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CORPORATE SOCIAL RESPONSIBILITY IN INDONESIAN BANKING: THE ROLE OF INTELLECTUAL CAPITAL AND BOARD DIVERSITY

Dwita Indah Bestari [1], Bima Cinintya Pratama [2], Azmi Fitriati [3], Rina Mudjiyanti [4]
Accounting Study Program S1 Faculty of Economics and Business,
University of Muhammadiyah Purwokerto
Corresponding Author: pratamabima@gmail.com

Abstract

The purpose of this study was to examine the effect of intellectual capital on Corporate Social Responsibility Disclosures and to consider the effect of the educational background of the directors and the gender of the female board of directors on the disclosure of corporate social responsibility. The population used in this study are bank companies registered with the Financial Services Authority (OJK) with a sample of 41 bank companies for the 2017-2021 period. This research uses panel data regression model analysis. The analytical technique used in this research is the descriptive statistical test, preliminary test (Breusch-Pagan, likelihood test, Hausman test), diagnostic test (heteroscedasticity test and autocorrelation test), and hypothesis testing. Based on the results of the three preliminary tests in determining the panel data regression model, this study will use a random effects model to examine the relationship between variables. The results of this study indicate that Intellectual Capital has a positive effect on Corporate Social Responsibility Disclosure, a company can work optimally with good resources and strong customer relationships, to increase CSR disclosure. The educational background variable of directors has a negative effect on Corporate Social Responsibility Disclosure, the ability of directors is not only measured by their formal education which is hard skills, but also by soft skills in running a business. The female board of directors' gender variable has a positive effect on Corporate Social Responsibility Disclosure. The existence of women as company directors can make a real contribution to increasing the amount of CSR disclosure. Therefore, there is no empirical evidence that the educational background of the board of directors and the gender of the board of directors can strengthen intellectual capital on the disclosure of corporate social responsibility.

Keywords: *Intellectual Capital, Disclosure of Corporate Social Responsibility, Educational Background of Directors, Gender of Women's Board of Directors.*

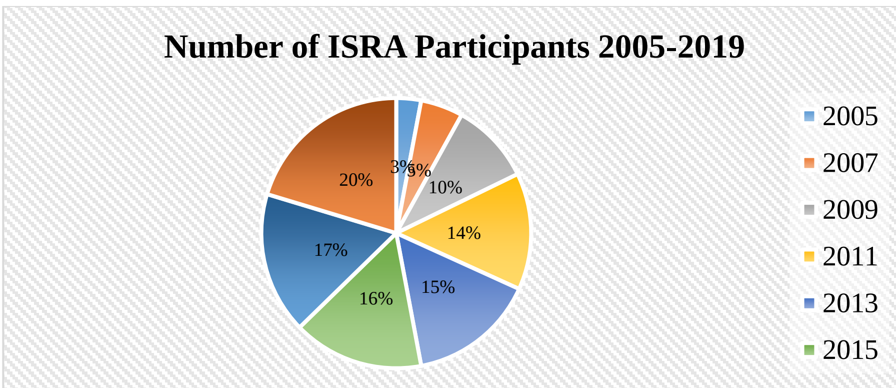
1. INTRODUCTION

Background

The banking world in Indonesia is developing from time to time (Prasanjaya & Ramantha, 2013). Banking is one of the pillars of the Indonesian economy because banks play an important role in channeling funds for various interests that are directly related to various communications in the community (Pratiwi et al., 2020). The banking sector plays an important role in the economy of a country because it acts as a trade artery that aims to provide all types of financing and credit needs (Sufian, 2011). Banks make a significant contribution to the economy of a country. As an intermediary institution, the bank acts as a channel for financing, depositing, and distributing credit to ensure the welfare of the community in the end. The banking function is important, banks are forced to become more competitive and introduce a bank rating system

(Prasanjaya & Ramantha, 2013). Bank aims to analyze the strengths and weaknesses of the bank as well as evaluate the performance of the bank and predict the performance of the bank in the future (Kosmidou & Zopounidis, 2008). Corporate
Social Disclosure Responsibility has been carried out by several companies from the manufacturing, trade, and banking sectors. In the banking sector, disclosure of Corporate Social Responsibility has become an important topic, because disclosure of Corporate Social Responsibility has influenced organizational behavior in managing its activities (Laili & Dewi, 2019)

Companies are expected to publish reports or reports that can show their contribution to various problems that occur so that it can be seen how much the company has to spend on environmental management (Wu, 2011). However, this has not been fully implemented by all Indonesian companies so the implementation of corporate social responsibility disclosure in Indonesia is still not optimal even though many regulations and policies have been set so that companies can continue to implement corporate social responsibility his responsibility. The implementation of CSR has been strictly regulated in Indonesia by several regulations (Wu, 2011). Although there are already many regulations governing this matter in Indonesia and many discussions on the implementation of CSR that have been socialized in various forums and discussions at both national and international levels, the actual situation shows that there are some parties who often abandon the implementation of CSR (Katmon et al., 2019).



Judging from the existing phenomena, companies need to be able to implement corporate social responsibility programs so that they can provide more roles for companies that illustrate the company's concern for environmental and social issues that exist in the community. Even according to (Setiawan et al., 2018), (Erick et al., 2016), and (Birindelli et al., 2018), at this time many stakeholders are interested not only in the financial performance of a company but also in non-financial performance. the company's finances in making decisions. So it can be concluded that the disclosure of the company's performance, both financial and non-financial performance, has an accounting relevance value for the market or investors. Investors' considerations arising from the disclosure of corporate social responsibility will have an influence on the market on the company's reported earnings because investors will not only use information about company profits but also use the information contained in the company's CSR reports in making investment decisions (Putranto & Kewal, 2010).

In line with what was expressed by (Umar, 2021), where disclosures made by companies, especially regarding CSR or social responsibility are related to market response. positively related to the company's stock price measurement. This is because many investors are aware of the importance of the company's concern for social conditions and the surrounding environment. But on the other hand, according to research conducted by (Gultom et al., 2020), the disclosure of social responsibility has no value relevance so it does not have any influence and even have a negative influence on investors' decision making on the company. This can happen in certain situations, one of which is when investors tend to only look at the performance of companies that are financial (Gultom et al., 2020). (Erick et al., 2016) stated that the sustainability report issued by the company is considered to be the main consideration regarding investment and helps show the long-term condition of a company. Several other studies have concluded that the disclosure of corporate social responsibility has an influence on market reactions as measured by stock prices (Damanik & Dewayanto, 2021).

CSR is a company's effort to control business processes related to economic, environmental, and social issues to have a positive impact on the company (Kuo & Chen, 2013). CSR arises between the company and all stakeholders, the main stakeholders such as creditors, suppliers, media, and even competitors (Cahyaningsih & Martina, 2011). This CSR helps implement sustainable economic development to improve the quality of life of the company and all stakeholders (Tasya & Cheisviyanny, 2019). Government The Republic of Indonesia has issued Law No 2007 on Social and Environmental Responsibility, which states that companies engaged in natural resources are obliged to carry out social responsibilities called Corporate Social Responsibility (CSR), namely strengthened by the Financial Services Authority (OJK) Regulation Number 51/POJK.03/2017 concerning Implementation of Sustainable Finance for Finance Service Agencies, Issuers, and Public Companies, which requires all companies in the banking industry that have registered in the market to publish a Sustainability Report (Lukman & Tanuwijaya, 2021).

Intellectual capital is in the form of information and knowledge resources that function to improve the competitiveness and improve performance of a company (Astuti & Suharni, 2020). According to (Dzenopoljac et al., 2017), (Zhafira, 2019), and (Maksum & Tamba, 2017), found that intellectual capital has a positive influence on the disclosure of corporate social responsibility. Intellectual capital is considered suitable for increasing CSR reporting, intellectual capital information is also increasing and these two concepts are interrelated. The higher the knowledge base of a company, the better the disclosure of corporate social responsibility. The results of the opposite study conducted by (Kariodimedjo, 2011), (Aslam, 2018), and (Nurhikmah et al., 2018) found that intellectual capital did not affect the disclosure of corporate social responsibility. Meanwhile, research conducted by (Daud & Amri, 2008) found that intellectual capital had a negative effect on the disclosure of corporate social responsibility.

(Kathy Rao et al., 2012) stated the level of education also helps improve the ability and knowledge of directors to contribute to the company. The stakeholder theory states that companies that make a large contribution to social responsibility activities are able to promote a good image for stakeholders and the public at large, thus showing that the company has a good image and concern (Luo et al., 2017). That the higher level of education of the board in an organization increases awareness of the importance of corporate social responsibility, thus encouraging a higher number of disclosures in the disclosure aspect of corporate social responsibility (Subiantoro & Mildawati, 2015). The indicator that additional education triggers a change of mindset, which means that if the company is managed by a board with a higher education level, this will certainly cause the contribution of the board in the company to increase the disclosure of corporate social responsibility (Hadya & Susanto, 2018).

Research conducted by Hadya & Susanto (2018), Widiyanti (2016), and Rahindayanti, (2015) examines the educational background of directors has a positive effect on the disclosure of corporate social responsibility. Things that cause a change in mindset if the company is run by a board with a high level of education, of course, will lead to an increase in the disclosure of corporate social responsibility, because the higher the level of education of an individual, it will affect the way the individual thinks and acts so that when they work they become more thorough and selective, one of which is in the disclosure of corporate social responsibility (Hadya & Susanto, 2018). The opposite research is Yang et al., (2019), Pajaria et al., (2016), Prabowo et al., (2017), and Forbes & Milliken (1999) which examine the educational background of directors has a negative effect on corporate social disclosure. responsibilities. And research conducted by Frances J, et al., (1996), regarding the educational background of directors does not affect the disclosure of corporate social responsibility.

In addition to educational background, other variables that can contribute to increased disclosure of corporate social responsibility are diversity in the board of directors, diversity in the board of directors brings unique information that can help make better decisions (Carter et al., 2010), the diversity of the board of directors is seen from gender, i.e. female board of directors. The diversity of the board of directors towards intellectual capital on the board that makes this resource special will influence actions within the company that have an impact on performance (Innayah & Pratama, 2021). In decision-making, where women are more sensitive to environmental and social issues, companies are encouraged to carry out CSR activities (Damanik & Dewayanto, 2021).

Research conducted by (Handajani et al., 2014), (Tasya & Cheisviyanny, 2019), (Hadya & Susanto, 2018), (Ayu Indriyani, D., & Sudaryati, 2020), and (Ahmad et al., 2018) shows that female board of directors gender has an effect on positive on the disclosure of corporate social responsibility. The presence of women in companies related to CSR and corporate governance to be more sensitive to their initiatives in carrying out corporate social responsibility and ability to provide a good perspective on social and environmental issues than companies that do not have women in their board structure (Katmon et al., 2019). In addition, research conducted by (Matitaputty & Davianti, 2020) and Szuang et al., (2018) found that the gender of the female board of directors has a negative effect on the disclosure of corporate social responsibility. And research conducted by (Anggraeni, 2020), (Kahreh et al., 2014), and (Septianingsih & Muslih, 2019)s, shows that the gender of the female board of directors does not affect the disclosure of corporate social responsibility.

The educational background of the directors will affect IC resources in the company development process and CSR disclosure because (Gago et al, 2018) the higher the level of education will affect the way of thinking and acting. The gender of the female board of directors is better able to manage company resources to increase intellectual capital (Handajani et al., 2014). (Hadya & Susanto, 2018) stated that the more women in a company, the more they play a role in creating relevant value from IC for stakeholders. With this statement, the educational background of the board of directors and the gender of the female board of directors can strengthen the relationship between IC and CSR disclosure.

This study develops research conducted by (Dzenopoljac et al., 2017) which examines the influence of IC on CSR disclosure. The development carried out is by adding the educational background variables of the directors (Muttakin et al., 2018) and the gender of the female board of directors (Setiawan et al., 2018) as independent variables and moderating variables. The period in this research is 2017-2021. The sample used in this study is the banking sector companies registered with the Financial Services Authority (OJK).

2. LITERATURE REVIEW

Resources Based Theory

Resources Based Theory (RBT) states that the existing resources in the company can be used as a competitive advantage to lead the company toward good performance in the long term (Wernerfelt, 1984). According to resource-based theory, intellectual capital has great potential to create a competitive advantage for the company, because with the competitive advantage of intellectual capital, companies can use it to compete in the competitive market and obtain optimal performance (Pratama et al., 2019). Intellectual Capital owned by the company will be able to create a competitive advantage that will improve the company's performance (Pratama, 2018). A company has a competitive advantage compared to other companies that have a market advantage because company resources can provide added value to the company in the process of capturing opportunities and managing risks (Wijayani, 2017). In resource-based theory, the board of directors is a company resource that represents the interests of shareholders and other stakeholders, so the choice of the board of directors determines the direction of company policy (Utomo, 2019). The presence of intellectual capital, board education, and board gender supports companies with this resource nature (Sudarmanto et al., 2021).

Stakeholder Theory

Stakeholder theory says that a company has a goal to create value for stakeholders (Lukman et al., 2020). Research by Roberts (1992) empirically proves that stakeholder theory is the theoretical basis for analyzing the impact of corporate financial performance, corporate social responsibility activity strategies, and stakeholder intensity in influencing environmental disclosure. Stakeholder theory argues that (creditors, consumers, suppliers, governments, communities, analysts, and other parties) must also receive benefits from the company (Anggraini, 2011). According to Chyanowati (2012), CSR disclosure activities need to be based on the interests of stakeholders in assessing the extent to which a company plays its role. Stakeholders also demand company accountability for their CSR activities (Putri, 2014). CSR exists to align the interests of its stakeholders with the interests of the company (Tasya & Cheisviyanny, 2019). Stakeholder theory underlies the practice of CSR disclosure, because of the relationship between the company and its stakeholders, where stakeholders have an important role in the sustainability of the company. The main purpose of this theory is to support the role of managers in understanding the stakeholder environment and carrying out effective handling between the surrounding environment and the company (Herizona & Yuliana, 2021). The board of commissioners is a mechanism of Good Corporate Governance (GCG) whose role is to encourage companies to fulfill the wishes of stakeholders to implement CSR and disclose it (Nugroho & Yulianto, 2015). Stakeholder theory also suggests that the board is the main management mechanism in an organization and is accountable to a wider stakeholder group (Rao et al., 2012).

The influence of intellectual capital on the disclosure of Corporate Social Responsibility

Intellectual capital is a measurable resource to increase competitive advantage with intellectual capital the company will be able to use company resources efficiently, economically, and effectively (Harrison and Sullvian, 2000). Intellectual Capital is useful for improving company performance, and firm value, and increasing the role of intangible assets, which are characteristics of knowledge and economic information (Hosomi, 2014). Intellectual Capital as a knowledge base resource contains three interrelated key components. Intellectual capital is believed to play an important role in increasing company value and company performance, including in the disclosure of a company's corporate social responsibility (Zhafira, 2019). The relationship between IC and CSR helps encourage managers to use and manage IC for higher social activities (Alfattani, 2014). Companies that can manage their IC well and make appropriate disclosures of corporate social responsibility will certainly gain the trust of external parties, which in turn increases profitability as one of the company's achievements (Djuanda et al., 2019).

Based on resource-based theory (RBT), banks rely on several disparate resources and capabilities such as financial resources and tangible assets, as well as intangible assets, such as corporate fame, culture, and human capital. Companies that have good intellectual capital will have more opportunities to carry out corporate social responsibility well (Musibah and Sulaiman, 2013).

Based on the explanation above, is supported by research by Asmawati & Wijayanti (2017), and Hanim & Rauf (2018) which state that intellectual capital has a positive effect on the disclosure of corporate social responsibility. This shows that the intellectual capital owned by a company will be able to work optimally without the support of a good corporate structure (structural capital). A good company and company resource quality system will be even more perfect if it is supported by strong customer capital (Asmawati and Wijayanti, 2017). Based on this description, the hypotheses proposed in this study are as follows:

H1: Intellectual capital has a positive effect on the disclosure of corporate social responsibility

The effect of the educational background of directors on the disclosure of corporate social responsibility

The level of education shows the level of competence a person has in carrying out his work. The level of proficiency also shows how well a person's mindset is when carrying out various activities in his life (Kieso et al., 2010). Of course, a person's higher education also affects the mindset and way of thinking of the individual. According to Gibson et al., (2011) demographic characteristics are characteristics or characteristics of individuals based on their population values, one of which is the level of education. The level of education shows a person's ability to do his job (Farook et al., 2011). Competence also shows how good a person's mindset is when carrying out various activities in life (Kieso et al., 2010). Based on stakeholder theory, the success and death of a company will depend on the company's ability to balance the interests of different stakeholders (Lako, 2011). The level of education can affect CSR disclosure (Farook et al., 2011), not only the level of education but also the nature of education is important. The nature of education in the form of human efforts to foster his personality following the values in society. Given the complex and diverse composition of CSR, the diversity of functional backgrounds is expected to attract greater attention to corporate social performance in general (Hafsi & Turgut, 2013) and CSR disclosure in particular.

Based on the explanation above, is supported by research by Rahindayanti et al., (2015), Ridwan Muhammad (2019), Salehi et al., (2017), Khan et al., (2018), and Ratmono et al., (2021). states that the educational background of the directors has a positive effect on the disclosure of corporate social responsibility. The higher the level of education in an organization, the more it shows the growing awareness of the importance of responsibility. This is an indicator that triggers a change in thinking patterns after receiving additional education, as a result, when the company is led by individuals who have a high level of education, it will certainly encourage an increase in the number of disclosures of corporate social responsibility. Based on this description, the hypotheses proposed in this study are as follows:

H2: The educational background of the board of directors has a positive effect on the disclosure of corporate social responsibility

The effect of the female board of directors gender on corporate social responsibility disclosure

Female directors are more likely to monitor and consult with management teams using their new leadership style which can increase the effectiveness of board and company performance (Adams & Ferreira, 2007; Bertrand & Schoar, 2003). The presence of a female director can increase the communication of information because they have certain qualities of attitude that seek to improve their relationship with stakeholders (Shrader, Blackburn & Iles, 1997). Thus, the presence of women on the board of directors can have a positive influence on the company (Fuente et al., 2017). One of them is in decision-making, where women are more sensitive to environmental and social issues, so companies are encouraged to carry out CSR activities (Rao and Tile, 2016). Isa and Muhammad (2015) say that women on the board have a positive effect on the disclosure of corporate social responsibility in public companies in Nigeria. In the research of Hadya and Susanto (2018) that the presence of women as directors makes a real contribution to increasing the scope of CSR disclosure in public companies in Nigeria. The stakeholder theory developed by Donaldson & Preston (1995) reveals the close relationship between the company and its stakeholders. Women on the board of directors and commissioners can encourage companies to build good relationships with stakeholders because women have a high level of concern for social and environmental issues (Farida, 2019). Therefore, the involvement of women on the board of directors affects the pattern of reporting on corporate social responsibility (Rahindayanti et al., 2015).

Based on the explanation above, this is supported by research from Handajani et al., (2014), Anggraeni (2020), (Farida (2019), Setiawan et al., (2018), and Vilkė et al., (2014) found that the gender of the female board of directors has a positive impact on CSR disclosure. That the presence of women as directors makes a real contribution to increasing the number of corporate social responsibility disclosures in the company. Based on this description, the hypothesis proposed in this study is as follows:

H3: The gender of the female board of directors has a positive effect on CSR disclosure

The influence of the educational background of directors in strengthening the influence of intellectual capital on the disclosure of corporate social responsibility

A person's higher education also affects a person's mindset and way of thinking (Donnelly and Konopaske, 2011). In general, educational background can be considered an important factor in disclosure practices (Haniffa & Cooke, 2002). In particular, education level can influence CSR disclosure (Farook et al., 2011). Among the elements that define this profile, the education received plays an important role for two main reasons. First, the educational process provides knowledge and experience to individuals, shaping how they think and what they stand for when making decisions. Second, depending on the type of education received, different specific skills are developed, which may determine the professional experience (Garcia et al., 2015). With the educational background of the board of directors, intellectual capital is expected to have a better impact on CSR disclosure, because having resources can improve performance in CSR. The educational background of the directors will affect intellectual capital in the company development process (Rahindayati, 2015).

Based on the explanation above, is supported by research by Hadya & Susanto (2018) and Pratama (2016) which states that the educational background of directors has a positive effect on CSR disclosure. The Board of Directors consists of individuals who have various knowledge, expertise, and credibility so that they can carry out the duties and functions of the company's **board. Based on this description, the hypotheses proposed in this study are as follows:**

H4: The educational background of the board of directors strengthens the positive influence

of intellectual capital on strengthening the disclosure of corporate social responsibility

The influence of female board of directors gender in strengthening the influence of intellectual capital on the disclosure of corporate social responsibility

The female board of directors conducted an analysis of strategies to determine and carefully reflect on the encouragement of disclosure of intellectual capital information (Rasmini et al., 2014). Women are considered to have feelings that make them more focused on harmony, society, and the environmental. They are also considered to be tough individuals due to previous career challenges that had to be overcome before holding a board seat (Matitaputty & Davianti, 2020). The involvement of women on the board of directors is associated with increased voluntary disclosure, especially the disclosure of intellectual capital information. For that, the presence of women in the ranks of directors can increase the disclosure of intellectual capital that can help make more informed decisions, and lower risk (Tejedo et al., 2017). The presence of female directors is expected to provide added value for the company in more detail in controlling the implementation of CSR and is expected to have a positive impact on the implementation of CSR (Fuente et al., 2017). With the female board of directors, intellectual capital is expected to have a better impact on CSR disclosure. With stakeholder theory, a company's CSR strategy to meet stakeholder demands is strongly influenced by the composition of its board of directors (Birindelli et al, 2018), especially regarding gender diversity (Cuadrado-Ballesteros et al., 2015; Setó-Pamies, 2015; Valls Martínez et al., 2020).

Based on the explanation above, is supported by research by (Napitu & Siregar, 2021) and (Aslam et al., 2018) which state that the gender of the female board of directors has a positive effect on CSR disclosure. Based on this description, the hypotheses proposed in this study are as follows:

H5: The gender of the female board of directors strengthens the positive influence of intellectual capital on the disclosure of corporate social responsibility

3. METHODOLOGY

Population and Research Sample

The population used in this study are banks registered with the OJK. While the sample used is a bank company registered with the OJK in 2017-2021. The criteria used are 1) Banking companies registered at www.ojk.go.id in 2017-2021, 2) Bank companies that issue annual financial reports, and 3) Companies that provide required and complete information related to variables. in this research. Based on the sampling criteria selected in this study, the research sample obtained includes 41 companies for each year and the period used in the study is 2017-2021.

Operational Definition and Measurement of Variables

Independent Variable

Intellectual Capital

Intellectual capital is the company's ownership of various resources in the form of knowledge, expertise, experience, and good relations between employees and various stakeholders as part of the value-creation process (Sutanto & Siswantaya, 2014). This study uses the Value Added Intellectual Coefficient (VAIC) method developed by Pulic (2000; 2004).

The components of VAIC (Pulic, 2004) are as follows:

Information :

VAIC t = Intellectual value added coefficient at t

HCE t = VAt /HCt; Human capital efficiency coefficient at t

SCE t = SCt/VAt; structural capital efficiency coefficient at t

CEE t = VAT/CEt; Efficiency coefficient of capital employed at t

VA t = OPt + ECt + Dt + At; OPt is operating income; ECt is the cost that

used; (Dt) is depreciation, and At is the amortization
HC t = Total salary and wages at time t
SC t = VA t – HC t ; structural capital in t
CE t = Book value of net assets at time t

Board of Directors Educational Background

The educational background of the board is a characteristic that can affect the ability of the board to make business decisions and run a business (Kusumastuti et al., 2006). The measurement is carried out with the education level of doctors who are spread out given a value of 1, for groups that are not spread out are given a value of 0.

$$\text{LBP} = \frac{\text{Number of Board of Directors with Doctoral Education}}{\text{Number of Members of the Board of Directors}}$$

Information :
LBP = Educational Background

Gender Board of Directors Female

Gender is the view that there are differences between men and women from a non-biological point of view, for example from cultural, social, and behavioral aspects (Tasya & Cheisviyanny, 2017). The gender diversity of directors can enrich the perspective in decision-making (Sri, 2018). Male directors have high abilities in terms of talent or intelligence, while women have high prudence, tend to avoid risks, and are more thorough (Amin and Sunarjanto, 2016).
In this study, the Gender of Directors is measured using a proportion that refers to research Rismawati & Singapurwoko (2019)with the following formula:

$$\text{Gender Board of Directors Female} = \frac{\text{Number of Women}}{\text{Number of Board of Directors}}$$

Dependent Variable
Corporate Social Responsibility Disclosure

Corporate social responsibility or CSR is a company's responsibility to its environment (Pratama et al., 2013). The measurement instrument used in this study refers to the 4th generation Global Reporting Initiatives (GRI) indicator or GRI G4 (Global Reporting Initiatives, 2016). Referring to the research of Lukman et al., (2020) is as follows:

$$\text{CSRDI}_j = \frac{\sum X_{ij}}{91}$$

Information:
CSRDI: Corporate Social Responsibility Disclosure Index i
Xij : dummy variable, value 1 if item i is exposed, value 0 if item i is not exposed.

DATA ANALYSIS TECHNIQUE

This study uses a panel data regression analysis model. Panel data analysis was used to examine the relationship between intellectual capital and disclosure of corporate social responsibility with the educational background of the board of directors and the gender of the female board of directors as moderating variables. Panel data analysis consists of regression model OLS (ordinary least square), FE model (Fixed Effect), RE model (Random Effect) (Baltagi, 2011; Gujarati & Porter, 2009; Longhi & Nandi, 2015). In this study, the Breusch and Pagan Lagrangian Multiplier tests were used to test the ordinary least squares regression model versus the random effect regression model. While the Chow test is used to test the ordinary least square versus the fixed effect model and the Hausman test is used to find the most appropriate panel data regression model between the fixed effect model and the random effect model.

In this study, one equation model was used to evaluate the assumptions. This study uses model (1) to examine the effect of intellectual capital, educational background of directors and gender of female board of directors to disclose corporate social responsibility. In addition, he uses model (2) to examine the moderating effect of the educational background of the board of directors and the gender of the female board of directors on the relationship between the board of directors and disclosure of corporate social responsibility.

$$\text{CSRD} = \alpha + \beta\text{VAIC} + \beta\text{LBPD} + \beta\text{WONDIR} + \epsilon \ldots (1)$$

$$CSRD = \alpha + \beta_1 VAIC + \beta_2 LBPD + \beta_3 WONDIR + \beta VAIC * LBPD + \beta VAIC * WONDIR + \epsilon \ldots (2)$$

Information :

CSRD : Corporate Social Responsibility Disclosure

VAIC : Value Added Intellectual Coefficient

LBPD : Educational Background of the Board of Directors

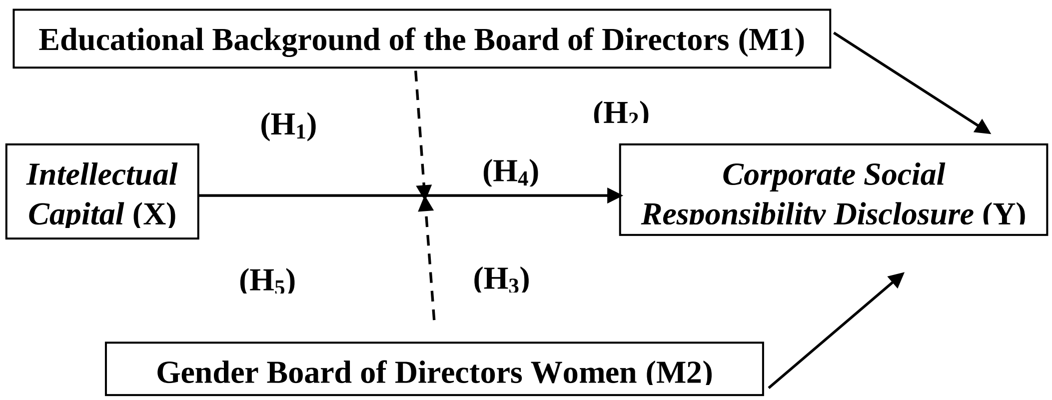
WOMDIR : Woman Directors

α : Constant

β : Regression Coefficient

ϵ : Error Terms or remainder

Framework



4. RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Descriptive statistics provide a description or description of data seen from the average value (mean), standard deviation, variance, maximum, and minimum, (Ghozali, 2016). The CSRD (Corporate Social Responsibility Disclosure) variable has a mean value of 0.5770244 with a standard deviation of 0.2091215. This means that the level of disclosure of corporate social responsibility presented by 41 bank companies in Indonesia from 2017-2021 is quite high at 57.70% or 52.53 items of the total indicators of corporate social responsibility disclosure of 91 items. The sample companies made more CSR disclosures in the environmental category. This is because banking companies use more natural resources and the surrounding environment. So CSR is mostly done through environmental restoration. While the average value of the educational background of the board of directors is 0.0209756. This means that the educational background of directors of commercial banks with doctoral education is only a small fraction, namely 2% of the total number of boards of directors. Therefore, it is not able to contribute to influencing CSR disclosure. And the average value of the gender of the board of directors is 0.1780488. This means that the gender of female directors of commercial banks is 17%. A previous study (Anggraeni, 2020) stated that the gender of female directors on CSR disclosure was on average 0.1204 or 12.04%, so the gender variable was higher on average compared to previous studies. Overall, the descriptive statistics of each variable can be seen in Table 1

.

Table 1: Descriptive Statistics

Variable	Mean	Std. devs.	Min	Max
Csrd	0.5770244	0.2091215	0.15	0.96
ic	0.7369268	6.045534	-66.26	28.06
Lbp	0.0209756	0.0673375	0	0.67
gdr	0.1780488	0.1784989	0	0.75

Source: Processed data

Preliminary Test (Breusch and Pagan Lagrangian Multiplier Test, Chow Test, and Hausman Test)

Panel data analysis is used to determine the relationship between intellectual capital, the educational background of the board of directors, and the gender of the female board to reveal the corporate social responsibility of banking in Indonesia. Panel data analysis used the OLS (Ordinary Least Square) model, the FE (Fixed Effect) model, and the RE (Random Effect) model (Baltagi, 2011; Gujarati & Porter, 2009; Longhi & Nandi, 2015). The Breusch and Pagan Lagrangian Multiplier test was used to test the ordinary least squares regression model versus the random effect regression model. While the Chow test is used to test the ordinary least square model versus the fixed effect model and the Hausman test is used to determine the most appropriate panel data regression model between the fixed effect model and the random effect model.

Table 2: Breucsh and Pagan Lagrangian Multiplier

	Model 1	Model 2
Chibar2(01)	223.60	221.95
Prob > chibar2	0.0000	0.0000

Source: Processed data

First, the Breucsh and Pagan Lagrangian Multiplier tests (Table 2) were used to test the ordinary least squares regression model versus the random effect regression model. The assumptions of the hypothesis are as follows:

Null hypothesis : Ordinary least square model is more suitable ($p > 0.05$).

Alternative hypothesis: The random effect model is more suitable ($p < 0.05$).

Based on table 2, the value of the Breusch Test and the Pagan Lagrangian Multiplier in model 1 is 223.60, with a probability value of 0.0000, and in model 2 with 221.95 with a probability value of 0.0000. This result shows that it is significant ($p < 0.05$). As a result, the null hypothesis is rejected at the 5 percent significance level. The results showed that the ordinary least square was not suitable to examine the effect of the variable intellectual capital, educational background of the board of directors, the gender of the female board of directors, and the moderating variable of the educational background and gender of the female board of directors on the disclosure of corporate social responsibility in banking. These results indicate that the random effect model is more suitable.

Table 3: Chow test

	Model 1	Model 2
F(40,161)	5.50	5.95
Prob > F	0.0000	0.0000

Source: Processed data

Second, Chow test table 3 is used to test the fixed effect model versus the ordinary least square model regression. The assumptions of the hypothesis are as follows:

Null hypothesis: Ordinary least square model is more suitable ($p > 0.05$).

Alternative hypothesis: The fixed effect model is more suitable ($p < 0.05$).

Based on Table 2, the value of the chow test in the chi-square statistic in model 1 is 5.50 with a probability value of 0.0000 and in model 2 it is 5.95 with a probability value of 0.0000. This result showed significant ($p < 0.05$). As a result, the null hypothesis is rejected at the 5% significance level. The results showed that the ordinary least square model was not suitable for evaluating the effect of the independent variables, namely intellectual capital, educational background of directors, gender of the female board of directors, and moderating variables of the female board of directors' educational background and gender for disclosure of corporate social responsibility in banking. These results indicate that the fixed effect model is more suitable.

Table 4: Hausman test results

	Model 1	**Model 2**
Chibar2(3)	1.67	1.74
Pros > Chi2	0.6435	0.8834

Source: Processed data

Third, the Hausman test was conducted to check the suitability of the model selection to choose the best model between the fixed effect model and the random effect model. The assumptions of the hypothesis are as follows:

Null hypothesis: The random effect model is more suitable ($p > 0.05$)

Alternative hypothesis: The fixed effect model is more suitable ($p < 0.05$)

Table 4 shows that the value of the Hausman test for model 1 is 1.67 with a probability value of 0.6435 and model 2 is 1.74 with a probability of 0.8834, this result shows significance ($p > 0.05$). Therefore, the alternative hypothesis was rejected at the 5% significance level. The results of the Hausman test determined that the random effect model was more suitable to be used in this study. Based on the three tests stated that this study will use a random effects model to test the relationship between variables in model 1 and model 2.

Heteroscedasticity and Autocorrelation Diagnostic Test

The heteroscedasticity test on the random effect model uses the likelihood-ratio test (Sanchez, 2012). The model can be said to have heteroscedasticity problems if the p-value (Prob > X2) is below 0.05. Autocorrelation testing can be done with the Wooldridge test (Drukker, 2003). The model can be said to be autocorrelated if the p-value (Prob > F) is below 0.05.

The results of this study used a random effect model to test the diagnostic heteroscedasticity and autocorrelation in model 1 and model 2. The results of this test heteroscedasticity in model 1 had a Prob > Chi2 value of 0.0000. This means that the model has heteroscedasticity symptoms and the results of the heteroscedasticity test in model 2 have a Prob value > Chi2 0.0000, meaning that the model has heteroscedasticity. The results of the autocorrelation test in model 1 have a Prob > F value of 0.0003. This means that in this model there is an autocorrelation symptom and the results of the autocorrelation test in model 2 have a Prob > F value of 0.0003. This means that in model 2 there is autocorrelation.

Table 5: Test Results of Heteroscedasticity and Autocorrelation

	Model 1	**Model 2**
Full sample		
Heteroscedasticity		
Chi2	217.77	167.57
Pros > Chi2	0.0000	0.0000
Serial Correlation		
F	15,486	15.535
Prob > F	0.0003	0.0003

Source: Processed data

The findings of the heteroscedasticity test and autocorrelation test were used to make decisions on the use of a random effect model with a Clustered Sandwich standard error so that the standard error of the random effects model was not disturbed by the problems of heteroscedasticity and autocorrelation.

Hypothesis Test Results
Model 1

Table 6: Hypothesis Test Results

Independent Variable	Dependent Variable			
	RD			
	coef.	Std. Err.	z	P>IzI
Const	0.54083	0.03444	15.7	0
IC	0.00139	0.00068	2.05	0.04
LBP	-0.0244	0.09903	-0.25	0.805
GDR	0.20041	0.09523	2.1	0.035 *
R-squared within	0.039			
Wald Chi2	10.02			
Pros > Chi2	0.0184 *			
No. Observation	205			
5% significance				

Source: Processed data

Model 2

Table 7: Hypothesis Test Results

Independent Variable	Dependent Variable			
	RD			
	coef.	Std. Err.	z	P>IzI
Const	0.54176	0.03465	15.63	0
IC	0.00146	0.00049	2.97	0.003
LBP	-0.0362	0.10618	-0.34	0.733
GDR	0.1955	0.09849	1.98	0.047 *
IC_LBP	-0.0567	0.05567	-1.02	0.308
IC_GDR	0.0007	0.0127	0.06	0.956
R-squared within	0.0416			
Wald Chi2	14.67			
Pros > Chi2	0.0119 *			
No. Observation	205			
5% significance				

Source: Processed data

DISCUSSION

The influence of intellectual capital on the disclosure of corporate social responsibility

Testing hypothesis 1 aims to test the influence of intellectual capital on CSR disclosure. As seen in table 6, testing this hypothesis shows that there is a significant positive relationship between intellectual capital and CSR disclosure with a coefficient of 0.0013939 at a significance level of 5%. This proves that the higher the utilization of intellectual capital, it will lead to the increase in CSR disclosure. Therefore, this hypothesis which states that there is a positive influence of intellectual capital on CSR disclosure is supported by a significance level of 5%.

This is because the utilization of intellectual capital resources of companies that can work optimally can increase CSR disclosure. When a company manages intellectual capital well, it can create added value. for the company itself, investors will also provide added value to the company by investing higher so that this added value can also improve company performance it can encourage the disclosure of corporate social responsibility to improve the company's image in the eyes of the public (Nurdin and Suyudi, 2019).

Based on Resources Based Theory (RBT), in creating value and sustainable company growth. Intellectual capital plays an important role intellectual capital is the main core of value development and competitive advantage of a company (Barney, 1991). To increase the disclosure of CSR more broadly. Previous research by Asmawanti and Wijayanti (2017) stated that Intellectual Capital has a positive effect on CSR disclosure.

The effect of the educational background of directors on the disclosure of corporate social responsibility

Hypothesis 2 testing aims to examine the effect of the educational background of directors on CSR disclosure. As shown in table 6, testing this hypothesis shows that there is an insignificant relationship between the educational background of the directors on CSR disclosure. This proves that the level or education level of directors disclosed by banks does not affect increasing or decreasing CSR disclosure. Therefore, this hypothesis which states that there is a negative effect of the educational background of directors on CSR disclosure is not supported.

The results of this hypothesis test prove that the educational background of directors who can process information to produce better decisions cannot make companies achieve better CSR disclosures. From the descriptive statistics of the educational background variable of the board of directors, it can be seen in table 1 that the average value is 0.0209756 which indicates the low level or level of education of the board of directors, which is only 2%. Thus, their educational background is not only seen from the level or level of education, but can be seen from their accounting and economics education, or their ability in other fields. Therefore, this hypothesis test states that the educational background of directors does not affect the disclosure of corporate social responsibility because the average value is 2%, not supported by a significance level of 5%. The results of testing the second hypothesis did not succeed in proving the positive influence of the educational background of the directors on improving the performance of corporate social responsibility disclosure.

The results of this study are in line with research by Samaha (2011) which found that the diversity of educational backgrounds combined with the professional backgrounds of board members and directors partially hurt firm value. Even if the educational diversity or educational background of the board of directors is scattered (different), but the experience and educational background are not by the needs of the company, it is possible that the board of directors cannot adequately express opinions, opinions, skills, and provide experience. related to the needs of the company, especially in this case related to CSR disclosure. The results of this study are in line with research conducted by (Pajaria, 2016), which states that the educational background of directors hurts CSR disclosure.

The effect of the female board of directors gender on corporate social responsibility disclosure

Testing of hypothesis 3 aims to test the presence of a female board of directors gender with CSR disclosure. As shown in table 6, the test of Hypothesis 3 shows that there is a significant positive relationship between the gender of the female board of directors on CSR disclosure with a coefficient of 0.2004149 at a significance level of 5%. This proves that the number of female board of directors have the opportunity and ability to disclose CSR information. So Hypothesis 3 which states that there is a positive influence of female directors' gender on CSR disclosure, is supported at the significance level = 5%.

The results of the hypothesis 3 test prove that the gender of an efficient and effective female board of directors can make companies achieve better CSR disclosure. From descriptive statistics on the female board of directors gender variable, it can be seen in table 1 that the average value is 0.1780488 which states that the presence of a female board of directors is quite good, which is 17% compared to previous research by (Anggraeni, 2020) with an average value of 12%. These results indicate that companies with a certain proportion of women on the supervisory and administrative boards disclose CSR information more widely (Rahindayanti et al., 2015). The existence of women in the management of the company is related to corporate social responsibility and management to become a good company and comply with social norms and values (Brammer et al., 2007 in Luckerath-Rovers, 2010).

The results showed that the gender of the directors had a positive effect on the disclosure of corporate social responsibility. It is proved that companies that have a certain percentage of women on board directors disclose CSR information more comprehensively. The existence of women in the management of the company is related to corporate social responsibility and management to become a good company and comply with social norms and values (Rahiyandati, 2019). The results of testing hypothesis 3 are by the theory. In line with stakeholder theory For this purpose, companies must have the right mix of directors, especially directors who can bring a wider diversity of knowledge, skills, experience, expertise, and stakeholder ties and orientations that can help develop effective CSR strategies that lead to performance Excellent CSR.

Several studies by Indriyani, D., & Sudaryati (2020), Handajani et al., (2014), Isa and Muhammad (2015), and Matitaputty & Davianti (2020) found that the gender of directors had a positive effect on the disclosure of corporate social responsibility. Finding that the gender of female board members has a positive impact on CSR disclosure.

The influence of the educational background of directors in strengthening intellectual capital on the disclosure of corporate social responsibility

Testing hypothesis 4 aims to test the hypothesis that there is a moderating effect of the educational background of directors in strengthening the positive influence of intellectual capital on CSR disclosure, it can be seen in table 7 that the educational background variable of directors has a coefficient value of -0.0567 with a p-value of <0.05 at the level of 5% significance. Thus, hypothesis 4 which states that educational background is not able to strengthen the influence of intellectual capital on CSR disclosure is not supported.

This means that the more dispersed formal educational background of the members of the board of directors does not significantly affect the CSR disclosures made at commercial banks and cannot increase the disclosure of corporate social responsibility. The level of education shows the level of competence a person has in carrying out his work. The level of proficiency also shows how well a person's mindset is when carrying out various activities in his life. Of course, a person's higher education also affects the individual's mindset and way of thinking (Kieso et al, 2010), but the background is not only seen from the level of education but can be seen from education with educational backgrounds being accounting and finance, marketing management and strategic management, law, engineering (engineering), and socio-economics. Therefore, hypothesis 4 which states that there is no influence of the educational background of directors to strengthen the disclosure of corporate social responsibility is not supported. The findings of previous studies (Mulazid et al., 2017) and (Forbes & Milliken, 1999) stated that there was no influence between the educational background of directors on CSR disclosure.

The influence of female board of directors gender in strengthening intellectual capital on the disclosure of corporate social responsibility

Testing of hypothesis 5 aims to test the hypothesis that there is a moderating effect of gender on the female board of directors in strengthening the positive influence of intellectual capital on CSR disclosure. Table 7 describes the findings of the overall hypothesis testing of this study. Testing hypothesis 5 proves that the gender of the female board of directors is not able to strengthen the positive influence of intellectual capital on CSR disclosure. Thus, hypothesis 5 which states that the female board of directors is not able to strengthen the influence of intellectual capital on CSR disclosure is not supported.

The results of hypothesis testing 5 prove that there are still few Indonesian companies that have a female board of directors with a balanced composition. Where the presence of a female board of directors with a small number of directors does not have a big impact on the company and the lack of a female board of directors contribution to the company due to the limited number of female directors who are slightly unable to influence CSR disclosure. Therefore, this hypothesis states that it has no effect so it does not strengthen the influence of intellectual capital on the disclosure of corporate social responsibility. The findings of previous research by Anggraeni and Djakman (2017), Kahreh et al., (2014), and Septianingsih & Muslih (2019) stated that there was no effect between the gender of the female board of directors on CSR disclosure.

5. CONCLUSIONS AND RECOMMENDATIONS

The conclusions that can be drawn from this study are as follows: intellectual capital affects CSR disclosure, the educational background of the directors does not affect CSR disclosure, the gender of the female board of directors has a positive effect on CSR disclosure, while the moderating variables are the educational background of the directors and the gender of the female board of directors. cannot strengthen the positive influence of intellectual capital on CSR disclosure. The results of this study indicate that commercial banking companies in Indonesia can increase their intellectual capital in CSR disclosure.

Further research, can add more characteristics of the board of directors. Because this study was not able to prove the positive influence of the characteristics of the board of directors on commercial banks in Indonesia. With the other characteristics of the board of directors, it is expected to be able to help improve the quality of information disclosure and strengthen the educational background of the female board of directors and the gender of the female board of directors in influencing corporate social responsibility. Further research can also add control variables to control the effect of the educational background of the board of directors and the gender of the female board of directors on the effect of corporate social responsibility.

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