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## Article

# Factors affecting corporate social responsibilities disclosure of listed companies in Vietnam

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## ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

# Factors affecting corporate social responsibilities disclosure of listed companies in Vietnam

Quynh Lien Le<sup>1\*</sup>, Lan Huong Nguyen<sup>1</sup>, Viet Hoa Dinh<sup>1</sup>, Thi Thu Huyen Luong<sup>1</sup>,  
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**Abstract:** This paper aims to research factors that affect corporate social responsibility (CSR) disclosure in the context of listed companies in Vietnam. Our research uses data from listed companies in the Hanoi and Ho Chi Minh City Stock Exchanges from 2015 to 2020. We conduct the quantitative research by analyzing regression models therefore the relation between factors and CSR disclosure is found. We measure CSR disclosure in two ways: by total score and percentage. The result found that in both ways of measuring, the percentage of women on board and company age have a positive impact on CSR disclosure. In contrast to this, board size and board age have a negative effect on CSR disclosure. The other independent variables have no impact on CSR disclosure. Therefore, we have given some practical implications for companies that want to improve their CSR disclosure.

**Subjects:** Corporate Finance; Corporate Governance; Corporate Social Responsibility & Business Ethics

**Keywords:** Corporate social responsibility; Corporate social responsibility disclosure; Vietnam listed companies

### 1. Introduction

Human history has witnessed countless economic crises and now we have to face environmental crises raised by climate change. The more modern society becomes, the more polluted the environment is. In some underdeveloped and developing countries, many people do not have clean water due to a lot of companies and factories being constructed. That sets an urgent requirement for companies to ensure basic conditions related to the environment and humanness following the law and it is called “corporate social responsibility” (CSR).

The term CSR first caught the attention of stakeholders in the book *Social Responsibilities of the Businessman* (Bowen, 2013) SRB defines social responsibilities as “the obligations of businessmen to pursue those policies, to make those decisions or to follow those lines of action which are desirable in terms of the objective and values of our society” (Aurélien et al., 2011). In 1979, Carroll

### ABOUT THE AUTHOR

Dr. Le Quynh Lien is a lecturer at the School of Accounting and Auditing, National Economics University, Hanoi, Vietnam. Her research and teaching interests are in the areas of contemporary issues in accounting, auditing, earnings management, corporate governance, corporate finance and corporate social responsibility. She has published a number of good quality research papers in international scientific journals with double review such as *Cogent Business & Management*, *Journal of Economics and Development* and international scientific conferences such as *International Conference on Finance, Accounting and Auditing*. Her recent research has been on the impact of corporate governance on earnings management or corporate social responsibility.

published a four-part definition of CSR, and then in 1991, he demonstrated it in the form of a pyramid. It shows the responsibilities that businesses should concern as “good corporate citizens”: economic responsibilities, legal responsibilities, ethical responsibilities, and philanthropic responsibilities (Carroll, 2016). Here are various definitions of CSR. According to the European Commission, CSR is a concept whereby companies voluntarily integrate social and environmental concerns into their business operations and interact with their stakeholders. Being socially responsible means fulfilling legal expectations and going beyond compliance. CSR is a process to achieve the essential benefits of sustainability (Tsoutsoura, 2004).

In the world of science and technology where the economy has been digitized, CSR plays an important role in business. However, not all companies will publish their information about it or they will just release little, eventually, their publication is not true and sincere. What should we do to advance the quality of reporting it? It is a big question for all those who care about CSR disclosure.

On October 6th, 2015, circular 155/2015/TT-BTC “Guidelines for information disclosure on the stock exchange” was enacted by the Ministry of Finance (2015) and comes into force on January 1st, 2016. The circular officially stipulates the obligation to annually disclose information related to the CSR of enterprises, applicable to all listed companies in many different business activities. According to the circular, corporations’ environmental and social impact reporting must disclose data related to sustainable development: management of raw materials, energy consumption, water usage of business activities in the year, compliance with the law on environmental protection, employment policies, reports on the responsibility of local communities, reports on the green capital market activities. In addition, listed companies are also required to disclose sustainable development goals in the section Development orientation.

The information on sustainable development is included in the annual report or published separately as a sustainable development report. According to the Securities Law 2019, 4 entities must publish annual reports:

(1) Public companies

- (1) Organizations that issue corporate bonds to the public.
- (2) Organizations that list corporate bonds.
- (3) Securities companies, securities investment fund management companies, branches of securities companies, and foreign fund management companies in Vietnam.

As a result, these 4 groups must also issue sustainability reports. Other businesses are encouraged to disclose CSR data for sustainable development. The consequence for businesses in Vietnam who fail to issue CSR reports is not expressly stated in the law so the quality of CSR information disclosure is not high and assemble.

In Vietnam, carrying out CSR is significantly recognized by businesses as an indispensable requirement in the integration process. Companies that practice CSR must have social funds themselves. According to Decree No. 93/2019/NĐ-CP (issued by the Vietnamese government) on the organization and operation of social funds and charity funds; a social fund is defined as “a fund organized and operated to support and encourage the development of culture, education, health, physical training, sports, science, and agricultural and rural development, not for profit.” Also, the Decree refers to the principles of organization and operation of social funds. They are not for profit and the organization operates by the law. In any field the fund operates in, it must be under the management of the state agency in charge of that industry or field and may only receive and mobilize funding within the scope of its operation according to the fund’s charter. Companies should use assets and finance thriftily and effectively for the right purposes of the fund; pay taxes,

fees and implement accounting, auditing, and statistical regimes by law; must register for a tax identification number and declare tax by the provisions of tax law and every year, the foundation is responsible for making its contributions public on the mass media by March 31 and so on. However, it is still a strange issue for businesses in our country to deal with practicing CSR without any difficulties. That is why the Vietnamese government is concerned about how to keep track of performing CSR in different enterprises. The government also attends both domestic and international seminars and field trips to raise awareness and understanding of CSR. Vietnam is receiving and implementing the concept of social responsibility in domestic enterprises. In Vietnam, there are some corporations successfully implementing and reporting their CSR activities such as Vinamilk, TH True Milk, and Honda Vietnam ... Otherwise, some businesses only care about high profits, or solving the problem of society but still have law violations. The most obvious reason for this big issue is the unreal quality of CSR disclosure. Corporations just want the achievement written in their report and do not practice CSR with “virtue” and “humanitarian”. To enhance the quality of CSR disclosure, we must know how to measure CSR reporting and find out which factors should be encouraged or not in practicing CSR. There is not much deep—academic research referring to the factors that have an effect on CSR disclosure levels in Vietnam. Research by Nguyen et al. (2018) aims to discuss external contextual factors that appear to influence the nature of the CSR concept in Vietnam. On the other hand, Hamm (2012) considers the influence of private governance on CSR disclosure in Vietnam. Other researchers often put CSR as another definition and consider it. We have a new approach to research factors affecting CSR in Vietnam-listed companies. Therefore, we have given practical implications for companies that want to improve their CSR reports.

This paper contains four sections: introduction, literature review and hypothesis development, data and methodology, and conclusion. The introduction shows readers the CSR definition, its importance, and the implementation situation in Vietnam. Literature review and hypothesis development refer to previous research, point out research gaps, and enhance related hypotheses. Data and methodology demonstrate data supplied by Vietstock and how we analyze it. Lastly, in the part conclusion, we close the problem and the way to solve it.

## **2. Literature review and hypothesis development**

### **2.1. Literature review**

Corporate social responsibility (CSR) strategies encourage the company to make a positive impact on the environment and stakeholders, which include consumers, employees, investors, communities, and others (Zaitsev & Dror, 2017). According to Rinawiyanti et al. (2022), managers can also effectively integrate CSR into business functions to achieve superior social and financial performance, particularly in a developing country context. Research on CSR has been conducted for many years to find the appropriate method to measure corporate disclosure on financial and non-financial companies in developed and developing countries, such as Giannarakis (2014), Khan (2010), Hossain and Reaz (2007), Siregar and Bachtiar (2010), Said et al. (2009), and Ho and Taylor (2007), and Tagesson et al. (2009), Branco and Rodrigues (2008), and Ho and Taylor (2007) examine the determinants of CSR disclosure by 50 of the largest companies in the United States and Japan. Twenty disclosure elements are being developed to form the basis of the CSR disclosure index. The results of multiple regression analysis show that companies with large scale, low profitability, low liquidity, low financial leverage, and manufacturing industries are an important part of the scope of corporate social responsibility disclosure. In addition, the overall level of CSR disclosure of Japanese companies is relatively high, of which environmental disclosure is the most important factor. This can be explained by the different cultures and regulatory regimes on environmental requirements between the two countries. In the same year, Hossain and Reaz (2007) surveyed 38 listed banking companies in India to understand which factors influence the extent of CSR disclosure. Yuen et al. (2022) found that Environmental, Social and corporate Governance (ESG) activities may reduce bank profitability. By using ordinary least squares (OLS) regression models for all variables; the result had some commonalities with the study, by Ho and

Taylor (2007), which showed that the size of a company and the extent of its existing assets have a significant positive impact on CSR disclosure. Tagesson et al. (2009) also performed regression analysis to explain the extent of social disclosure by studying 169 Internet-based social disclosures of listed companies in Sweden. The results also show that such disclosures are related to company size, profitability, ownership, and industry. Furthermore, the same variables that reveal the extent of social disclosure also appear to reveal the content of such disclosures on company websites.

Siregar and Bachtiar (2010) concentrated on 87 public firms listed on the Indonesian Stock Exchange (IDX) in 2003. Annual reports were analyzed by content analysis method and multiple regression was used to test the relationship between the corporate social disclosures index and the independent variables namely the board size, foreign ownership, company size, profitability, and leverage. According to this study, board size has been shown to have positive and nonlinear (square and concave) relationships with CSR. This also means that larger boards allow for better monitoring, but very large board sizes can negatively impact this. In addition, company size as measured by total assets has a significant positive impact on CSR. Khan (2010) also used multiple regression, focusing on 30 private commercial banks in Bangladesh during 2007–2008, to study the impact of corporate governance factors on the level of CSR disclosure. Regression analysis was used to account for the variability of the dependent variable. The results show that factors such as the presence of non-executive directors and foreigners have an important impact on the declaration of corporate social responsibility disclosure in Bangladesh. Overall, in this study, five explanatory variables were found to have a positive impact on the level of CSR disclosure: company size, profitability, and foreign nationality, these three variables are similar to the study by Siregar and Bachtiar (2010). There are also 2 other elements: the presence of non-executive directors and a board of directors.

A study by Said et al. (2009) used hierarchical regression analysis to assess the relationship between corporate governance characteristics, namely the board size, board independence, duality, audit committee, ten largest shareholders, managerial ownership, foreign ownership, and government ownership and the extent of corporate social responsibility disclosure in 150 Malaysian public listed companies from January to December 2006. The construction of the CSR disclosure index was grounded on two sources of data: companies' websites and annual reports. However, this study assumed an inverse relationship between board size and CSR disclosure levels, in contrast to two studies Siregar and Bachtiar (2010) and Giannarakis (2014). Furthermore, the findings of this study are that only government ownership and audit committee determinants had a significant impact on CSR disclosure.

The question of the relationship between corporate social responsibility and corporate performance remains an important topic in general management and accounting research in particular. International economic integration over the past decade has provided Vietnam's economy, especially the private sector, with opportunities to expand its business and go global. Despite the rapid development, the Vietnamese business community still faces important issues of sustainable development. Recent issues related to health and safety issues, such as toxic ingredients in consumer products, have drawn greater attention to corporate social responsibility (CSR) in Vietnam.

As a result, more and more businesses today are interested in and know that CSR is an integral part of standard setting. Action CSR is carried out not only when the community is stable, but also in times of social difficulties. While the application of CSR philosophy in companies for the aim of sustainable development is growing in popularity in developed countries, the topic is considered relatively new in developing countries, especially in the case of Vietnam. Not much research has been done on CSR issues in the Vietnamese context, while the unique political, economic, social, and cultural context makes Vietnam an appropriate environment to criticize the relevance of CSR disclosure prevailing in the local context. Therefore, this period is considered to be related to the development of corporate social responsibility in Vietnam, which will help the Vietnamese economy to make great progress in the future.



### *2.1.1. Stakeholder theory*

Stakeholder theory (generally accepted to be first referred to by Freeman in 1984) assumes that corporations should be responsible for treating stakeholders fairly. “Stakeholder” means individuals or groups (customers, investors, suppliers, employees, ...) that affect or are affected by the business’s actions. Stakeholder theory suggests that “if we adopt as a unit of analysis the relationship between a business and the groups and individuals who can affect or are affected by it, then we have a better chance to deal with these three” (Freeman et al., 2010). The most important mission is satisfying them to improve the company’s activities. When their expectations are met, they tend to contribute better. It links to practicing CSR properly, the win-win relationship. When the CSR disclosure level is good, stakeholders could have better financial and non-financial information and on the contrary, stakeholders put pressure on practicing CSR. We narrow this theory to the scope of internal corporations. Factors that take benefit from CSR disclosure and also have an impact on it will be encouraged.

### *2.1.2. Agency theory*

Agency theory is derived from economic theory and explains that the disconnect between ownership and management of resources leads to problems with managers being able to act in their interests. Based on the agency theory of Jensen and Meckling (1976) and Barnea and Rubin (2010) regard CSR participation as a principal-agent relationship between managers and shareholders. They argued that managers are interested in investing too much in CSR for personal gain and building a reputation as a good social citizen may come at the expense of shareholders. On the other hand, Jo and Harjoto (2011) provide evidence in support of the conflict resolution view, which states that managers are involved in CSR to resolve conflicts between different stakeholders. Another study by Jo and Harjoto (2012) is based on stakeholder theory and agency theory examining the causal relationship between corporate social responsibility and corporate financial performance. The results show that CSR is positively correlated with a firm’s financial performance, supporting the conflict resolution hypothesis that managers use CSR to resolve conflicts between different stakeholders, but not the agency theory-based CSR overinvestment argument. Finally, strong evidence against the overinvestment hypothesis based on agency theory, which suggests that the presence of CSR and the extent of CSR activities are not the result of agency costs, but rather something that benefits the firm and adds value.

### *2.1.3. Legitimacy theory*

According to Suchman (1995), “legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”. This points out that the company’s activities should follow standards about the environment, employees, and society. If it does not, it can face losing stakeholders’ beliefs and the downfall of the company’s financial situation. Corporations that practice CSR highly and properly will receive respect from society and get good marks from stakeholders. Otherwise, ones which take it lightly will be seen as illegitimate and risk continuing to perform their financial activities.

## **2.2. Hypothesis development**

### *2.2.1. Company size*

Many previous empirical studies find a positive relationship between company size and CSR reporting such as (Fernández-Feijóo-Souto et al., 2012; Khan, 2010; Rahman et al., 2011). Larger firms are under more scrutiny from various social groups such as stakeholders, customers, and investors, therefore, they will face more pressure to disclose their social activities (S. Cowen et al., 1987; Siregar & Bachtiar, 2010). According to Firth (1979), large companies are highly probable to collect the data required for corporate report disclosure for their internal management systems, thus there is not much additional expense. Moreover, larger businesses have more funds available to devote to social activities and a greater asset base to distribute the costs of corporate social responsibility (Siregar & Bachtiar, 2010). In contrast, Roberts

(1992) and Ratanajongkol et al. (2006) found that business size was insufficient to account for the relationship with CSR disclosure.

However, we expected the company size and CSR disclosure to have a positive relationship.

**H1:** *Company size has a positive impact on CSR disclosure.*

#### 2.2.2. Financial leverage

Belkaoui and Karpik (1989) found that leverage has a negative and significant influence on CSR. This opinion is similar to other authors such as Liu and Anbumozhi (2009), Rahman et al. (2011), and Purushothaman et al. (2000) claimed that corporations with high leverage may have close relationships with their creditors and choose other types of reporting to communicate with their creditors rather than through social responsibility information.

On the contrary, Hossain et al. (1995) claimed that companies with higher leverage are disclosing more CSR information because the higher level of disclosure can help both potential equity and debt investors in carefully evaluating those firms. While Zain and Janggu (2006), Stanny and Ely (2008), and Rahman et al. (2011) found no meaningful association between financial leverage and the amount of CSR disclosure. To examine the relationship between leverage and the disclosure of CSR information, the following hypothesis is proposed:

**H2:** *Financial leverage has a positive effect on CSR disclosure.*

#### 2.2.3. Profitability

Today's consumers are socially conscious, and this awareness has a direct impact on their purchasing decisions. Consequently, social responsibility has become increasingly important to investors and consumers who are not only concerned about profit but also want to improve the well-being of society and the environment. Therefore, in addition to pursuing profit maximization, corporations should try to act in a way that positively affects society and lessen negative impacts on the environment.

According to Bewley and Li (2000), the relationship between profitability and the level of CSR disclosure is mixed. While authors such as Haniffa and Cooke (2005) have found a positive relation, others like Ho and Taylor (2007) have found a negative association, and Da Silva Monteiro and Aibar-Guzmán (2010) did not find any relation. Profitable businesses may have more funds available for social activities. Therefore, these corporations disclose more information about their environmental and social activities to demonstrate their value to society (Siregar & Bachtiar, 2010).

Considering that companies in good financial condition are likely to disclose more social information than companies with lower levels of profitability, we propose the following hypotheses:

**H3:** *Profitability has a positive impact on CSR disclosure.*

#### 2.2.4. CEO duality

CEO duality refers to whether the same person jointly holds the titles of chief executive officer (CEO) and chairperson of the board (COB; Baliga et al., 1996; Bergh, 2014). CEO duality is a conflict of interest where a CEO who is in charge of a company's overall strategic management is also in a position to assess the effectiveness of that strategy (Finkelstein & D'aveni, 1994). A CEO that also



serves as COB may not be trusted by shareholders to effectively monitor his or her activities as CEO (Endrikat et al., 2020).

CEO duality positively moderated the relationship between attention to social issues and CSP (Zhao et al., 2016). In contrast, Galbreath (2016) reports a negative relationship between CEO—duality, and CSR. Besides, Endrikat et al. (2020) found that CEO duality has a less significant effect on voluntary disclosure because CEOs who support social and environmental issues may utilize their influence to advance CSR, as opposed to CEOs who do not believe CSR is crucial or who lack CSR knowledge. We suggest the following hypothesis:

**H4:** *CEO duality has a negative impact on CSR disclosure.*

#### 2.2.5. Board size

Board size refers to the number of members on the board of directors (Isik & Ince, 2016). According to Dalton et al. (1999) and Villiers et al. (2011), as more directors are participating, there may be more external connections, knowledge, experience, guidance, and counsel available to achieve important CSR resources. According to the agency theory, large boards frequently struggle with coordination and communication issues (Adams et al., 2010; Bushman & Smith, 2001). Furthermore, some studies showed large firms decreased the ability of the board to control management and the spread among a larger group of the cost of poor decision-making.

While Siregar and Bachtiar (2010) shows that board size has a positive effect on corporate social reporting, other empirical research like Said et al. (2009) found a negative relationship between board size and the level of CSR. We expected that the board size and CSR disclosure have a positive relationship and hypothesize as follows

**H5:** *Board size has a positive impact on CSR disclosure.*

#### 2.2.6. Board age

Older directors are characterized by their general experience and maturity (Bilimoria & Piderit, 1994). Additionally, Bantel and Jackson (1989) pointed out that older directors are believed to be having greater expertise and better decision-making skills. According to Goergen et al. (2015), an important level of age diversity on the board improves board effectiveness and firm performance.

On the contrary, Muth and Donaldson (1998) show that younger managers and younger boards of directors possess greater knowledge and evaluate business risks effectively. Thus, it increases the likelihood that CSR initiatives will be implemented in business operations. Furthermore, Giannarakis (2014) found that younger board members are more willing to adopt new approaches such as CSR than older directors. The younger generations are embracing social responsibility and driving change. To examine the relationship between board age and CSR disclosure, we propose the following hypothesis:

**H6:** *Board age has a positive effect on CSR disclosure.*

#### 2.2.7. Women on board

Currently, women contribute significantly to the development of economics. Research by the Peterson Institute for International Economics finds that having at least 30% of women in leadership roles can add 15% to a company's net profit margin.

There is evidence from numerous areas indicating that women differ from men concerning ethics and morals (Borkowski & Ugras, 1998; Jaffee & Hyde, 2000), educational background and expertise (Hillman et al., 2002) and social preferences (Croson & Gneezy, 2009). While Byron and Post (2016) and Endrikat et al. (2020) found a positive relationship between female directors and CSR disclosure, other researchers like Khan (2010) claimed that women's presence on board does not have any impact on CSR reporting. According to psychological research, women are more sensitive to social cues than men when they determine what is suitable to do (Gilligan, 1982). Some empirical research pointed out that women board directors are more likely than men to identify social issues like human rights, climate change, and income inequality as essential to company strategy (Elm et al., 2001). As a result, diverse boards are more likely to support corporations achieve higher scores on ESG (Environmental, Social, and corporate Governance) performance criteria than non-diverse boards. This leads to the following hypothesis:

**H7:** *The percentage of women on board has a positive influence on CSR disclosure.*

#### 2.2.8. Company age

From a business perspective, the primary purpose of CSR is to enhance the corporate reputation and raise the value and standing of the company or brand. Especially, CSR reporting plays an important role with mature firms because CSR mistakes can damage or even ruin the reputation that they make a great effort to build. According to Stinchcombe (1965), new organizations are disadvantaged compared to old ones due to a lack of legitimacy, weak connections to external actors, and lack of experience (Aspelund et al., 2005; Hannan et al., 1998) so external stakeholders may be reluctant to work with them. In addition, they may suffer competition and lack a track record on which to rely for public disclosure (Hossain & Reaz, 2007). On the other hand, as firms become more mature, they are more responsible in terms of diversity and environmental awareness (Withisuphakorn & Jiraporn, 2015). Therefore, they may disclose more information than newly established companies (Hossain & Reaz, 2007). Older firms have more legitimacy and connections to the external environment than younger firms, enabling older firms to better access the resources they need in a variety of ways (Meyer & Rowan, 1977). Moreover, long-established companies have time to accumulate capital and can count on more stable cash flows as well as profitability so they can invest more in CSR as they age (Withisuphakorn & Jiraporn, 2015). We hypothesize as follows:

**H8:** *Company age has a positive impact on CSR disclosure.*

#### 2.2.9. Big 4

Audit firms perceived as offering "high quality" services are likely to encourage their clients to provide comprehensive disclosure (Craswell & Taylor, 1992). Bar-Yosef and Livnat (1984) pointed out that entrepreneurs are likely to choose a Big-6 audit firm since such an action signals to investors the expectation of high cash flow. Abid and Dammak (2022) show that companies audited by high-quality auditors are more likely to engage in CSR to protect themselves from the potential consequences of aggressive tax avoidance methods. Craswell and Taylor (1992) found a significant positive association between the type of auditor (i.e., Big6 or non-Big-6) and voluntary disclosure of environmental information, while Hossain et al. (1995) and Zain and Janggu (2006) found that type of auditor did not influence the level of social information disclosed. To examine the relationship between the type of auditor (Big 4 or non-Big 4) and the disclosure of the CSR information, the research hypothesis is as follows

**H9:** *Big 4 has a positive effect on CSR disclosure.*

### 3. Research methodology

#### 3.1. Sample description and data

A data sample of 499 companies from 2015 to 2019 was used in the study, with a total of 2495 company-year observations. We conduct in-depth research on listed companies in Vietnam. During the research period, many companies selected for analysis were listed on the Hanoi Stock Exchange and the Ho Chi Minh Stock Exchange. Data were identified for 86 GRI benchmarks from 499 financial and non-financial firms. GRI Standard Data may be collected for a period selected by us. After collecting data from the company's annual report, of the 2495 observations, 2454 observations included the last sample used for analysis due to missing data. Finally, based on 2,454 observations of 499 companies listed on the Vietnam Stock Exchange during the 5 years 2015–2019, we will analyze the impact of factors on the level of CSR disclosure.

#### 3.2. Dependent and independent variables

To examine the impacts of factors on corporate social responsibility (CSR) disclosure, we use the research model as flows:

$$CSRSD1_{i,t} = \alpha_0 + \alpha_1 * SIZE_{i,t} + \alpha_2 * LEV_{i,t} + \alpha_3 * PROF_{i,t} + \alpha_4 * DUAL_{i,t} + \alpha_5 * BOARD_{i,t} + \alpha_6 * BAGE_{i,t} \\ + \alpha_7 * WOMAN_{i,t} + \alpha_8 * FAGE_{i,t} + \alpha_9 * BIG4_{i,t} + \varepsilon_{i,t}$$

$$CSRSD2_{i,t} = \beta_0 + \beta_1 * SIZE_{i,t} + \beta_2 * LEV_{i,t} + \beta_3 * PROF_{i,t} + \beta_4 * DUAL_{i,t} + \beta_5 * BOARD_{i,t} + \beta_6 * BAGE_{i,t} \\ + \beta_7 * WOMAN_{i,t} + \beta_8 * FAGE_{i,t} + \beta_9 * BIG4_{i,t} + \mu_{i,t}$$

Where:

i, t represents firm i in year t.

Our dependent variable is represented by corporate social responsibility disclosure (CSRSD) which explains the extent of CSR disclosure. There are some different approaches to measuring CSR disclosure such as reputation index and content analysis (Cochran & Wood, 1984); positive CSR activities and negative CSR activities (Hoi et al., 2016); sustainability ratings provided by Global Engagement Services (GES; Lopatta et al., 2017).

CSR disclosure data are collected from annual reports of companies listed on the Hanoi Stock Exchange and Ho Chi Minh Stock Exchanges following the Global Reporting Initiative (GRI) Standards. Based on the combination of disclosure requirements of the Ministry of Finance in Circular 155 and the GRI-GSSB series of standards (Dang et al., 2021); (Al-Hadi et al., 2017), there are four categories of GRI disclosure: general corporate information disclosure (GRI-1) (12 standards), economic disclosure (GRI-2) (12 standards), corporate's environmental practice disclosure (GRI-3) (29 standards) and corporate social practice disclosure (GRI-4) (33 standards). Thus, there are 86 GRI standards identified for the collected data.

We consider the annual reports and find information regarding the above standards. If a firm mentions the content following a standard, it receives 1 point for that corresponding standard, and 0 otherwise. Then determine the score for each group of standards by multiplying the total score of the standards in each group by the rating of the company's disclosure level of that standard group. The total CSR disclosure score of enterprise t year t is determined by the sum of 4 groups of GRI standards. Following previous studies of CSR disclosure, in this study we will also use two strong measures of corporate social responsibility disclosure:

Firstly, the CSR disclosure level is calculated as the natural logarithm of the sum of the CSR disclosure score (CSR score) plus 1. The formula is as follows:

$$CSRSD1 = \log(1 + CSRscore)$$

**Table 1. Independent variable**

Independent variables	Symbol	Measurement
Company size	SIZE	Natural logarithm of the book value of total assets
Financial leverage	LEV	Debts on assets
Profitability	PROF	Return on sales
CEO duality	DUAL	Dummy variable (value 1 = CEO and Chairman, value 0 = otherwise)
Board size	BOARD	Number of directors on the company's board
Board age	BAGE	The average age of members of the Board of Directors
Woman on board	WOMAN	Percentage of women on board
Company age	FAGE	The number of years from the company was founded to the time of data collection
Big 4	BIG4	Dummy variable showing auditor firm being one of the Big Four auditors or not

Secondly, the CSR disclosure level is determined by taking the total score of 4 groups of GRI criteria divided by the product of 86 standards multiplied by the highest rating of 5. The level of social responsibility disclosure CSRD is calculated as follows:

$$\text{CSRD2} = \text{CSRscore} / (86 * 5)$$

The above two formulas are used by the research team to measure the level of CSR disclosure. From the collected data, the relationship between the dependent and independent variables is found. Information and ways of measuring the independent variables are summarized in Table 1.

### 3.3. Research method

The study uses quantitative methods to analyze the impact of factors on CSR disclosure for companies listed on the Vietnam stock exchange. During the analysis, we use Stata 15 software to run the model. From the secondary data collected from the annual reports of listed companies, we use panel data regression models to form test hypotheses about the influence of factors on the disclosure of corporate social responsibility.

We first performed regression analysis according to the least squares model (Pooled OLS). However, the results from the OLS model are not enough to conclude the level of statistical significance and the impact of the factors on the level of social responsibility disclosure. Next, two models including the FEM-fixed effects model (FEM-Fixed Effects model) and REM-Random Effects model (REM-Random Effects model) are performed. These models all give results on the impact of factors on CSR disclosure but differ in coefficients, impact dimensions, and statistical significance. Therefore, to determine which model is more suitable, we perform a Hausman test between the fixed effects model (FEM) and random effects model (REM) to choose the best model in those two models. From the newly received results, we test defects and regression according to the general least squares (GLS) model to overcome the defects and serve as a basis for comparison with the previous group hypothesis.

### 4. Research results

First, we conduct statistical analysis to describe the characteristics of the variables in the model. Table 2 above shows the level of corporate social responsibility information disclosure by total score (CSRD1) has an average value of 1.789889, of which the smallest value is 0.7781513 and the

**Table 2. Descriptive statistics of research variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
CSR1	2,495	1.789.889	342.402	778.151	2.619.093
CSR2	2,495	198.031	187.066	11.628	965.116
SIZE	2,486	272.989	1.568.997	2.344.062	3.363.179
LEV	2,486	2.748.753	3.719.181	-151.436	1.412.599
PROF	2,483	45.247	1.258.996	-499.936	2.438.191
DUAL	2,49	237.349	425.544	0	1
BOARD	2,49	5.426.908	116.173	0	11
BAGE	2,483	4.950.099	5.385.672	24	69
WOMAN	2,489	147.657	169.309	0	1
FAGE	2,495	268.517	1.383.769	7	92
BIG4	2,463	272.432	445.301	0	1

largest value is 2.619093. CSR2 represents the level of information disclosure on corporate social responsibility as a percentage of published indicators with an average value of 0.1980305; The minimum value is 0.0116279 and the maximum value is 0.965116 with a standard deviation of 0.187066.

Next, our research team continued the correlation analysis. Table 3 presents the pairwise correlation coefficient between the dependent variables (CSR1, CSR2) and the independent variables (SIZE, LEV, PROF, DUAL, BOARD, BAGE, WOMAN, FAGE, BIG4) in the research model. The correlation coefficients between the independent variables in the model are all less than 50%, so it can be seen that there is little multicollinearity between the variables.

After analyzing the correlation between variables, we performed regression analysis according to the OLS least squares model. The regression results in Table 4 show that the adjusted R2 value (adjusted R-squared = 0.26% and 0.33%) indicates a change of 0.26% and 0.33% of the level of social responsibility disclosure (CSR1, CSR2) can be explained by the variation of the independent variables SIZE, LEV, PROF, DUAL, BOARD, BAGE, WOMAN, FAGE, BIG4). In addition, the P-value of the model corresponding to CSR1 with sig = 0.0798 >  $\alpha$  = 0.05 shows that the estimation method of the OLS model has no statistical significance with CSR1—the level of social responsibility disclosure by total score. However, the P-value of the model corresponding to CSR2 with sig = 0.0479 <  $\alpha$  = 0.05 shows that this estimation method is statistically significant with CSR2. Besides, when estimating according to the OLS model, the model does not accurately reflect the characteristics of each enterprise.

After OLS regression, we conducted a multicollinearity test. The VIF coefficients of all the independent and control variables are less than 2 and have a mean value of 1.37, so the model does not have multicollinearity. We continue to perform a Wooldridge test, and the results give a p-value < 0.05, which means that the model has heteroscedasticity.

We analyze the data according to the fixed effects model (FEM) and the random effects model (REM). Then, we use the Hausman test to choose a more suitable model between the FEM fixed effect model and the REM random effect model. After performing the Hausman test, the results of the test are presented in Table 5.

When performing the regression of the independent variables on the dependent variable CSR2. Because the experimental results showed that p-value Prob > chi2 = 0.0000 <  $\alpha$  = 0.01, the fixed effect model is more suitable than the random effect model. Next, the xttest3 Heteroscedasticity test and the Wooldridge autocorrelation test are performed for the FEM models. Conducting

Table 3. Correlation matrix of research variables

	CSR1	CSR2	SIZE	LEV	PROF	DUAL	BOARD	BAGE	WOMAN	FAGE	BIG 4
CSR1	1.0000										
CSR2	0.9184	1.0000									
SIZE	0.0127	0.0197	1.0000								
LEV	-0.0125	-0.0088	0.1409	1.0000							
PROF	-0.0056	0.0014	0.0326	-0.0033	1.0000						
DUAL	-0.0240	-0.0270	-0.0566	-0.0165	-0.0057	1.0000					
BOARD	-0.0267	-0.0332	0.3142	-0.0450	0.0093	-0.0450	1.0000				
BAGE	-0.0295	-0.0171	0.0288	-0.0269	0.0224	-0.0571	0.0864	1.0000			
WOMAN	0.0284	0.0284	-0.0106	-0.0459	0.0085	0.0688	0.0515	-0.0825	1.0000		
FAGE	0.0275	0.0390	-0.0033	0.0400	0.0300	-0.0133	0.0100	0.1707	-0.0152	1.0000	
BIG 4	-0.0225	-0.0151	0.4845	0.0045	0.0198	-0.0788	0.1565	0.0002	-0.0156	-0.0079	1.0000

**Table 4. Pooled OLS regression results**

	Coef		P > t		VIF	1/VIF
	CSR1	CSR2	CSR1	CSR2		
<b>SIZE</b>	0.0102863	0.0064038	0.054	0.028	1.46	0.683623
<b>LEV</b>	-0.0020465	-0.0010104	0.284	0.332	1.32	0.757896
<b>PROF</b>	-0.0018362	-0.0000821	0.736	0.978	1.13	0.883498
<b>DUAL</b>	-0.0242046	-0.0139379	0.139	0.118	1.05	0.952602
<b>BOARD</b>	-0.0107751	-0.0075666	0.091	0.029	1.04	0.96129
<b>BAGE</b>	-0.0021216	-0.0007684	0.107	0.284	1.03	0.967936
<b>WOMAN</b>	0.0587516	0.0302171	0.154	0.179	1.02	0.982726
<b>FAGE</b>	0.0008488	0.00059	0.093	0.032	1.02	0.985174
<b>BIG4</b>	-0.0314956	-0.014809	0.077	0.127	1	0.997533
<b>R-Squared</b>	0.0063	0.0069		Mean VIF	1.37	

variance testing changes to the FEM1 model and FEM2 model gives prob value  $> \chi^2 = 0.0000 < \alpha = 0.01$  so that both the two FEM models occur heteroscedasticity. However, the Wooldridge test shows that the first model has no autocorrelation while the second model has autocorrelation in Table 6.

To solve heteroscedasticity and autocorrelation, GLS models were performed. Table 7 summarizes the results of the OLS, FEM, REM, and GLS models for the level of CSR disclosure dependency variables (CSR1 and CSR2). According to this table, the impact and relationship of the factors to the level of CSR disclosure can be found.

The variable asset size of the company has a positive relationship with the variable of the degree of social responsibility disclosure calculated according to the total score (CSR1) at 5% with a positive regression coefficient of 0.00897. This means that the greater the value of the company's assets, the greater the degree of CSR disclosure. The hypothesis put forward in our study is accepted when using CSR1 to measure CSR disclosure level. The results of this study are in contrast to those of Giannarakis (2014), Hoi et al. (2016), Khan (2010), and Rahman et al. (2011), and Fernández-Feijóo-Souto et al. (2012). However, the empirical analysis shows that when the level of CSR disclosure is measured as a percentage of indicators (CSR2). There is no evidence that the size of the firm's assets has an impact on CSR disclosure. Thus, the research hypothesis is rejected in the case of using CSR2 to measure the level of CSR disclosure.

According to the experimental results, we did not find any evidence that the existence of statistical significance at any level of significance between the debt-to-total asset ratio LEV compared with the level of CSR disclosure of the enterprise by both measures as above. Since then, the proposed research hypothesis is rejected for 2 cases of using CSR1 and CSR2 to measure the level of corporate social responsibility. This means that the debt-to-total asset ratio factor LEV does not affect the level of CSR disclosure calculated according to the above two measures.

Based on the experimental results, at any level of significance, the financial performance indicator (PROF) is not statistically significant with the variable of the degree of CSR disclosure that is measured. According to the above two methods. Thus, the hypothesis formed in this study is rejected in both cases on how to measure CSR disclosure. Although the financial performance indicator is a very important criterion and affects the decision-making of users, this factor has no significance for the corporate social responsibility declaration of the companies listed companies in Vietnam during the research period.



**Table 5. Results of the Hausman test**

CSR D2									
CSR D1					Coefficients				
Coefficients					Coefficients				
	FEM	REM	Difference	S.E.	FEM	REM1	Difference	S.E.	
<b>SIZE</b>	0.093865	0.010748	0.0831174	0.0286779	0.0499734	0.006542	0.0434314	0.015592	
<b>LEV</b>	-0.00127	-0.00202	0.0007482	0.0016685	-0.0009375	-0.0010084	0.0000708	0.0009079	
<b>PROF</b>	-0.00209	-0.0018	-0.0002957	0.0014768	-0.0004266	-0.0000798	-0.0003468	0.0007386	
<b>DUAL</b>	-0.01162	-0.02417	0.0125577	0.0271843	-0.0125411	-0.0140269	0.0014858	0.0148081	
<b>BOARD</b>	-0.0196	-0.01106	-0.008541	0.0108853	-0.00921	-0.0076389	-0.0015711	0.0059293	
<b>BAGE</b>	-0.00869	-0.00218	-0.0065076	0.0027954	-0.0042142	-0.0007801	-0.0034341	0.001522	
<b>WOMAN</b>	0.102798	0.059993	0.0428045	0.0757724	0.024203	0.0304059	-0.0062029	0.0412691	
<b>FAGE</b>	0.024741	0.000874	0.0238669	0.0053588	0.0207009	0.0005992	0.0201017	0.0029128	
<b>BIG4</b>	-0.08112	-0.03231	-0.0488135	0.0482824	-0.0328289	-0.0150452	-0.0177837	0.0262744	
Prob > chi2 = 0.0000					Prob > chi2 = 0.0000				

**Table 6. The results of the Xttest3 and Wooldridge test**

	CSR1	CSR2
The xttest3 Heteroscedasticity test	Prob > chi2 = 0.0000	Prob > chi2 = 0.0000
The Wooldridge autocorrelation test	Prob > F = 0.0508	Prob > F = 0.0002

According to the results of the GLS model presented in Table 4, we did not find a statistically significant influence of the CEO duality variable (DUAL) on CSR1 and CSR2 at all 3 levels of significance 10%, 5%, and 1%. Thus, the research hypothesis that is proposed about the impact of the dual role of the board of directors on the level of CSR disclosure is rejected. Research results show that for companies in Vietnam with leaders who are both CEO and Chairman, the levels of CSR disclosure are not affected.

The size variable of the board of directors (BOARD) has a negative relationship with both variables of the degree of CSR disclosure (CSR1 and CSR2). The impact of the number of members in the board of directors on the level of social responsibility disclosure according to the total CSR1 score at the 5% level of significance with a regression coefficient of  $-0.0119$ . Board size also has a negative effect on the level of disclosure as a percentage of CSR2 indicators at the 5% significance level with a regression coefficient of  $-0.0084$ . From that, the research hypothesis is rejected in both two cases using CSR1 and CSR2 to measure the level of CSR disclosure. This result is consistent with the study of Said et al. (2009). Thus, these two measures of CSR disclosure show that the higher number of members on the board of directors, the lower level of CSR disclosure in listed companies in Vietnam.

The variable mean age of board members (BAGE) is negatively related to the two variables of CSR disclosure (CSR1; CSR2). The influence of board age on the level of social responsibility disclosure according to the total CSR1 score is at a 5% significance level with a regression coefficient of  $-0.00258$ . And the impact of board age on the level of social responsibility disclosure as a percentage of CSR2 indicators at the 10% significance level is  $-0.000921$ . Since then, the model's regression results show that the research hypothesis is accepted in both cases of using CSR1 and CSR2 to measure the level of CSR disclosure. The results of our study are in contrast to the study of Bilimoria and Piderit (1994). When CSR is measured by the above two methods, the level of CSR disclosure of Vietnamese listed companies will decrease as the average age of board members tends to increase.

The variable percentage of women on the board of directors (WOMAN) is positively correlated with the level of CSR disclosure calculated according to the total CSR1 score and the level of CSR disclosure expressed as a percentage of CSR2 indicators. At the 1% significance level, the percentage of women on the board of directors has a positive effect on the level of CSR1 disclosure with a coefficient of  $0.0916$ . As for the measure of CSR2 disclosure, the Woman on board variable will be statistically significant at the 5% level. Thus, the proposed research hypothesis is accepted in both ways of using CSR1 and CSR2 to measure the level of CSR disclosure. The research results are consistent with the research of Byron and Post (2016) and Endrikat et al. (2020). The results demonstrate that women are playing an increasingly important role in society and their contribution to a more civilized society. The increase in the percentage of women on the board of directors increases the level of CSR disclosure.

The age variable of the company FAGE has a positive relationship with the level of willingness to disclose information about CSR under both measures. At a 5% significance level, company age is statistically significant with a regression coefficient of  $0.00102$ . In the case where CSR disclosure is measured as a percentage of CSR2 indicators, the age variable of the company has a positive effect at a 1% significance level with a coefficient of  $0.000564$ . Accordingly, we can confirm that the proposed research hypothesis is accepted. The research results are consistent with the study of

Table 7. OLS, FEM, REM, and FGLS model estimation results

	OLS		FEM		REM		GLS	
	CSR1	CSR2	CSR1	CSR2	CSR1	CSR2	CSR1	CSR2
SIZE	0.0103* [1.93]	0.00640** [2.20]	0.0939*** [3.21]	0.0500*** [3.15]	0.0107** [1.96]	0.00654** [2.22]	0.00897** [2.00]	0.00277 [1.40]
LEV	-0.00205 [-1.07]	-0.00101 [-0.97]	-0.00127 [-0.50]	-0.000938 [-0.68]	-0.00202 [-1.05]	-0.00101 [-0.96]	-0.00198 [-1.32]	-0.000673 [-1.10]
PROF	-0.00184 [-0.34]	-8.2E-05 [-0.03]	-0.00209 [-0.37]	-0.000427 [-0.14]	-0.0018 [-0.33]	-0.0000798 [-0.03]	-0.003 [-0.52]	-0.000775 [-0.25]
DUAL	-0.0242 [-1.48]	-0.0139 [-1.56]	-0.0116 [-0.36]	-0.0125 [-0.72]	-0.0242 [-1.45]	-0.014 [-1.56]	-0.016 [-1.17]	-0.00765 [-1.36]
BOARD	-0.0108* [-1.69]	-0.00757** [-2.18]	-0.0196 [-1.55]	-0.00921 [-1.34]	-0.0111* [-1.70]	-0.00764** [-2.18]	-0.0119** [-2.22]	-0.00840*** [-3.62]
BAGE	-0.00212 [-1.61]	-0.00077 [-1.07]	-0.00869*** [-2.80]	-0.00421** [-2.50]	-0.00218 [-1.62]	-0.00078 [-1.08]	-0.00258** [-2.34]	-0.000921* [-1.88]
WOMAN	0.0588 [1.43]	0.0302 [1.34]	0.103 [1.19]	0.0242 [0.51]	0.06 [1.43]	0.0304 [1.34]	0.0916*** [2.65]	0.0370** [2.39]
FAGE	0.000849* [1.68]	0.000590** [2.14]	0.0247*** [4.60]	0.0207*** [7.07]	0.000874* [1.68]	0.000599** [2.15]	0.00102** [2.33]	0.000564*** [2.81]
BIG4	-0.0315* [-1.77]	-0.0148 [-1.53]	-0.0811 [-1.57]	-0.0328 [-1.17]	-0.0323* [-1.77]	-0.015 [-1.53]	-0.0273* [-1.80]	-0.00973 [-1.49]
_cons	1.660*** [11.07]	0.0916 [1.12]	-0.89 [-1.15]	-1.455*** [-3.47]	1.651*** [10.72]	0.0886 [1.07]	1.692*** [13.36]	0.163*** [2.94]
N	2454	2454	2454	2454	2454	2454	2454	2454
R-sq	0.006	0.007	0.03	0.048				

Notes: t statistics in brackets; \*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01

**Table 8. Testing result of hypotheses**

Hypotheses	Contents	Testing results	
		CSRD1	CSRD2
H1	<i>Company size has a positive impact on CSR disclosure.</i>	Proved	Disproved
H2	<i>Financial leverage has a positive relationship with CSR disclosure.</i>	Disproved	Disproved
H3	<i>Profitability has a positive impact on CSR disclosure.</i>	Disproved	Disproved
H4	<i>CEO duality has a negative impact on CSR disclosure.</i>	Disproved	Disproved
H5	<i>Board size has a positive impact on CSR disclosure.</i>	Disproved	Disproved
H6	<i>Board age has a positive effect on CSR disclosure.</i>	Disproved	Disproved
H7	<i>The percentage of Women on board has a positive influence on CSR disclosure.</i>	Proved	Proved
H8	<i>Company age has a positive impact on CSR disclosure.</i>	Proved	Proved
H9	<i>Big 4 has a positive effect on CSR disclosure.</i>	Disproved	Disproved

Withisuphakorn and Jiraporn (2015). The older enterprises are all large, reputable, and well-positioned in the market. To ensure their prestige and reputation, they often disclose information widely and voluntarily.

According to the regression results, we find that the dummy variable BIG4 has a negative relationship with the CSR disclosure level variable with the first measure. That is when the business is audited by one of the auditing firms of BIG4, the lower level of CSR disclosure. Thus, the proposed hypothesis is rejected. The results of this study are consistent with the hypothesis. However, the regression results do not show that BIG4 is statistically significant with the CSR disclosure level measured in a second way (CSRD2). And certainly, the hypothesis is rejected when CSRD2 is used to measure the level of CSR disclosure. Thus, with two different measures of CSR disclosure, the impact or relationship of the financial statements audited by BIG 4 are not the same.

The results of the research hypothesis on the impact of factors on the level of CSR disclosure are shown in Table 8.

## 5. Conclusion

The purpose of CSR disclosure is to increase shareholder trust by building good relationships with society, and by acting responsibly to a high degree of ethical standards, thereby increasing the company's long-term profits. Therefore, to help enterprises improve their CSR reports, the research team has pointed out the factors that positively and negatively affect the report, and made some recommendations to help policymakers design governance plans to improve CSR in the context of listed companies in Vietnam.

First, take advantage of scale to demonstrate corporate social responsibility. Both the hypothesis and the research results show that the size (SIZE) and age of the firm (FAGE) have a positive relationship with CSR. It turns out that the older and larger a company is, the more experience and

capital it takes to effectively invest in CSR. By doing so, they build trust with their customers and validate their brand in the market.

Second, the nature of the board members also contributes to the CSR report. Contrary to our predictions, the evidence of the study showed the negative interaction of CSR with board size (BOARD) and board age (BAGE). It can be seen that the quality of talent is more important than quantity. Large board members make corporate decisions more time-consuming and more difficult to reach a consensus. Also, Vietnamese companies tend to hire employees with a higher average age due to experience. However, in the current era of rapid development, hiring young people can help companies quickly grasp market changes and consumer behavior, thereby improving efficiency and issuing CSR reports. According to research, dual CEO status (DUAL) has no impact on CSR, as this factor depends on the person in charge of the CEO position. When CEOs support social and environmental causes, they can use their influence to promote corporate social responsibility, and vice versa. However, one factor in the boardroom that has a positive impact on CSR is the number of women on the board. Sensitivity to identifying social issues is as important in corporate strategy as ingenuity to solve them, so women are an important factor in having a significant impact on corporate social responsibility. Companies must adopt appropriate policies to effectively manage the quantity and quality of human resources on the board and encourage women's participation to strengthen corporate social responsibility.

Third, profitability (PROF) does not affect CSR. Companies spend money on environmental protection activities not for profit, but for the brand, so profitability (PROF) does not affect corporate social responsibility. Finally, our empirical research found that BIG 4 has a negative effect on CSR. Currently, Vietnamese laws do not require mandatory audits of sustainability reports. Auditing firms that provide services only assist companies in preparing sustainability reports.

These findings have important implications for company management and other stakeholders, as a company's access to resources and ability to compete with competitors changes throughout the elements of CSR. Likewise, the vulnerability of firms to financial distress can vary systematically at different stages of the life cycle. Firms engaging in active CSR activities may be able to reduce the risk of financial distress during the tough progression. Company management can develop a strategic approach to engaging in CSR activities based on the company's resource capabilities and the financial urgency it faces. Our results may be of value to investors, particularly when assessing risk premiums relative to future cash flows and the cost of capital, and when determining the likelihood that a firm will face financial distress.

Moreover, our research not only brings various benefits to companies looking to improve their CSR disclosure but also contributes to societal well-being. By analyzing and emphasizing the importance of corporate social responsibility, even companies that have not reported on corporate social responsibility before can have a deeper knowledge of the great benefits that corporate social responsibility brings to the entire society soon. Providing benefits to society as a whole should also be a major driver for companies to initiate and continue to engage in CSR (Perry & Towers, 2013). While most researchers focus on the benefits of CSR and why it should be implemented, few mention the benefits to society. As more and more companies commit to CSR values, many technological conveniences have emerged. CSR drives them to develop new technologies, innovations, and infrastructures that are available to every member of society (Carroll & Buchholtz, 2008).

Although the findings provide meaningful implications, this study has some important limitations when interpreting the study's outputs. Our research shows that there is an inverse relationship between the Big 4 and CSR disclosure levels. Only a few of the companies reviewed in the research were audited by Big 4. In addition, companies audited by Big 4 can only audit the company's financial statement and cannot audit sustainability reports. Therefore, we recommend the following research to further understand whether a company's sustainability reporting is

audited. Depending on the case, future studies may look for other governance factors to understand their relationship with CSR. In addition, our study only uses information about companies within the territory of Vietnam, a developing country. Future studies can compare the relationship between CSR and other management factors in groups of developed and developing countries. Future research may need to examine more firms for a more thorough analysis of the relationship of corporate governance factors with CSR. This would enrich the literature and provide additional implications for the search for factors that improve CSR.

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