study is limited to Indonesian manufacturing companies and measures intellectual capital using only the VAIC method.

Contributions: This study contributes by demonstrating that the effect of intellectual capital on firm value depends on profitability. The findings highlight profitability as an important mechanism that enhances the value relevance of intellectual capital.

Keywords: *Firm Value, Intellectual Capital, Profitability*

How to Cite: Anggraeni, F., Kanti, A., Alexander, N., & Wijoyo, A. (2026). The Moderating Role of Profitability in the Relationship Between Intellectual Capital and Firm Value. *Jurnal Akuntansi, Keuangan, dan Manajemen*, 7(4), 277-293.

1. Introduction

In the era of global competition, firm value has become a crucial indicator of corporate performance, as it reflects investors' perceptions of a company's current performance and its future growth prospects. High firm value is crucial for shareholders, as it reflects their wealth and boosts market confidence in the business's sustainability (Enjelika & Budiasih, 2025). Firm value is commonly measured using the Price-to-Book Value (PBV) ratio, which reflects the relationship between a company's market value and its book value. This ratio serves as an indicator of market perception by revealing whether a firm's shares are valued above or below their accounting value, thereby signaling

whether the stock is perceived as overvalued or undervalued. To maximize firm value, companies are increasingly leveraging competitive advantages through the optimization of intangible assets.

Intellectual Capital (IC) is defined as a collection of intangible assets comprising human knowledge, structural processes, and relational networks that enable a company to innovate and enhance operational efficiency. Based on the Resource-Based Theory (RBT), IC constitutes a strategic asset that generates sustainable competitive advantage due to its valuable, rare, and inimitable characteristics. Disclosing information regarding intellectual capital is expected to signal the company's growth potential positively to the market, theoretically driving an increase in both market valuation and firm value ([Kusmawati & Anisah, 2025](#)). Intellectual capital is now essential for companies to stay competitive. Management cannot rely solely on physical resources but must also leverage intellectual capital ([Widyastuti, Parianom, & Permana, 2021](#)). Utilizing intellectual capital creates added value because competitors do not possess it. value-added intellectual capital focuses on improving financial reports ([Ulum, Rizqiyah, & Jati, 2016](#)).

Research findings regarding the impact of intellectual capital on firm value remain inconsistent. [Kusmawati and Anisah \(2025\)](#) report a positive relationship, whereas others find a negative impact on firm value ([Burhanuddin, Alfurkaniati, Saputra, Arifin, & Pangestu, 2025](#)). However, these conflicting findings indicate not only empirical inconsistency but also an unresolved theoretical issue concerning the conditions under which intellectual capital can create firm value. From the resource-based view, intellectual capital represents a strategic resource, but its contribution to firm value depends on the firm's ability to effectively deploy and transform knowledge-based resources into economic benefit. When financial capacity is limited, investments in intellectual capital may be perceived as short-term costs that reduce current return without generating immediate financial benefits, potentially diminishing their value relevance to investors. Conversely, firms with stronger profitability may have greater capacity to absorb such investment and convert intellectual capital into operational efficiency, innovation, and competitive advantages. Therefore, the value-creating effect of intellectual capital may not be uniform across firms but may depend on their financial condition. In this context, profitability may serve as a boundary condition that determines when and to what extent intellectual capital can be translated into firm value.

To address this inconsistency, this study employs profitability Return on Equity (ROE) as a moderating variable. Profitability reflects management's efficiency in utilizing resources to generate profit and serves as a crucial signal to investors regarding corporate performance ([Kesuma & Ratnawati, 2025](#)). Based on Signaling Theory, high profitability indicates effective intellectual capital management, as the company successfully transforms knowledge or intangible assets into tangible financial returns. By demonstrating high profitability, a company can strengthen the positive relationship between intellectual capital and firm value while simultaneously mitigating negative market perceptions regarding the costs associated with developing intangible assets ([Angelicia, Ikhsan, & Helmi, 2025](#)).

This study aims to examine the effect of intellectual capital on firm value and determine whether profitability moderates this relationship. To provide a more comprehensive assessment of the determinants of firm value, institutional ownership (IO), leverage (DER), firm size (SIZE), and liquidity (CR) are included as control variables.

The novelty of this study lies in positioning profitability as a boundary condition in the relationship between intellectual capital and firm value. Rather than assuming that intellectual capital consistently creates value, this study examines whether its value-creating potential depends on the firm's ability to generate sufficient financial returns. This approach provides a potential explanation for the inconsistent findings of prior studies and extends the application of signaling theory by highlighting profitability as a signal that may influence how investors interpret the value of intellectual capital.

The findings provide implications for management by emphasizing that investments in intellectual capital should be supported by the ability to generate profitability. For investors, the results offer a

basis for evaluating intellectual capital not only from the resources invested but also from the firm's profitability in converting those resources into economic value.

2. Literature Review and Hypotheses Development

2.1 Resource-Based Theory

Resource-Based Theory (RBT) explains how firms achieve sustainable competitive advantage through the possession and effective management of resources that are valuable, rare, difficult to imitate, and non-substitutable ([Burhanuddin, Alfurkaniati, Saputra, Arifin, & Pangestu, 2025](#); [Kusmawati, & Anisah, 2025](#); [Ionita, & Dinu, 2021](#)). From this perspective, competitive advantage does not arise merely from owning strategic resources, but from the firm's ability to deploy and combine these resources effectively to generate economic benefits. Effective resource management enables firms to improve operational performance and strengthen their ability to create value ([Suhadi, 2024](#)).

In a knowledge-driven economy, intellectual capital represents an important strategic resource because it embodies knowledge, capabilities, organizational processes, and relationships that can support value creation ([Rohim, Ramadhan, Sucipto, & Sandy, 2026](#); [Sulasmiyati, Hafna, & Sirivanh, 2025](#)). However, the possession of intellectual capital alone does not automatically generate firm value. Its economic contribution depends on the firm's ability to transform knowledge-based resources into productive outcomes. For example, investments in employee capabilities and information system can improve efficiency, innovation, and decision making, which may subsequently enhance productivity and competitive advantage. These outcome can generate future economic benefits and ultimately increase investors' assessment of the firm's growth potential and firm value ([Enjelika, & Budiasih, 2025](#); [Kusmawati and Anisah, 2025](#)).

The RBT perspective further suggests that the effectiveness of strategic resources is influenced by the firm's capacity to deploy and exploit them. In this context, profitability represents an important indicator of the firm's ability to convert its resources into financial returns ([Angelicia, Ikhsan, & Helmi, 2025](#); [Mahirun, Prasetyani, Ulum, Taruna, Meliza, & Qolbina, 2025](#)). Firms with stronger profitability generally possess greater financial capacity to sustain investments in intellectual capital and to absorb the cost associated with developing intangible resources. More importantly, higher profitability may indicate that the firm's existing resources are being utilized effectively, increasing the likelihood that intellectual capital can be transformed into operational efficiency, innovation, and competitive advantage ([Angela, & Rusmanto, 2025](#); [Rohim et al., 2026](#)).

Conversely, when profitability is low, investments in intellectual capital may impose substantial short-term costs without generating immediate financial returns. Under such conditions, the benefits of intellectual capital may be less visible to investors, while its associated costs may be reflected more immediately in financial performance. Consequently, intellectual capital may not translate directly into higher firm value despite its potential as a strategic resource. This suggests that the value-creating role of intellectual capital is not uniform but depends on the firm's ability to effectively utilize and convert such resources into economic outcomes. Therefore, from an RBT perspective, profitability can be conceptualized as a boundary condition that influences the extent to which intellectual capital contributes to firm value. Higher profitability strengthens the firm's capacity to leverage intellectual capital and convert knowledge-based resources into economic benefits that are recognized by the market. Thus, the relationship between intellectual capital and firm value is expected to become stronger as profitability increases. This perspective provides a theoretical basis for examining profitability as a moderating variable in the relationship between intellectual capital and firm value.

2.2 Signaling Theory

Signaling Theory explains how firms communicate information to external stakeholders to reduce information asymmetry between managers and investors ([Mahirun et al., 2025](#); [Sulasmiyati et al., 2025](#); [Savitri et al., 2020](#)). This signal serves as indicators for investor before making investment decisions regarding the company's condition (Whetyningtyas et al., (2025). Managers generally possess more comprehensive information about the firm's resources, capabilities, and future prospects than external investors. This information asymmetry creates uncertainty regarding the firm's actual

condition and future performance. Therefore, firms can provide credible signals through financial and non-financial information disclosed in annual reports to influence investor perceptions and investment decisions ([Andriani et al., 2026](#); [Angela & Rusmanto, 2025](#); [Intara & Sangwichitr, 2026](#)).

In this study, Signaling Theory complements RBT by explaining how the benefits generated from intellectual capital may be interpreted by the market. While RBT explains the internal mechanism through which intellectual capital can become a source of competitive advantage and economic value, Signaling Theory focuses on how information about the firm's performance can reduce investors' uncertainty regarding the effectiveness of these resources. Intellectual capital itself may be difficult for external investors to directly observe or evaluate because its benefits are often intangible and realized over time. Consequently, investors may rely on observable financial outcomes to assess whether the firm's intellectual capital is being utilized effectively.

Profitability is particularly relevant in this context because it provides an observable financial signal of the firm's ability to generate returns from its resources. Higher profitability may strengthen the credibility of the signal that the firm's intellectual capital is being effectively utilized to generate economic benefits. When strong profitability accompanies substantial intellectual capital, investors may be more likely to interpret the firm's intangible resources as productive assets rather than merely as costs, thereby increasing their confidence in the firm's future prospects and market value ([Angelicia et al., 2025](#); [Kesuma & Ratnawati, 2025](#); [Sulasmiyati et al., 2025](#)). Overall, signaling theory emphasizes that the disclosure of transparent, high-quality information is a crucial instrument for companies to attract investor interest, reduce market-perceived risk, and ultimately maximize firm value ([Angela & Rusmanto, 2025](#); [Mahirun et al., 2025](#); [Rohim et al., 2026](#); [Sulasmiyati et al., 2025](#)).

Conversely, when profitability is low, the economic benefits of intellectual capital may be less evident to investors. The costs associated with developing knowledge, employee capabilities, and organizational systems may become more visible than their future benefits, resulting in greater uncertainty regarding the value-creating potential of intellectual capital. Thus, profitability can function as a confirmatory signal that helps investors evaluate whether intellectual capital has been successfully transformed into economic outcomes.

Accordingly, this study assigns distinct roles to the two theoretical perspectives. Resource-Based Theory provides the primary theoretical foundation for the relationship between intellectual capital and firm value by explaining how intellectual capital can generate competitive advantage and economic benefits. Signaling Theory complements this explanation by providing the theoretical basis for the moderating role of profitability, as profitability serves as an observable signal that can strengthen investors' recognition of the value generated from intellectual capital. The integration of these perspectives suggests that the market value of intellectual capital depends not only on the firm's possession and utilization of knowledge-based resources but also on the financial outcomes that signal their effectiveness to investors.

2.3 Intellectual Capital on Firm Value

Based on Resource-Based Theory (RBT), Intellectual Capital (IC) is viewed as a collection of intangible assets essential for creating firm value. Effective IC management should provide a competitive advantage and serve as a positive signal to investors regarding future growth prospects. However, prior studies have yielded inconsistent results concerning the impact of intellectual capital on firm value.

Previous research indicates that sound IC management can enhance market valuation ([AlObaid & Qasem, 2025](#)). Similar findings were reported by [Kusmawati and Anisah \(2025\)](#), who stated that optimizing intangible assets is crucial for boosting an entity's competitiveness and market value. Conversely, studies by [Angelicia, Ikhsan, and Helmi \(2025\)](#) and [Le \(2023\)](#) found that intellectual capital has no significant impact on firm value. This is attributed to investors focusing more on tangible financial indicators rather than on intangible assets, which are difficult to measure.

Some studies have even shown a negative impact of intellectual capital on firm value. Research by [Burhanuddin, Alfurkaniati, Saputra, Arifin, and Pangestu \(2025\)](#) identified a negative effect, where substantial investment in intellectual capital was perceived as a short-term financial burden. This occurs because the costs associated with developing intangible assets such as employee training can weigh on the company without yielding immediate, tangible returns. These inconsistent findings suggest that the impact of intellectual capital on market value depends heavily on the industry context and investor risk perceptions. Given these conflicting findings, the hypothesis proposed in this study is:

H₁: Intellectual capital negatively influences firm value

2.4 Profitability on Firm Value

Profitability is a key indicator reflecting management's efficiency in generating profit from capital invested by shareholders. In this study, profitability is proxied by Return on Equity (ROE), which measures a company's ability to generate net income using its equity. Based on signaling theory, high level of profitability gives signal of strong performance and promising future prospects. This can increase investor confidence and increasing the company's value, as reflected in the Price-to-Book Value (PBV) ratio ([Whetyningtyas, Arumsari, Ashari, & Mulyani, 2025](#)).

[Mahirun et al. \(2025\)](#), in their study of companies listed on the IDX80 index, found that ROE has a positive influence on PBV. Similar findings were reported by [Sulasmiyati et al. \(2025\)](#) regarding the healthcare sector and by [Kesuma and Ratnawati \(2025\)](#) regarding the banking sector; both studies identified profitability as a dominant factor in enhancing market valuation. [Alexander et al. \(2026\)](#), found that profitability can increase the firm value in manufacturing companies. Consistent with Resource-Based Theory (RBT), companies capable of profitably managing their resources are viewed as possessing a unique competitive advantage, thereby attracting investor capital.

However, inconsistencies in research findings indicate the existence of a research gap. A study by [Khalifaturrofi'ah and Setiawan \(2025\)](#) on Indonesia's real estate sector found that profitability had no effect on firm value. [Furthermore, Andriani et al. \(2026\)](#) noted that profitability (ROA and ROE) did not mediate the relationship between green banking disclosure and firm value in Sharia banks, suggesting that the market may respond more strongly to non-financial signals Such as sustainability than to short-term profits. These inconsistent results reinforce the argument that the impact of profitability on market valuation depends heavily on specific economic conditions and industry characteristics. Based on the arguments above, the proposed hypothesis is:

H₂: Profitability influences Firm Value

2.5 Profitability as a Moderating Variable in the Relationship between Intellectual Capital and Firm Value

Based on Resource-Based Theory (RBT), firms can achieve sustainable competitive advantage by managing strategic resources in the form of intellectual capital (IC). Intellectual capital often measured using the Value-Added Intellectual Coefficient (VAIC) encompasses the efficiency of human capital, structural capital, and physical capital. Effective IC management signals positive future growth potential to the market, ultimately enhancing firm value as reflected in the Price-to-Book Value (PBV) ratio.

Currently, there remain inconsistencies in research findings regarding the impact of intellectual capital on firm value. Some studies indicate that IC has no effect on market value. In fact, recent research by [Burhanuddin et al. \(2025\)](#) reports a negative impact of intellectual capital on firm value, suggesting that substantial investments in intangible assets may be perceived by investors as short-term, cash-draining costs that do not yield immediate returns.

These inconsistencies highlight the need for a moderating variable to clarify the relationship. Profitability, proxied by Return on Equity (ROE), reflects management's efficiency in generating profit from existing capital. High profitability serves to confirm to investors that the firm has

successfully converted intangible assets (IC) into tangible financial gains.

[Savitri et al. \(2020\)](#) found that profitability positively moderates the relationship between intellectual capital and firm value in the financial sector. This is because highly profitable firms possess greater capacity to motivate employee innovation and strengthen organizational structures, thereby amplifying the impact of IC on market valuation. [Additionally, Astuti and Ahmar \(2025\)](#) found that financial performance strengthens the relationship between green intellectual capital and firm value.

However, other studies offer a different perspective, showing that profitability sometimes fails to act as a significant moderator or mediator in this relationship—particularly in the post-pandemic banking sector or the real estate sector. This indicates that the role of profitability as a moderator may vary depending on the industry context, firm size, and macroeconomic conditions. Based on the premise that high profits validate the effectiveness of intellectual capital utilization in the eyes of investors and reduce the perceived investment risk associated with intellectual capital, the following hypothesis is proposed:

H₃: Profitability positively moderates the effect of intellectual capital on firm value, such that the negative effect of intellectual capital on firm value becomes weaker as profitability increases

Based on the theoretical foundations outlined above, the research model is illustrated as Figure 1 :

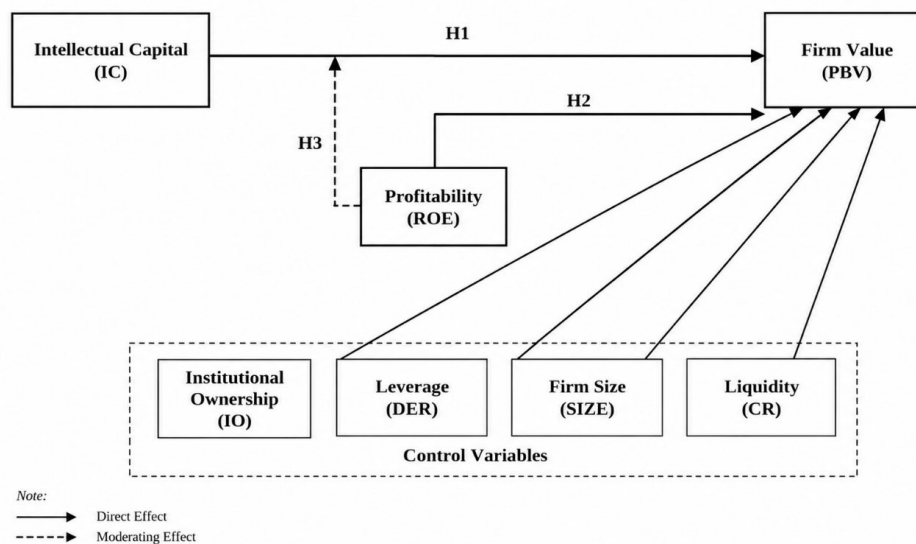


Figure 1. Research model

3. Research Methodology

This research using quantitative approach, relying on numerical data and emphasizing systematic collection and statistical analysis. The research examine how intellectual capital (IC) affects firm value, measured using the Price to Book Value (PBV) ratio. To better understand this relationship, profitability (ROE) is introduced as a moderating variable, while institutional ownership (IO), leverage (DER), firm size (SIZE), and liquidity (CR) are included as control variables.

The analysis focuses on manufacturing companies listed on the Indonesia Stock Exchange (IDX). Data are drawn from audited annual reports and financial statements available on the official IDX website (www.idx.co.id). The sample was selected using purposive criteria: firms must have been consistently listed between 2022 and 2024, publish financial statements and annual report that contain information needed, report financials ending on December 31, present figures in Rupiah, show positive net income, and have an institutional ownership throughout the observation period. Table 1 represent the sampling process:

Table 1. Sampling process

Criteria	Total Companies	Total Data
Manufacturing companies listed on IDX during 2022-2024	269	807
Manufacturing companies that did not publish financial statements and annual report during 2022-2024 or did not provide complete data required for the study	(45)	(135)
Manufacturing companies that did not publish annual financial statements with a fiscal year ending on December 31 during 2022-2024	(3)	(9)
Manufacturing companies that did not use Indonesian Rupiah as the reporting currency in their financial statements during 2022-2024	(35)	(105)
Manufacturing companies that did not report net income during 2022-2024	(86)	(258)
Manufacturing companies that did not have institutional ownership during 2022-2024	(19)	(57)
Total	81	243

To examine the proposed hypotheses, this study employed SPSS software for statistical analysis and model estimation. The research models are formulated as follows in Formula 1 and Formula 2.

$$FV_{it} = \alpha + \beta_1 IC_{it} + \beta_2 PROFIT_{it} + \beta_3 IO_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \beta_6 LIQ_{it} + \varepsilon_{it} \quad (1)$$

$$FV_{it} = \alpha + \beta_1 IC_{it} + \beta_2 PROFIT_{it} + \beta_3 (IC_{it} \times PROFIT_{it}) + \beta_4 IO_{it} + \beta_5 LEV_{it} + \beta_6 SIZE_{it} + \beta_7 LIQ_{it} + \varepsilon_{it} \quad (2)$$

Formula 1 in this study presents the initial equation, in which profitability is not included as an interactive term and is treated solely as an independent variable. Model 2 presents the equation used to examine whether profitability can act as a moderator. In Formula 2, prior to hypothesis testing, the moderation variable and the variable with which it interacts were first mean-centered. The selection of control variables refers to the financial ratios used as the basis for decision-making and valuation by investors. The selected financial ratios have different characteristics and are evaluated differently.

3.1 Firm Value

Firm Value represents the external perception of investors regarding a company's level of success and its long-term growth potential, which is directly reflected in the market price of its shares ([Enjelika & Budiasih, 2025](#); [Rohim et al., 2026](#)). This study measure firm value using Price to Book Value (PBV), a financial metric that compares a company's market price per share to its book value per share to determine whether the share is overvalued or undervalued ([Kusmawati & Anisah, 2025](#); [Angela & Rusmanto, 2025](#)). In this study, firm value is operationalized and measured using the following Formula 3.

$$PBV = \frac{\text{Market Value per Share}}{\text{Book Value per Share}} \quad (3)$$

3.2 Intellectual Capital

Intellectual capital is defined as a set of intangible assets consisting of resources such as information, knowledge, and technology used to create a sustainable competitive advantage ([Bilgin, 2025](#)). Intellectual capital is measured using the Value-Added Intellectual Coefficient (VAIC) developed by Pulic. VAIC is employed because it provides a standardized and objective measure of the efficiency with which firms utilize their resources to generate value added. This approach is appropriate for archival research because its components can be calculated consistently from publicly available financial statements across firms and periods. VAIC comprises human capital efficiency (VAHU), structural capital efficiency (STVA), and capital employed efficiency (VACA) capturing the efficiency of human, organizational, and employed capital in creating value ([Le, 2023](#); [Sulasmiyati et al., 2025](#)).

However, VAIC should not be interpreted as a comprehensive measure of the entire intellectual capital construct. As an accounting-based efficiency measure, VAIC primarily captures how efficiently resource expenditures are converted into value added and may not fully reflect qualitative and forward-looking dimensions such as employee knowledge, innovation capability, organizational culture, and relational capital. This limitation has implications for construct validity, as VAIC may represent the efficiency of intellectual capital-related resources rather than the full stock or quality of intellectual capital. Nevertheless, VAIC remains suitable for this study because its standardized measurement enables consistent comparison across Indonesian manufacturing firms and aligns with the study's focus on the efficiency of knowledge-based resources in creating value.

Intellectual capital is operationalized using VAIC and measured using the [4](#):

$$VAIC = VACA + VAHU + STVA \quad (4)$$

The equations presented in Formula 4 are also accompanied by [5](#), [6](#), [7](#), [8](#) and [9](#) , which are presented in the following section.

$$VACA = \frac{\text{Value Added}}{\text{Capital Employed}} \quad (5)$$

$$VAHU = \frac{\text{Value Added}}{\text{Human Capital}} \quad (6)$$

$$STVA = \frac{\text{Structural Capital}}{\text{Value Added}} \quad (7)$$

$$VA = \text{Comprehensive Income} + \text{Employee Cost} \quad (8)$$

$$\text{Structural Capital} = \text{Value Added} - \text{Human Capital} \quad (9)$$

Description:

VACA = Value Added Capital Employed

VAHU= Value Added Human Capital

STVA = Structural Capital Value Added

3.3 Profitability

Profitability reflects management's effectiveness in generating profits from the resources and equity invested by shareholders ([Pangestuti et al., 2022](#)). Profitability is affected by both internal and external forces ([Oranefo & Egbunike, 2023](#)). This study employs Return on Equity (ROE) as the proxy for profitability, calculated as net income divided by total equity, to evaluate how efficiently the firm transforms invested capital into profits ([Kesuma & Ratnawati, 2025](#); [Andriani et al., 2026](#)). Profitability is measured using Return on Equity (ROE), which is calculated as the ratio of net income to total equity. The calculation of ROE is presented in Formula [10](#).

$$PROFIT = \frac{Net\ Income}{Total\ Equity} \quad (10)$$

3.4 Institutional Ownership

Institutional ownership refers to the proportion of a company's shares held by institutional entities such as banks, insurance companies, or investment firms ([Devita, Setyadi, Paminto, Defung, & Adhimursandi, 2021](#)). This variable often serves as an external monitoring mechanism to reduce information asymmetry and align the interests of management with those of shareholders, since they have both the capacity and motivation to keep a close eye on management ([Rohim, Ramadhan, Sucipto, & Sandy, 2026](#); [Hossain, Ahmed, & Md, 2021](#)). In this study, institutional ownership is measured using the [11](#):

$$IO = \frac{Shares\ Owned\ by\ Institutions}{Total\ Number\ of\ Shares\ Outstanding} \quad (11)$$

3.5 Leverage

Leverage indicates the extent to which a firm relies on debt as a source of funds to finance its operations and growth ([Angela & Rusmanto, 2025](#)). The size of leverage can affect firm value, emphasizing the need for effective management as excessive debt utilization can enhance firm value ([Ishak, 2024](#)). Leverage is operationalized through the Debt-to-Equity Ratio (DER), which is the comparison between total liabilities and the total equity owned by the company ([Khalifaturrofi'ah & Setiawan, 2025](#); [Leeliang et al., 2026](#)). In this study, leverage is operationalized using the Debt-to-Equity Ratio (DER) as an indicator of the firm's capital structure and its reliance on debt financing. The calculation of DER is presented in Formula [12](#).

$$LEV = \frac{Total\ Liabilities}{Total\ Equity} \quad (12)$$

3.6 Firm Size

Firm size refers to the scale or magnitude of a company, which represents its capacity to maintain financial stability and its access to capital ([Andriani, Fikriyah, & Ningtyas, 2026](#); [Mahirun, Prasetyani, Ulum, Taruna, Meliza, & Qolbina, 2025](#)). This variable is measured using the natural logarithm (Ln)

of total assets, a transformation applied to make large asset values more comparable to other research variables ([Angela, & Rusmanto, 2025](#) ; [Sulasmiyati, Hafna, & Sirivanh, 2025](#)). Firm size is measured using the natural logarithm of total assets (Ln Total Assets) to reduce data dispersion and improve comparability among firms with different asset scales. The formula used to calculate firm size is presented in Formula [13](#) .

$$SIZE = \ln(Total\ Assets) \quad (13)$$

3.7 Liquidity

Liquidity measures a company's ability to meet its immediate, short-term financial obligations in a timely manner using its current assets ([Mahirun et al., 2025](#)). This research uses the Current Ratio (CR) as an indicator of liquidity, calculated by dividing total current assets by total current liabilities ([Angela & Rusmanto, 2025](#); [Leeliang et al., 2026](#)). In this study, liquidity is operationalized using the Current Ratio (CR) as a proxy for assessing the firm's short-term financial capacity. The calculation of the Current Ratio is presented in Formula [14](#).

$$LIQ = \frac{Current\ Assets}{Current\ Liabilities} \quad (14)$$

4. Results and Discussions

4.1 Descriptive Statistical Analysis

Descriptive statistical analysis serves to provide a foundational summary of research data by outlining the primary characteristics of the dataset through measures such as the mean, standard deviation, minimum, and maximum values ([Mukaro et al., 2023](#)). Table 2 shows the statistics descriptive of variables in this study:

Table 2. Result of statistics descriptive

	FV	IC	PROFIT	IO	LEV	SIZE	LIQ
Mean	2.2299	3.5224	0.1358	0.6835	0.6770	28.6083	3.1551
Maximum	44.8570	15.1152	1.5673	0.9986	6.4659	32.9379	21.5040
Minimum	0.0662	1.1504	0.0018	0.0006	0.0338	24.8278	0.4464
Std. Dev	4.5715	2.1746	0.1709	0.2758	0.7192	1.8735	2.7506
Samples	243	243	243	243	243	243	243
FV = Firm Value, IC = Intellectual Capital, PROFIT = Profitability, IO = Institutional Ownership, LEV = Leverage, SIZE = Firm Size, LIQ = Liquidity							

Based on Table [2](#), the descriptive statistics provide an overview of the characteristics of the variables used in this study. Firm value (PBV) has an average of 2.2299, with a relatively high standard deviation of 4.5715, indicating considerable variation in market valuation among the sampled firms. This suggests that investors assess companies differently based on their performance and other firm-specific characteristics. Intellectual Capital (IC) records a mean of 3.5224 and a standard deviation of 2.1746, reflecting moderate variation in firms' ability to utilize knowledge-based resources efficiently. Meanwhile, profitability (ROE) has an average of 0.1358, with values ranging from 0.0018 to 1.5673, indicating substantial differences in financial performance across companies. The observed variation in profitability suggests that firms differ in their ability to generate returns, supporting the expectation that profitability may influence how effectively intellectual capital contributes to firm value and reinforcing its role as a moderating variable in this study.

4.2 Multicollinearity Result

Table 3. Multicollinearity result

Model 1			Model 2		
	Tol	VIF		Tol	VIF
IC	0.724	1.380	IC_Centre	0.695	1.439
PROFIT	0.558	1.793	PROFIT_Centre	0.365	2.736
IO	0.872	1.146	IC*PROFIT	0.407	2.456
LEV	0.536	1.865	IO	0.858	1.116
SIZE	0.739	1.353	LEV	0.519	1.962
LIQ	0.719	1.390	SIZE	0.672	1.487
			LIQ	0.713	1.403

FV = Firm Value, IC = Intellectual Capital, PROFIT = Profitability, IO = Institutional Ownership, LEV = Leverage, SIZE = Firm Size, LIQ = Liquidity

Based on the results of the multicollinearity test in Table 3, it is evident that without moderation, there is no multicollinearity issue, as indicated by a Tolerance value above 0.1 and a VIF below 10. For Model 2, this study performed mean centering on the variables involved in the interaction. Based on the results after mean centering, there were no multicollinearity issues, with a Tolerance value above 0.1 and a VIF below 10.

4.3 Hypotheses Testing Result

Table 4. Hypotheses testing result

Model 1			Model 2	
	Coefficient	Sig.	Coefficient	Sig.
IC	-0.355	0.000	-0.753	0.000
PROFIT	24.985	0.000	13.059	0.000
IC*PROFIT			2.478	0.000
IO	0.270	0.958	-0.258	0.598
LEV	0.318	0.199	0.124	0.606
SIZE	-0.181	0.261	-0.713	0.382
LIQ	0.139	0.014	0.162	0.0029
Adj R Square		0.809		0.824
F		166.517		155.208
F-Sig		0.000		0.000

Sig = 5% FV = Firm Value, IC = Intellectual Capital, PROFIT = Profitability, IO = Institutional Ownership, LEV = Leverage, SIZE = Firm Size, LIQ = Liquidity

Table 4 shows the Adjusted R-Square in model has a value of 0.809 or 80.9% of the variation in the dependent variable can be explained by the variation in the independent variables included in this study, while 19.1% is influenced by the variation in other independent variables not included in the regression model. Table 4 also show the Adjusted R-Square in model has a value of 0.824 or 82.4% of the variation in the dependent variable can be explained by the variation in the independent variables included in this study, while 17.6% is influenced by the variation in other independent variables not included in the regression model.

Table 4 shows a significance value of 0.000 in model 1 and 2, which is below 0.05. This means that, collectively, the independent variables can influence the dependent variable, and this research model is valid. The t-test results for the research model 1 and 2 in table 4 indicates that Intellectual Capital (IC) has a negative and statistically significant effect on firm value. While many studies expect a positive outcome, this finding is supported by research suggesting that investments in intellectual capital can act as a financial burden in the short term (Burhanuddin et al., 2025). Because intellectual capital such as employee knowledge and specialized organizational processes often lacks immediate visibility in financial statements, it may fail to enhance firm legitimacy among short-term-focused

investors, leading to perceived operational inefficiencies ([Burhanuddin et al., 2025](#); [Rohim et al., 2026](#)).

Profitability (ROE) has significant positive effect on firm value in model 1 and 2 with significant value 0.000. This indicates that ROE is the most dominant factor in increasing market valuation, confirming that profit is a primary driver in increasing firm value as it reflects operational efficiency and financial health ([Kesuma & Ratnawati, 2025](#); [Mahirun et al., 2025](#)). According to Signaling Theory, high profitability sends a powerful positive signal to the market regarding a company's superior prospects for the future, which increases investor expectations and drives up stock prices ([Angela & Rusmanto, 2025](#); [Kesuma & Ratnawati, 2025](#)).

The moderation variable (IC*PROFIT) shows a significant positive moderating effect. This confirms that profitability strengthens the relationship between intellectual capital and firm value. High profitability acts as a confirmation tool for investors, validating that management is effectively allocating its intangible resources to generate tangible financial returns ([Sulasmiyati et al., 2025](#)). In this context, even if IC has a direct negative impact due to short-term costs, higher profitability helps convince the market of the quality and future potential of those intangible assets ([Angelicia et al., 2025](#); [Kesuma & Ratnawati, 2025](#)).

Table 5. Conditional effect

Profitability	Effect	t	P
-0,1053	-0.6782	-6.8665	0.000***
-0.0353	-0.5045	-6.6940	0.000***
0.0975	-0.1754	-2.2354	0.026***

Based on the simple slope analysis in Table 5, it can be seen that profitability whether low or high continues to have an effect. However, the key point is the nature of that effect under each condition. Under conditions of low profitability compared to high profitability, there is a fairly significant decline. The effect value under low profitability is -0.6782, while under high profitability it drops to 0.1754. This indicates that profitability weakens the negative influence of intellectual capital. In other words, the research hypothesis stating that profitability can moderate the relationship between intellectual capital and firm value is supported.

4.4 Discussions

The research shows that intellectual capital has a statistically significant negative effect on firm value, which means that companies with high levels of intellectual capital do not necessarily have high firm value. Intellectual capital consisting of human capital, structural capital, and capital efficiency generally requires substantial investment in employee development, organizational processes, technological innovation, and knowledge management. Often, the costs incurred actually exceed the short-term benefits received by the company. Moreover, the returns from such investments in intellectual capital are not immediately apparent. As a result, investors become more cautious in making investments, which in turn has a negative impact on firm value.

The results of this study match the theory used in the research, namely Resource-Based Theory (RBT). This theory looks at capital as a key resource that can help company to create long-term competitive advantage because it is valuable, rare, difficult-to-imitate, and irreplaceable nature. However, it is not enough for a company to just having these resources. Companies need to effectively utilize these resources to generate strong corporate performance, so that the negative effect seen in this study may indicate that the companies have not yet been fully able to transform their intellectual capital into something that can increase corporate value. Investors need proof that financial results have improved before they give a high value to companies with greater intellectual capital.

The negative effect of intellectual capital on firm value can be interpreted through the mechanism of Signaling Theory. Because intellectual capital is largely intangible and its future benefits are difficult

for external investors to observe and verify, information about intellectual capital may not constitute a sufficiently credible signal of future economic performance on its own. When higher intellectual capital efficiency is not accompanied by strong realized financial performance, investors may place greater weight on observable financial outcomes and perceive the associated investments as costs whose benefits remain uncertain. This weakens the positive signal that intellectual capital could otherwise provide and may contribute to lower firm value. Thus, the negative relationship does not necessarily imply that intellectual capital lacks economic value, but rather suggests that its value may not be fully recognized by investors when supporting financial signals are weak. In this context, profitability provides a more observable signal of the firm's ability to convert its resources into financial returns, helping explain why stronger profitability can enhance the value relevance of intellectual capital.

The study's findings also indicate that profitability has a positive and significant effect on firm value, suggesting that investors place great emphasis on a company's ability to generate returns for shareholders. Return on Equity (ROE) reflects managerial effectiveness in utilizing shareholders' funds to generate profits. Therefore, companies with higher profitability are considered to have stronger growth prospects, lower investment risk, and long-term sustainability.

The research findings also show that profitability significantly moderates the relationship between intellectual capital and firm value. The positive coefficient of the interaction term (IC x PROFIT) indicates that profitability reinforces the role of intellectual capital in creating value. Although the direct effect of intellectual capital is negative, this adverse impact diminishes as profitability increases.

The findings suggest that the value of intellectual capital depends largely on a firm's level of profitability. When profitability is low, investments in intellectual capital may be perceived as additional costs that do not produce immediate financial returns, leading investors to underestimate their contribution to firm value. However, as profitability improves, firms become more capable of converting knowledge-based resources into tangible outcomes, such as greater operational efficiency, innovation, and competitive advantage. Strong financial performance provides credible evidence that intellectual capital has been managed effectively, making investors more likely to recognize its economic benefits and incorporate them into firm valuation. These results indicate that profitability plays a crucial role in strengthening the contribution of intellectual capital to firm value by enhancing investor confidence in the firm's ability to transform intangible resources into sustainable financial and economic value.

Regarding control variables, institutional ownership does not have a significant effect on firm value. Although institutional investors are generally expected to strengthen corporate governance through more effective oversight, these findings suggest that institutional ownership alone is not sufficient to influence firm value. This may indicate that institutional ownership in companies tends to be passive, or that the quality of corporate governance depends more on the effectiveness of oversight than on the concentration of ownership itself.

Similarly, leverage does not have a significant effect on firm value. These results suggest that investors do not view a firm's debt level as a factor that creates financial benefits or unduly increases financial risk. As long as leverage remains within reasonable limits, financing decisions appear to play a relatively minor role in determining market valuation compared to profitability and liquidity.

Firm size also does not have a significant impact on firm value. These results indicate that larger companies do not necessarily have higher value than smaller ones. Instead, investors appear to focus more on operational efficiency, profitability, and a company's future growth prospects than on organizational scale alone. Large total assets do not necessarily result in high firm value, unless those assets are utilized efficiently.

In contrast, liquidity has a positive and statistically significant effect on firm value. This finding suggests that companies with stronger liquidity are viewed more favorably by investors because they are better positioned to meet short-term obligations and cope with financial uncertainties. A sound liquidity position also provides firms with greater financial flexibility, allowing them to sustain stable operations and seize investment opportunities as they arise. As a result, higher liquidity enhances investor confidence and contributes to an increase in firm value.

Overall, the findings indicate that intellectual capital, by itself, does not necessarily lead to higher firm value. Instead, investors appear to value firms that can effectively utilize their intellectual capital to achieve strong financial performance. This highlights the important role of profitability in translating knowledge-based resources into economic benefits that are recognized by the market. Accordingly, managers should focus not only on developing intellectual capital but also on ensuring that these investments contribute to improved profitability and operational performance. For investors, the results suggest that assessing a firm's intellectual capital should be accompanied by an evaluation of its profitability, as the value of intangible resources becomes more evident when they are successfully converted into superior financial outcomes.

5. Conclusions

5.1 Conclusion

This study finds that intellectual capital has a significant negative effect on firm value among manufacturing companies listed on the Indonesia Stock Exchange during the 2022–2024 period. The findings suggest that investments in intangible resources are not always immediately recognized by the market and may be viewed as short-term costs when they do not generate visible financial benefits. In contrast, profitability has a significant positive effect on firm value and strengthens the relationship between intellectual capital and firm value. This indicates that firms are more likely to realize the value of their intellectual capital when they are able to translate it into strong financial performance. Among the control variables, only liquidity is found to have a significant positive effect on firm value, whereas institutional ownership, leverage, and firm size do not show significant relationships.

From a theoretical standpoint, this study contributes to the literature by providing additional evidence that supports both Resource-Based Theory and Signaling Theory. The findings suggest that intellectual capital alone is not sufficient to enhance firm value. Rather, its contribution becomes more meaningful when supported by strong profitability, which serves as a credible signal of a firm's ability to convert knowledge-based resources into tangible economic outcomes. By highlighting the moderating role of profitability, this study also offers an explanation for the inconsistent findings reported in previous research on the relationship between intellectual capital and firm value.

From a practical perspective, the results imply that managers should view investments in intellectual capital as part of a broader strategy to improve financial performance rather than as an end in themselves. Developing employee capabilities, strengthening organizational processes, and encouraging innovation should be accompanied by efforts to enhance operational efficiency and profitability so that the market can recognize the value created by these investments. For investors, the findings emphasize the importance of evaluating intellectual capital together with profitability, as firms that are able to generate strong financial returns are more likely to convert their intangible resources into sustainable shareholder value.

5.2 Research Limitations

This study has several limitations. First, the focus on manufacturing companies listed on the IDX limits the generalizability of the findings to other industries. Second, the three-year observation period (2022–2024) may not fully capture the long-term benefits of investments in intellectual capital. Third, the use of VAIC as the sole proxy for intellectual capital may not capture all qualitative and forward-looking dimensions of intangible resources, as it primarily reflects accounting-based resource efficiency. Fourth, the observational design does not allow causal relationships between intellectual capital, profitability, and firm value to be established with certainty. The observed relationships may

also be affected by omitted variables, such as innovation capability, corporate governance, or research and development intensity, that are not included in the model. In addition, potential endogeneity may arise from reverse causality, whereby firms with higher market value or profitability may have greater capacity to invest in intellectual capital. Future research should therefore employ longer observation periods, alternative or complementary measures of intellectual capital, and research designs that better address omitted-variable bias and endogeneity, such as dynamic panel models, instrumental variable approaches, or other causal estimation techniques. Expanding the sample across industries and countries may also improve the generalizability and robustness of the findings.

5.3 Suggestions and Directions for Future Research

Future research should primarily address the methodological limitations of this study. First, researchers may adopt more comprehensive measures of intellectual capital, such as the Modified Value-Added Intellectual Coefficient (MVAIC), to capture additional dimensions of intellectual capital that are not fully reflected in VAIC. Second, extending the observation period would provide a better opportunity to capture the long-term effects of intellectual capital investment and assess whether its relationship with firm value changes across different economic conditions. Third, future studies should employ panel-data approaches, particularly dynamic panel models, to account for firm-specific effects and better capture the persistence of firm value over time. Such approaches may also help address potential endogeneity and reverse causality between intellectual capital, profitability, and firm value. Finally, future research may incorporate additional variables, such as innovation intensity or corporate governance, when theoretically justified, to reduce the potential for omitted-variable bias and provide a more comprehensive explanation of the relationship between intellectual capital and firm value.

Acknowledgement

The authors sincerely thank all co-authors for their dedication, valuable insights, and collaborative efforts throughout this research. The authors also extend their appreciation to Sekolah Tinggi Ilmu Ekonomi Trisakti and Universitas Tarumanagara for providing continuous academic support, research facilities, and a conducive environment that made this study possible. The encouragement and assistance received from both institutions are greatly appreciated.

Author Contributions

FA was responsible for making the research model, write introduction, literature review, and hypothesis development, also finalization of the manuscript. AK prepared the results and discussion sections and contributed to the interpretation of the research findings. NA conducted the statistical data analysis and interpretation of quantitative findings. AW developed the conclusion, review, and provided critical revisions.

References

- Alexander, N., Putri, A. T. K., & Putri, A. H. (2026). Green intellectual capital and firm value: Evidence from green human, structural and relational capital in Indonesian manufacturing companies. *Equity: Jurnal Ekonomi, Manajemen, Akuntansi*, 29(1), 53-69. <https://doi.org/10.34209/equ.v29i1.14088>
- AlObaid, R. O. H., Al Farooque, O., & Qasem, A. (2025). Does disclosure of CSR activities improve corporate value? Moderating role of intellectual capital and COVID-19 pandemic. *Humanities & Social Sciences Communications*, 12(1), 1-18. <https://doi.org/10.1057/s41599-025-04729-8>
- Andriani, Fikriyah, A., & Ningtyas, T. (2026). Assessing the effect of green disclosure on profitability and firm value in Indonesian Islamic banks. *Discover Sustainability*, 7(485), 1-33. <https://doi.org/10.1007/s43621-026-02884-9>
- Angela, T., & Rusmanto, T. (2025). The effect of ESG disclosure and media exposure on profitability and firm value: Evidence from Indonesia. *International Journal of Sustainable Development and Planning*, 20(10), 1-10. <https://doi.org/10.18280/ijstdp.201030>

- Angelicia, A., Ikhsan, S., & Helmi, H. (2025). Intellectual capital, company size, liquidity and capital structure in their effect on firm value with profitability as a mediator. *Kompak :Jurnal Ilmiah Komputerisasi Akuntansi*, 18(1), 264-271. <https://doi.org/10.51903/phbwkp09>
- Astuti, T., & Ahmar, N. (2025). Effects of green intellectual capital, green accounting, and green innovation on firm value: The moderating role of return on assets. *Environmental Economics*, 16(1), 1-12. <https://doi.org/10.21511/ee>
- Bilgin, R. (2025). A machine learning analysis of the value-added intellectual coefficient's effect on firm performance. *Journal of Modelling in Management*, 20(2), 526-538. <https://doi.org/10.1108/JM2-10-2023-0253>
- Burhanuddin, B., Alfurkaniati, A., Saputra, D., Arifin, Z. D., & Pangestu, G. A. (2025). Does environmental culture and intellectual capital enhance firm value amid political influence?. *JRAK*, 17(1), 78-91. <https://doi.org/10.23969/jrak.v17i2.21807>
- Devita, H., Setyadi, D., Paminto, A., Defung, F., & Adhimursandi, D. (2021). Antecedents of financial performance influence on intellectual capital and firm value. *Universal Journal of Accounting and Finance*, 9(6), 1394-1404. <https://doi.org/10.13189/ujaf.2021.090618>
- Enjelika, N. P. S. Y., & Budiasih, I. G. A. N. (2025). The effect of green accounting and intellectual capital on firm value with enterprise risk management as a moderating variable. *International Journal of Financial Economics*. Retrieved from <https://wikep.net/index.php/IJEFE/article/view/282>
- Hossain, S.M,K.,Sultan. Md, I., & Ahmed, Md,M. (2021). Ownership structure and firm performance: Evidence manufacturing companies listed in Dhaka Stock Exchange. *International Journal of Financial, Accounting, and Management*, 3(3), 227-243. <https://doi.org/10.35912/ijfam.v3i3.621>
- Intara, P., & Sangwichitr, K. (2026). Unlocking firm performance and value through investment efficiency: The moderating role of corporate governance quality. *Investment Management and Financial Innovations*, 23(3), 16-26. <https://doi.org/10.21511/imfi>
- Ionita, C., & Dinu, E. (2021). The effect of intangible assets on sustainable growth and firm value—Evidence on intellectual capital investment in companies listed on Bucharest Stock Exchange. *Kybernetes*, 50(10), 2823-2849. <https://doi.org/10.1108/K-05-2020-0325>
- Ishak, J. F. (2024). The role of earnings quality in the impact of earnings management and leverage on firm value. *International Journal of Financial, Accounting, and Management*, 5(4), 433-442. <https://doi.org/10.35912/ijfam.v5i4.1204>
- Kesuma, S. F., & Ratnawati, K. (2025). The influence of intellectual capital on firm value: The mediating role of profitability. *Journal Management Risiko dan Keuangan*, 4(1), 1-14. <https://doi.org/10.21776/jmrk.2025.04.1.01>
- Khalifaturofi'ah, S. O., & Setiawan, R. (2025). Profitability's impact on firm value in Indonesia's real estate firms: A panel data investigation. *Property Management*, 43(2), 169-186. <https://doi.org/10.1108/PM-08-2023-0082>
- Kusmawati, S. D., & Anisah, N. (2025). The effect of green accounting and intellectual capital on firm value with business strategy as a moderation variable. *Jurnal Akuntansi Bisnis*, 18(1), 146-164. <https://doi.org/10.30813/jab.v18i1.7871>
- Le, P. L. (2023). How microeconomic factors influence Vietnam's listed manufacturing firm value. *Investment Management and Financial Innovations*, 20(2), 267-285. [https://doi.org/10.21511/imfi.20\(2\).2023.23](https://doi.org/10.21511/imfi.20(2).2023.23)
- Leeliang, K., Terdpaopong, K., Leng, L., Loo, J. T. K., & Yang, Y. (2026). Environmental, social and governance disclosure driven firm values – Evidence from European listed companies. *Management And Accounting Review*, 25(1), 16-29. <https://doi.org/10.24191/MAR.V25i01-02>
- Mahirun, M., Prasetyani, T. R., Ulum, A. S., Taruna, M. S., Meliza, M., & Qolbina, A. L. (2025). 4 Years of IDX80 firm value on the Indonesian Stock Exchange: The role of financial performance. *Montenegrin Journal of Economics*, 21(4), 21-33. <https://doi.org/10.14254/1800-5845/2025.21-4.2>

- Mukaro, C.T., Deka, A. & Rukani, S. (2023). The influence of intellectual capital on organizational performance. *Future Business Journal*, 9(1), 31-44. <https://doi.org/10.1186/s43093-023-00208-1>
- Oranefo, P. C., & Egbunike, C. F. (2023). Accounts payable turnover and firm performance of quoted manufacturing firms in Nigeria. *International Journal of Accounting and Management Information Systems*, 1(1), 43-63. <https://doi.org/10.35912/ijamis.v1i1.1247>
- Pangestuti, D. C., Muktiyanto, A., Geraldina, I., & Darmawan. (2022). Role of profitability, business risk, and intellectual capital in increasing firm value. *Journal of Indonesian Economy and Business*, 37(3), 311-338. <https://doi.org/10.22146/jieb.v37i3.3564>
- Rohim, A., Ramadhan, A. H. A., Sucipto, H., & Sandy, W. T. (2026). Intellectual capital's influence on company value with company performance as an intermediary variable: A study of the Indonesia Stock Exchange (IDX). *Australasian Accounting, Business and Finance Journal (AABFJ)*, 20(1), 1-15. <https://doi.org/10.14453/aabfj.v20i1.07>
- Savitri, E., Gumanti, T. A., & Yulinda, N. (2020). Enterprise risk-based management disclosures and firm value of Indonesian finance companies. *Problems and Perspectives in Management*, 18(4), 414-422. <https://doi.org/10.21511/ppm>
- Suhadi, I. A. (2024). Impact of intellectual capital on financial performance with company size moderation. *International Journal of Financial, Accounting, and Management*, 6(1), 47-59. <https://doi.org/10.35912/ijfam.v6i1.1833>
- Sulasmiyati, S., Hafna, & Sirivanh, T. (2025). The influence of intellectual capital on firm value with profitability as an intervening variable: A study of healthcare companies listed on the Indonesian Stock Exchange from 2019 to 2023. *KnE Social Sciences*, 10(13), 416-431. <https://doi.org/10.18502/kss.v10i13.18976>
- Ulum, I., Rizqiyah, R., & Jati, A. W. (2016). Intellectual capital performance: A comparative study between financial and non-financial industry of Indonesian biggest companies. *International Journal of Economics and Financial Issues*. Retrieved from <https://www.econjournals.com/index.php/ijefi/article/view/2884>
- Whetyningtyas, A., Arumsari, N. R., Ashari, A., & Mulyani, S. (2025). Profitability and growth opportunity: Impact on company value. *International Journal of Financial, Accounting, and Management*, 6(4), 559-572. <https://doi.org/10.35912/ijfam.v6i4.2614>
- Widyastuti, T., Parianom, R., Permana, E. (2021). Green intellectual capital and sustainability. *Turkish Journal of Computer and Mathematics Education*, 12(14), 5555-5565. <https://doi.org/10.17762/turcomat.v12i14.11686>