Determinants of sustainability reporting: An empirical research on Vietnamese Listed companies

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Abstract—This research aims at providing some empirical evidence on determinants of sustainability reporting in Vietnam. A sample of 99 sustainability reports published by listed companies for the year of 2016 was obtained and further analysed by employing content analysis method to construct sustainability reporting index for each company. The study used a wide range of variables to examine hypotheses developed. Firm size, gross profit margin and, export status are found to significantly positively associate with sustainability reporting quality.

Keywords—Sustainability; GRI; financial performance; sustainability reporting, Vietnam...

1 INTRODUCTION

PREVIOUS studies have revealed different results regarding the impact of industry in which a company operates on its sustainability reporting quality. Some authors indicated that there are significant variations in the extent and nature of sustainability reporting between high-risk, sensitive and heavy industry sectors [14; 27; 29]. Nonetheless, others found that superior performance belonged to banking and finance industry [15] or manufactoring [28]. Especially, Chen, Feldmann, and Tang showed that the influence of industrial characteristic was invisible on the ground that no significant difference in companies' disclosures was observed among distinct industry sectors [8].

Additionally, considering the costs involved in preparation of sustainability reporting package,

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financial performance could be a critical factor affecting quality of reporting [34]. Some research showed that there were strong links between financial results and sustainability reporting practices [7; 14; 27; 31; 32; 41]. In the meanwhile, there are evidences from other studies showing that financial the relationship between performance and sustainability reporting practices was insignificant [28; 40]. Due to debatable results from prior studies, this research is to clarify the relationship between industrial characteristics and financial performance with the quality of sustainability reporting.

Besides sector and organisational characteristics, there are several papers of research indicating the impact of board gender diversity on the quality of sustainability reporting [11; 24; 20; 4; 33]. These studies shared relatively similar results in that greater gender diversity in board would positively enhance the engagament in environmental and social responsibilities as well as the activeness in reporting these performance. This research considers board gender diversity as an influencing factor and determines its impacts by observing detailed variables: number of female NEDs, percentage of female NEDs, female CEO and female chairman.

Not less important, previous studies mainly focused on developed countries which have different social, legal, environmental backgrounds, economic and political contexts from emerging markets. Therefore, it may be not reasonable to generalise these results for developing nations. As developing countries, Vietnam is facing a wide range of economic, environmental and social issues relating to costs saving, low productivity, pollution, poor resources management, consumer rights and gender gaps in workplace. A research conducted by Nielsen Vietnam in 2015 revealed

that 86% of Vietnamese consumers would be willing to pay a premium to buy products or services from sustainable development companies which was the highest percentage among South East Asia countries [35]. This suggests the enhancement of customers' attention regarding sustainable issues, which encourages corporations to engage in sustainability practices. Nevertheless, the importance of sustainable performance and reporting has been not well recognised by many organisations. Concerning empirical research on sustainability reporting practices, there has been very limited amount of research in Vietnam. Therefore, this study is undertaken with the purpose of providing some preliminary empirical evidence on which factors influence sustainability reporting quality.

2 LITERATURE REVIEW AND DEVELOPED HYPOTHESES

2.1 Sustainability reporting

Global Reporting Initiative defines sustainability reporting as "a process that assists organizations in setting goals, measuring performance managing change towards a sustainable global economy - one that combines long term profitability with social responsibility environmental care"[35]. Sustainability reporting is increasingly popular on a global scale due to broader awareness of sustainable development in terms of environment and business. Sustainability reporting benefits greatly companies by building trust with stakeholders which helps reduce reputational risks, improving internal management decision-making process as well information system, progressing vision strategy that helps companies address strengths and weaknesses, reducing compliance costs and creating competitive advantages [35].

Sustainability reporting framework

To report voluntarily on sustainability practices, companies can adopt numerous approaches, among which GRI is the most widely used. Despite not a mandatory reporting framework, over 75% of G250 companies applied GRI guidelines to prepare their sustainability reports (DiGuilio, 2010). With the vision of creating a future which sustainability is integrated into organisational decision-making process, GRI aims at developing a reporting framework that

sustainability reports become regular and comparable as financial reporting. The principles for defining reporting quality include: balance, comparability, accuracy, timeliness, clarity and reliability [35].

In general, a sustainability report consists of two parts: general standards disclosure and specific standards disclosure. The former includes disclosure relating to strategy and analysis, organisational profile, identified material aspects and boundaries, stakeholder engagement, report profile, governance, ethics and integrity. The latter includes disclosure relating to 6 categories: economic, environmental, labour practices and decent work, human rights, society and product responsibility.

2.2 Determinants of sustainability reporting

Previous studies have explored determinants of sustainability reporting based on a number of legitimate threats and stakeholder pressures. From legitimacy theory perspective, organisations in their existence receive supports from surrounding stakeholders, hence in turn they should benefit the society where they base or at least do not cause harms to that society. Between the organisations and society, there is a 'social contract' that constrains organisations' activities within boundaries set by society [12]. As far as stakeholder theory is concerned, organisations are accountable to a wide range of stakeholders due to their (potential) significant impact on society that cannot be only responsible to shareholders [36]. Sustainability reports is one of the ways in which organisations ensure that their operation is perceived as legitimate by outsiders [12] as well as satisfy stakeholders' informational needs [36].

The most common factors examined are company size, industry sectors and financial performance. Additionally, corporate governance characteristics are also considered as significant factors. However, the results from previous studies are rather disparate and debatable in some aspects.

Firm size

From the view of legitimacy theory, large-sized companies are considered have greater impacts on society due to more geographical and product diversifications that effect a wider range of stakeholders groups [6] as well as exposure to higher likelihood of negative events [5; 19].

Therefore, they inevitably arouse more stakeholders' interest and face higher scrutiny [21]. Consequently, the quality of sustainability reporting as well as the adoption of GRI application levels in large companies is expected to be superior to others in the purpose of legitimating their business [29]. Additionally, large firms also have more resources to engage in sustainability reporting practices [30; 31], not to mention the lower costs for disclosure [25; 28].

Empirical researches showed consistent evidences ranging from develop market [17; 18; 25] to emerging market [16; 31; 32; 38; 40] . To examine the relationship between firm size and sustainability reporting in Vietnam, we construct the following hypothesis:

H1: Firm size has a significant positive association with sustainability reporting.

Corporate financial performance

Considering the costs incurring from sustainability reporting practices, better financially performing companies are expected to have higher budget toward these activities, hence enhance sustainability performance. Strong financial resources allow companies to flexibly handle the cost of consequences from negative disclosed information [10; 22]. Additionally, from the perspective of stakeholder theory, the priority belongs to investors (primary stakeholders), then the secondary stakeholders needs are only perceived when there are expandable resources [14]. Concerning leverage, a high gearing can be assumed to be a constraint for CSR reporting practice [10; 39]. However, companies with high leverage have great motivation to enhance reporting activities in order to legitimate their operation towards creditors and investors [22] and then reduce capital cost [26].

There are a number of empirical studies found significant positive relationship between financial performance and sustainability reporting in Germany [18], China [30] and Brazil [31]. Especially, examining random GRI 124 reports from 25 countries, Dilling found the positive connection between higher profit margin and G3 sustainability reports [14] . From China context, Liu and Anbumozhi showed that the companies's profitability (measured by ROE) has positive impacts to the extent of environmental investment

and pollution control disclosures [30]. In 2017, McGuinness et al. again confirmed that there are contrary relationship between social disclosure ratings and lagged financial performance in this market [32].

Nevertheless, some studies suggest that there is no or weak obvious links between financial performance and sustainability practices. Reverte showed that both profitability and leverage have no influence to CSR disclosure practices in Spanish listed companies [36]. From worldwide context, Prado-Lorenzo et al. found that ROE even have negative impact to gas emission disclosure [34]. Similarly, research of Kuzey and Uyar also discovered irrelevant relationship profitability, free cash flows, growth opportunities sustainability reporting practices [28]. Wuttichindanon argue that financial performance (profitability, leverage) is not a significant determinant of CSR disclosure, since stakeholders (including shareholders) can exert their power over the firms to force them to engage in and report on CSR activities regardless their economic status [40].

Due to debatable results on the relationship between financial performance and CSR, sustainability reporting practices, this research does not predict the direction but speculate the existence of the association in Vietnam. This brings to the second hypothesis tested:

H2: There is an association between financial performance and sustainability reporting

Board gender diversity

Davies argued that larger proportion of female directors on boards would enhance board's performance through more active contributions of female NED compared to their male counterparts, conscientious preparation for board meetings and willingness to challenge strategies [11]. Moreover, greater female representation could help the board achieve better corporate governance by monitoring strategy, committing to ethical standards and concerning more on stakeholder issues such as employee, customer satisfaction, sustainable development and corporate social responsibility.

The representation of women on boards could bring diversity due to distinctive values of female directors compared to male directors; they are more stakeholder-oriented than their male counterparts [2]. Furthermore, greater number of women on boards can positively associate with ethical and social compliance because of female sensitivity towards these matters [24]. Thus creating a legitimate expectation that there would be a relationship between board gender diversity and sustainability reporting practice since diverse boards could increase the transparency and accuracy of financial reports, hence reduce information asymmetry and improve stakeholder engagements [20].

Al-Shaer and Zaman found a significant positive relationship between sustainability reporting quality and board gender diversity measured by five alternatives: number of female directors on boards, percentage of boards' female directors, number of independent female directors, Shannon index of diversity and Blau index of diversity [4]. By categorising into two groups: small and large sized companies, the paper also discovered that while all board gender diversity measures of the sized companies were significantly associated with sustainability reporting quality, two measures (number of female directors and number of independent female directors) were significantly associated for large sized firms (although all of them had positive associations with sustainability reporting quality).

The presence of women on boards could help firms become socially responsible by encouraging the adoption of environmentally friendliness and good corporate governance practices [16; 33]. The research also found that gender diversity positively associated with corporate sustainability practices.

Non-executive female directors

The UK's Higgs report on the role and effectiveness of non-executive directors highlighted the importance of non-executive directors who have no managerial responsibility in assuring boards' balancing influence and reducing conflicts of interest between principals (shareholders) and their agents (management) [23]. Arguably, non-executive directors are believed to play a key role in challenging and scrutinising the strategy implemented by executive directors due to their wider perspectives. Besides the positive relation of women's proportion on boards to board's effectiveness, female directors are likely to have similar impact possessing by independent directors [3]. Al-Shaer and Zaman found a significant positive association of number of independent female directors with sustainability reporting quality. As a result, it is worth to expect that independent and non-executive female directors may require more effort on sustainability practices which eventually benefits shareholders in long-term and in a sustainable way [4].

Female leadership

While the chairman is responsible for leading the board of directors, the chief executive director (CEO) leads the management team. The UK's Higgs report emphasised the vital role of chairman in ensuring the effectiveness of the whole board as well as individual directors by directing boards' operation to strategic matters, actively engaging with shareholders, allocating sufficient time for controversial issues discussions [23]. On the other hand, CEO's roles are more likely to involve in running the business, implementing board's resolutions, assuring organisational objectives achievement and liaison with stakeholders. Due to these characteristics, it would be a mistake not to address the influence of corporate leadership on companies' strategies and policies on sustainable development including related public disclosures. McGuinness et al. found that companies led by chairwoman and female CEO tend to have higher corporate social responsibility rating. Furthermore, the effect of female leadership still significantly remained after board gender diversity measures had been controlled [32].

This research is to examine whether board gender diversity influences the quality of sustainability reporting among Vietnamese listed firms. Therefore, the following hypotheses will be tested:

H3a: There is a positive association between board gender diversity and sustainability reporting

H3b: Non-executive female directors have a positive association with sustainability reporting

H3c: Female leadership has a positive relationship with sustainability reporting

3 RESEARCH METHODOLOGY

3.1 Sample and data collection

The primary objective of this study is to identity whether factors hypothesised have any associations with quality of sustainability reports. As a result, only reports exclusively named 'sustainability report' or 'sustainable development report' are subject to the assessment. Since sustainability reporting is relatively new in Vietnam, there is no database or statistics about the quantity of published reports nor list of publishing organisations. In order to gather all available sustainability reports, websites and annual reports of all companies listed on two domestic stock exchanges were scanned with relevant key words. The reporting period is for the financial year ended 31 December 2016 (or earlier but not prior to 1 January 2016). Finally, there were 99 companies meeting the requirements. These reports were subsequently analysed through a scoring scheme.

All financial data was retrieved from data stream of Thomson Reuters EIKON (the world's most popular and comprehensive financial data bank) at financial market simulation room - University of Economics and Law, while non-financial one was collected manually from companies' annual reports, corporate governance reports, corporations' websites and Vietstock.com.

3.2 Sustainability reporting scoring scheme and sustainability reporting index

Content analysis has been extensively employed in this research to assess the quality of sustainability reporting. Clarkson, Li, Richardson, and Vasvari adopted GRI guidelines to construct an index to assess environmental disclosures in related reports. Similarly, in this research the construction of a sustainability reporting index is implemented which eventually generates indices facilitating the comparability of sustainability reporting quality across companies. However, before that, a scoring scheme must be applied to calculate scores (which represents quality and completeness) of sustainability reports [9].

Both Clarkson et al. and Dissanayake et al. adopted GRI guidelines for their scoring framework due to its superior characteristics such as international standardised guidelines that can be flexibly applied to various types of organisation through the usage of each reporting indicator [9]; improving the transparency, relevance, completeness, accuracy of sustainability reports; ensuring reports representing a balanced picture regarding different dimensions, etc. Because of these benefits, this study adopts G4 sustainability reporting guidelines as scoring scheme based on

reporting indicators to measure reporting practices in Vietnam. Furthermore, some adaptions were brought in to make scoring scheme suitable to Vietnamese corporate reporting practices. The scoring scheme is demonstrated in appendix 1.

Generally, most of companies in the population have sustainability reports included in their annual reports, which are subject to scoring scheme. However, companies who publish stand-alone sustainability reports will have their separate reports marked individually not the ones included in annual reports or integrated reports (as they are often in brief and referred to stand-alone ones). To maintain the comparability and fairness, only information disclosed in sustainability reports is subject to this scoring scheme, which means information referred to elsewhere in annual reports or other reports will be not taken into account even it is mentioned in G4 reference.

In Vietnam, circular 155/2015/TT-BTC issued by Ministry of Finance has its section 6 in appendix 2 guiding the preparation of report on related impact of the company on the environment and society, which is used by many firms (especially SMEs) as a framework to produce sustainability reports. With the purpose of enabling the comparability of sustainability reporting indices across companies' practices, this research prescribes a minimum disclosure based on reporting requirement of section 6 appendixes 2 with the addition of some indicators (G4-1, G4-18, G4-24, G4-25, G4-26, G4-27, G4-DMAs) that is similar to the way used by Dissanayake et al. (2016). The purpose of the prescription is to provide a fixed number of weights towards the total score in arriving at the index which would establish comparable standards. For example, if a company fulfils fully all prescribed indicators and other indicators (that company chose to disclose), its sustainability reporting index will be 1 (the absolute index); however, if the firm fails to disclose prescribed indicator although it fulfils fully other indicators, its index will be lower than 1. It would be inappropriate to force all companies to disclose all indicators because of the principlebased nature of guidelines with comply or explain practice. That adaptation seems to be fit with Vietnamese current circumstances since it is necessary to have a threshold to evaluate the quality of sustainability reports. These prescribed indicators are present in appendix 2.

Reporting indicators not prescribed in appendix 2 will be treated as 'voluntary' or 'additional' disclosure which is subject to scoring scheme accordingly with corresponding weights when the company includes them in their reports.

The scoring scheme does differentiate between the important indicators and unimportant ones. Except for prescribed indicators, the ones belonging organisational profile, report's profile, G4-22 and G4-23 are treated as unimportant since they are usually included in annual reports. The important indicators individually have maximum score of 1 with corresponding weight of 1, while the ones of unimportant indicators are 0.5. Additionally, each indicator is scored differently based on whether it is fully disclosed or partly disclosed or not disclosed with the score of 1, 0.5 and 0 respectively. For example, an indicator is required by guidelines to disclose approach, supporting statistics of each components but the company decided to disclose only its approach or partly necessary figures, the indicator would only receive a score of 0.5 or even 0 if information provided is judged to be irrelevant or not meaningful. The criteria applied would be G4 detailed guidelines and judgement would be used to evaluate the information. This method would reflect the quality and completeness of disclosure.

Following that the sustainability reporting index is determined as below:

$$I = \frac{Total\ score * 10}{Number\ of\ fixed\ weights + Number\ of\ variable\ weights}$$

Where:

- I represents sustainability reporting index of assessing company
- I represents sustainability reporting index of assessing company
 - Number of fixed weights is the number of

weights fixed to prescribed indicators (15 for financial services related organisations and 25 for others)

- Number of variable weights is the total of weights of additional indicators disclosed (not prescribed indicators)

These indices represent the quality of sustainability reports and will be used as dependent variable in research models to identify which factors have influence on them. This approach was utilised widely by many studies involving the assessment of reports' quality [27], which would ensure the comparability across companies and industries (for example financial services related corporations are not required to disclose environmental impact while manufacturers do have to) without significant deviations if absolute scores were used.

3.3 Model and variables

To examine the above hypotheses, we construct the following regression model:

 $I = \alpha_1$ (Company size) + α_2 (financial performance)+ α_3 (Board gender diversity) + α_4 (Female NED) + α_4 (Female leadship) + ϵ_1

Where:

- 1 is the index of sustainability reports measured by scoring scheme described in 3.2:
- Ei is error term
 Independent variables in this model are
 detailed as Table 1

TABLE I LIST OF INDEPENDENT VARIABLES

Hypothesis	Variable group	Variable	Measurements
H1	Company size	Lnta	Natural logarithm of total assets, follows previous research of Fuente et al. (2017), Clarkson et al. (2008), Lourenço and Branco (2013).
H2	Financial performance		
	•	Roe	Returns on equity, follows Saeidi, Sofian, Saeidi, Saeidi, and

			Saaeidi (2015), Lourenço and Branco (2013), Liu and Anbumozhi (2009), Dissanayake et al. (2016).
		GPM	Gross profit margin, follows Saeidi et al. (2015).
		Lev	Leverage, calculating by debt to equity, follows Fuente et al. (2017), Clarkson et al. (2008), Stanny and Ely (2008), Lourenço and Branco (2013).
Н3а	Board gender diversity		
		Brd_size	Number of board members, follows previous research of Fuente et al. (2017)
		P_fmb	Percentage of female director members on board members, follows previous research of Fuente et al. (2017), Al-Shaer and Zaman (2016)
H3b	Female NED	Per_f_NED	Percentage of non-executive female directors over number of boards members, follows research of Fuente et al. (2017)
Н3с	Female leadership	F_CEO	Dummy variables
			1: The company has female CEO
			0: Otherwise
			This is consistent with research of McGuinness et al. (2017)
		Chairwoman	Dummy variables
			1: The company has chairwoman
			0: Otherwise
			This is consistent with research of McGuinness et al. (2017)
		Duality	Dummy variables
			1: There is duality of chairman/chairwoman and CEO
			0: Otherwise
			This is consistent with previous research of Fuente et al. (2017)
	Control variables	Exp	Dummy variables
			1: Companies engage in export activities
			0: Otherwise

4 RESEARCH RESULTS AND DISCUSSIONS

Table 2 represents results produced by regression analysis."

TABLE 2
DESCRIPTIVE STATISTICS (N=99)

Variable	Mean	Std. Dev.	Min	Max
Index	6.64	2.41	2	10
Lnta	14.62	1.68	11	21
Exp	0.46	0.50	0	1
Roe	16.06	12.95	-57	53
Gross margin	29.31	20.97	-13	86
Leverage	0.65	75.36	0	4.11
Boardsize	5.92	1.37	4	10
Per_f_NED	54.08	19.48	0	80
P_fmb	18.26	17.98	0	80
Chairwoman	0.12	0.33	0	1
Ceoduality	0.27	0.45	0	1
Femaleceo	0.14	0.35	0	1

To identify the bivariate relationship between variables and multicollinearity issue, we analyse

Pearson correlation analysis, which provided in table 3:

TABLE 3
PEARSON CORRELATION ANALYSIS RESULTS

	index	lnta	Exp	roe	GPM	Lev	Boardsize	P_F_ned	P_fmb	chairwoman	duality	F_CEO
index	1.00											
lnta	0.42 **	1.00										
Exp	0.30**	0.14	1.00									
ROE	0.20 *	0.11	0.34**	1.00								
GPM	0.30 **	(0.02)	(0.20)	0.12	1.00							
Lev	(0.14)	0.18	0.05	(0.22)*	(0.35)**	1.00						
Boardsize	0.21 *	0.45	(0.00)	0.04	0.04	(0.12)	1.00					
P_F_NED	0.23*	0.07	(0.06)	0.09	0.33**	(0.19)	0.12	1.00				
P_fmb	0.20 *	0.05	0.25	0.10	(0.09)	(0.06)	0.09	(0.10)	1.00			
chairwoman	0.07	(0.01)	0.27	0.16	0.12	(0.06)	0.07	(0.00)	0.51	1.00		
ceoduality	(0.00)	(0.05)	0.07	(0.10)	(0.11)	0.13	(0.11)	(0.17)	0.08	0.05	1.00	
F_ceo	0.13	0.04	0.20 *	0.07	(0.03)	(0.04)	0.09	(0.05)	0.40**	0.47**	0.01	1.00

Note: **p < 0.01; *p < 0.05

The results show that there is no significant correlation between independent variables.

Simultaneously, to check the severity of multicollinearity. The variance inflation factor (VIF) is employed. All of VIF of variables are under 2, multicollinearity could be reduced to an acceptably low level.

To test heteroscedasticity, we use Breusch-Pagan / Cook-Weisberg test which the results are provided as followed:

Ho: Constant variance

Variables: fitted values of index

$$chi2(1) = 0.63$$

Prob > $chi2 = 0.4284$

With $p_value > 10\%$, the results suggests that there is no heteroscedasticity.

Table 4 represents results produced by regression analysis.

TABLE 4
REGRESSION ANALYSIS RESULTS

Number of obs =		99
Prob > F	=	0.0000
R-squared	=	0.4494
Adj R-squared	=	0.3726

	Coefficient	Probability
Lnta	0.557	0.000***
Exp	1.521	0.002***
Roe	(0.002)	0.872
GPM	0.040	0.000***

Lev	(0.002)	0.335
Boardsize	(0.016)	0.920
Per_F_NED	0.015	0.157
P_fmb	0.028	0.030**
Chairwoman	(1.553)	0.045**
Ceoduality	0.320	0.474
F_CEO	0.565	0.382
_cons	(4.418)	0.015

^{**, ***} denotes the level of significance of 5% and 1% respectively;

Firm size

Results from regression model showed that quality of sustainability reporting significantly correlated with firm size, which is consistent with prior studies and confirm H1. Additionally, it is observed that export activities also have positive impact to sustainability reporting quality. This also support the argument of legitimacy theory that companies which have international trading activities would have greater impacts on society and in turn, receive more public scrutiny and pressure.

Financial performance

The results discovered associations with sustainability reporting quality with regard to gross profit margin and profit before tax margin, which confirms H2. The relationship is in line with previous studies such as Chen et al., Dilling, Lourenço and Branco, Kansala et al. [8; 14; 31; 27]. It would be sensible to expect that higher gross profit margin could allow companies to have extra resources to undertake and report on sustainability practices without considerable detriment to the bottom lines.

Board gender diversity

The results suggest that the proportion of female member on the boards have positive effects on the quality of sustainability reports, which support H3a. The presence of greater proportion of female members on board would make the companies more stakeholders oriented and better aware about sustainable. If they perceive sustainability practice as strategic CSR can benefit economically and financially companies in long-term as well as enhance the 'corporate citizen' image and hence reputation, they may be encouraged to produce better sustainability reports as an instrumental to signal

the public even when companies are not as good as what they state.

Surprisingly, the result show no significant relationship between the presence of female NED and the quality of sustainability reports, which can not support H3b. This also indicates that chairwoman significantly associates with the indices in a negative manner which contrasts to McGuinnessa et al. (2017). This may partly reflect gender inequality in Vietnam where women's involvement in business is still largely restricted. Using descriptive analysis, there are only 12 and 14 companies have their chair of board and CEO are women respectively in a total population of 99. Moreover, except for some large companies (VNM, REE), most of these companies are small and medium enterprises. Considering tight constraint of capital, technical and human resources, these companies may have many other urgent priorities in order to survive in the competition with larger ones, which frustrates the efforts in sustainability or CSR reporting. In addition, given their size, their potential impacts on the society may be judged to be little than large companies. As a results, they also receive less scrutiny and expectation from the public compared to large ones, which allows them to fulfil only minimum requirements in voluntary disclosure as prevailing requirements (annual reports regulated by circular 155/TT-BTC).

5 CONCLUSIONS

This research aims at providing some empirical evidence on determinants of sustainability reporting quality in Vietnam. A sample of 99 sustainability reports published by listed companies for the year of 2016 was obtained and further analysed by employing content analysis method to construct sustainability reporting index for each company. The study used a wide range of

variables to examine hypotheses developed.

In general, the quality of sustainability reports published by Vietnamese listed corporations is relatively low with limited amount of disclosure. The results point out that sustainability reporting quality does vary across industry sectors with better than average performers operating in financial services and utilities sector.

With regard to financial performance, the research found that gross profit margin significantly positively associates with sustainability reporting quality which supports the results of previous studies.

The findings suggest that chairwoman characteristic correlates in a negative manner. This would point out some issues relating to gender inequality and some unique traits belonging to Vietnamese business practices. In addition, there is a significant positive association between export status and sustainability reporting quality.

To some extent, the study contributes to the understanding of sustainability and CSR reporting practice which is quite new and limited in Vietnam. Those characteristics and relationships explored could be employed to suggest policies'

REFERENCES

- G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15–64.
- [2] Adams, R. B. (2015). Myths and Facts about Female Directors.
- [3] Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291-309
- [4] Al-Shaer, H., & Zaman, M. (2016). Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting & Economics*, 12(3), 210-222.
- [5] Artiach, T., Lee, D., Nelson, D., & Walker, J. (2010). The determinants of corporate sustainability performance. Accounting & Finance, 50(1), 31-51.
- [6] Brammer, S., & Pavelin, S. (2006). Voluntary Environmental Disclosures by Large UK Companies. Journal of Business Finance html-ent glyph="@amp;">ascii="& amp;"/> Accounting, 33(7-8), 1168-1188. doi:10.1111/j.1468-5957.2006.00598.x
- [7] Chan, C.-Y., Chou, D.-W., & Lo, H.-C. (2017). Do financial constraints matter when firms engage in CSR? The North American Journal of Economics and Finance, 39, 241-259. doi:10.1016/j.najef.2016.10.009
- [8] Chen, L., Feldmann, A., & Tang, O. (2015). The relationship between disclosures of corporate social

development relating to reporting standards or guidelines which are vague, incomprehensive and dispersed at present. This may help improve the quality of information provided to a variety of interested stakeholders which subsequently facilitates them in better decision making. Furthermore, gender inequality would indicate some implications requiring not only policy-makers' but also the whole society's attention to encourage greater involvement of women in business.

Despite of those contributions, the study has some limitations. Firstly, due to the restriction in reports' availability, the research was undertaken exclusively for sustainability reports issued for the year of 2016 not a period of time which may result in the findings only reflecting 'snapshots' not trends in time, hence a longitudinal research may reveal more significantly meaningful trends. Secondly, only 99 reports met criteria for further analysing which constrained size of samples. In the future, when popularity of sustainability reporting is extended, larger population would increase the reliability and relevance of findings. Prospect researchers can examine whether higher quality of sustainability or CSR reporting could help the company achieve better performance over time and vice versa.

- performance and financial performance: Evidences from GRI reports in manufacturing industry. *International Journal of Production Economics*, 170, 445-456.
- [9] Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. Accounting, organizations and society, 33(4), 303-327
- [10] Cormier, D., Magnan, M., & Van Velthoven, B. (2005). Environmental disclosure quality in large German companies: economic incentives, public pressures or institutional conditions? *European Accounting Review*, 14(1), 3-39.
- [11] Davies, E. (2011). Women on boards an independent review into women on boards. London: Department for Business Innovation and Skills BIS.
- [12] Deegan, C., Rankin, M., & Tobin, J. (2002). An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory. Accounting, Auditing & Accountability Journal, 15(3), 312-343.
- [13] DiGuilio, L. (2010). The second round of G3 reports: is triple bottom line reporting becoming more comparable? *Journal of Business & Economics Research*, 8(9), 59.
- [14] Dilling, P. F. (2010). Sustainability reporting in a global context: What are the characteristics of corporations that provide high quality sustainability reports-an empirical

- analysis. The International Business & Economics Research Journal, 9(1), 19.
- [15] Dissanayake, D., Tilt, C., & Xydias-Lobo, M. (2016). Sustainability reporting by publicly listed companies in Sri Lanka. *Journal of Cleaner Production*, 129(Supplement C), 169-182. doi:https://doi.org/10.1016/j.jclepro.2016.04.086
- [16] Fuente, J. A., García-Sánchez, I. M., & Lozano, M. B. (2017). The role of the board of directors in the adoption of GRI guidelines for the disclosure of CSR information. *Journal of Cleaner Production*, 141, 737-750. doi:10.1016/j.jclepro.2016.09.155
- [17] Gallo, P. J., & Christensen, L. J. (2011). Firm size matters: An empirical investigation of organizational size and ownership on sustainability-related behaviors. Business & Society, 50(2), 315-349.
- [18] Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science*, 5(2-3), 233-262.
- [19] Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic management journal*, 30(4), 425-445.
- [20] Gul, F. A., Hutchinson, M., & Lai, K. M. (2013). Gender-diverse boards and properties of analyst earnings forecasts. *Accounting Horizons*, 27(3), 511-538.
- [21] Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, 59, 5-21. doi:10.1016/j.jclepro.2013.07.005
- [22] Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, 24(5), 391-430. doi:https://doi.org/10.1016/j.jaccpubpol.2005.06.001
- [23] Higgs, D. (2003). Review of the role and effectiveness of non-executive directors: Stationery Office.
- [24] Isidro, H., & Sobral, M. (2015). The effects of women on corporate boards on firm value, financial performance, and ethical and social compliance. *Journal of business* ethics, 132(1), 1-19.
- [25] Jennifer Ho, L. C., & Taylor, M. E. (2007). An empirical analysis of triple bottom-line reporting and its determinants: evidence from the United States and Japan. *Journal of International Financial Management & Accounting*, 18(2), 123-150.
- [26] Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- [27] Kansal, M., Joshi, M., & Batra, G. S. (2014).

 Determinants of corporate social responsibility disclosures: Evidence from India. Advances in Accounting, 30(1), 217-229. doi:https://doi.org/10.1016/j.adiac.2014.03.009
- [28] Kuzey, C., & Uyar, A. (2017). Determinants of sustainability reporting and its impact on firm value: Evidence from the emerging market of Turkey. *Journal of Cleaner Production*, 143(Supplement C), 27-39. doi:https://doi.org/10.1016/j.jclepro.2016.12.153
- [29] Legendre, S., & Coderre, F. (2013). Determinants of GRI G3 application levels: the case of the fortune global 500.

- Corporate Social Responsibility and Environmental Management, 20(3), 182-192.
- [30] Liu, X., & Anbumozhi, V. (2009). Determinant factors of corporate environmental information disclosure: an empirical study of Chinese listed companies. *Journal of Cleaner Production*, 17(6), 593-600. doi:https://doi.org/10.1016/j.jclepro.2008.10.001
- [31] Lourenço, I. C., & Branco, M. C. (2013). Determinants of corporate sustainability performance in emerging markets: the Brazilian case. *Journal of Cleaner Production*, 57(Supplement C), 134-141. doi:https://doi.org/10.1016/j.jclepro.2013.06.013
- [32] McGuinness, P. B., Vieito, J. P., & Wang, M. (2017). The role of board gender and foreign ownership in the CSR performance of Chinese listed firms. *Journal of Corporate Finance*, 42, 75-99. doi:10.1016/j.jcorpfin.2016.11.001
- [33] Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. *Journal of Cleaner Production*, 149, 874-885.
- [34] Prado-Lorenzo, J.-M., Rodríguez-Domínguez, L., Gallego-Alvarez, I., & García-Sánchez, I.-M. (2009). Factors influencing the disclosure of greenhouse gas emissions in companies world-wide. *Management Decision*, 47(7), 1133-1157.
- [35] Reporting, G. I. (2015). G4 SUSTAINABILITY REPORTING GUIDELINES Reporting principles and standard disclosures
- [36] Reverte, C. (2009). Determinants of Corporate Social Responsibility Disclosure Ratings by Spanish Listed Firms. *J. Bus. Ethics*, 88 (2), 351-366.
- [37] Saeidi, S. P., Sofian, S., Saeidi, P., Saeidi, S. P., & Saaeidi, S. A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of business research*, 68(2), 341-350.
- [38] Sotorrío, L. L., & Sánchez, J. L. F. (2010). Corporate social reporting for different audiences: the case of multinational corporations in Spain. Corporate Social Responsibility and Environmental Management, 17(5), 272-283
- [39] Stanny, E., & Ely, K. (2008). Corporate environmental disclosures about the effects of climate change. Corporate Social Responsibility and Environmental Management, 15(6), 338-348.
- [40] Wuttichindanon, S. (2017). Corporate social responsibility disclosure—choices of report and its determinants: Empirical evidence from firms listed on the Stock Exchange of Thailand. Kasetsart Journal of Social Sciences.
- [41] Ziegler, A., & Schröder, M. (2010). What determines the inclusion in a sustainability stock index?: A panel data analysis for european firms. *Ecological Economics*, 69(4), 848-856.

Các nhân tố ảnh hưởng đến báo cáo phát triển bền vững: Nghiên cứu thực nghiệm các công ty niêm yết tại Việt Nam

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Tóm tắt—Nghiên cứu này nhằm xác định các nhân tố ảnh hưởng đến báo cáo phát triển bền vững của các công ty niêm yết tại Việt Nam. Tác giả đã: xây dựng bộ chỉ số đánh giá chất lượng các báo cáo phát triển bền vững; áp dụng bộ chỉ số để đánh giá tất cả các báo cáo phát triển bền vững của các công ty niêm yết tại Việt Nam năm 2016 (99 công ty); xây dựng mô hình hồi quy chỉ ra các nhân tố ảnh hưởng đến báo

cáo phát triển bền vững. Kết quả nghiên cứu cho thấy qui mô doanh nghiệp, lợi nhuận gộp, doanh nghiệp có hoạt động xuất khẩu là các nhân tố ảnh hưởng tích cực đến báo cáo phát triển bền vững.

Từ khóa—Phát triển bền vững, báo cáo phát triển bền vững, GRI, kết quả hoạt động tài chính, các công ty niêm yết, Việt Nam...