ABSTRACT

Purpose: The study has provided an overview of the theoretical foundation and empirical evidence on the impact of corporate governance on the level of corporate social responsibility (CSR) disclosure among listed manufacturing companies on the Ho Chi Minh Stock Exchange in 2021, utilizing secondary data from 118 manufacturing firms.

Theoretical framework: In accordance with Agency Theory, the Separation of Ownership and Management, and the Stakeholder Theory, this study aims to investigate the influence of corporate governance characteristics on the extent of corporate social responsibility (CSR) disclosure in the manufacturing sector.

Results and conclusion: The quantitative research model is constructed with five corporate governance factors and one control variable related to company characteristics, including the board size, the proportion of female members in the board, the proportion of independent board members, the foreign ownership ratio, the state ownership ratio, and the company size. The results from the Ordinary Least Squares (OLS) regression analysis indicate that the majority of the corporate governance variables are correlated with the level of CSR disclosure, except for the proportion of independent board members.

Research implications: The study suggests managerial implications to help businesses recognize the importance of corporate governance in CSR disclosure, aiming to enhance reputation and attract investments.

Originality/value: Additionally, the results also demonstrate that company-specific factors, such as company size and financial leverage, significantly impact the company's profitability.

Keywords: corporate governance, corporate social responsibility, the disclosure of information, stock exchange, Vietnam stock exchange.
RESUMO

Objetivo: O estudo forneceu uma visão geral da base teórica e evidências empíricas sobre o impacto da governança corporativa no nível de divulgação de responsabilidade social corporativa (RSE) entre empresas de manufatura listadas na Bolsa de Valores de Ho Chi Minh em 2021, utilizando dados secundários de 118 empresas de manufatura.

Estrutura teórica: De acordo com a Teoria da Agência, a Separação de Propriedade e Gestão, e a Teoria das Partes Interessadas, este estudo visa investigar a influência das características de governança corporativa na extensão da divulgação de responsabilidade social corporativa (RSE) no setor de manufatura.

Resultados e conclusão: O modelo de pesquisa quantitativa é construído com cinco fatores de governança corporativa e uma variável de controle relacionada às características da empresa, incluindo o tamanho do conselho, a proporção de membros do sexo feminino no conselho, a proporção de membros independentes do conselho, a proporção de propriedade estrangeira, a proporção de propriedade estatal e o tamanho da empresa. Os resultados da análise de regressão dos mínimos quadrados ordinários (OLS) indicam que a maioria das variáveis de governança corporativa está correlacionada com o nível de divulgação da CSR, exceto a proporção de membros de conselho independentes.

Implicações da pesquisa: O estudo sugere implicações gerenciais para ajudar as empresas a reconhecer a importância do controle corporativo na divulgação de RSE, visando aumentar a reputação e atrair investimentos.

Originalidade/valor: Além disso, os resultados também demonstram que fatores específicos da empresa, como tamanho da empresa e alavancagem financeira, afetam significativamente a lucratividade da empresa.

Palavras-chave: governança corporativa, responsabilidade social corporativa, divulgação de informações, bolsa de valores, bolsa de valores vietnamita.

1 INTRODUCTION

In the current era, an increasing number of companies are realizing that success in business operations extends beyond the mere maximization of short-term profits (Berber et al., 2019; Rashid, 2018). Instead, there is a growing recognition of the need to reinforce social responsibility, viewing the implementation of social responsibility as a business strategy for the development of enterprises (Ben Fatma & Chouaibi, 2021; Bolourian et al., 2021; Nour et al., 2020; Purbawangsa et al., 2020; Bhimani and Soonawalla, 2005). This paradigm shift is motivated by the emphasis placed on companies fulfilling their obligations and responsibilities to stakeholders by both social responsibility and corporate governance perspectives (Jamali et al., 2008; Akhtaruddin et al., 2009).
Habbash (2016) contends that corporate governance factors play a pivotal role in monitoring the decisions and activities of businesses that impact all stakeholders, including the community. Corporate governance factors are identified as crucial determinants influencing the practice of information disclosure by businesses (Koutoupis et al., 2021; Pekovic & Vogt, 2021; Berber et al., 2019; Albassam, 2014). The stock market assumes a pivotal role in the development of the global economy, including that of Vietnam. Information disclosure is recognized as a critical factor, and the government is actively working to create conducive conditions and opportunities for businesses with a sustainable development orientation. In the Vietnamese context, understanding how corporate governance factors influence the disclosure of social responsibility information by listed companies on the stock market is imperative for the goal of sustainable development. Research aimed at examining the impact of corporate governance and ownership structure on the extent of social responsibility information disclosure among listed companies in the Ho Chi Minh Stock Exchange is crucial for serving the purpose of sustainable development.

2 THEORETICAL FRAMEWORK AND RESEARCH MODEL

Corporate governance is a system of internal measures for managing and controlling a company, focusing on the relationships among the board of directors, executive board, shareholders, and other relevant parties (Rohyati & Suripto, 2021; Salvioni & Gennari, 2019; Berber et al., 2019; Zubeltzu-Jaka et al., 2018). On the other hand, corporate governance serves as a mechanism to ensure fairness and transparency in resolving conflicts of interest between owners and managers. This is achieved through the specific delineation of rights and responsibilities of the board of directors, executive board, shareholders, and other stakeholders. It involves explicit regulations, decision-making procedures on corporate issues to establish goals, methods for achieving objectives, outcome monitoring, and encourages efficient resource utilization (OECD, 2004). Effective corporate governance strengthens ownership rights, reduces transaction costs and capital costs, facilitates stock market development, and minimizes the risk of losses in adverse circumstances, thereby promoting sustainable economic development.

According to agency theory, the separation of ownership and management may lead managers to act not in the interest of shareholders but possibly for their own benefit. Therefore, a control mechanism is needed to safeguard shareholder interests (Jensen and
Examining the impact of corporate governance on the extent of corporate social responsibility (CSR) disclosure by companies in the manufacturing sector through corporate governance characteristics such as the board size, proportion of independent board members, proportion of female board members, CEO duality, and profitability can provide insights into the role of these corporate governance features in CSR disclosure (Salvioni & Gennari, 2019; Berber et al., 2019; Zubeltzu-Jaka et al., 2018). In addition to explaining corporate governance characteristics, company-specific variables are also expected to influence the level of CSR information disclosure. Therefore, this study utilizes a control variable, return on assets (ROA), widely employed by previous researchers, to further explore the correlation between corporate governance characteristics and the extent of CSR disclosure (Bolourian et al., 2021; Nour et al., 2020).

(1) Board size is calculated as the total number of members in the board of directors. Almost all studies on the impact of governance characteristics on voluntary disclosure have considered board size as a significant factor. In this study, the variable board size (Q) is also utilized to examine its impact on the extent of corporate social responsibility (CSR) disclosure among listed companies in the HOSE stock exchange. According to agency theory, board members are expected to safeguard shareholder interests in the event of conflicts of interest, and in compliance with legal regulations. Previous research suggests that board size is an important factor influencing the extent of corporate reporting (Akhtaruddin et al., 2009). According to the findings of Akhtaruddin and colleagues (2009), a higher number of board members is likely to influence managers to provide more voluntary information in the company's annual reports. This suggests that a larger board is likely to offer more voluntary information than a smaller board. These results align with studies by Liao et al. (2018) and Loc and Thuan (2018).

Conversely, Said and colleagues (2009) found an inverse relationship between board size and the level of CSR information disclosure. Another insight from Nandi et al. (2013) suggests that despite having a large board, low cooperation, limited communication, and disagreement on perspectives can exist. Therefore, the expectation is that companies with more members on the board will benefit from enhanced oversight of company activities due to the diversity in knowledge and experience among board members.
H1: Board size has a positive impact on the level of CSR disclosure.

(2) Female board member ratio: Another variable considered in the model is the ratio of female members on the board, calculated as the number of female members on the board divided by the total number of board members. Numerous studies suggest that companies with gender-diverse boards perform better than those without diversity (Bolourian et al., 2021; Nour et al., 2020). Additionally, Carter et al. (2003) argue that, when it comes to implementing CSR, female members exhibit significant differences in their ethical perceptions compared to male members. Liao et al. (2018) suggest that higher ratios of female members on the board lead to higher levels of CSR disclosure. Moreover, women and men have different perceptions, beliefs, standards, and behaviors (Pelled et al., 1999; Bear et al., 2010).

Research by Huong and Uyen (2018) indicates that higher ratios of female members on the board are associated with higher levels of voluntary information disclosure. This aligns with the findings of Loc and Thuan (2018), demonstrating a positive correlation between the proportion of women on the board and the level of voluntary disclosure among listed companies. Stakeholder theory also suggests that gender diversity on the board reduces conflicts and enhances corporate governance performance (Bolourian et al., 2021; Nour et al., 2020). Based on these perspectives and the arguments presented by the authors, this study also expects that a higher ratio of female board members positively influences the level of CSR disclosure. The hypothesis is formulated as follows:

H2: The ratio of female board members positively influences the level of CSR disclosure.

(3) Ratio of independent board members: Another crucial governance characteristic to be addressed in the research model is the ratio of independent board members. The variable is calculated by dividing the number of independent board members by the total number of board members. In the study by Akhtaruddin et al. (2009), the ratio of independent board members was a statistically significant explanatory variable in their research model. Additionally, Mousa et al. (2018) argued that higher ratios of independent board members lead to increased corporate social responsibility (CSR) information disclosure. According to agency theory, the effectiveness of corporate governance in
minimizing agency problems between managers and shareholders significantly depends on the composition of the board of directors, as they play a supervisory role over the executive board (Bolourian et al., 2021; Nour et al., 2020). They exert pressure on the executive board to accurately disclose information as their function is to safeguard the rights of shareholders (Haniffa and Cooke, 2002), leading to greater disclosure of CSR-related information.

Nguyen et al. (2023) suggested that the independence of the board of directors is significantly correlated with the decisions regarding CSR information disclosure by the company (Majeed et al., 2015). The results of Majeed et al. (2015) are consistent with the findings of Said et al. (2009). Another observation is that the independence of the board of directors and the foreign background of the CEO do not affect the decision to ensure CSR (Liao et al., 2018). However, in this study, it is anticipated that the ratio of independent board members has a positive relationship with the level of CSR information disclosure by listed companies on the HOSE.

\[ H3: \text{The proportion of independent board members positively influences the level of CSR disclosure.} \]

(4) The dual role of the Chairman of the Board and CEO: Another crucial aspect of the board of directors is the duality of the roles of the chairman and the CEO. Dual roles imply that an individual simultaneously holds the position of the chairman of the board of directors and the CEO of the company. Jensen and Meckling (1976) argue that companies need to establish an effective corporate governance structure by separating management decisions from monitoring decisions to reduce agency costs (Bolourian et al., 2021; Nour et al., 2020). If one person holds both the positions of chairman of the board of directors and CEO, the chairman will have the opportunity to maximize personal benefits rather than the interests of shareholders, as they wield too much power, creating opportunities for dual-role members to act in their individual interests, influencing the interests of stakeholders. Liao et al. (2018) suggest that the separation of the CEO and chairman roles may increase the likelihood of engaging in higher CSR disclosure.

However, Khan et al. (2013) did not find a significant relationship between the dual role of the chairman of the board of directors and CEO and the level of social responsibility disclosure. According to legal regulations, these two positions are distinct with different powers, and there is no requirement to separate these two roles."
H4: The dual role of the Chairman of the Board and CEO has an inverse impact on the level of CSR disclosure.

(5) Foreign ownership ratio: Empirical evidence from Majeed et al. (2015) suggests that the foreign ownership ratio influences the level of social responsibility disclosure by companies. Haniffa and Cooke (2002) argue that it is necessary to disclose more as a means of monitoring the management activities of foreign owners (Haniffa and Cooke, 2002; Barako et al., 2006). This result is consistent with the studies by Khan et al. (2013) and Hoang et al. (2020). The authors argue that companies with high foreign ownership are more concerned about social responsibility, and they act as agents promoting corporate social responsibility. Therefore, CSR disclosure is seen as a proactive and legitimate strategy to enhance the ethics of the company, attracting foreign investors to invest more capital (Nour et al., 2020; Purbawangsa et al., 2020). This result aligns with the arguments of Huong and Uyen (2018). Thus, in this study, it is expected that the foreign ownership ratio has a positive relationship with the level of CSR disclosure, and the hypothesis is formulated as follows:

H5: The foreign ownership ratio has a consistent impact on the level of CSR information disclosure.

(6) State ownership ratio: Government intervention can exert pressure on companies to disclose more information because the government is a trusted public entity (Said et al., 2009). Therefore, state-owned enterprises tend to engage more in social activities and disclose these activities to ensure the legitimacy of their existence (Khan et al., 2013). However, the research findings of AL–Janadi (2013) argue that the state does not care about the implementation and disclosure of social responsibility.

H6: The state ownership ratio has a consistent impact on the level of CSR information disclosure.

In general, there have been studies conducted to explore the relationship between corporate governance characteristics and the level of CSR information disclosure. However, the results of these studies have not been entirely consistent, indicating that the research context influences the impact of corporate governance factors on CSR information disclosure (Pekovic & Vogt, 2021; Nour et al., 2020; Purbawangsa et al., 2020; Berber et al., 2019). Moreover, Vietnam lacks a governance framework for listed
companies. Therefore, the influence of corporate governance characteristics on the level of CSR information disclosure in emerging economies like Vietnam remains a question that needs further investigation. Inheriting the observed variables and examining factors relevant to the collected data and suitable for the Vietnamese stock market, the study proposes a research model. Factors related to corporate governance commonly examined in studies on factors influencing the level of corporate social responsibility information disclosure include: board size, the ratio of independent board members, and the ratio of female members on the board. Simultaneously, ownership structure-related factors include: the foreign ownership ratio and the state ownership ratio. In addition, control variables mentioned are the company's size. The proposed research model is illustrated in Figure 1.

Building on relevant studies both domestically and internationally, this research incorporates the variable of company size measured by the logarithm of the total assets of the company. The use of the logarithm of total assets instead of total assets aims to mitigate the issue of variance in error terms in regression models caused by the potentially substantial differences in the total asset values of different companies ((Pekovic & Vogt, 2021; Nour et al., 2020; Purbawangsa et al., 2020; Berber et al., 2019)). Additionally, to ensure minimal impact on the research model and not alter the relationships between variables, the study applies the logarithm to total assets as total assets typically have much larger values compared to other variables in the model (Meek et al., 1995).
Most researchers have found a positive relationship between company size and the extent of corporate information disclosure. Ahmad et al. (2017), Haniffa and Cooke (2002), Habbash (2016), Khan et al. (2013), and Haniffa et al. (2002) all contend that larger companies tend to disclose more information on social responsibility. Empirical studies conducted in Vietnam also reveal a consistent positive impact of company size on the level of corporate social responsibility information disclosure. The experimental research results of Huong and Uyen (2018) demonstrate a significant positive influence of company size on the extent of social responsibility information disclosure, aligning with the findings of Loc and Thuan (2018).

Profitability Ratio (ROA): If we rely on signaling theory, a highly profitable company is more motivated to disclose information. This action is expected to yield certain benefits. Although the theories discussed above all support a positive relationship between profitability and information disclosure, there are still divergent results in empirical studies on this relationship. In many previous studies, the analysis results indicate that ROA, serving as a control variable, has a positive impact on the disclosure of social responsibility information. Several recent experimental studies have revealed that the profitability ratio has a positive effect on the extent of corporate social responsibility disclosure (Pekovic & Vogt, 2021; Nour et al., 2020; Purbawangsa et al., 2020; Berber et al., 2019; Loc and Thuan, 2018; Khan et al., 2013; Haniffa and Cooke, 2002).

This argument aligns with the findings of Trinh Huu Luc and Tang Thanh Phuoc (2019), who discovered a positive relationship between the profitability ratio on total assets and the extent of social responsibility information disclosure. Nguyen Thi Loan and To Thi Thu Nhan (2020) also presented similar results, arguing that highly profitable companies may disclose more information to stakeholders to assert their position in the market.

Financial Leverage (LEV): Measured by the debt ratio divided by total assets, financial leverage is a variable frequently employed in research models to identify factors influencing the extent of information disclosure. In this study, financial leverage is also utilized as a control variable. Ahmed and Nicholls (1994) argue that when a company borrows from financial institutions, it is imperative for the company to disclose information accurately and comprehensively. Huong & Uyen (2018) contends that when a business has high financial leverage, it undergoes significant scrutiny from
stakeholders, compelling the company to provide more information to creditors when requested. This helps the company gain the trust of creditors (Purbawangsa et al., 2020; Berber et al., 2019; Khan et al., 2013). However, Khan et al. (2013) suggest that as financial leverage increases, companies become less inclined to disclose Corporate Social Responsibility (CSR) information.

3 RESEARCH METHODOLOGY

In multiple linear regression analysis, the sample size must satisfy the formula: \( n \geq 8m + 50 \), where \( n \) is the minimum required sample size, and \( m \) is the number of independent variables in the model. The purpose of determining the sample size is to ensure the generalizability of the sample information to the population without investigating the entire population, thus reducing research costs and maintaining the characteristics and reliability of the data representing the population. Choosing a sample that is too large will incur higher research costs, while choosing a sample that is too small may lack accuracy because the sample does not adequately represent the population. Therefore, determining the sample size in research is about identifying the minimum number of observations that still ensure the representativeness of the population.

The overall research encompasses all companies in the manufacturing sector listed on the HOSE. In this study, a purposive sampling method was chosen. Given the significant achievements and substantial contributions of the Vietnamese industrial manufacturing sector to overall industry and economic growth, the research focused on companies listed on the HOSE. As of the end of 2021, the value added by the entire industrial manufacturing sector increased by 4.82% compared to 2020 (General Statistics Office, 2021).

Data for the study were collected from the Vietstock information portal, with 129 listed companies on the HOSE meeting the purpose and objectives of the research selected as the study sample. Specifically, companies had to ensure they were not delisted or suspended during the data collection period. Companies falling under the survey criteria but not disclosing annual reports and corporate governance reports in 2021 were excluded.

The study utilized secondary data through content analysis to collect information on the extent of corporate social responsibility (CSR) disclosure presented in sustainability reports and annual reports. This method is highly flexible, allowing
researchers to construct content scales for CSR disclosure in line with the research objectives and market characteristics. Moreover, this method is cost-effective and widely used by researchers both domestically and internationally (Liao et al., 2018; Majeed et al., 2015; Nguyen et al., 2023; Habbash, 2016).

The study follows the non-weighted measurement method introduced by Rouf (2011). According to this method, if any information is disclosed in the Annual Report of the company, it is assigned a value of 1; conversely, if the information is not disclosed in the Annual Report, it is assigned a value of 0. Based on individual criteria scores, the extent of corporate social responsibility (CSR) information disclosure is determined as follows:

\[
\text{CSRD}_j = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_j} \quad (1)
\]

In which:

- \text{CSRD}_j: \text{The extent of CSR information disclosure for company } j, \ 0 \leq \text{CSRD}_j \leq 1
- X_{ij} = 1 \text{ if the } i\text{th index of company } j\text{ is disclosed in the Annual Report of company } j
- X_{ij} = 0 \text{ if the } i\text{th index of company } j\text{ is not disclosed in the Annual Report of company } j
- n_j: \text{The number of factors in the CSR information category constructed.}

The calculation of the extent of corporate social responsibility information disclosure is based on the content analysis method mentioned above, a method that has been widely applied in previous studies (Said et al., 2009; Majeed et al., 2015; Habbash et al., 2016; Loc and Thuan, 2018).

To examine the impact of corporate governance characteristics on the level of CSR information disclosure in listed manufacturing sub-industries on the HOSE from 2019 to 2021, this study constructs a quantitative model as follows:

\[
\text{CSRD}_i = \beta_0 + \beta_1 \text{BSIZE}_i + \beta_2 \text{BW}_i + \beta_3 \text{DUAL}_i + \beta_4 \text{IND}_i + \beta_5 \text{FO}_i + \beta_6 \text{SO}_i + \beta_7 \text{ROA}_i + u_i \quad (2)
\]

In which:

- \text{CSRD}_i: \text{The CSR information disclosure index of company } i;
- \beta_0: \text{Intercept parameter};
- \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7: \text{Estimated parameters of the model for company } i;
- \text{BSIZE}_i: \text{Board size of the board of directors of company } i;
BW$_i$: The proportion of female members on the board of directors of company $i$;
DUAL$_i$: Dual role between the chairman of the board of directors and the CEO of company $i$;
IND$_i$: The proportion of independent members on the board of directors of company $i$;
FO$_i$: The proportion of foreign ownership of company $i$;
SO$_i$: The proportion of state ownership of company $i$;
ROA$_i$: Profitability of company $i$;
u: Random error term

4 RESULTS AND DISCUSSION

Based on the data collected from the Annual Reports in 2021 and the electronic information pages of the Ho Chi Minh City Stock Exchange, along with information from the sample companies, Table 1 presents detailed descriptive statistics of the indicators used in the study. These indicators are calculated based on the published data of 118 manufacturing sub-industry companies listed on the HOSE.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Number of Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSRD</td>
<td>118</td>
<td>0.5089</td>
<td>0.1276</td>
<td>0.0270</td>
<td>0.9190</td>
</tr>
<tr>
<td>BSIZE</td>
<td>118</td>
<td>5.7797</td>
<td>1.5642</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>BW</td>
<td>118</td>
<td>0.1788</td>
<td>0.1841</td>
<td>0</td>
<td>0.6667</td>
</tr>
<tr>
<td>DUAL</td>
<td>118</td>
<td>0.0085</td>
<td>0.0920</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>IND</td>
<td>118</td>
<td>0.2521</td>
<td>0.1555</td>
<td>0</td>
<td>0.6667</td>
</tr>
<tr>
<td>FO</td>
<td>118</td>
<td>0.1192</td>
<td>0.2052</td>
<td>0</td>
<td>0.9478</td>
</tr>
<tr>
<td>SO</td>
<td>118</td>
<td>0.1329</td>
<td>0.2495</td>
<td>0</td>
<td>0.9677</td>
</tr>
<tr>
<td>ROA</td>
<td>118</td>
<td>0.0673</td>
<td>0.0611</td>
<td>-0.0959</td>
<td>0.2950</td>
</tr>
</tbody>
</table>

Source: Data analysis results, 2023

(1) The level of CSR information disclosure is a dependent variable in the research model, indicating the extent of CSR information disclosure by listed manufacturing sub-industry companies on the Ho Chi Minh City Stock Exchange, chosen as the survey sample for the study. According to statistical processing results, the average level of CSR information disclosure for these companies in 2021 was 50.89%, compared to the full CSR information disclosure level of 100%. The lowest CSR information disclosure level was 2.70%, and the highest was 91.90%. It can be observed that none of the 118 surveyed companies achieved a common CSR information disclosure level of 100%. Additionally, the level of CSR information disclosure is not excessively high. However, it can also be argued that information disclosure, in general, and CSR information disclosure, in particular, has become a customary practice regulated by law. To survive and thrive, companies need to implement and disclose sufficient information to stakeholders.
(2) Proportion of independent members in the Board of Directors: According to Table 2 statistics, the average proportion of independent members in the Board of Directors is 25.21%, indicating that this ratio is still low. In reality, companies are required to ensure one-third of the members are independent in the Board of Directors. The lowest proportion of independent members is 0%, and the highest is 66.67%, with 2 independent members out of 3 in the total Board of Directors. The standard deviation of the variable representing the proportion of independent Board members is 15.55%, indicating differences among companies regarding the proportion of female members at 15.55%.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Observation Count</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of independent members &lt;1/3</td>
<td>71</td>
<td>60.17</td>
</tr>
<tr>
<td>Ratio of independent members &gt;=1/3</td>
<td>47</td>
<td>39.83</td>
</tr>
</tbody>
</table>

Source: Data analysis results, 2023

Board Independence Ratio: Out of the total research sample of 118 companies, 71 companies have a board independence ratio below 1/3, accounting for 60.17%. Among these, 24 companies do not have any independent board members, making up 20.34% of the total sample. The number of companies ensuring 1/3 independent board members is 47, representing 39.83%. The results indicate that the number of companies adhering to the legally stipulated ratio of independent board members is not high. This could be attributed to the challenging criteria for selecting members capable of effectively performing the duties of an independent board member, especially for businesses.

(3) Foreign Ownership Ratio: Regarding the ratio of foreign shareholder ownership in companies, the highest percentage of shares held by foreign investors is 94.78% of the total shares, while the lowest is 0%, with an average ratio of 11.92%. According to the statistics, all companies in the research sample have foreign shareholder ownership ratios, except for Dai Thien Loc Joint Stock Company.

<table>
<thead>
<tr>
<th>Foreign Ownership Ratio (%)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% and above</td>
<td>6.78</td>
</tr>
<tr>
<td>Below 50%</td>
<td>92.37</td>
</tr>
<tr>
<td>0% Ownership</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Source: Data analysis results, 2023
(4) State Ownership Ratio: Table 4 illustrates the state ownership ratio, with the highest percentage of shares held by state shareholders reaching 96.77% of the total shares. The lowest state ownership ratio observed is 0%, and the average ratio stands at 13.29%.

<table>
<thead>
<tr>
<th>State Ownership Ratio</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% and above</td>
<td>16.95</td>
</tr>
<tr>
<td>Below 50%</td>
<td>12.71</td>
</tr>
<tr>
<td>0% Ownership</td>
<td>70.34</td>
</tr>
</tbody>
</table>

Source: Data analysis results, 2023

Statistically, 88 companies, accounting for 70.34% of the total sample, do not have state shareholders. Meanwhile, 20 companies, representing 16.95% of the total sample, have a state ownership ratio of 50% or more. The remaining 15 companies, constituting 12.71% of the total sample, possess a state ownership ratio below 50%. It can be observed that companies in the manufacturing sector have a low state ownership share due to state-owned enterprises' divestment policies.

(5) Return on Assets (ROA): This serves as the second control variable in the research model, measured by post-tax profit over total assets. Table 1 reveals that companies exhibit an average ROA of 6.73%, indicating that a significant number of firms still have low profitability. According to statistics, up to 77.12% of businesses show a ROA of less than 10%. The standard deviation of ROA indicates a variation in the ROA ratio among companies, with a standard deviation of 6.11%.

Testing Variance Changes: To enhance confidence in the regression model, the Breusch–Pagan test is chosen to detect the phenomenon of changing error variance. The hypothesis for this test is formulated as follows:

H0: There is no phenomenon of changing error variance.
H1: There is a phenomenon of changing error variance.

Results: chi2(1) = 1.11
Prob > chi2 = 0.2918

The study utilized Stata software for the testing results. At a significance level of 95%, the test result is: Prob > chi2 = 0.2918. Since 0.2918 > 0.05, the null hypothesis H0 is accepted, meaning that the model does not exhibit the phenomenon of changing error variance.
The variance at a 95% confidence level. Therefore, the model does not show a phenomenon of changing error variance at a 95% significance level.

Model fitness test: In multiple regression, a model is considered to have no explanatory power when all regression coefficients are simultaneously equal to 0. The hypothesis is stated as: $H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = 0$

To test the model's fitness, the study used the $\text{Prob} > F$ value. With $\text{Prob} > F = 0.0000 < 0.01$, indicating that all regression coefficients are not simultaneously equal to 0, the model is statistically significant at the 1% level. Therefore, the null hypothesis $H_0$, stating that all regression coefficients are equal to 0, is rejected. It can be concluded that the linear model presented is appropriate.

Regression model estimation results: Table 5 below presents the regression results indicating the influence of management factors on the level of disclosure of social responsibility information by listed companies on the Ho Chi Minh City Stock Exchange using the OLS model. There are three levels of statistical significance for the regression coefficients: (1) statistically significant at the 10% level with $P>|t|<=10\%$, (2) statistically significant at the 5% level with $P>|t|<=5\%$, and (3) statistically significant at the 1% level with $P>|t|<=1\%$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>Standard Errors</th>
<th>$t$</th>
<th>$P$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSIZE</td>
<td>0.0152**</td>
<td>0.0073904</td>
<td>2.05</td>
<td>0.042</td>
</tr>
<tr>
<td>BW</td>
<td>0.1934***</td>
<td>0.0583941</td>
<td>3.31</td>
<td>0.001</td>
</tr>
<tr>
<td>DUAL</td>
<td>-0.1828</td>
<td>0.1128572</td>
<td>1.62</td>
<td>0.108</td>
</tr>
<tr>
<td>IND</td>
<td>0.0697</td>
<td>0.0709989</td>
<td>0.98</td>
<td>0.329</td>
</tr>
<tr>
<td>FO</td>
<td>0.0958*</td>
<td>0.0556471</td>
<td>1.72</td>
<td>0.088</td>
</tr>
<tr>
<td>SO</td>
<td>0.0978**</td>
<td>0.0431891</td>
<td>2.26</td>
<td>0.026</td>
</tr>
<tr>
<td>ROA</td>
<td>0.4258***</td>
<td>0.180079</td>
<td>2.36</td>
<td>0.020</td>
</tr>
<tr>
<td>Conts</td>
<td>0.3175***</td>
<td>0.0428626</td>
<td>7.41</td>
<td>0.000</td>
</tr>
<tr>
<td>Observations</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.2870</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.2416</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$ Value</td>
<td>6.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\text{Prob} &gt; F$</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data analysis results, 2023

Note: *: significance level 10%; **: significance level 5%; ***: significance level 1%

The results of the regression analysis show that the coefficient of determination $R^2=0.2870$, indicating a moderate relationship between the variables in the model ($0 < R^2 < 0.5$). In other words, this model can explain the variation in the level of CSR information disclosure based on the variation in management factors by 28.70%, while the remaining 71.27% is influenced by other factors not studied in this model. The
OLS regression results presented in Table 5 show that independent variables such as board size (BSIZE), the proportion of female members in the board (BW), foreign ownership ratio (FO), and state ownership ratio (SO) are all statistically significant, while the variables of the proportion of independent members (IND) and the dual role of chairman and CEO are not statistically significant for the level of CSR information disclosure (CSRD).

The variable of board size (BSIZE) has a positive impact on CSRD and is statistically significant at the 5% level. This means that when the number of board members increases by 1 person, the level of CSR information disclosure of the company increases by 1.52% with a 95% confidence level. The variable of the proportion of female members in the board (BW) has a positive impact on CSRD and is statistically significant at the 1% level. The variable of foreign ownership ratio (FO) has a positive impact on CSRD and is statistically significant at the 90% level. The variable of state ownership ratio (SO) has a positive impact on CSRD and is statistically significant at the 95% level. On the other hand, only the variable of the proportion of independent members (IND) and the dual role of chairman and CEO are not statistically significant at the 90% level in this case.

The analysis results also show that the level of CSR information disclosure of manufacturing sector companies listed on the HOSE depends on corporate governance factors: Board size (BSIZE), proportion of female members (BW), foreign ownership ratio (FO), state ownership ratio (SO), and the control variable used in the model, which is the company size measured by the logarithm of total assets (LNSIZE). As expected, the estimation results show that the board size is positively correlated with the level of CSR information disclosure, with a regression coefficient of 0.0152 and statistical significance at the 95% level, accepting hypothesis H1. This result supports the views of Lehn et al. (2004), Majeed et al. (2015), Akhtaruddin et al. (2009), Loc and Thuan (2018), suggesting that as the number of board members increases, the level of CSR information disclosure also increases. Additionally, the company's charter explains that the board of directors has a supervisory role, and a larger board size tightens the supervision of managerial activities. Consequently, managers are more likely to disclose CSR information. This result can be explained by the agency theory of Jensen and Meckling (1976), which suggests that conflicts arise in a business if there is an information
asymmetry between owners and the business’s representatives. The theory also explains why businesses voluntarily provide CSR reports to shareholders.

The estimation results show that the proportion of female members on the board has a positive impact on the level of CSR information disclosure, with a regression coefficient of 0.1934 and statistical significance at the 99% level. This implies that the higher the proportion of female members on the board, the higher the level of CSR information disclosure. This result is consistent with the research findings of Huong and Uyen (2018), Loc and Thuan (2018), Liao et al. (2018), Carter et al. (2003). These studies argued that female members can contribute to improving CSR rankings as they are more involved in corporate philanthropic activities compared to companies with lower proportions of female board members.

The variable representing duality indicates that in a company, the chairman of the board of directors and the CEO are the same person. The results did not align with the initial expectations; the duality variable of the chairman of the board of directors did not influence the level of CSR information disclosure for manufacturing sector companies listed on the HOSE. In reality, up to 99.15% of manufacturing sector companies listed on the HOSE separate the titles of the chairman of the board of directors and the CEO. Thus, this uniformity is the reason why the duality variable does not affect CSR information disclosure. This result is consistent with the findings of Said et al. (2009).

The proportion of independent board members does not impact the level of CSR information disclosure. In other words, the variation in the ratio of independent board members does not change the level of CSR information disclosure for manufacturing sector companies listed on the HOSE. This result contradicts studies by Haniffa and Cooke (2002), Mousa et al. (2018), Akhtaruddin et al. (2009), and does not support the agency theory. However, this result is consistent with the findings of Liao et al. (2018), Majeed et al. (2015), Said et al. (2009). It is possible that independent board members are more concerned with financial information than social information. In line with this argument, the proportion of independent board members does not affect the level of CSR information disclosure in this study. Currently, there is no evidence indicating the influence of the proportion of independent board members on the level of CSR information disclosure.

The foreign ownership ratio has a positive impact on the level of social responsibility information disclosure, with statistical significance at 90%. The results
support the arguments of authors such as Haniffa and Cooke (2002), Khan et al. (2013), Muttakin and Sabramaniam (2018), suggesting that companies with higher foreign ownership tend to disclose more CSR information. This is seen as a proactive and legitimate strategy to enhance corporate ethics with foreign investors, attracting additional investment. As a developing country with foreign investors from various developed nations, there is a high demand for CSR implementation and disclosure in Vietnam. The foreign ownership ratio has a positive impact on the level of social responsibility information disclosure, with a regression coefficient of 0.0978 and statistical significance at 95%. This indicates that as the state ownership in listed manufacturing companies on the HOSE increases, the level of CSR information disclosure decreases. The results align with the arguments of Nguyen et al. (2023), Said et al. (2009), Muttakin and Sabramaniam (2018). As argued, government-owned companies may feel pressured to disclose their CSR information, engaging more in socially responsible actions and publicly disclosing these activities to legitimize their presence.

The return on assets (ROA) also has a positive influence on the environmental information disclosure level of the company. This result is consistent with the signaling theory, suggesting that profitable companies tend to disclose more information, providing useful information to users to enhance their market position. Profitable companies are inclined to disclose not only business and financial information but also environmental information. This result is in line with numerous studies, including Kolsi (2012), Sehar, Bilal, and Tufail (2013), Habbash (2016), Trịnh Thị Họp (2016), Nguyễn Văn Linh and Đảng Ngọc Hùng (2019), Đảng Ngọc Hùng and collaborators (2018), Nguyễn Thị Loan and Tô Thị Thu Nhàn (2020), Barako (2007), Hussainey, Elsayed, and Razik (2011).

5 CONCLUSION
The research collected secondary data from 118 manufacturing companies and based on theories along with the synthesized results from experimental studies worldwide and in Vietnam. The quantitative research model was constructed, comprising 5 corporate governance factors and 1 control variable related to company characteristics, including Board size, proportion of female members on the Board, proportion of independent Board members, foreign ownership ratio, state ownership ratio, and company size. The OLS regression analysis results showed that the majority of variables related to corporate
governance have a relationship with the level of social responsibility information disclosure. However, the proportion of independent members did not impact the level of social responsibility information disclosure, possibly because, in this study, independent members were only concerned with financial indicators.

From the reality of social responsibility information disclosure of listed manufacturing companies on the Ho Chi Minh City Stock Exchange in 2021, it can be observed that the level of CSR information disclosure is not very high. Specifically, concerning shareholders, only 15.56% of companies disclose criteria for equal treatment of shareholders. In terms of the environment, issues related to greenhouse gas emissions, solutions to reduce emissions, wastewater recycling, dust control, and solid waste treatment methods are not well-addressed by manufacturing companies, with less than 40% of companies disclosing. Regarding labor issues, fewer than 35% of companies disclose issues related to compliance with labor law and policies for equal treatment. For customer criteria, information disclosure, product classification, customer service, customer information security, and awards voted by companies are not widely disclosed.

From these findings, suggestions for corporate governance can be proposed, such as companies ensuring a minimum of 3 Board members in a company, but a structure of 5 Board members being the most prevalent. Regarding the independence of the Board, 60.17% of companies have a ratio of independent Board members below 1/3, indicating that independent Board members are too few to effectively control business activities, and they may lack the experience to fulfill their monitoring functions.
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