# Intellectual Capital Mediates The Relationship Between Characteristics of Board Directors to The Company's Performance

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**Abstract**. The study aims to analyze the mediation relationship of Intellectual Capital from the influence of Board of Directors Characteristics on Company Performance. The study used a quantitative approach using the Partial Least Square-Structural Equation Modeling (PLS-SEM) analysis tool to test the hypothesis. The research sample obtained data from 41 banking companies listed on the Indonesia Stock Exchange (IDX) for the 2018-2022 period. The results of the research prove that the mediation relationship of Intellectual Capital from the influence of the characteristics of the Board of Directors on the Company's Performance is partial.

Keywords: Intellectual Capital; Board of Directors; Company Performance.

#### I. Introduction

Indonesia has the potential to create a sustainable economy in the future (Global Banking and Markets, 2020). The performance of the banking industry over the past year shows that the stocks and profits of several banking companies in Indonesia have begun to fall, even arguably starting to be abandoned by investors with a fairly sharp stock price decline trend. Several banking companies in Indonesia have reported performance throughout 2022 and compared it to Q1 2023. It is noted that not all digital banks are able to record net profit growth (CNBC Indonesia, 2023). In contrast to other banking companies that managed to increase their net profit, such as, in the 1st quarter of 2023 PT Bank Central Asia Tbk managed to achieve a consolidated net profit of 43.0% on an annual basis to IDR 11.5 trillion in the first quarter of 2023. PT Bank Rakyat Indonesia Tbk also managed to obtain a consolidated net profit of IDR 15.56 trillion in Q1 2023 or grew 27.37% on an annual basis. The stability of the financial performance of the banking industry of several companies in Indonesia has been well maintained but must be monitored for risks due to global uncertainty.

Company performance can be interpreted as the potential and ability of the business to efficiently utilize available resources to achieve the company's desired targets. Company Performance plays an important role in company management because it is an analysis of the company's performance performance. In a business environment, companies that can survive in business competition are those that always innovate and maintain their performance (Taouab & Issor, 2019). Company performance creates competitive superiority that can be measured by profitability, company value, leverage and liquidity (Kim & Lim, 2018).

Understanding and utilizing Intellectual Capital (IC) effectively drives a key factor in ensuring that board characteristics make a positive contribution to company performance. The role of Intelectual Capital is very important in improving Company Performance in order to create characteristics to determine the success or failure of a company in competition (Soewarno & Tjahjadi, 2020). Companies managed by President Directors with higher levels of connections and with a larger number of managers show improved IC performance (Ginesti, 2019). In line with increased supervision from the board of directors, responsive company management will be able to improve financial performance and emphasize the importance of Intellectual Capital (IC) (Ali et al., 2022).

## **II.** Literature Review

Economic development is strongly influenced by information and knowledge because advances in the field of information and technology that make attention to intellectual capital also increase. Intagible Asset Creation must get enough attention from the company because it has a good impact on the company. IC has a very important and strategic role in the company in measuring human resources. Intellectual Capital does not look explicitly like traditional assets (tangible assets) but IC is seen in published financial statements (Innayah et al., 2020). IC is one of the important factors in banking performance because banking is one of the industries that considers IC as an important factor to gain corporate competitiveness and financial sustainability

(Soewarno & Tjahjadi, 2020). Beretta et al. (2019) stated that when a company's Intellectual Capital increases, its non-financial performance as measured by environmental, social, & governance (ESG) aspects will also increase.

The theory of upper echelons explains decisions in organizations influenced by managerial background; experience, principles, and personality directly influence a person's interpretation in dealing with a situation (Vu & Dang, 2021). The board of directors as a decision maker has several characteristics in influencing the flow of decision making can have an impact on stakeholder confidence. Pulic (2000), the main goal in knowledge-based business is to create added value. To be able to create added value, it takes the right measure of physical capital and intellectual potential. Optimal resource management can only be achieved if the entity has good governance. The characteristics of the Board of Directors play an important role in the management of intellectual capital of an organization so as to improve company performance. (Arfara, 2021) explained that companies that understand the concept of Intellectual Capital tend to be more successful because companies are able to understand that Intellectual Capital is very important for companies to encourage their abilities and knowledge continuously as a form of competitive strength with other companies. Based on the logic of thinking above, the hypothesis is proposed that:

# H<sub>1</sub>: Intellectual Capital mediates the influence of the Board of Directors Characteristics on Company Performance

#### **III. Research Method**

The study population comes from publicly listed banking companies in Indonesia listed on the IDX for the 2018-2022 period. The research sample was determined using the purposive sampling method, research data obtained 41 banking companies going public that consistently publish financial statements.

Data Company used in Research

No	Indicator Criteria	Year					Total
		2018	2019	2020	2021	2022	Firm Year
1	Number of Companies that meet the criteria on IDX	44	44	45	45	46	224
	Annual report not obtained / not according to criteria	3	3	4	3	5	18
3	Sample companies according to the criteria	41	41	41	41	41	205

This study used the Partial Least Squares Structural Equation Modeling (PLS-SEM) data analysis technique. The software in this research analysis is WarPLS version 7.0. The measurement of dependent variables on the characteristics of the board of directors is described by the following criteria: a) Women Directors based on research by Pucheta-Martínez & Gallego-Álvarez (2020); b) Educational Background of the main director of research Papadimitri et al. (2020); c) Nationality of the Main Directorate of Badru & Raji (2016); d) Board of Directors size based on Pucheta-Martínez & Gallego-Álvarez (2020). The characteristics of the Board of Directors have the capability to reduce the dominance of management and the tendency of the company to increase self-interest, as well as to encourage the company to act in a way that increases shareholder value.

Intellectual Capital has a function to maximize competitive ability and improve company performance. IC is measured using components based on Olarewaju & Msomi (2021), including: Value Added Employed Capital, Value Added Human Capital, and Value-Added Structural Capital.

Company performance is defined as the result of the company's management ability to control resources. Financial Performance is measured using several previous research indicators, including: a) Return on Assets (ROA) from Kyere & Ausloos (2021); b) Return on Equity (ROE) from Assenga et al. (2018); c) Leverage from Poletti-Hughes & Briano-Turrent (2019); d) Current ratio of Vairavan & Zhang (2020); e) Tobins Q from Pucheta-Martínez & Gallego-Álvarez (2020).

#### IV. Results and Discussion

Structural model analysis is used to investigate the constructs of hypothesized models. This model is intended to determine the influence of the characteristics of the Board of Directors on the Company's Performance directly or mediated by IC. There are 2 stages of testing in structural model analysis, namely direct and indirect testing. The first stage is to examine the direct influence of the characteristics of the Board of Directors on the Company's Performance. If it is proven that there is a significant influence on the first test, it will be followed by the second test, namely indirect testing of the characteristics of the Board of Directors on the Company's Performance with IC mediation.

Panel A (Direct Effect)									
Variah	Ja	Path Coefficients							
varian	oie	Company Performance							
Characteristics of the	Board Directors	0,421							
$\mathbb{R}^2$		0,35							
Panel B (Indirect Effect)									
	Path Coefficients								
Variable	Intellectual Capital		Company Performance						
Characteristics of the Board Directors	0,383		0,331						
Intellectual Capital			0,244						
$\mathbb{R}^2$	0,4	5	0,37						

The table above (Panel A) shows that the Company's Performance has a coefficient of determination (R<sup>2</sup>) of 0.35 which means that the characteristics of the Board of Directors can explain the Company's Performance variance by 35%. The characteristics of the Board of Directors affect the Company's Performance with a regression coefficient ( $\beta$ ) value of 0.42 and a p-value of <0.01. Thus, empirical evidence is obtained that the characteristics of the Board of Directors affect the Company's Performance. The next analysis was carried out by adding a mediation variable, namely IC (Panel B). The results prove that IC has a coefficient of determination (R<sup>2</sup>) of 0.45 which means that the characteristics of the Board of Directors can explain the IC variance by 45%. The characteristics of the Board of Directors affect IC with a regression coefficient (β) value of 0.38 and a p-value of <0.01. The Company's Performance (Panel B) has a coefficient of determination (R2) of 0.37 which means that the characteristics of the Board of Directors and IC can explain the Company's Performance variance of 37%. IC affects the Company's Performance with a regression coefficient ( $\beta$ ) value of 0.24 and a p-value of <0.01. The effect of the characteristics of the Board of Directors on the Company's Performance after IC mediation remains significant with a regression coefficient ( $\beta$ ) of 0.33 and a p-value of <0.01. Based on these results, it is known that the value of the regression coefficient ( $\beta$ ) and p-value of the Board of Directors' Characteristics on the Company's Performance decreased from 0.42 to 0.33 and the initially significant p-value of 0.01 did not change after adding mediation variables. Based on the results of these statistical tests, it can be concluded that the characteristics of the Board of Directors affect the Company's Performance and IC, and IC has a mediating impact on the influence of the characteristics of the Board of Directors on the Company's Performance.

### DISCUSSION

The board of directors as a decision maker has several characteristics in influencing the flow of decision making that can have an impact on stakeholder trust. A company's reputation cannot be maintained without ensuring transparency and fairness through internal systems which are the characteristics of the board (Lee et al., 2021). The shift of the manufacturing era to a knowledge-based economy that requires the process of maximizing value creation from Intellectual Capital (IC) resources drives success in a competitive World

Trade Organization (WTO) regime (Roos Ana et al., 2021). Good Corporate Governance serves as a mechanism to achieve maximum efficiency and plays an important role in the process of sustainability, productivity and profitability in an effort to face future challenges. Intellectual property in the characteristics of a board of directors that has been formalized, captured, and leveraged to create wealth, can produce a high-value asset. Arfara (2021) explained that companies that understand the concept of Intellectual Capital tend to be more successful because companies understand that Intellectual Capital is very important for their companies and encourage companies to update their abilities and knowledge continuously to compete with other companies.

The characteristics of the Board of Directors are proxied by several criteria, namely: (a) the proportion of female directors who show the presence of women in the Board of Directors improves Company Performance because women have good thinking skills, ethics and are very disciplined in monitoring subordinates and activities (Nyeadi et al., 2021); (b) the higher educational background of the president director is more likely to get good credit-ratings (Papadimitri et al., 2020); (c) A larger Board of Directors size leads to more effective corporate control (Kyere & Ausloos, 2021); (d) The nationality of the president director provides a good balance for investors and management so that the company's competitive advantage can increase (Badru & Raji, 2016). Diversity tends to result in higher creativity, innovation, and quality decision-making both individually and in groups, making these characteristics crucial at the board level.

The characteristics of the board of directors can maximize the disclosure of additional company information such as the breadth of intellectual capital disclosure because the differences in intellectual perspectives brought by each director can maximize the use of information and company performance. Sukiswo & Aulia (2023) explained that the size of directors and the proportion of women on the board of directors affect the efficiency of Intellectual Capital. This happens because the existence of a female board and a larger board of directors will increase effectiveness in terms of strategic decision making, so as to reduce the occurrence of conflicts that can hinder the management of company performance. Effective and efficient IC management becomes very important for companies to operate competitively. Sidharta & Affandi (2016) explained that human capital helps companies to take advantage of opportunities and reduce market threats. If all resources owned by the company can be managed and utilized properly, it will create added value for the company so that it can improve the company's financial performance.

#### V. Conclusion

The results of hypothesis testing prove the existence of a partial mediating relationship of intellectual capital on the influence of the characteristics of the Board of Directors on Company Performance. Intellectual Capital acts as a partial mediator by: explaining Human Capital to Company Performance, in the form of expertise and knowledge possessed by board members that influence better decision making so as to improve company performance; explain Structural Capital to Company Performance, in the form of effective structures and systems in the board of directors can improve operational efficiency and risk management so as to have a positive impact on company performance; explained Relational Capital to Company Performance, through good relationships with external parties can open new business opportunities and increase reputation that can support company performance.

In the form of partial mediating influence, there may still be other factors beyond intellectual capital that affect the relationship between the characteristics of the Board of Directors and the performance of the company.

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