

Research Horizon

ISSN: 2808-0696 (p), 2807-9531 (e)

Research Horizon

Volume: 04

Issue: 05

Year: 2024

Page: 31-44

The Impact of Intellectual Capital, Business Risk, and Institutional Ownership on Firm Value

Khadafi Alwaini^{1*}, Deden Tarmidi²

^{1,2} Faculty of Economics and Business, Universitas Mercu Buana, Jakarta, Indonesia

* Corresponding author: Khadafi Alwaini (khadafialwaini@gmail.com)

Abstract

This study aims to analyze the effect of board diversity on the relationship between intellectual capital, business risk, and institutional ownership with firm value. With the unit of analysis of companies operating in the Property, Real Estate, and Construction Building sectors listed on the Indonesia Stock Exchange (IDX) from 2019 to 2022. Using purposive sampling, a final sample of 184 firms was obtained. Multiple regression analysis was used to test the hypothesis. The result indicate that intellectual capital and business risk have a positive impact on firm value, while institutional ownership has a negative impact. Additionally, the study finds that intellectual capital and institutional ownership, as represented by both male-dominated and female-dominated of the Board of Directors (BoD), do not significantly affect firm value. However, a male-dominated BoD has a more significant impact compared to a female-dominated BoD, while both have a positive effect on business risk in the company.

Keywords

Board Diversity, Intellectual Capital, Business Risk, Institutional Ownership, Firm Value

1. Introduction

A good company is one that can notice various aspects, both financial and non-financial aspects in enhancing firm value as part of the company's efforts to ensure its ongoing viability. Firm value reflects an investor's evaluation of a company's performance, which is tied to its stock price. The COVID-19 pandemic has triggered a global crisis, affected health and leading to socioeconomic crises, including in the financial sector (Mahajan, 2021). At that time, investor panic was exacerbated by the emergence of various COVID-19 variants such as Delta, which was first identified in mid-2021 and Omicron, which emerged at the end of 2021 and into early 2022.



Figure 1. IHS graph for the period 2021-2024

The impact of COVID-19 was also felt in the stock market, where the Jakarta Composite Index (JCI) experienced a significant drop during the initial stages of the pandemic in early 2020 and well below compared to the period in 2019. This reflects a largely *wait-and-see* attitude among investors. Investors are concerned about future market conditions. The graph of the Jakarta Composite Index (JCI) for the period 2021-2024 shows the growth of the property index during the COVID-19 period. The graph shows a significant decline in prices from the beginning of 2021 until around the end of 2023. Stock prices experienced several fluctuations, but the overall trend was downward. This made the IDXPROPERT index appear sluggish during the pandemic period. The MSCI UK Quarterly Property Index experienced a significant decline in the second half of 2022. From its peak in the second quarter of 2022, the index dropped to its lowest level since the third quarter of 2009. This decline indicates sharp fluctuations in the UK property market, suggesting changes in market dynamics and potential significant economic impacts. Firm value is the value per share that would be realized if all of the company's assets were sold at their current market prices. Firm value is also an important factor in long-term investments using analytical methods (Schoenmaker & Schramade, 2019).

Management generally formulates policies with organizational goals in mind, even though having hidden personal management objectives is fairly common. Each company policy inevitably affects internal stakeholders, including management and members of the management team, as well as external stakeholders like the government, banks, the general public, and investors are also affected. Independent commissioners are selected to represent the interests of shareholders while performing oversight functions for the company. Board diversity is believed to have a positive impact. Greater diversity among board members may lead to more conflicts; however, this diversity can offer a wider range of solutions to problems compared to a homogeneous board. Companies with diverse board members may achieve better financial performance compared to their competitors—25% more

probable for gender diversity and 36% more probable for ethnic diversity (Jao et al., 2024).

Researchers have found that board diversity shows a positive and substantial correlation with firm value (Agyemang-Mintah, & Schadewitz, 2019; Greene et al., 2019; Qureshi et al., 2020). However, research conducted by Chondough (2021), reveals that board diversity does not have a significant impact on firm value. Herawati et al. (2020), defines intellectual capital as a term given to the combination of intangible assets, intellectual capital, employees, and infrastructure that enables a company to function. In other words, intellectual capital is the total of intangible and knowledge-related resources that an organization uses to generate value (Garcia-Perez et al., 2020). Despite its importance, there is still a lack of understanding about the extent to which specific aspects of intellectual capital impact firm value and financial performance. Researchers have found that intellectual capital positively affects firm value (Putri et al., 2019; Putri & Nazula, 2021). However, this contrasts with the study by Josephine et al. (2019), which indicates that intellectual capital does not impact firm value. Hartati & Mukhibad (2018), defines in a company, business risk increases with high levels of debt. Companies with high business risk tend to increase their use of debt as a source of funding. Business risk significantly affects firm value, as found in studies by (Ginting et al., 2020; Septyanto & Nugrah, 2021; Alamsyah & Malanua, 2021). However, contrary results were found by Hartati & Mukhibad (2018), which indicate that business risk negatively impacts firm value.

Institutional ownership refers to the ownership of shares by financial institutions such as banks, pension funds, insurance companies, and investment funds. Institutional ownership plays an important role in the capital markets because these institutions have substantial resources to invest in company shares. Previous research examining the impact of institutional ownership on firm value has indicated that institutional ownership significantly affects firm value (Asnawi *et al.*, 2019). However, these findings are contradicted by several studies that indicate institutional ownership does not significantly affect firm value (Amaliyah & Herwiyanti, 2019; Sari & Wulandari, 2021). Based on the phenomena and research gaps identified in the studies discussed, the author intends to conduct research with the title: 'Analysis of Board Diversity on the Influence of Intellectual Capital, Business Risk, and Institutional Ownership on Firm Value in the Property and Real Estate companies Listed on the IDX for the Period 2019-2022.

2. Literature Review

Laili & Tjaraka (2024), describe an agency relationship as a contract where one or more parties (principals) hire another party (agent) to provide services on their behalf, which includes delegating some decision-making authority to the agent. Based on this assumption, it can be concluded that the agency problem is triggered by the differing objectives between shareholders and managers. The context of firm value research, agency theory can highlight the important role of understanding how this relationship impacts firm value. Agency theory can be linked to information asymmetry, which occurs when management possesses more information about the company's operations than the board of directors or shareholders. Gender diversity in the Board of Directors (BOD) can help reduce this information asymmetry, as diverse perspectives and communication styles can enhance the exchange of more comprehensive information. In Overall, agency theory advocates for gender diversity on the board of directors as a way to address agency issues, enhance oversight, and ensure that management operates in the best interests of the company's shareholders.

Falqueto (2020), defines stakeholders as groups or individuals who can influence or be influenced by the achievement of specific objectives. Stakeholder theory asserts that companies should not operate solely for their own benefit but also provide value

to stakeholders, such as shareholders, creditors, consumers, suppliers, employees, and the government (Chairi & Ghazali, 2007). In firm value research, this theory highlights the importance of considering stakeholder interests for long-term value creation. A gender-diverse board of directors brings broader perspectives, enabling better responses to stakeholder needs, particularly on social, environmental, and ethical issues. Companies with gender-diverse boards are often seen as more socially and ethically responsible, which can strengthen their reputation and improve long-term performance.

Gender is an intrinsic characteristic shaped by social and cultural influences, leading to assumptions about the roles of men and women (Ellemers, 2018). It is a cultural construct shaped by societal norms, fluid, and subject to change based on variations in customs, culture, religion, values, and historical events. Gender is context-specific, not universally applicable. Differences in gender can influence decision-making and behavior. Men tend to focus on success through competition and outcomes, while women emphasize task execution, maintaining positive relationships, and following rules. As a result, women are more likely to be critical of rule violations. Tarmidi et al. (2023) examine two methods for assessing gender perceptions of ethical behaviour: the structural and socialization approaches. The structural approach suggests that differences in male and female behavior stem from early socialization related to work expectations and the rewards received throughout their careers. This framework posits that both men and women, influenced by similar work environments and reward systems, will eventually develop comparable ethical and moral standards. In terms of firm value, gender diversity on boards can significantly influence decision-making. The inclusion of women on the board of directors or commissioners brings unique perspectives, promoting more prudent and innovative decisions. This can enhance firm value by fostering a more inclusive and progressive company image. Gender-diverse boards are also viewed positively by investors, customers, and business partners, potentially boosting a company's reputation and long-term performance.

Firm value is calculated as the present value of the company's projected free cash flows, discounted using the weighted average cost of capital. Free cash flow represents the cash available to investors after deducting all operating expenses, capital expenditures, and changes in net working capital. Firm value is also crucial in long-term investments using analytical methods (Tarczynski et al., 2020). Firm value can be assessed through the stock price; as the stock price increases, so does the firm value. Increasing firm value is a key achievement expected by the owners, as enhancing firm value will also improve the owners' wealth (Listari, 2018). Supriono (2020), a company's stock price is closely related to the level of success perceived by investors as firm value. The market price of a company's stock represents investors' evaluation of the total equity ownership. On the other hand, Belli et al. (2019) contend that firm value signifies a specific state attained by a company after undergoing a process spanning several years, from its founding to the present.

Intellectual capital encompasses intangible assets, intellectual property employees, and infrastructure that enable a company to function effectively (Maharani & Fuad, 2020). Companies with strong intellectual capital differentiate themselves by generating long-term benefits. According to Subagio (2022), intellectual capital represents knowledge that yields future benefits through resource utilization. Investors are attracted to firms with high intellectual capital, as it indicates capital efficiency, and increased investment can enhance firm value (Setiany et al., 2020). The impact of intellectual capital on firm value can vary based on the board's gender composition. Male-dominated boards tend to focus on financial and operational aspects, while female-dominated boards emphasize social issues, employee relations, and sustainability in managing intellectual capital. Research by

Ni et al. (2020), Putri et al. (2019), and Putri & Nazula (2021) supports the positive relationship between intellectual capital and firm value. Leadership plays a crucial role in managing intellectual capital, and the gender of board members influences policy-making and implementation. Qureshi et al. (2020), found that female representation on the board positively affects firm value, suggesting that diversity in leadership enhances organizational outcomes.

H1. There is a difference in the impact of intellectual capital on firm value between companies led by a male-dominated board of directors and those led by a female-dominated board of directors.

Business risk is the risk that a company faces when it is unable to cover its operational costs, and it is influenced by the stability of revenue and expenses. Companies with greater business risk are more inclined to steer clear of debt financing than those with lower business risk. The impact of business risk on firm value may vary depending on whether the company is led by a board of directors dominated by men or women. Companies with a male-dominated board of directors may experience greater fluctuations in market value due to riskier decisions. Conversely, companies led by a female-dominated board of directors may be more stable in their market value due to a more cautious approach and focus on risk management. Previous research indicates that business risk significantly affects firm value, as evidenced by studies conducted by Chairani & Siregar (2021); Septyanto & Nugrah (2021). The gender of a leader plays a role in managing business risk to the minimum in order to enhance firm value. Additionally, the presence of women in the boardroom positively impacts firm value, in line with research by Agyemang-Mintah & Schadewitz (2019), which states that women contribute significantly to firm value.

H2. There is a difference in the impact of business risk on firm value between companies led by a male-dominated board of directors and those led by a female-dominated board of directors.

Institutional ownership pertains to the shares of a company that are held by institutions or organizations, including insurance companies, banks, investment firms, and other institutional entities. Institutional ownership pertains to the percentage of a company's shares that are owned by institutional investors, including insurance companies, banks, investment firms, and other similar entities. Share ownership represents a source of power that can influence management decisions. The impact of institutional ownership on firm value may vary depending on whether the company is led by a board of directors (BoD) dominated by men or women. Under male-dominated BoD leadership, significant institutional ownership may drive stricter oversight of management. A board of directors (BoD) dominated by women may already be more inclined to be cautious and focused on risk management and long-term decision-making. Based on previous research, institutional ownership impacts firm value, as evidenced by studies conducted by Asnawi et al. (2019). Institutional ownership refers to shares of a company held by financial institutions such as pension funds, insurance companies, investment funds, and other financial entities. Some research notes differences in managerial styles between male and female leaders. Institutional ownership under female leadership is believed to have a positive impact on firm value. Additionally, Greene et al. (2019), state that female board representation significantly contributes to increasing firm value.

H3. There is a difference in the influence of institutional ownership on company value in companies led by male BODs and companies led by female BODs.

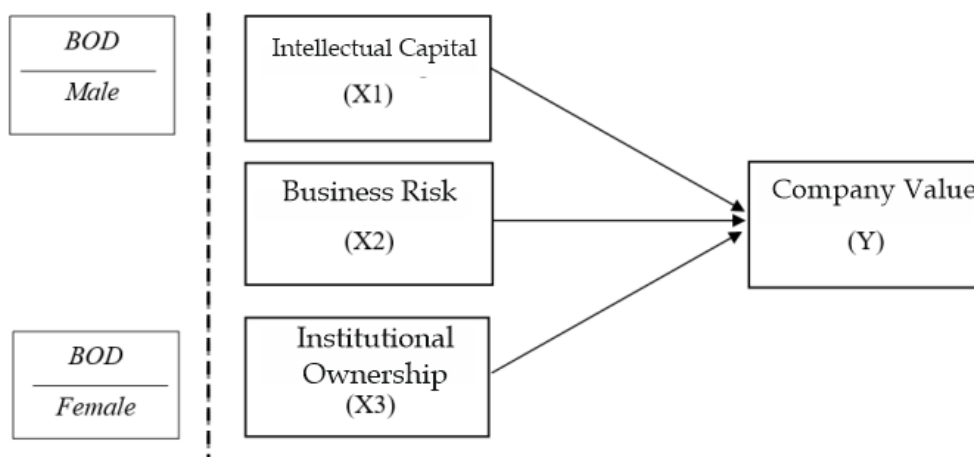


Figure 2. Framework of Thought.

3. Methods

This study uses a causal-comparative method to explore the relationship between independent variables, such as intellectual capital, business risk, and institutional ownership, with the dependent variable, namely firm value. This study also compares these influencing variables in companies led by male-dominated and female-dominated boards of directors. The sample consists of 46 companies engaged in the Property, Real Estate, and Building Construction sectors, listed on the Indonesia Stock Exchange during the period 2019-2022, resulting in 184 data points. Firm value uses Tobin's *Q* which reflects the company's growth potential and investment opportunities. Tobin's *Q* is calculated by comparing the market value of equity and total debt to total assets (Chairani & Siregar, 2021). Intellectual capital is measured using the Market Value Added Intellectual Coefficient (MVAIC) consisting of VACA (Value Added Capital Employed), VAHU (Value Added Human Capital), and STVA (Structural Capital Value Added) (Ahmed et al., 2019). Business risk is measured using the Basic Earning Power Ratio (BEPR), which is EBIT divided by total assets (Hartati & Mukhibad, 2019). Institutional ownership is measured by calculating the percentage of institutional shares to total shares outstanding (Sari & Wulandari, 2021). Data collection was carried out using the purposive sampling method to ensure its relevance to the research objectives. The analysis was carried out using multiple linear regression with EViews 17 software to see the effect of independent variables on company value, as well as to compare companies based on gender dominance in board direction.

4. Results

The results of descriptive statistical analysis for four main variables: Tobin's *Q* (TOBINSQ), Intellectual Capital (VAIC), Business Risk (BEPR), and Institutional Ownership (KI), generated from 184 observations and processed using EViews software. Tobin's *Q* (TOBINSQ) is used as an indicator of company performance, measuring the ratio of market value to the value of the company's assets. Intellectual Capital (VAIC) represents the efficiency of the company's intellectual capital management, which is an important factor in creating added value. Business Risk (BEPR) describes the level of operational risk of the company in carrying out its business activities, while Institutional Ownership (KI) shows the percentage of share ownership by institutions. This descriptive statistical analysis provides information on the average, minimum, maximum values, and variations between data for each

variable. This information is important for understanding the characteristics of the data and seeing how much the data is spread around the average. In addition, descriptive statistics also help identify whether there are certain tendencies or outliers in the data that might affect the results of further analysis. Overall, this analysis is an important first step in understanding the relationship between firm performance, intellectual capital, business risk, and institutional ownership, and how these variables contribute to firm performance.

Table 1. Analysis Statistics Descriptive

Variable	TOBINSQ	VAIC	BEPR	KI
Mean	1.298967	3.380380	0.035203	55.29777
Median	0.770000	2.385000	0.023215	60.88500
Maximum	16.43000	23.85000	0.370840	97.76000
Minimum	0.300000	-41.02000	-0.257370	5.120000
Std. Dev.	1.946956	7.665492	0.102419	27.18580
Skewness	4.999468	-1.086600	0.427907	-0.433122
Kurtosis	32.03685	10.95266	5.200247	1.963133
Jarque-Bera	7230.564	521.0852	42.73021	13.99529
Probability	0.000000	0.000000	0.000000	0.000914
Sum	239.0100	621.9900	6.477430	10174.79
Sum Sq. Dev.	693.6865	10753.04	1.919613	135249.4
Observations	184	184	184	184

The descriptive statistics reveal that TOBINSQ has a minimum value of 0.30 and a maximum of 16.43, with an average of 1.29 and a standard deviation of 1.94. This indicates high variability in TOBINSQ over the 4-year period, suggesting increased investment risk, as stock prices often exceed book values, possibly leading to unfulfilled investor expectations. VAIC shows a minimum of -41.02 and a maximum of 23.85, with an average of 3.38 and a standard deviation of 7.66, indicating uneven distribution. Some companies benefit significantly from intellectual capital, while others do not. BEPR, with a range from -0.26 to 0.37 and an average of 0.35, has a lower standard deviation of 0.1, reflecting a stable and relatively low-risk business environment for these companies. Lastly, institutional ownership (KI) ranges from 5.12 to 97.76, with an average of 55.30 and a standard deviation of 27.19. The lower variation in KI suggests a relatively uniform distribution, enabling institutional stakeholders to influence company operations more effectively. Subsequently, a model selection analysis was performed, as detailed in Table 2. This involved using the Chow test to compare the Fixed Effect Model with the Common Effect Model, the Hausman test to compare the Fixed Effect Model with the Random Effect Model, and the LM test to compare the Random Effect Model with the Common Effect Model. The results indicated that the Chow test favored the Common Effect Model, the Hausman test preferred the Random Effect Model, and the LM test also chose the Common Effect Model. Based on these findings, it was concluded that the Common Effect Model is the most suitable for the data.

Table 2. Model Selection Test

Test	Comparison	Criteria	Results	Selected
Chow	FEM vs CEM	Prob less than 0.005	Prob = 0.2941	CEM
Houseman	FEM vs REM	Prob less than 0.005	Prob = 0.8707	REM
LM	REM vs CEM	Prob less than 0.005	Prob = 0.3283	CEM

The Common Effect Model was identified as the best model, and classical assumption tests were carried out, as presented in Table 2. These tests for the Common Effect Model included assessments for multicollinearity, heteroskedasticity, and autocorrelation. However, normality testing is not required

for data using the Common Effect Model, as this model employs Ordinary Least Squares (OLS) techniques.

Table 3. Assumption Test Classic

Test	Criteria	Results	Selected
Multicollinearity	VIF < 10	Range 1.73-2.93	OK
Heteroscedasticity	ProbChi2 > 0.050	Prob = 0.0904	OK
Autocorrelation	2 < DW < 4 – DU	2 < 2.09 < 2.27	OK

The classical assumption tests begin with the multicollinearity test to evaluate whether there is a high or perfect correlation between the independent variables in the regression model (Ghozali & Ratmono, 2017). According to Table 4, this test is considered passed if the Variance Inflation Factor (VIF) values are below 10. As shown in Table 3, the VIF values range from 1.73 to 2.93, indicating that the test is passed. Following this, the heteroskedasticity test is performed to examine whether the variance of the variables in the regression model is consistent (Ghozali & Ratmono, 2017). This test is considered passed if the ProbChi2 value exceeds 0.050, the data is considered to have passed the heteroskedasticity test. According to Table 3, the ProbChi2 value is 0.09. Additionally, for the autocorrelation test, as shown in Table 5, the results indicate that $2 < 2.09 < 2.27$, which meets the criteria of $2 < DW < 4-DU$. Therefore, the autocorrelation test results indicate that there is no autocorrelation present.

Table 4. Determination Coefficient

Information	Model 1	Model 2	Model 3
N	184	104	80
R-Square	0.4574	0.6792	0.3566
Prob F	0.000000**	0.000036*	0.000000**

* Significant 99 per cent, ** Significant 100 per cent

The t-test, F-test, and coefficient of determination are used to test hypotheses and discuss findings in this research. The Common Effect Model (CEM) is utilized for model selection testing. Table 6 shows that the first research model has an R-squared value of 0.4575, indicating that intellectual capital, business risk, and institutional ownership account for 45.75% of the variability in firm value. Meanwhile, the second model has an R-squared value of 0.6792, meaning that these factors can explain 67.92% of the changes in firm value for companies led by a female-dominated board of directors (BoD). The third model indicates that these factors account for only 35.66% of the changes in firm value for companies led by a male-dominated BoD. According to the F-test results, the first model has a significance value of 0.00000, the second model has a significance value of 0.000036, and the third model has a significance value of 0.00000. These significance values indicate that all three models are deemed appropriate and suitable for practical use.

Table 5. Hypothesis Results

Variable	Coefficient	t-stat prob
Tobins'q -> VAIC	0.0602	0.0074**
Tobins'q -> BEPR	10.9652	0.0000**
Tobins'q -> KI	-0.0113	0.0283**

* Significant 99 per cent, ** Significant 100 per cent

Table 5 shows mark coefficient influence *intellectual capital* to mark company of 0.0602. With mark significance of 0.074, this explains that *intellectual capital* influential positive to mark company, then mark coefficient influence risk business

to mark company of 10.9652. With mark significance of 0.000, this explains that risk business influential positive to mark company. Meanwhile the value coefficient influence ownership institutional to mark company of -0.0113. With mark significance of 0.0283, this explains that ownership institutional influential negative to mark company.

Table 6. Gender Analysis

Variable	Male		Female	
	Coefficient	t-stat prob	Coefficient	t-stat prob
Tobins'q -> VAIC	0.0049	0.0513	0.0084	0.7456
Tobins'q -> BEPR	9.8165	0.0000	8.6161	0.0089**
Tobins'q -> KI	-0.0057	0.3298	0.0004	0.7222

* Significant 99 per cent, ** Significant 100 per cent

Gender analysis was conducted by dividing the panel data based on the gender of the board of directors (BoD) in companies to assess their impact. After selecting the best model using the Common Effect Model (CEM), Table 8 provides the following insights: A male-dominated BoD has a more significant impact compared to a female-dominated BoD, while both have a positive effect on business risk in the company, thus H2 is accepted. Conversely, the analysis also found no significant impact of intellectual capital and institutional ownership on firm value in companies led by both male-dominated and female-dominated BoD members. Therefore, H1 and H3 are rejected.

5. Discussion

The results of the hypothesis testing, it was found that there is no significant difference in the impact of intellectual capital on firm value between companies led by male-dominated directors and those led by female-dominated directors. The results indicate that an increase in intellectual capital percentage tends to enhance the firm's value. Since the results do not align with the proposed hypothesis, the hypothesis is rejected. This situation is due to companies generally having uniform management policies or approaches, so gender diversity does not have a significant impact. For instance, companies with dominant shareholders often apply the same policies to all board members, regardless of gender. Therefore, the presence of women on the board does not directly affect the firm's value. This finding suggests that intellectual capital, which includes knowledge, skills, innovation, and relationships possessed by the company, can provide a competitive advantage that improves company performance and, ultimately, firm value.

However, when tested for differences, it was found that intellectual capital does not significantly impact firm value. The difference in leadership between male-dominated and female-dominated BoDs may be one of the reasons for variations in how intellectual capital is valued or implemented, thus reducing or nullifying its direct impact on firm value in a more specific context. In general, female boards of directors (BoDs) manage Value Added Intellectual Coefficient (VAIC) in a more strategic and inclusive manner, which can positively impact firm value in the long term, whereas male BoDs tend to focus more on efficiency and short-term results. Although observable differences exist, it is important to remember that diversity on the BoD, whether in terms of gender or other backgrounds, is generally considered a positive factor that can enhance company performance and value when effectively implemented. Companies should make more efforts to enhance their human resources. With diverse skills and abundant employee knowledge, the diffusion of knowledge, technology, and R&D performance can be improved, which benefits innovation and competition. Therefore, companies with capable employees can

continuously generate firm value and sustain themselves in a highly competitive business world (Putri et al, 2019; Putri Putri & Nazula, 2021).

The results of the second hypothesis test, a significant difference was found in the impact of business risk on firm value between companies led by male-dominated boards of directors (BoDs) and those led by female-dominated BoDs. The probability value for male-dominated BoDs is more significant than that for female-dominated BoDs, indicating a significant difference in the impact of the Basic Earning Power Ratio (BEPR) on Tobin's Q (TOBINSQ), thus the hypothesis is accepted. This finding suggests that the influence of business risk on firm value is affected by the leadership style and approach taken by the BoD. Male-dominated BoDs may adopt a more aggressive approach focused on growth, which could mitigate the perceived impact of business risk on firm value. Conversely, female-dominated BoDs may be more cautious and conservative, making business risk more apparent and having a greater impact on firm value. Companies with male-dominated BoDs show stable and moderate BEPR, reflecting more cautious risk management. This stability may be valued by investors and could enhance firm value in the long term. These findings are consistent with previous studies, such as those by Chen et al. (2019), which highlight how greater gender diversity on the board of directors affects corporate decision-making processes. A high BEPR indicates that a company is more efficient in using its assets to generate operational profits. This can enhance firm value as investors tend to value companies that can generate higher profits with existing assets. The market believes that risk management disclosures can serve as relevant information for predicting future performance and business continuity. Risk management is crucial for companies to minimize negative impacts and optimize available opportunities. Septyanto & Nugrah (2021); Saraswathi et al. (2017); Chairani & Siregar (2021), state that business risk has a positive and significant impact on firm value.

The results of the third hypothesis test, no significant difference was found in the impact of institutional ownership on firm value between companies led by male-dominated boards of directors (BoD) and those led by female-dominated BoDs. The results indicate that increased institutional ownership actually decreases firm value, whether the company is led by a male-dominated BoD or a female-dominated BoD. These findings contradict the proposed hypothesis, leading to the rejection of the third hypothesis. This situation is due to institutional ownership being represented by a diverse range of individuals with varying backgrounds, which leads to a lack of balance or homogeneity in its impact. In this scenario, the influence of gender becomes less noticeable as the focus shifts to the collective capability of the board rather than individual characteristics. Additionally, most companies in the real estate and property sector are owned by large entities, meaning that company's part of institutional investors are still led by CEOs connected to the parent companies in which shares are held.

As a result, institutional investors within these companies often have conflicts of interest with management or other internal parties, which reduces the independence of the companies and decreases their value. This suggests that although institutional ownership overall has a negative impact on firm value, this effect is not significantly different when analyzed by the gender of the BoD. This indicates that the different leadership styles and decision-making approaches of male and female BoDs may mitigate the impact of institutional ownership. These findings align with the research of Amaliyah & Herwiyanti (2019), which shows that increasing levels of institutional ownership can lead to a decrease in firm value. This reflects the ineffectiveness of institutional ownership in monitoring company management, resulting in lower company control and increased opportunistic behavior by management. Institutional investors with majority shareholdings are more likely to side with and collaborate with management to prioritize their personal interests over

those of minority shareholders. This creates a negative signal for external parties, as the alliance between institutional investors and management often leads to suboptimal corporate policies. Such actions can harm company operations, leading to decreased investor interest, reduced trading volume and stock prices, and ultimately a decline in firm value.

6. Conclusion

From the analysis and discussion of the hypothesis testing results, it can be concluded that intellectual capital positively influences firm value, suggesting that as intellectual capital grows, so does firm value. However, the impact of intellectual capital on firm value differs between companies led by male versus female Boards of Directors (BoDs). In both cases, whether led by a male or female BoD, intellectual capital does not have a significant effect on firm value. Meanwhile, business risk has a positive effect on firm value, meaning that as business risk increases, firm value also increases. However, A male-dominated BoD has a more significant impact compared to a female-dominated BoD, while both have a positive effect on business risk in the company. Institutional ownership negatively impacts firm value, indicating that as institutional ownership rises, firm value tends to decline. This contrasts with the effect of institutional ownership on firm value in companies with male-dominated or female-dominated Boards of Directors (BoDs), where it is found that institutional ownership does not significantly influence firm value.

References

- Agyemang-Mintah, P., & Schadewitz, H. (2019). Gender diversity and firm value: evidence from UK financial institutions. *International Journal of Accounting & Information Management*, 27(1), 2-26.
- Ahmed, A., Khurshid, M. K., & Yousaf, M. U. (2019). *Impact of intellectual capital on firm value: the moderating role of managerial ownership*. Available at: <https://www.preprints.org/manuscript/201901.0318/v1>
- Alamsyah, M. F., & Malanua, W. (2021). Pengaruh Investment Opportunity Set, Corporate Social Responsibility, Dan Risiko Bisnis Terhadap Nilai Perusahaan. *Jurnal Fokus Manajemen Bisnis*, 11(2), 154-172.
- Amaliyah, F., & Herwiyanti, E. (2019). Pengaruh kepemilikan institusional, dewan komisaris independen, dan komite audit terhadap nilai perusahaan sektor pertambangan. *Jurnal Akuntansi*, 9(3), 187-200.
- Asnawi, A., Ibrahim, R., & Saputra, M. (2019). Pengaruh Kepemilikan Manajerial, Kepemilikan Institusional Dan Kebijakan Hutang Terhadap Nilai Perusahaan (Studi Pada Perusahaan Manufaktur Yang Terdaftar di Bursa Efek Indonesia). *Jurnal Perspektif Ekonomi Darussalam (Darussalam Journal of Economic Perspec*, 5(1), 70-83.
- Belli, L., Davoli, L., Medioli, A., Marchini, P. L., & Ferrari, G. (2019). Toward Industry 4.0 with IoT: Optimizing business processes in an evolving manufacturing factory. *Frontiers in ICT*, 6, 17.
- Chairani, C., & Siregar, S. V. (2021). The effect of enterprise risk management on financial performance and firm value: the role of environmental, social and governance performance. *Meditari Accountancy Research*, 29(3), 647-670.
- Chairi, A., & Ghozali, I. (2007). Teori Akuntansi (Edisi 3). *Universitas Diponegoro*.
- Chondough, S. M. (2021). Board diversity and firm value; mediating effect of CSR of listed oil firms in Nigeria. *Applied Studies in Agribusiness and Commerce*, 15(1-2).
- Ellemers, N. (2018). Gender stereotypes. *Annual review of psychology*, 69(1), 275-298.
- Falqueto, J. M. Z., Hoffmann, V. E., Gomes, R. C., & Onoyama Mori, S. S. (2020). Strategic planning in higher education institutions: what are the stakeholders' roles in the process?. *Higher Education*, 79, 1039-1056.

- Garcia-Perez, A., Ghio, A., Occhipinti, Z., & Verona, R. (2020). Knowledge management and intellectual capital in knowledge-based organisations: a review and theoretical perspectives. *Journal of Knowledge Management*, 24(7), 1719-1754.
- Ginting, F. G., Saerang, I. S., & Maramis, J. B. (2020). Pengaruh Risiko Bisnis, Risiko Finansial dan Risiko Pasar Terhadap Nilai Perusahaan Pada Bank BUMN Periode Tahun 2011-2018. *Jurnal Emba: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 8(1).
- Greene, D., Intintoli, V. J., & Kahle, K. M. (2020). Do board gender quotas affect firm value? Evidence from California Senate Bill No. 826. *Journal of Corporate Finance*, 60, 101526.
- Hartati, M. S., & Mukhibad, H. (2018). The Influence of Profitability, Liquidity, Business Risk, Firm Size, and Sales Growth in The Property and Real Estate Companies Listed in the Idx During 2013-2016. *Accounting Analysis Journal*, 7(2), 103-110.
- Herawati, L. I., Ulum, I., & Juanda, A. (2020). Pengungkapan Modal Intelektual Perguruan Tinggi Vokasi di Indonesia Berdasarkan Instrumen Akreditasi Program Studi (IAPS) 4.0. *EKUITAS (Jurnal Ekonomi dan Keuangan)*, 4(1), 107-121.
- Jao, R., Mardiana, A., & Holly, A. (2024). Diversity In Board of Directors'role in Creating Corporate Value Through Growth and Reputation: Diversity In Board Of Directors'role In Creating Corporate Value Through Growth And Reputation. *Jurnal Akuntansi*, 18(1), 32-71.
- Josephine, K., Trisnawati, E., & Setijaningsih, H. T. (2019). Pengaruh modal intelektual dan tata kelola perusahaan terhadap nilai perusahaan melalui kinerja keuangan (studi empiris pada perusahaan LQ45 di Bursa Efek Indonesia Periode 2015-2017). *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 3(1), 59-70.
- Laili, T. F., & Tjaraka, H. (2024). Gender Diversity in Leadership: Its Impact on Transfer Pricing and Tax Avoidance in Multinational Companies. *Jurnal Akademi Akuntansi*, 7(3).
- Listari, S. (2018). Analisis Faktor-Faktor yang Mempengaruhi Nilai Perusahaan pada Perusahaan-Perusahaan yang Terdaftar Dalam Indeks LQ45 di Bursa Efek Indonesia. *Jurnal Ilmiah Manajemen Kesatuan*, 6(1), 51-60.
- Mahajan, A. (2021). COVID-19 and its socioeconomic impact. *Cancer Research, Statistics, and Treatment*, 4(1), 12-18.
- Maharani, T., & Fuad, K. (2020). The effect of human capital, structural capital, customer capital, managerial ownership, and leverage toward profitability of company. *Journal of Advanced Multidisciplinary Research*, 1(1), 46-62.
- Ni, Y., Cheng, Y. R., & Huang, P. (2021). Do intellectual capitals matter to firm value enhancement? Evidences from Taiwan. *Journal of Intellectual Capital*, 22(4), 725-743.
- Putri, A. J., Agustin, H., & Helmayunita, N. (2019). Pengaruh intellectual capital terhadap nilai perusahaan dengan profitabilitas sebagai variabel intervening. *Jurnal Eksplorasi Akuntansi*, 1(3), 1541-1555.
- Putri, S. D., & Nuzula, N. F. (2019). Pengaruh Intellectual Capital Terhadap Kinerja Keuangan dan Nilai Perusahaan. *Jurnal Administrasi Bisnis*, 66(1), 28-36.
- Qureshi, M. A., Kirkerud, S., Theresa, K., & Ahsan, T. (2020). The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity. *Business Strategy and the Environment*, 29(3), 1199-1214.
- Sari, D. M., & Wulandari, P. P. (2021). Pengaruh Kepemilikan Institusional, Kepemilikan Manajerial, Dan Kebijakan Dividen Terhadap Nilai Perusahaan. *Tema*, 22(1), 1-18.
- Schoenmaker, D., & Schramade, W. (2019). Investing for long-term value creation. *Journal of Sustainable Finance & Investment*, 9(4), 356-377.
- Septyanto, D., & Nugraha, I. M. (2021). The influence of enterprise risk management, leverage, firm size and profitability on firm value in property and real estate companies listed on the Indonesian stock exchange in 2016-2018. *KnE Social Sciences*, 663-680.
- Setiany, E., Syamsudin, S., Sundawini, A., & Putra, Y. M. (2020). Ownership structure and firm value: the mediating effect of intellectual capital. *International Journal of Innovation, Creativity and Change*, 13(10), 1697-1711.
- Subagio, D. I. (2022). Pengaruh modal intelektual terhadap nilai perusahaan dengan manajemen laba sebagai variabel moderasi. *Journal of Applied Managerial Accounting*, 6(1), 102-114.
- Supriono, S. (2022). Analysis of the Effect of Return on Equity, Debt-to-equity, Net Profit Margin on Price-to-earnings Ratio. *Economic and Business Horizon*, 1(1), 9-23.

- Tarczyński, W., Tarczyńska-Łuniewska, M., & Majewski, S. (2020). The value of the company and its fundamental strength. *Procedia Computer Science*, 176, 2685-2694.
- Tarmidi, D., Sormin, F., Prihanto, H., & Saputri, Z. (2024). Supervisory Function and Earnings Quality: Gender Analysis. *Jurnal Akuntansi*, 28(2), 206-224.



Copyright: © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International License (<https://creativecommons.org/licenses/by-sa/4.0/>).