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# Do board characteristics moderate the relationship between integrated reporting disclosure and company value?

¿Moderan las características de la junta la relación entre la divulgación de información integrada y el valor de la empresa?

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#### **Abstract**

This study aims to examine the moderating role of board characteristics in the relationship between integrated reporting disclosure (IRD) and company value from the perspectives of agency and signaling theories. The analysis uses WarpPLS version 7.0 with 150 samples of manufacturing companies that are listed on the Indonesia Stock Exchange and provide IRD. Results indicate that IRD influences company value, meanwhile, board characteristics, which are proxied by board size, board independence, and board gender diversity, enhance the IRD influence on company value. However, board activity does not moderate IRD and company value. These findings imply the importance of the roles of board characteristics in strengthening IRD which can be used as a signal for companies to reduce information asymmetry by companies in influencing investor decision making and reducing agency costs, which, in turn, can increase company value. This research prompts companies about the importance of IRD in increasing company value and regulators regarding the development of policies related to IRD in Indonesia.

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#### Resumen

Este estudio tiene como objetivo examinar el papel moderador de las características de la junta en la relación entre la divulgación de información integrada (IRD) y el valor de la empresa desde las perspectivas de las teorías de agencia y señalización. El análisis utiliza WarpPLS versión 7.0 con 150 muestras de empresas manufactureras que cotizan en la Bolsa de Valores de Indonesia y proporcionan IRD. Los resultados indican que el IRD influye en el valor de la empresa, mientras que las características de la junta directiva, que están representadas por el tamaño de la junta, la independencia de la junta y la diversidad de género en la junta, mejoran la influencia del IRD en el valor de la empresa. Sin embargo, la actividad de la junta no modera el IRD y el valor de la empresa. Estos hallazgos implican la importancia de los roles de las características de la junta en el fortalecimiento del IRD, que puede usarse como una señal para que las empresas reduzcan la asimetría de información de las empresas para influir en la toma de decisiones de los inversores y reducir los costos de agencia, lo que, a su vez, puede aumentar el valor de la empresa. Esta investigación incita a las empresas sobre la importancia del IRD para aumentar el valor de la empresa y a los reguladores sobre el desarrollo de políticas relacionadas con el IRD en Indonesia.

Código JEL: G320, G380, G410

Palabras clave: característica del tablero; divulgación de información integrada; valor de la empresa

## Introduction

Company value is reflected in its stock price (Fama, 1978). Investment opportunities greatly affect company value because they are positive signals about its growth in the future. A financial performance report is one of the signals shown by a company. However, in recent years, shareholders have been worried about financial statements; they think that these statements will be more complex, less relevant, and more confusing than before (IIRC, 2013). This statement is proven by the revelations of the Enron, and WorldCom scandals. In Indonesia, the Financial Services Authority has imposed sanctions on PT. Hanson International has been proven to have manipulated its 2016 financial statements (kompas.com). This incident has affected the interests of potential investors.

To improve this information, companies should provide further credible data about their quality in the capital market to differentiate them from bad companies (Spence, 1973). Thus, traditional financial reporting models appear to fail to promptly capture the economic implications of business innovations and economic changes (Healy & Palepu, 2001). Credible information is provided in financial statements and nonfinancial aspects, such as corporate social responsibility reporting and sustainability reporting.

However, integrated financial and nonfinancial information to improve shareholder understanding has not been provided (KPMG, 2012).

In this era, a new reporting paradigm has been considered. (Lodhia, 2015) confirmsed that the economic, social, and environmental activities of companies are integrated to give a holistic perspective of company performance and to assure that ethical responsibility is at the center of business activities. Managers can create corporate value by applying holistic reporting called integrated reporting (IR). As a communication tool, IR aims to create short, medium, and long-term company value that contains related company performance, corporate governance, organizational strategy, and organizational prospect in the external environment (IIRC, 2013). Thus, IR will benefit all parties (employees, customers, suppliers, regulators, business and partners) because it will create company value over time. However, two different views exist regarding IR.

The first perspective states that IR provides benefits to shareholders. It reveals that if IR benefits shareholders, then its valuation is positively related to IR. IR proponents argue that IR can improve the information quality available to investors for a more efficient and productive calculation of capital allocation. IR aims to further articulate the relationship among corporate strategy, business model, and corporate value creation. Under IR, improved disclosure quality reduces information processing costs spent by investors, thereby increasing the speed and amount of company-specific information (Healy & Palepu, 2001), (Sims, 2006), (Veldkamp, 2006). This statement is evidenced by (Lee & Yeo, 2016), (Mervelskemper & Streit, 2016), (Martinez, 2016), (Barth et al., 2017), (Cosma et al., 2018), (El-Deeb, 2019), (S. D. Utomo et al., 2021), (Abogazia, et al., 2022), (Gupta and Bhalla, 2022), (Opanyi & Omare, 2022), (S. D. Utomo et al., 2022), (D. Utomo, Machmuddah, & Hapsari, 2022), (Machmuddah, Rohman, et al., 2022), (Dwiarso Utomo & Hapsari, 2022), (D. Utomo, et al., 2022) and (Machmuddah, et al., 2022) who claimed that company value is affected by IR.

The second perspective states the opposite; IR harms shareholders. According to the proponents of this perspective, integrated reporting disclosure (IRD) can be costly in disclosing information. The theory of disclosing ownership cost suggests that when proprietary information is disclosed to competitors in product markets, unions, or regulators, it is expensive. Thus, company unlikely disclose data (Verrecchia, 1983). Based on these theories, if IR insists on a company to disclose proprietary information, then the company value is negatively correlated with IR. (Lee & Yeo, 2016) argued that disclosures related to IR can be expensive in terms of disclosing proprietary information to competitors (e.g., strategies, business models, opportunities, and risks). These opportunities for valuable businesses do not conform to their values or norms (e.g., selling products with adverse environmental consequences) and increase direct compliance costs (e.g., implementing information systems and improving management monitoring efforts). Therefore, if IR suggests companies to use organizational processes that are expensive and with

little benefit to them, then IR will negatively affects company value (Martinez, 2016). Nevertheless, IR may also not affect company value (Churet et al., 2014), (Suttipun, 2017), and (Akpan et al., 2022). Likewise with (Opanyi & Omare, 2022) which states that IR has no effect on company value (using the ROA measure).

Another factor has emerged to strengthen the explanation of the relationship, namely, board characteristics because boards play an important role in communicating between companies and stakeholders (Perrini, 2006). Boards should focus on satisfying stakeholder interests (Hill & Jones, 1992), (Shankman, 1999). For agency theory developed by (Jensen & Meckling, 1976), boards are useful control mechanism to align the vested interests of managers and shareholders (Healy & Palepu, 2001) and nonfinancial information (Gray, 1988), (Rasche & Esser, 2006). Therefore, the responsibility can also be broadened to IR as a tool covering financial and nonfinancial information. However, from this view, boards encourage managers to adopt IR and increase company value. In this study, board characteristics are used as moderators of the relationship between IRD and company value. In this case, many board characteristics, such as board size, board independence, board gender diversity, and board activity, can represent ways to improve control levels over managerial work. Research related to the moderating roles of board characteristics in the relationship between IRD and company value is still rarely conducted.

Our study aims to explore manufacturing companies in Indonesia that disclose IR. These companies are chosen as research objects because throughout 2020, their composite stock price index declined at 31.25% (kontan.com). This occurrence indicates that the company value of the manufacturing sector is weakening. Therefore, we are interested in studying such an occurrence; however, regulators have yet to require IRD in Indonesia; thus, only a few manufacturing companies are used as research samples. Based on the phenomena and explanations above, our research aims to find empirical evidence of the relationship between IRD and company value and the moderating roles of board characteristics in this relationship.

## Literature review

## Theoretical background

Agency theory explains that managers act on behalf of shareholders (Jensen & Meckling, 1976), (Ross, 1977), (Eisenhardt, 1989). This situation creates information asymmetry because managers have control over information in companies. At the same time, stockholders only obtain information from managers (Jensen & Meckling, 1976). In this context, the management can easily act in ways contrary to shareholder interests (Donnelly & Mulcahy, 2008). The management aims to maximize current company value

(remuneration and fame). Stockholders are also interested in long-term company value (Healy & Palepu, 2001). This situation has an impact on agency cost emergence.

Agency cost has three categories monitoring cost, bonding cost, and residual loss (Jensen & Meckling, 1976). Monitoring cost is incurred and borne by shareholders to monitor opportunistic managerial behavior (Jensen & Meckling, 1976). Bonding cost is that borne by managers to establish and comply with mechanisms that ensure that managers act according to stockholder interests (Jensen & Meckling, 1976). Residual loss is a sacrifice in reduced stockholder wealth due to differences in manager and shareholder decisions; disclosure is a possible way to align stockholder and manager' interests and reduce agency cost (Healy & Palepu, 2001). From this perspective, a sufficient control level is needed for such disclosure.

Board represent the main control mechanism to oversee management and disclosure tasks and to ensure shareholder profit maximization (Donnelly & Mulcahy, 2008). Thus, board control is a tool to promote disclosure spread, which reduces information asymmetry and creates agency problems. This disclosure can be used as a signal from companies to stakeholders. Fundamentally, signal theory reduces information asymmetry between the two parties (Spence, 1973). Thus, managers are advised to provide the information needed by stakeholders to reduce asymmetry (Bini et al., 2012). Companies providing good information can affect economic investor decisions. Such information attracts companies to contract with greater benefits than other companies that provide bad information (Grossman & Stiglitz, 1980). However, boards must have specific characteristics to carry out their monitoring duties effectively. (Salvi et al., 2020) argued that a complementary relationship exists between board characteristics (e.g., board size, board independence, board gender diversity, and board activity) and company transparency, as indicated by a quality IR.

# Hypotheses development

IRD is a disclosure type made by company managers to provide information (signals) to stakeholders to react to the information (signals). Disclosures made by companies through IRD can align the vested interests of managers and shareholders to reduce information asymmetry occurrence between the two parties. Disclosure can also reduce agency cost. This statement follows the perspective of IR supporters (Healy & Palepu, 2001); (Sims, 2006); (Veldkamp, 2006), who argue that IRD provides benefits to shareholders because information quality increases after IRD, which has an impact on efficiency and productive capital allocation. In addition, articulation in linking organizational strategy, business model, and value creation is the goal of IRD. Hence, good-quality IRD can reduce information processing costs for shareholders. It should accelerate and provide specific information regarding asset prices (Healy &

Palepu, 2001), (Sims, 2006), (Veldkamp, 2006). This condition means that the more IRD a company submits to shareholders, the better the company value. This statement is supported by (Lee & Yeo, 2016), (Mervelskemper & Streit, 2016), (Martinez, 2016), (Barth et al., 2017), (Cosma et al., 2018), (El-Deeb, 2019), (S. D. Utomo et al., 2021), (Islam, 2021), (Abogazia, et al., 2022), (Gupta and Bhalla, 2022), (Opanyi & Omare, 2022), (S. D. Utomo et al., 2022), (D. Utomo, Machmuddah, & Hapsari, 2022), (Machmuddah, Rohman, et al., 2022), (Dwiarso Utomo & Hapsari, 2022), (D. Utomo, et al., 2022) and (Machmuddah, et al., 2022) who suggested that IRD has a strong positive impact on company value. Our first hypothesis is follows:

Hypothesis 1: IRD is positively related to company value.

The board is the main organ in a company; therefore, the board plays a strong role to pressure management to perform IRD because the board has power. This statement is in line with (Fama & French, 1998), who claimed that controlling and monitoring management work are the main tasks of boards. Many boards present different experiences and opinions, which can support their abilities to monitor and increase corporate transparency through corporate disclosure (Adams et al., 2005). This statement is in line with Hidalgo et al. (2011), who revealed that many boards can increase skills and resources combined with different experiences and opinions. Therefore, large boards can offer different perspectives and broad solutions to enable investor' goals (Eisenhardt & Bourgeois, 1988). Due to the multidimensionality of IR input from board members with different backgrounds and skills (Frías-Aceituno et al., 2013). The larger the board size, the better the control and monitoring of management work and the stronger the IRD and company value. This statement is in line with (Albitar et al., 2020), who proved that board size moderates ESG disclosure on company performance. From the elaboration, the following hypothesis is proposed.

Hypothesis 2: Board size strengthens the positive relationship between IRD and company value.

As the pinnacle of internal company management system, boards play role in monitoring and controlling the company activities. The board authority to monitor and provide guidance and direction to company management can have a strong influence on pressuring the management to disclose information. The increasing number of independent boards or their dominance (Haniffa & Cooke, 2002) can give power to boards to pressure the management to improve company disclosure quality. That is, large independent board compositions can encourage boards to act objectively and protect all company stakeholders for wide corporate disclosures. In addition, independent boards have no ties with chief executive officers (CEOs) because independent board careers are self-supporting (Core et al., 1999) and are less interested in colluding with boards (Carter et al., 2003). Hence, independent boards become objective. (Sánchez et al., 2011) demonstrated how independent boards have great interest in ensuring company goals and correcting behaviors. This condition encourages good-quality information disclosure because such information diectly impacts independent board experience and reputation (Fama, 1978). Furthermore, independent

boards are more likely to respond to requests for information (Sánchez et al., 2011) than other boards because their actions are unrelated to competitor actions. This is in line with (Makhlouf et al., 2020) which states that an independent board moderates the effect of risk disclosure on company value. Our research hopes that the larger the independent board, the more effective the monitoring function, thereby strengthening the positive relationship between IRD and company value. Hence, it leads to the following hypothesis:

Hypothesis 3: Independent boards strengthen the positive relationship between IRD and company value.

Board gender diversity is defined as differences in board members characteristics (Robinson & Dechant, 2011). Board characteristic diversity brings up different perspectives, contexts, and ideas (Post et al., 2011). It also raises social and cultural differences between men and women (Liao et al., 2015). Regarding gender differences, (Huse & Solberg, 2006) explained that women are more diligent and committed to creating a good climate on boards than men. In addition, (Coffey & Wang, 1998) stated that female boards are less oriented towards personal goals to streamline decision-making processes and improve board effectiveness than male boards. (Gibbins et al., 1990) added that gender diversity can explain the disclosure practices of different companies. In this case, gender diversity mainly supports sustainable initiatives development, which is also connected to disclosure (Post et al., 2011), because women's values are oriented towards caring for the environment. Women's values and behavioral models are definitely linked to great corporate transparency, especially when it comes to sustainability (Frías-Aceituno et al., 2013). When monitoring managerial activities, women pay special attention to aspects related to sustainability. Our research hopes that the larger the female board, the more effective the monitoring function. It strengthens the positive relationship between IRD and company value. This statement is in line with (Albitar et al., 2020), who suggested that board gender diversity moderates ESG disclosure on company performance. Likewise with Karajeh (2022) who states that the gender diversity board plays a major role as a moderator that influences manager motivation towards the quality of financial disclosure practices and bank dividends. Therefore, the fourth hypothesis is as follows:

Hypothesis 4: Board gender diversity strengthens the positive relationship between IRD and company value.

Board are tasked and responsible for ensuring company strategy implementation, monitoring company management and obtaining accountability (FCGI, 2005). To carry out board duties, regular meetings are held to evaluate the policies taken by the management (FCGI, 2005). Board meetings are a medium of communication and coordination among board members in performing their duties as management monitors. In this meetings, companies discuss issues regarding directions and strategies, evaluate policies that have been taken or carried out by the management, and resolves conflicts of interest

(FCGI, 2005). The board role can have a strong influence on pressuring the management to disclose information. Therefore, the more often the boards hold meetings, the more likely it is hoped that the board monitoring will improve. Thus, corporate social information disclosure will also be wider than usual. This statement is in line with (Xie et al., 2003), who found that the more often the boards hold meetings, the more effective the monitoring function, as a result, the disclosures made by companies will be wider than before. Similarly, (Brick & Chidambaran, 2010) revealed that the more often the boards hold meetings, the more they will improve their performance. This condition increases information disclosures by boards. This statement is in line with (Frías-Aceituno et al., 2013), who argued that information connectivity, which represents a key principle of IR, needs great board monitoring. Therefore, additional meetings are required. Our research hopes that the more often the boards hold meetings, the more effective the monitoring function is in strengthening the positive relationship between IRD and company value. This is in line with (Machmuddah, et al., 2022) which states that audit committee activity as a proxy for the number of audit committee meetings moderates the IR relationship to company value. Therefore, we propose the following hypothesis:

Hypothesis 5: Board activity strengthens the positive relationship between IRD and company value.

# Methodology

Our sample include manufacturing companies that reveal IR and are listed on the IDX. The observation period was five years, starting from 2016 to 2020. Due to the limited number of companies that disclosed IRD, only 30 manufacturing companies were obtained, so as many as 150 data points were obtained. The data sources were taken from the IR presented by the selected samples.

Tobin's Q (Lindenberg & Ross, 1981) was used to measure company value, because it describes a condition of investment opportunities owned by the company or the company's growth potential, with the following formula:

Tobin's 
$$Q = (MVS + D)/TA$$
 (1)

Information:

MVS = market value of all outstanding shares, i.e., company share price\* extraordinary share TA = company assets, such as accounts receivable, cash, inventory, and the book value of land D = debt

IRD using the IR index was calculated by dividing the total number of disclosed item by the total number of disclosure items (eight items) (Lee & Yeo, 2016). Board size, was measured by counting the number of boards in one reporting period (Frías-Aceituno et al., 2013); (Salvi et al., 2020). Board independent was measured as the percentage of independent boards in a board (Frías-Aceituno et al., 2013); (Salvi et al., 2020). Board diversity was measured as the percentage of women on a board (Frías-Aceituno et al., 2013); (Salvi et al., 2020). Board activity was measured as the number of board meetings in one reporting period (Frías-Aceituno et al., 2013); (Salvi et al., 2020).

Partial least squares-structural equation modeling (PLS-SEM), which uses the WarpPLS version 7.0 program, was the analytical tool employed to test our hypotheses. PLS was chosen as a tool for data processing because it can use nominal, ordinal, interval, and ratio data categories. The weighted forecast was taken to construct the component score of the variable obtained on the basis of the specification of the inner model (a structural model that relates latent variables).

## **Results and discussion**

Table 1 present the results of the structural model fit indicators. It reveals that the model satisfies the model fit criteria with the p-values for average path coefficient (APC) and average adjusted R<sup>2</sup> (AARS) <0.05 and average block variance inflation factor (AVIF) <5 (Kock, 2011). Tenenhaus goodness of fit (GoF) shows a very strong value of 0.633 because it is more than equal to 0.36. Sympson's paradox ratio (SPR) presents the ideal value of 8.000. Similarly, the R<sup>2</sup> contribution ratio (RSCR) indicates an ideal value of 0.989.

 $R^2$  measurement is conducted to measure the ability of the model to depict the variances of independent variables. Table 1 indicates that the  $R^2$  value is 0.401, which is categorized as moderate. This amount indicates that the IRD variable can explain factors that affect company value and board characteristics (board size, board independence, board gender diversity, and board activity) of 40.1% with a p-value <0.001. The remaining 59.9% is explained by other factors outside the model.

Table 1 Fit Structural Model Goodness

Model Fit and Quality Indices	Values	Fit Criteria	Model Fit and Quality Indesx Results
APC	0.274	Accepted if p<0.05	P<0.01
ARS	0.401	Accepted if p<0.05	P<0.01
AARS	0.381	Accepted if p<0.05	P<0.01
AVIF	1.240	Accepted if ≤5	1.446
Average full collinearity VIF	1.440	Accepted if ≤5	1.711

Tenenhaus GoF	Small >0.1, Medium	0.633
	>0.25, Large >0.36	
SPR	Accepted if ≥0.7	0.800
RSCR	Accepted if ≥0.9	0.989
Statistical suppression ratio	Accepted if ≥0.7	0.600
Nonlinear bivariate causality direction	Accepted if ≥0.7	0.900
ratio		

Source: secondary data processed, 2021

Based on Figure 1 and Table 1, IRD has a significant relationship with company value proxied by Tobin's Q with a p-value <0.001. In addition, a positive beta coefficient value of 0.47 means that if an increase in IRD occurs by one unit, then company value increase by 0.47. The testing result of the effect of the IRD variable on company value with board size moderation indicates that the p-value <0.01 is positive. This finding is from the beta coefficient value of 0.27. Thus, the board size variable can strengthen the relationship between IRD and company value. Likewise, the independent board moderating role shows a p-value <0.01 with a beta coefficient value of 0.33, which suggests a positive direction. Therefore, the independent board variable can strengthen the relationship between IRD and company value. The next moderating variable is board gender diversity, which shows a p-value <0.01 with a beta coefficient value of 0.25 in the positive direction. The board gender diversity variable can thus strengthen the IRD company value relationship. However, the board activity variable cannot moderate such a relationship. This result can be seen in the p-value of 0.28, which exceeds the specified significance level of 0.10 with a beta coefficient of 0.05.

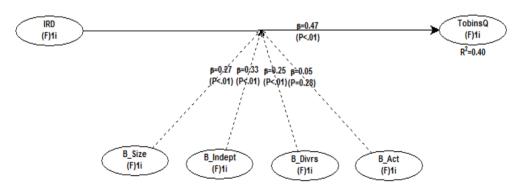


Figure 1. Research Result

\*\*\*, \*\*, \* denotes significant levels at 0.001, 0.05 and 0.1, respectively.

Source: Processed secondary data, 2021

The findings of this study prove that the hypothesis is accepted, meaning that IRD has a positive effect on company value. This shows that the IRD submitted by the company to its stakeholders is a signal given by the company so that this will give a positive response which can be seen from the increase in the value of the company. Vice versa if the company reduces the information in the IRD then this will give a negative response which can be seen from the decrease in the value of the company. In addition to providing signals, IRD can also be used by companies to reduce information asymmetry, so managers should provide information needed by stakeholders (Donnelly & Mulcahy, 2008), because it will have an impact on influencing investors' economic decision making. Thus this is in accordance with (Spence, 1973), which states that fundamentally the function of disclosure based on signal theory is to reduce information asymmetry between the two parties. The explanation is seen from the perspective of signal theory.

When viewed from an agency theory perspective, the findings of this study will reduce agency costs because IRD is one possible way to reduce information asymmetry (Healy & Palepu, 2001). IRD's goal is to create value over time. The contents of the IRD include organizational strategy, business models, risks and opportunities, so that a quality IRD will reduce information processing costs for shareholders, this will speed up and provide specific information related to asset prices (Healy & Palepu, 2001); (Sims, 2006); (Veldkamp, 2006). Therefore, this can align the interests of managers and shareholders because it has an impact on reducing agency costs (Healy & Palepu, 2001); (Sims, 2006); (Veldkamp, 2006), because the quality of information will increase after IRD which has an impact on efficiency and capital allocation be more productive. The findings of this study are supported by (Lee & Yeo, 2016), (Mervelskemper & Streit, 2016), (Martinez, 2016), (Barth et al., 2017), (Cosma et al., 2018), (El-Deeb, 2019), (S. D. Utomo et al., 2021), (Islam, 2021), (Abogazia, et al., 2022), (Gupta and Bhalla, 2022), (Opanyi & Omare, 2022), (S. D. Utomo et al., 2022), (D. Utomo, Machmuddah, & Hapsari, 2022), (Machmuddah, Rohman, et al., 2022), (Dwiarso Utomo & Hapsari, 2022), (D. Utomo, et al., 2022) and (Machmuddah, et al., 2022) which states that the strong positive impact of IRD on company value. However, the findings of this study are not in line with (Kempf & Osthoff, 2007), (Derwall et al., 2010), (Carnevale & Mazzuca, 2014), (Martinez, 2016) which states that IR will have a negative impact on company value. This is in line with research by (Churet et al., 2014), (Suttipun, 2017), and (Akpan et al., 2022) which proves that IR has no effect on company value). Likewise with (Opanyi & Omare, 2022) which states that IRD has no effect on company value (using the ROA measure).

This research also involves board characteristics in strengthening the relationship between the two, because the board is the main organ in a company. The research results show that the hypothesis is accepted. Therefore the board plays a strong enough role to pressure management to do IRD because the board has power in the company. Controlling and monitoring management work is the main task of the

board (Fama, 1978). Viewed from the perspective of agency theory, the board will oversee management's work including in terms of disclosure and ensure the maximization of profits for shareholders (Donnelly & Mulcahy, 2008). So that the control carried out by the board is used as a means for promotion in the spread of IRD, this will certainly reduce information asymmetry and reduce agency problems. When viewed from the perspective of signal theory, oversight by the board will have an impact on the extent of the IRD so that this will provide a signal to the stakeholders, and will influence the economic decision making of the stakeholders.

The research findings show that board size moderates the effect of IRD on company value, meaning that the larger the board size, the stronger the effect of IRD on company value. The greater the number of boards, the different experiences and opinions will be presented, so as to support the ability to monitor and improve company transparency through IRD (Adams et al., 2005). In addition, a large number of boards will increase skills and there is a combination of experience and different resource opinions (Hidalgo et al., 2011). Thus, this will strengthen the company in carrying out IRD, so that this will provide a good signal for company stakeholders and align the interests of both parties, namely principals and agents so as to reduce information asymmetry and reduce agency costs which in turn can increase company value. The findings of this study are in line with research by (Albitar et al., 2020) which states that board size moderates ESG disclosure on firm performance.

The second characteristic of the board is the independent board. The results of the study show that an independent board strengthens the effect of IRD on company value. That is, if the number of independent boards is greater or dominant, it can encourage the board to act objectively and be able to protect all stakeholders, so that this can encourage broader company disclosures, and will ultimately have an impact on reducing the occurrence of information asymmetry and reducing agency costs. Likewise, Garcia-Sanchez et al. (2011), which underscores how independent boards have a greater interest in ensuring the achievement of goals and correct behavior by the company. This is in accordance with agency theory which states the need for alignment of interests between principals and agents so as to reduce information asymmetry and reduce agency costs. If viewed from a signal theory perspective, this encourages the disclosure of higher quality information because this information directly impacts the experience and reputation of the independent board (Fama & Jensen, 1983). Furthermore, independent boards are more likely to respond to requests for information (García-Sánchez et al., 2011) than boards because their actions are unrelated to competitors' actions (Prado-Lorenzo & Garcia-Sanchez, 2010). This finding is in line with Makhlouf, et al. (2020) which states that an independent board moderates the effect of risk disclosure on company value.

Board gender diversity is the third characteristic of the board. The research findings also show that board gender diversity moderates the effect of IRD on company value. This means that the larger the

female board, the more effective the monitoring function will be so that it will strengthen the positive relationship between IRD and company value. The existence of a diversity of characteristics of the board will bring up different perspectives, contexts, and ideas (Post, et al., 2011). Gibbins, Richardson, and Waterhouse (1990) add that gender diversity can explain differences in disclosure practices between different companies. In this case, gender diversity mainly supports the development of sustainable initiatives, also related to disclosure (Barako & Brown, 2008; Bear, Rahman, & Post, 2010; Webb, 2003). because women's values are oriented towards environmental concern. The values of women and their models of behavior are definitely linked to greater corporate transparency, especially in terms of sustainability (Barako & Brown, 2008; Prado-Lorenzo & Garcia-Sanchez, 2010; Frias-Aceituno et al., 2013). In fact, in the manager's monitoring activities, women pay special attention to aspects related to sustainability. This is in accordance with signaling theory and agency theory because with the power of the board it will be able to align the interests of principals and agents so as to reduce information asymmetry and reduce agency costs, and this is a signal given by the company to its stakeholders so as to strengthen the IRD relationship, and company value. The findings of this study are in line with Albitar et al. (2019) which proves that the gender diversity board moderates ESG disclosure on firm performance. Likewise with Karajeh (2022) who states that the gender diversity board plays a major role as a moderator that influences manager motivation towards the quality of financial disclosure practices and bank dividends.

The last characteristic of the board is board activity. The findings of this study cannot prove the established hypothesis, meaning that board activity does not strengthen the effect of IRD on company value. This is possible because the meetings held by the board are less effective. A good meeting process should provide an opportunity for all parties to express opinions and discuss openly without feeling pressure from other parties. In Indonesia, good meeting processes often don't happen because of the eastern culture of Indonesians, namely there is a sense of fear or worry about the impact in the future. Fear or worry due to someone or more dominating the meeting. Therefore, each member of the board is expected to stick to their own principles for the benefit of the company, rather than agreeing to a decision that is clearly detrimental to the company. The findings of this study are not in line with Frias-Aceituno et al. (2013) who stated that information connectivity, which represents a key principle of IR, requires greater monitoring by the board and therefore requires more meetings.

## Conclusion

The conclusion from the findings of this study is the importance of IRD and board characteristic support to increase company value. This research has the limitation that the R<sup>2</sup> value is still below 50%, which is

0.401, so suggestions for future research are to modify this research model and add other variables, such as CEO compensation. Moreover, further studies can focus on different company types or family companies, so that future findings are more comprehensive than our results.

This research implies the importance of the roles of board characteristics in strengthening IRD, which can be used as a signal by companies in influencing the decision-making of potential investors and increase company value. This study aims to signal companies about the importance of IRD in increasing company value and the government in formulating policies related to IRD for companies in Indonesia.

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