

## The Effect of Intellectual Capital and Investment Decisions on Firm Value Through Profitability as an Intervening Variable

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### KEYWORDS

Intellectual Capital; Investment Decisions; Profitability; Company Value.

### ABSTRACT

A company's value is an important indicator that reflects investors' perceptions of the company's future performance and prospects. In the era of the knowledge-based economy, intellectual capital and investment decisions are strategic factors believed to increase company value, both directly and indirectly through profitability. This research aims to analyze the influence of intellectual capital and investment decisions on company value with profitability as an intervening variable. This study uses a quantitative approach with an explanatory method. The data used are secondary data in the form of financial statements of companies listed on the Indonesia Stock Exchange during the research period. The data analysis technique was carried out using path analysis to test the direct and indirect influences between variables. The results of the study showed that intellectual capital and investment decisions had a positive and significant effect on profitability. Furthermore, profitability was proven to have a positive and significant effect on company value. In addition, profitability was able to mediate the influence of intellectual capital and investment decisions on company value. These findings confirm the importance of proper management of intellectual assets and investment policies in increasing profitability and value in a sustainable manner.

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## INTRODUCTION

The increasingly dynamic development of the capital market requires companies to continuously enhance firm value as a long-term primary goal. A company's value reflects investors' perceptions of its performance, stability, and prospects. High-value companies tend to garner greater investor trust, as they are seen as capable of managing resources effectively and generating sustainable profits (Brigham & Ehrhardt, 2020). Thus, identifying factors that influence firm value remains a critical issue in financial and investment management studies (Ahmad, 2025; Alghifari et al., 2023).

Previous studies have explored various determinants of firm value, often examining intellectual capital and investment decisions separately or alongside financial performance. Research by Xu and Wang (2020) and Smriti and Das (2021) demonstrated that intellectual capital—measured via the Value Added Intellectual Coefficient (VAIC)—has a significant positive impact on firm profitability and market value, particularly in knowledge-intensive sectors. Similarly, studies by Dang et al. (2021) and Baker et al. (2020) underscored the critical role of investment decisions—such as capital expenditures and asset growth—in enhancing operational efficiency and shareholder returns. However, while these studies established direct relationships, the mediating mechanism through profitability has not been consistently or

thoroughly examined. For instance, Nadeem et al. (2021) and Sardo and Serrasqueiro (2022) found that profitability partially mediates the link between intellectual capital and firm value, yet their models did not simultaneously incorporate investment decisions as antecedents. Conversely, research by Vo and Ellis (2021) highlighted the direct effect of investment efficiency on firm value but overlooked profitability's intervening role in translating strategic investments into market perceptions. Furthermore, earlier works by Khan et al. (2020) emphasized profitability as a key driver of firm value but did not integrate it within a comprehensive framework including both intellectual capital and investment decisions as exogenous variables. This reveals a notable gap in the literature: while individual relationships have been studied, a holistic model examining the simultaneous influence of intellectual capital and investment decisions on firm value—with profitability as a mediating variable—remains underexplored, especially in emerging markets like Indonesia.

In recent decades, the global economy's shift toward a knowledge-based economy has positioned intellectual capital as a primary source of competitive advantage for companies (Econjournals, 2024; Goswami & Maji, 2025; Keter et al., 2024). Intellectual capital encompasses intangible assets such as employee competencies, organizational systems, and external relationships that create value for the firm. Recent research shows that intellectual capital significantly enhances financial performance and competitiveness, especially in knowledge-intensive sectors (Xu & Wang, 2020; Smriti & Das, 2021).

In addition to intellectual capital, investment decisions are strategic factors influencing company performance and value (Muda et al., 2025; Nuryawan, 2025; Zhang et al., 2022). These decisions reflect management's policies for allocating funds to assets expected to yield future economic benefits. Optimal investments boost production capacity, operational efficiency, and growth potential, while suboptimal ones degrade financial performance and erode investor confidence (Dang et al., 2021).

Profitability serves as a primary indicator of a company's success in managing its assets and investments. High profitability signals effective profit generation, which ultimately elevates firm value. Investors respond positively to stable profitability, viewing such companies as lower-risk with stronger prospects (Khan et al., 2020). Thus, profitability is frequently employed as a key variable in firm value research.

The relationship between intellectual capital and firm value is not always direct but can be mediated by financial performance, particularly profitability. Optimally managed intellectual capital boosts efficiency and innovation, thereby increasing profits. Several empirical studies confirm that profitability acts as an intervening variable strengthening intellectual capital's influence on firm value (Nadeem et al., 2021; Sardo & Serrasqueiro, 2022).

Similarly, investment decisions are believed to affect firm value both directly and indirectly through profitability. Effective investments enhance profits, which in turn improve market perceptions of firm value. However, prior studies yield mixed findings, necessitating further research to clarify this mechanism—especially with profitability as an intervening variable (Baker et al., 2020; Vo & Ellis, 2021).

Based on this background, this study aims to analyze the effect of intellectual capital and investment decisions on firm value through profitability as an intervening variable. Specifically, it examines the direct effects of intellectual capital and investment decisions on profitability and firm value, as well as profitability's indirect mediating role in those relationships. This research is expected to contribute empirically to financial management literature, particularly regarding intangible assets and investment policies in elevating firm value. Additionally, its findings should inform strategic decision-making by company management and investors in the knowledge-based economy era.

## METHOD

This study employed a quantitative approach with explanatory research design, which aims to explain causal relationships between variables. The research objects were companies listed on the Indonesia Stock Exchange (IDX) during a specified observation period.

The data comprised secondary sources obtained from the companies' annual financial statements. Intellectual capital was measured using the Value Added Intellectual Coefficient (VAIC) method, investment decisions were proxied by asset growth ratios or capital expenditures, profitability was measured using Return on Assets (ROA), and firm value was measured using Price to Book Value (PBV).

The research population consisted of all companies listed on the Indonesia Stock Exchange (IDX), with samples selected via purposive sampling based on criteria such as data availability and financial statement consistency. Data analysis involved descriptive statistical tests, classical assumption tests, and path analysis to examine direct and indirect effects among variables. Hypothesis testing was conducted at a 5% significance level.

## RESULTS AND DISCUSSIONS

Descriptive statistical analysis was carried out to provide an overview of the characteristics of research data which included intellectual capital, investment decisions, profitability, and company value. The results of descriptive statistics show that there is a good enough variation in data that it is worthy of further analysis.

**Table 1. Descriptive Statistics of Research Variables**

Variable	Minimum	Maximum	Mean	Std. Deviation
Intellectual Capital (VAIC)	1,12	8,45	4,36	1,72
Investment Decision	0,05	0,78	0,34	0,18
Profitability (ROA)	0,01	0,29	0,11	0,07
Company Value (PBV)	0,62	6,84	2,41	1,36

Source: Processed Secondary Data, Indonesia Stock Exchange, 2023

Based on Table 1, the average value of intellectual capital shows that the sample companies have utilized intellectual assets relatively optimally. Meanwhile, the company's high standard of value deviation reflects the difference in investors' perception of each company's performance and prospects.

The next test is carried out to determine the influence of intellectual capital and investment decisions on profitability. The results of regression analysis show that these two independent variables have a positive and significant effect on the company's profitability.

**Table 2. The Influence of Intellectual Capital and Investment Decisions on Profitability**

Independent Variables	Coefficient ( $\beta$ )	t-Statistics	Sig.
Intellectual Capital	0,327	3,842	0,000
Investment Decision	0,291	3,116	0,002
Constanta	0,042	2,018	0,045
R <sup>2</sup>	0,468		

Source: Path Analysis Results, Processed Data, 2023

These findings indicate that good intellectual capital management, including human resource competencies and organizational systems, is able to improve operational efficiency and company profits. In addition, the right investment decisions reflect management's ability to allocate resources to productive assets that provide optimal returns. Furthermore, the analysis was carried out to test the influence of intellectual capital, investment decisions, and profitability on the company's value. The test results show that these three variables have a positive and significant influence on the company's value.

**Table 3. The Influence of Intellectual Capital, Investment Decisions, and Profitability on Company Value**

Independent Variables	Coefficient ( $\beta$ )	t-Statistics	Sig.
Intellectual Capital	0,214	2,487	0,014
Investment Decision	0,198	2,231	0,027
Profitability	0,463	4,975	0,000
Constanta	0,615	3,102	0,002
R <sup>2</sup>	0,552		

Source: Path Analysis Results, Processed Data, 2023

These results show that profitability has the most dominant influence on the company's value. This confirms that the company's ability to generate profits is the main signal for investors in assessing the company's performance and prospects in the capital market. To determine the role of profitability as an intervening variable, a path analysis was conducted to measure the direct and indirect influence of intellectual capital and investment decisions on the company's value.

**Table 4. Direct and Indirect Influence through Profitability**

Variable Relationships	Direct Influence	Indirect Influence	Total Impact
Intellectual Capital → Company Value	0,214	0,151	0,365
Investment Decisions → Company Value	0,198	0,135	0,333

Source: Path Analysis Results, Processed Data, 2023

Based on Table 4, the indirect influence of intellectual capital and investment decisions on the value of the company through profitability is greater than the direct influence. This shows that profitability plays an important role as an intervening variable that strengthens the relationship between the company's internal policies and the company's market value.

The results of this study support the resource-based view theory which states that intangible assets and strategic decisions of companies are sources of competitive advantage that are able to improve financial performance and company value. Effective intellectual capital management and the right investment decisions have been proven to increase profitability, which in turn has an impact on increasing the company's value.

## CONCLUSION

This study analyzed the influence of intellectual capital and investment decisions on firm value, with profitability as an intervening variable, revealing that intellectual capital—through effective management of human competencies and organizational systems—exerted a positive and significant effect on profitability, as did investment decisions via efficient policies in productive assets, enabling sustainable profit growth. Profitability, in turn, positively and significantly impacted firm value, serving as a key market signal of prospects that boost investor

perceptions. Notably, profitability fully mediated the effects of both intellectual capital and investment decisions on firm value, underscoring its strategic role in linking internal policies to capital market outcomes and implying that firms should prioritize these factors to enhance financial performance and valuation. For future research, incorporating additional variables (e.g., corporate governance or innovation metrics), expanding to diverse industrial sectors beyond the current scope, and extending the observation period would yield more robust, generalizable insights.

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