

# Intellectual Capital, Sustainability Report, and the Performance of Financial Sector Companies

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## Abstract

**Purpose:** This study aims to examine the effect of Intellectual Capital and Sustainability Report disclosure on firm performance in financial sector companies listed on the Indonesia Stock Exchange.

**Research methodology:** This study adopts a quantitative research design using secondary data obtained from financial sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period. The sample consists of 92 companies, yielding 368 firm-year observations selected through purposive sampling. Intellectual Capital is measured using the Value-Added Intellectual Coefficient (VAIC<sup>TM</sup>), while Sustainability Report disclosure is measured using the Sustainability Report Disclosure Index (SRDI) based on the Global Reporting Initiative (GRI) Standards. Firm performance is measured using Return on Assets (ROA) and Tobin's Q. Data analysis is conducted using panel data regression with a fixed effects model.

**Results:** The findings show that Intellectual Capital positively and significantly affects ROA, indicating improved profitability, but negatively affects Tobin's Q, suggesting the market does not fully value intellectual capital. Sustainability Report disclosure has no significant effect on ROA but negatively affects Tobin's Q.

**Conclusions:** Overall, Intellectual Capital contributes to accounting-based performance but is not yet positively reflected in market valuation, while Sustainability Report disclosure has not generated immediate financial or market benefits in the financial sector.

**Limitations:** This study is limited to financial sector companies during the post-pandemic period and relies on firm-specific effects captured by the fixed effects model.

**Contributions:** This study extends the Resource-Based View and Stakeholder Theory by showing how Intellectual Capital and Sustainability Report disclosure affect both accounting- and market-based performance in Indonesia's financial sector.

**Keywords:** *Firm Performance, Intellectual Capital, Return on Assets, Sustainability Report, Tobin's Q*

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## 1. Introduction

The financial sector plays a crucial role in maintaining national economic stability and supporting sustainable economic growth in Indonesia. Companies operating in this sector, as financial intermediaries, are required to manage resources effectively, maintain public trust, and create added value for stakeholders. In this context, company performance becomes a key indicator reflecting the firm's ability to generate profits, manage risks, and sustain long-term operational stability (Huynh, Nguyen, & Nguyen, 2025; Teece, 2022).

The performance of financial sector companies during the 2021–2024 period exhibited fluctuating conditions. Data from the Financial Services Authority indicate a decline in the average Return on Assets (ROA) in 2021 due to increased credit risk and deteriorating asset quality following the COVID-19 pandemic. Meanwhile, data from the Indonesia Stock Exchange show that Tobin's Q ratios fluctuated in response to global economic uncertainty, interest rate changes, and capital market volatility. These conditions suggest that firm performance in the financial sector has not shown consistent stability, thereby necessitating further investigation into the determinants influencing performance.

One internal factor that may influence firm performance is Intellectual Capital (IC). According to [Bayraktaroglu, Calisir, and Baskak \(2019\)](#), IC consists of human capital, structural capital, and relational capital that contribute to value creation. From the perspective of the Resource-Based View (RBV), IC is considered a strategic resource capable of generating sustainable competitive advantage ([D'Oria, Crook, Ketchen Jr, Sirmon, & Wright, 2021](#)). Several studies report a positive relationship between intellectual capital and firm performance ([Berhe, 2025](#); [Hulaemah & Mulyasari, 2024](#); [Majumder, Ruma, & Akter, 2023](#); [Manan, Wuryanti, & Mufahamah, 2024](#)). However, empirical findings remain inconsistent. For instance, [Devian and Ekadjaja \(2025\)](#) find no significant effect of IC on Tobin's Q in financial sector companies, indicating that the relationship between IC and firm performance requires further examination.

In addition to internal factors, Sustainability Report (SR) disclosure has emerged as another important determinant of corporate performance. A sustainability report presents information regarding a company's economic, social, and environmental performance based on the Global Reporting Initiative (GRI) framework. According to Stakeholder Theory, transparent sustainability disclosure can enhance legitimacy and stakeholder trust [Sulemana, Cheng, Agyemang, Osei, and Nagriwum \(2025\)](#). While several studies document a positive association between sustainability reporting and firm performance ([Buallay, 2020](#); [Hongming et al., 2020](#); [Zhou, Saeed, & Agyemang, 2024](#)), other studies report insignificant results due to variations in disclosure quality and concerns regarding symbolic reporting practices ([Azzahra, Damayanti, & Dewi, 2025](#); [Kartikasari & Laela, 2023](#)).

Although prior research has examined the relationship between Intellectual Capital and Sustainability Report disclosure on firm performance, empirical findings remain inconclusive, particularly within highly regulated industries such as financial institutions. Moreover, most previous studies rely on a single performance proxy or focus on non-financial sectors. Therefore, comprehensive evidence that simultaneously investigates the influence of Intellectual Capital and Sustainability Report disclosure on both accounting-based performance (ROA) and market-based performance (Tobin's Q) in Indonesia's financial sector remains limited.

In Indonesia, the preparation of Sustainability Reports is mandated under POJK No. 51/POJK.03/2017. However, the level of compliance and disclosure quality among financial sector companies still varies. This study offers novelty by simultaneously examining Intellectual Capital and Sustainability Report disclosure within a highly regulated financial sector context and by differentiating their effects on both accounting-based performance (ROA) and market-based performance (Tobin's Q) during the 2021–2024 period. By integrating these perspectives, this research provides a more comprehensive understanding of how intangible resources and sustainability practices affect firm performance. Therefore, based on the phenomenon of fluctuating firm performance, challenges in managing Intellectual Capital, variations in Sustainability Report quality, and inconsistencies in prior research findings, this study aims to examine the influence of Intellectual Capital and Sustainability Report disclosure on the performance of financial sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period, using Return on Assets (ROA) and Tobin's Q as performance indicators.

## 2. Literature Review and Hypotheses Development

### 2.1 Literatur Review

#### 2.1.1 Resource-Based View (RBV)

The Resource-Based View (RBV) states that a company's performance and competitive advantage are determined by its ability to effectively manage valuable, rare, difficult-to-imitate, and well-organized internal resources (D'Oria et al., 2021). In the context of modern competition, intangible assets are viewed as key strategic resources because they play a crucial role in creating added value and sustainable competitive advantage. Intellectual Capital (IC), a combination of human capital, structural capital, and relational capital, is an intangible asset that reflects a company's ability to manage knowledge, internal systems, and relationships with external parties (Abeysekera, 2021). Based on the RBV perspective, effective IC management enables companies to improve operational efficiency, decision-making quality, and asset productivity, thus impacting both operational and market-based performance.

#### 2.1.2 Stakeholder Theory

Stakeholder theory asserts that corporate responsibility extends beyond the interests of shareholders alone. This concept emphasizes the significance of the contributions and involvement of various strategic elements, including the community, workforce, government authorities, and investors, in the operations of a business entity (Sulemana et al., 2025). Fulfilling stakeholder interests and expectations is a crucial factor in gaining legitimacy, maintaining a company's reputation, and supporting long-term business sustainability. A Sustainability Report (SR) is a means for companies to communicate their performance and commitment to economic, social, and environmental aspects in accordance with sustainability principles. Transparent disclosure of the SR can increase stakeholder trust and support for the company (Zhou et al., 2024). This support has the potential to strengthen operational stability, reputation, and market perception, thereby contributing to overall improved company performance.

Although RBV and Stakeholder Theory provide a strong theoretical foundation for explaining how Intellectual Capital and Sustainability Report disclosure may enhance firm performance, prior empirical findings remain inconsistent. In particular, limited studies integrate both perspectives simultaneously within highly regulated industries such as the financial sector. Furthermore, previous research often relies on a single performance proxy, which may not fully capture both operational and market-based dimensions of firm performance. Therefore, this study integrates RBV and Stakeholder Theory to examine the simultaneous effects of Intellectual Capital and Sustainability Report disclosure on both accounting-based and market-based performance in Indonesia's financial sector.

### 2.2 Hypothesis Development

#### 2.2.1 Intellectual Capital and ROA

Based on RBV Theory, a company can improve its performance if it can control strategic resources that are valuable, rare, difficult to imitate, and well-organized (D'Oria et al., 2021). Intellectual Capital, which includes human capital, structural capital, and relational capital, is an intangible asset that plays a crucial role in improving operational efficiency and the quality of corporate decision-making (Bayraktaroglu et al., 2019). Effectiveness enables companies to utilize their assets optimally, thereby increasing their ability to generate profits, which is reflected in Return on Assets. Previous research has shown that IC has a positive effect on ROA because it can increase productivity and efficiency of asset use (Adhama & Mawardi, 2020). This finding is in line with previous research by Berhe (2025) and Wijayani (2017) which found that IC plays a crucial role in strengthening corporate profitability in the financial sector. Research by Kusumawardani, Susi, and Sukmasari (2023) and Prasasti, Fadah, and Paramu (2025) also found that IC has a significant effect on financial performance. Therefore, the first hypothesis in this study is formulated as follows:

*H<sub>1</sub>: Intellectual Capital has a positive effect on ROA*

#### 2.2.2 Intellectual Capital and Tobin's Q

From the RBV perspective, Intellectual Capital (IC) is a strategic resource that can generate sustainable competitive advantage due to its intangible and difficult-to-imitate nature IC plays a role in driving innovation, operational stability, and a company's ability to create long-term value, which are of concern

to investors in the capital market. Tobin's Q reflects the market's assessment of a company's growth prospects and value, so companies with high IC are theoretically expected to receive a more positive market perception. However, market assessments of IC are not always direct and consistent, particularly in the financial sector, which is characterized by high regulation and risk. Although several studies have found that IC has a positive effect on a company's market value [Abeysekera \(2021\)](#); [Bayraktaroglu et al. \(2019\)](#); [Manan et al. \(2024\)](#) the second hypothesis in this study is formulated as follows:

*H<sub>2</sub>: Intellectual Capital has a positive effect on Tobin's Q*

### 2.2.3 Sustainability Report and ROA

According to Stakeholder Theory, companies need to meet stakeholder expectations to gain legitimacy, trust, and ongoing support ([Sulemana et al., 2025](#)). A Sustainability Report (SR) is a form of disclosure related to a company's responsibility for environmental, social, and governance aspects that can increase transparency and corporate accountability. Good SR disclosure encourages increased stakeholder trust, improved risk management, and operational efficiency, thus increasing company profitability. Previous research has shown that SR quality positively impacts ROA because it can increase the effectiveness of resource management and internal accountability ([Abu-Allan, 2025](#); [Azzam, AlQudah, Abu Haija, & Shakhathreh, 2020](#)). These results are further supported by [Laskar \(2019\)](#) and [Buallay \(2020\)](#) who stated that if a company has a better level of SR disclosure, its financial performance will likely be significantly better. Therefore, the third hypothesis in this study is formulated as follows:

*H<sub>3</sub>: Sustainability Report has a positive effect on ROA*

### 2.2.4 Sustainability Report and Tobin's Q

According to Stakeholder Theory, a Sustainability Report (SR) serves as a means for companies to build legitimacy, reputation, and long-term relationships with investors ([Sulemana et al., 2025](#)). Comprehensive sustainability disclosures can provide positive signals regarding the quality of corporate governance and growth prospects. Tobin's Q describes how the market assesses a company's value and prospects, so theoretically, SR disclosure is expected to elicit a positive response from investors. However, market response to Sustainability Reports can vary, depending on the quality of disclosure and investor perceptions of the credibility of sustainability information. Several studies have found a positive effect of SR on a company's market value [Li, Gong, Zhang, and Koh \(2018\)](#); [Friske, Hoelscher, and Nikolov \(2023\)](#); [Zhou et al. \(2024\)](#) as have studies by ([Deswanto & Siregar, 2018](#); [Suhartini, Tjahjadi, & Fayanni, 2024](#)). These findings emphasize that SR is a crucial factor influencing the market's assessment of a company's quality and value. Therefore, the fourth hypothesis in this study is formulated as follows:

*H<sub>4</sub>: Sustainability Report has a positive effect on Tobin's Q*

## 3. Research Methodology

### 3.1 Conceptual Framework

Based on the theoretical foundations of the Resource-Based View and Stakeholder Theory, this study proposes that Intellectual Capital and Sustainability Report disclosure influence firm performance. Firm performance is measured using both accounting-based and market-based indicators, namely Return on Assets (ROA) and Tobin's Q. The conceptual framework is presented in Figure 1.

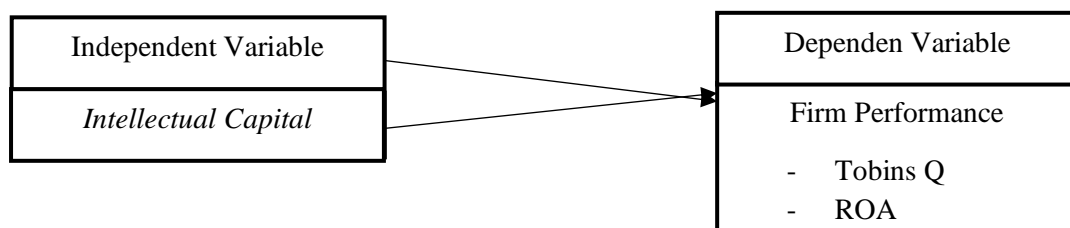


Figure 1. Conceptual framework

### 3.2 Population and Sample

This study's population included all companies in the financial sector listed on the Indonesia Stock Exchange during the 2021-2024 observation period. The sample selection process used a purposive sampling method with the following criteria:

1. Financial sector companies actively listed on the IDX in one of the 2021-2024 periods.
2. Have complete annual financial reports published by the IDX or the *Otoritas Jasa Keuangan (OJK)*, including information for calculating ROA, Tobin's Q, and VAIC™ during the observation period.
3. Publish sustainability reports in accordance with GRI standards and POJK No. 51/POJK.03/2017.
4. Have not experienced significant events such as mergers, acquisitions, or restructuring that could significantly impact performance.
5. Have available annual stock price data required for calculating Tobin's Q.

### 3.3 Data Collection

This study employed a quantitative approach, utilizing secondary data as the primary analytical instrument. Data collection was conducted through documentation, collecting annual reports and sustainability reports from sample companies published by the Indonesia Stock Exchange (IDX), the *Otoritas Jasa Keuangan (OJK)*, and their official websites. The obtained data was then processed and analyzed using panel data regression.

### 3.4 Variable Measurement

This research includes two main variables consisting of: dependent and independent variables.

#### 3.4.1 Dependent Variable

In this study, the dependent variable is performance, measured using two indicators: ROA and Tobin's Q.

1. ROA is measured by comparing net income with total assets.
2. Tobin's Q is calculated using (Share price x Number of shares outstanding + Total Debt) / Total Assets (Bui, Nguyen, & Pham, 2023). Furthermore, Tobin's Q used in the analysis is formulated as follows:

$$LN \text{ Tobin's } Q = \ln (TQ) \quad (1)$$

#### 3.4.2 Independent Variables

This study includes two independent variables: Intellectual Capital and Sustainability Report. Intellectual capital in this study uses the VAIC method with the formula  $VAIC = VACA + VAHU + STVA$  (Bayraktaroglu et al., 2019).

Tabel 1. Classification of intellectual capital

VAIC™ Range	Category	Interpretation of IC Efficiency and Impact on Company Performance
0 – 1,00	Low	IC management efficiency is low; the contribution of intangible assets to ROA and company value is still limited.
>1,00 – 1,80	Medium	IC utilization is starting to be effective; it supports performance stability but is not yet optimal.
>1,80 – 2,50	High	Good IC management; demonstrates strong internal capabilities and has the potential to increase ROA and Tobin's Q.
>2,50	Very high	Optimal IC efficiency; demonstrating sustainable competitive advantage that is valued by the market.

Sustainability reports are measured using the Sustainability Report Disclosure Index (SRDI) which refers to the GRI Standard. Using the formula (SRDI = Number of items disclosed by the Company divided by the total number of relevant GRI Standard items) x 100%.

Tabel 2. Sustainability report disclosure score (GRI index)

Percentage of SR Disclosure (%)	Category	Interpretation
0 – 25	Low	SR disclosure is very limited; accountability is low, not attractive to investors.
>25 – 50	Medium	Disclosures are increasing; reputations are starting to form but are not yet consistent.
>50 – 75	High	Extensive SR disclosure; reflects effective internal management.
>75 – 100	Very high	Full disclosure; demonstrates strong legitimacy and competitive advantage.

Disclosure items will be given a score of 1 if disclosed and 0 if not.

### 3.5 Panel data regression analysis

To analyze the data in this study, panel data regression analysis was applied. The panel data regression equation model used in this study is as follows:

Model 1. The Effect of IC and SR on ROA

$$ROA_{it} = \alpha + \beta_1 VAIC_{it} + \beta_2 SRDI_{it} + \varepsilon_{it} \quad (2)$$

Model 2. The Effect IC dan SR on Tobin's Q

$$TQ_{it} = \alpha + \beta_1 VAIC_{it} + \beta_2 SRDI_{it} + \varepsilon_{it} \quad (3)$$

Description:

$ROA_{it}$	= Return on Assets of company i in year t
$TQ_{it}$	= Tobin's Q of company i in year t
$VAIC_{it}$	= Intellectual Capital Value
$SRDI_{it}$	= Sustainability Report Disclosure Level
$\alpha$	= Constant
$\beta_1, \beta_2$	= Regression Coefficients
$\varepsilon$	= error term

In this study, the panel data regression model applied is adjusted based on the results of the best model selection using the Chow Test, Hausman Test, and Lagrange Multiplier Test. Estimation is performed using the selected panel model ([Ambarawati, Yuniarta, & Werastuti, 2025](#); [Ghozali, 2018](#); [Vuković, Tica, & Jakšić, 2024](#)).

## 4. Results and Discussion

### 4.1 Descriptive Statistics

The characteristics of the research data, such as minimum, maximum, average (mean), median, and standard deviation values, are explained using descriptive statistical analysis. Intellectual Capital (IC) and Sustainability Report (SR) are the independent variables used in the analysis. Company performance is the dependent variable, with Return on Assets (ROA) and LN Tobin's Q as the dependent variables. The results of the descriptive statistical tests are presented in Table 3.

Table 3. Results of descriptive statistical analysis test

	IC	SR	ROA	LN TOBIN'S Q
Mean	1.539940	0.436152	0.017171	0.284800
Median	1.482000	0.410000	0.010000	0.028671
Maksimum	355.8680	0.684000	0.686000	5.607953
Minimum	-187.7850	0.197000	-0.293000	-2.043056
Std.Dev.	25.51813	0.145371	0.067484	0.910792
Observations	368	368	368	368

Table 3 show descriptive statistics show that Intellectual Capital (IC) has an average value of 1.5399 with a high level of variation, indicating differences in the ability of financial sector companies to manage intellectual capital. Sustainability Report (SR) has an average value of 0.4361, indicating a sufficient level of disclosure. Return on Assets (ROA) has an average value of 0.0171, reflecting the company's ability to generate relatively low profits. Meanwhile, LN Tobin's Q has an average value of 0.2848, indicating that in general the company's market value is higher than its book value. All variables were analyzed using 368 observations.

#### 4.2 Panel Data Regression Model Test

Determining the most appropriate panel data regression model is a crucial step in the analysis to produce accurate and reliable estimates. The panel data regression model in this study was determined using the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test. A summary of the panel data regression model testing results is presented in Table 4 below.

Table 4. Panel data regression model test

Panel Data Regression	Model 1 (ROA)	Model 2 (LN Tobin's Q)	Information
Chow Test	0,0000	0,0000	$p < 0,05 \rightarrow$ FEM
Hausman Test	0,0487	0,0408	$p < 0,05 \rightarrow$ FEM
Lagrange Multiplier Test	–	–	Not required
Selected Model	FEM	FEM	

The panel data analysis results indicate that the Fixed Effect Model (FEM) is the best fit for this study, as the probability values of the Chow and Hausman Tests for both models are  $<0.05$ . Furthermore, to examine the relationship between Intellectual Capital (IC) and Sustainability Report (SR) on company performance, a panel data analysis was conducted.

#### 4.3 Analysis of Classical Assumption Test Results

After the panel data model was tested, classical assumptions were applied to test the research data. The purpose of this study was to ensure that the regression model used met the BLUE (Best Linear Unbiased Estimator) criteria. The panel data model testing selected the Fixed Effects Model (FEM). Therefore, the classical assumption test consisted of heteroscedasticity and multicollinearity tests.

##### 4.3.1 Multicollinearity Test

A multicollinearity test was conducted in this study to determine whether there is a strong relationship between the independent variables. A regression model that does not experience multicollinearity is considered a good regression model. The following figure shows the results of the multicollinearity test.

Table 5. Multicollinearity test

	IC	SR
IC	1	-0.019583
SR	-0.019583	1

The results of the multicollinearity test are shown in Table 5. The correlation coefficient value between the IC and SR variables is -0.019583, which is less than 0.8. Consequently, it can be concluded that it does not show symptoms of multicollinearity.

##### 4.3.2 Heteroscedasticity Test

The Wald Test for heteroscedasticity is used in the study to determine whether there is inequality of residual variance in the regression model.

Table 6. Heteroscedasticity test

Model	Wald Test Probability	Conclusion
ROA ( $Y_1$ )	$> 0,05$	Free of heteroscedasticity
LN Tobin's Q ( $Y_2$ )	$> 0,05$	Free of heteroscedasticity

All variables have probability values above 0.05, indicating that the regression model used in this study does not have heteroscedasticity issues, as shown in Table 6. Classical assumptions were tested by focusing on multicollinearity and heteroscedasticity tests. This aligns with the characteristics of the fixed effects panel data regression model. Here, normality and autocorrelation tests are not essential for statistical decision-making because the estimated parameters remain consistent as long as there are no violations of heteroscedasticity and multicollinearity.

#### 4.4 Panel Equation Regression Data Analysis

Figure 5 below shows the results of the FEM used in this study, based on the findings from the Chow and Hausman tests. The following are the results of the regression estimation from the panel data.

Table 7. Panel equation regression data

Variables	ROA ( $Y_1$ ) Koef.	Prob.	Tobin's Q ( $Y_2$ ) Koef.	Prob.
IC ( $X_1$ )	0.000947	0.0000	-0.003126	0.0001
SR ( $X_2$ )	0.088642	0.1639	-1.425604	0.0022
Constant	-0.022948	0.4099	0.911394	0.0000

Table 7 shows the results of the panel equation regression data, which indicates that intellectual capital has a positive and significant effect on ROA, while Sustainability Reports do not significantly affect ROA. Meanwhile, in the model with the dependent variable Tobin's Q, both have a negative and significant effect on Tobin's Q.

#### 4.5 Hypothesis Testing

Hypothesis testing was conducted to determine the effect of Intellectual Capital and Sustainability Report on company performance as measured by ROA and Tobin's Q. This testing was conducted using the Fixed Effect Model (FEM) and involved 368 observations. The coefficient of determination (Adjusted  $R^2$ ), simultaneous test (F), and partial test (t) were used to evaluate the hypothesis.

##### 4.5.1 Hypothesis Testing Results

Table 8. Hypothesis test results

Model	Variables	Coefficient	Prob. t	Hypothesis Decision	Adjusted $R^2$	Prob. F
ROA	IC	0.000947	0.0000	$H_1$ accepted	0.568287	0.0000
ROA	SR	0.088642	0.1639	$H_3$ is rejected		
Tobin's Q	IC	-0.003126	0.0001	$H_2$ is rejected	0.875474	0.0000
Tobin's Q	SR	-1.425604	0.0022	$H_4$ is rejected		

The Adjusted  $R^2$  value indicates that the Intellectual Capital and Sustainability Report variables explain 56.83% of the variation in ROA, while the Tobin's Q model explains 87.55% of the variation in firm value. The F-test results show a significance value of 0.0000 for both models, thus concluding that the regression model used is fit. These results indicate that the independent variables simultaneously have a significant effect on the dependent variable. The t-test indicates a positive and significant effect of Intellectual Capital on ROA, thus supporting  $H_1$ . Conversely, the Sustainability Report does not significantly influence ROA, thus rejecting  $H_3$ . The Tobin's Q model shows a significant negative effect between Intellectual Capital and Sustainability Report, thus rejecting  $H_2$  and  $H_4$ .

#### 4.6 Discussion of Research Results

##### 4.6.1 The Influence of Intellectual Capital on ROA

The results of the first hypothesis test ( $H_1$ ) indicate that Intellectual Capital (IC) has a positive and significant effect on Return on Assets (ROA), with a coefficient of 0.000947 and a probability of 0.0000 < 0.05. This finding indicates that effective intellectual capital management can improve the efficiency of asset utilization in generating profits. IC components, including human, structural, and relational capital, contribute to increased productivity and operational effectiveness. In the context of Indonesia's financial sector during the 2021–2024 period, this result is particularly relevant. Following the post-pandemic recovery phase, financial institutions were required to strengthen digital transformation, risk

management systems, and service innovation. These adjustments heavily rely on knowledge-based resources and organizational capabilities. Therefore, intellectual capital plays a crucial role in improving operational efficiency and profitability. These results align with the Resource-Based View (RBV), which emphasizes that intangible resources are key components in creating competitive advantage and financial performance. This research finding is consistent with [Adhama and Mawardi \(2020\)](#), [Berhe \(2025\)](#), [Kusumawardani et al. \(2023\)](#) and [Wijayani \(2017\)](#), which state that Intellectual Capital positively contributes to company profitability.

#### *4.6.2 The Influence of Intellectual Capital on Tobin's Q*

The results of the second hypothesis test ( $H_2$ ) indicate that Intellectual Capital (IC) has a significant effect on Tobin's Q, with a negative coefficient of -0.003126 and a probability value of 0.0001. This finding indicates that improved Intellectual Capital management in financial sector companies has not been fully appreciated by the capital market in shaping corporate value. In the Indonesian capital market, which is categorized as an emerging market, investors tend to focus more on short-term financial indicators such as earnings stability and dividend performance. Investments in intellectual capital, which are long-term and intangible in nature, may be perceived as increasing operational costs in the short run. Moreover, the financial sector operates under strict regulatory supervision by OJK, which may limit flexibility in translating intangible investments into immediate market signals.

From the Resource-Based View (RBV) perspective, intangible assets require time to create sustainable competitive advantage and are not always immediately reflected in stock prices. Furthermore, from an Agency Theory perspective, investment in Intellectual Capital can be perceived as overinvestment when its economic benefits are not yet directly observable, potentially reducing perceived corporate value. The results of this study are consistent with [Smriti and Das \(2018\)](#) and [Dessyla and Susanti \(2024\)](#), which show that Intellectual Capital is not always responded to positively by the market, especially in sectors with high levels of regulation.

#### *4.6.3 The Influence of Sustainability Report on ROA*

The test results indicate that the Sustainability Report has no significant effect on ROA, as shown by the coefficient value of 0.088642 and a probability value of 0.1639 > 0.05. This finding indicates that sustainability reporting has not been able to directly impact company profitability in the short term. In Indonesia, although Sustainability Report disclosure has been mandated under POJK No. 51/POJK.03/2017, the quality and depth of implementation still vary among financial institutions. In many cases, sustainability reporting remains compliance-oriented rather than strategically integrated into operational decision-making. As a result, its benefits may be reputational and long-term in nature rather than directly affecting short-term asset efficiency. Based on Stakeholder Theory, the Sustainability Report serves to build trust and legitimacy. However, in the context of short-term profitability, these benefits are not yet directly reflected. This result aligns with [Piao, Li, and Ting \(2019\)](#), [Kartikasari and Laela \(2023\)](#), [Nuryadi and Aziza \(2025\)](#) dan [Santamaria, Paolone, Cucari, and Dezi \(2021\)](#) which indicate that the effect of the Sustainability Report on ROA tends to be insignificant.

#### *4.6.4 The Influence of Sustainability Report on Tobin's Q*

The Sustainability Report variable shows a negative and significant effect on Tobin's Q, with a coefficient of -1.425604 and a probability value of 0.0022. This finding indicates that increased disclosure of Sustainability Reports in financial sector companies does not fully convey a positive signal to investors. In the Indonesian emerging market context, investors often prioritize immediate financial returns over non-financial disclosures. Sustainability initiatives may be interpreted as increasing compliance costs, reporting expenses, and long-term investments whose benefits are uncertain in the short term. Additionally, variations in disclosure quality and the dominance of qualitative narratives may limit the ability of sustainability information to function as a strong valuation signal.

From the perspective of Stakeholder Theory and Signaling Theory, particularly the concept of costly signaling, Sustainability Report disclosure may be perceived as requiring significant costs. If investors believe that these costs outweigh short-term financial benefits, market valuation may decline. From an Agency Theory perspective, sustainability disclosure could also be perceived as a managerial strategy to build legitimacy without proportional financial returns. This finding is consistent with [Queirós and Oliveira \(2021\)](#), [Latifah and Luhur \(2017\)](#), and [Azzahra et al. \(2025\)](#) who found that sustainability information is not fully appreciated by investors in emerging markets.

#### *4.6.5 F Test and Determinant Coefficient*

With a p-value of 0.0000, the F test shows that Intellectual Capital (IC) and Sustainability Report (SR) simultaneously have a significant influence on ROA and Tobin's Q. Therefore, this regression model is considered feasible. The Tobin's Q model has the highest Adjusted R<sup>2</sup> value of 0.8755, indicating that IC and SR explain 87.55% of the variation in the company's market value. In the context of Indonesia's financial sector, this high explanatory power suggests that intangible resources and sustainability disclosure are increasingly relevant factors in shaping market valuation, even though their directional effects differ.

## **5. Conclusions**

### **5.1 Conclusion**

This study examines the effect of Intellectual Capital and Sustainability Report disclosure on firm performance in financial sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period. The results show that Intellectual Capital has a positive and significant effect on Return on Assets (ROA), indicating that effective management of intellectual capital improves the efficiency of asset utilization and corporate profitability. However, Intellectual Capital shows a significant negative effect on Tobin's Q, suggesting that the capital market has not fully appreciated the value of intangible assets. Furthermore, Sustainability Report disclosure does not significantly influence ROA, indicating that sustainability practices have not yet directly affected short-term profitability. Meanwhile, Sustainability Report disclosure shows a significant negative effect on Tobin's Q, suggesting that investors in emerging markets such as Indonesia may still prioritize short-term financial performance over non-financial disclosures. Overall, the findings indicate that although Intellectual Capital contributes to operational performance, both Intellectual Capital and Sustainability Report disclosure have not yet been fully reflected in market valuation within the financial sector.

### **5.2 Research Limitations**

This study has several limitations. First, the analysis focuses only on financial sector companies listed on the Indonesia Stock Exchange during the 2021–2024 period, which represents post-pandemic conditions and may not fully reflect normal market dynamics. Second, firm performance is measured only using ROA and Tobin's Q, which may not comprehensively capture all dimensions of financial and market performance. Third, this study relies on the VAIC<sup>TM</sup> method and the Sustainability Report Disclosure Index, which may not fully represent the qualitative aspects of intellectual capital management and sustainability practices.

### **5.3 Suggestions Limitations and Further Studies**

Based on the findings of this study, financial sector companies are encouraged to improve the strategic management and transparent communication of Intellectual Capital so that its long-term value can be better recognized by the market. Companies should also enhance the quality and credibility of Sustainability Report disclosures by linking sustainability initiatives to measurable financial and operational outcomes. For future research, it is recommended to extend the observation period, include additional performance indicators, and consider moderating or mediating variables to better capture the long-term impact of Intellectual Capital and sustainability disclosure on firm performance.

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## Author Contributions

Authors made substantial contributions to the research process. MK was responsible for data collection, analysis, and manuscript preparation. FF contributed to research supervision, conceptual development, and manuscript review. All authors approved the final version of the manuscript.

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