# Corporate Governance And Sustainability Reporting : A Literature Review

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### Abstract

Purpose - These research objectives to get an overview of the corporate governance's impact on sustainability reporting through a systematic literature review.

Methodology - The review method was conducted qualitatively through SLR in mapping existing research, with a sample of 62 articles published in 2012-2020.

Findings - The findings provide three categories for how corporate governance affects sustainability reporting. Board characteristics consist of 5 variables (board size, board independence, board meeting, CEO duality, CSR committee), board diversity consists of 7 variables (community influential member, board age, board expertise, board incentives, board education, board nationality and gender diversity), and the audit committee characteristics consists of 4 variables (audit committee expertise, audit committee size, audit committee independence, audit committee meetings).

Research limitations – Since the subject of the study is major corporations, the findings cannot be generalized, however they will be the same for other study subjects like micro, small, and medium-sized businesses.

\* Politeknik Negeri Sriwijaya, Indonesia, siskaaprianti@polsri.ac.id \*\* Sriwijaya University, Indonesia, Didiksusetyo@unsri.ac.id \*\*\* Sriwijaya University, Indonesia, inten26@gmail.com \*\*\*\*Sriwijaya University, Indonesia, lukluk\_fuadah@unsri.ac.id Originality - The research focuses on how corporate governance affects sustainability reporting and generates a thorough report on the predictor variables of sustainability reporting and its measurements in order to shed light on future sustainability reporting aspects..

**Keywords:** Sustainability Reporting, Corporate Governance, Board Characteristics, Audit Committee

JEL classification: G30, M14, M40

### 1. Introduction

Sustainability reporting (SR) is an organization's accessible reporting procedure on its effects on the economy, the environment, and society, as well as how well it contributes to the goals of sustainable development (GRI 101, 2016). The data provided by SR is crucial in promoting corporate reporting that is transparent and accountable. Because natural sustainability reporting process of the entity will do significant identification of three conditions, economy (profit), environment (planet), and society (people), and conduct disclosures according to internationally recognized norms. Internal and external stakeholders can create views and decisions on the company's participation in sustainability objectives using the SR information.

Sustainability reporting is an interesting topic for further research. Many studies were conducted by previous researchers, both focusing on one segment e.g environmental segment (Akbas, 2016; Al-shaer & Zaman, 2018; De Villiers et al., 2011; Fernandes et al., 2019; Giannarakis et al., 2020; Grace & Odoemelam, 2018; Masud et al., 2018; Odoemelam & Okafor, 2018; Trireksani & Djajadikerta, 2016) or three segments, economy, environment and society (Aboud & Diab, 2018; A. Buallay, 2019; Coulmont et al., 2015; Dyck et al., 2019; Gnanaweera & Kunori, 2018; Sar, 2018; Stötzer, 2015).

The factors which encourage companies to do SR are still diverse. Hahn & Kühnen (2013) research indicates SR determinants are divided into 2, internal determinants (company size, financial performance, and social and environmental performance) and external determinants

(company visibility, affiliated sector, country of origin, legal requirements). Dienes et al. (2016) found 7 determinants (company size, profitability, capital structure, media visibility, corporate governance, ownership structure, and company age) that operationalized in 33 variables have relevance to SR. Meanwhile, Beasy & Gale, (2020) found that board diversity (gender, board independence, board size, and board duality) influenced SR.

This research re-examines the driving factors of SR, using SLR method refering to Hahn & Kühnen's (2013), Dienes et al. (2016), and Beasy & Gale (2020). The difference is, Dienes et al. (2016) examined all the driving factors of SR only if the variable was found to have been studied in the articles at least 3 times, with a sample of 48 articles published in 2000-2015. Beasy & Gale (2020) analyzed 45 articles published from 2009-2019 with a variable focus on board diversity. While the study concentrated on how corporate governance affected SR, using 62 samples of articles published in the period 2012 - 2020.

### 2. Literature Review

A Literature review aims to report trends, relationships, consistencies, and gaps so that work is done in an organized and evaluated manner (Hahn & Kühnen, 2013). According to Morioka et al. (2018), the SLR process is made by three steps: planning, implementation, and dissemination of results. The first step involves planning an SLR by determining the big topics of the SLR. The second step of implementation is carried out through a series of activities conducting examination and evaluation of the articles obtained, to adjust the selected theme in connection with the SLR. The third is present the sample data descriptively, either in the form of an image or tables.

SLR is done to answer the question of whether SR is impacted by corporate governance. How is corporate governance driving SR measured? The article is presented in 4 parts, the first is the introduction, the second is the research methodology, the third result and the discussion that presents information related to mapping based on the article source, year of publication, the object of article research, and the influence of corporate governance on SR, the last part is a conclusion.

### 3. Research Framework

The SLR process is carried out in three steps, the first exploration of literature by electronic searching in four randomly selected databases, Google Scholar, PreQuest, Science Direct, and Emerald Insight using the keywords "sustainability report", "sustainability disclosure" and "sustainability performance". The process of selecting and evaluating articles adopts Beasy & Gale (2020), such as in Figure 1. The search is conducted in stages, with a deadline of February 2021. The article is downloaded, then filtered to assess whether it is relevant to the SR topic. Review is not only limited to abstracts, but also methodologies for obtaining variable data used, how measurements and results. The article filtering process uses certain criteria, with the year of publication in 2012-2020. The year 2012 was chosen as the starting year, to continue Hahn & Kühnen (2013) which used sample articles from 1999 to 2011. In addition, SLR is done on articles in English and can be downloaded intact, for example has a word extension or pdf (print document file). Articles in the form of abstracts or books are excluded from the sample. In addition, duplicate articles are also eliminated.

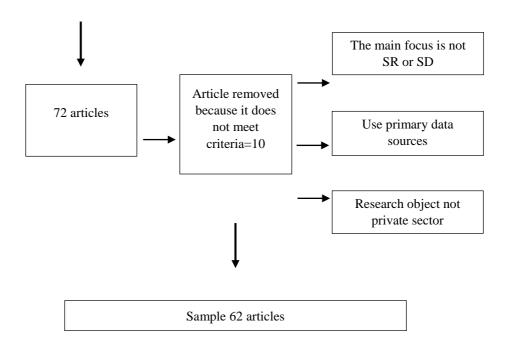
Second, the arrangement of articles according to the criteria in the form of mapping so that structured information is obtained. Articles with different dependent variables such as an integrated report, focusing on environmental disclosure or on corporate social responsibility disclosure were excluded, as well as when duplicate articles occur. So it produced a final sample of 62 articles. Third, presents a sample descriptively covering an overview of the article's source, the year it was published, and the topic of the study. Then the synthesis and evaluation of data resulted in this paper.

Exploration of factors that affect the Sustainability Report/Sustainability Disclosure

Available on electronic database of Google Scholar, Proquest, Science Direct and Emerald Insight.

- Empirical quantitative research articles, published in 2012-2020
- In English

<sup>•</sup> Main focus: a sustainability report's or disclosure's relationship to corporate governance



Source: Beasy & Gale (2020)

Figure 1: Literature Review Research Methodology

### 4. Discussion

### 4.1 Distribution by Source

The 62 articles reviewed come from various sources as presented in Table 1. According to Table.1, the top three most frequently published SR research, first *Journal of Cleaner Production* with the publication of 6 articles. Second with 5 articles is the Sustainability (Switzerland) Journal, an international journal that provides an advanced forum for research related to sustainability both environmental, cultural, economic, and social human or sustainable development. While the third with 4 articles is *Social Responsibility Journal*. Judging from the scope and focus, sustainability articles are more likely to be published in journals that are already concerned with sustainability issues.

## Table 1: Number of Sample Articles

N.	g	Number of	%
No	Source	Articles	Articles
1	Accounting, Finance, Sustainability, Governance & Fraud	1	2%
2	Asian Journal of Accounting and Governance	1	2%
3	Asian Journal of Multidisciplinary Studies	1	2%
4	Asian Review of Accounting	1	2%
5	Business Strategy and the Environment	1	2%
6	Corporate Governance (Bingley),	1	2%
7	Energy Policy	1	2%
8	Environmental Science and Pollution Research	1	2%
9	European Journal of Scientific Research	1	2%
10	Global Business & Management Research International	2	3%
	Journal		
11	Indonesian Journal of Sustainability Accounting and	1	2%
	Management		
12	International Journal of Academic Research in Business and	1	2%
	Social Science		
13	International Journal of Accounting, Finance and Business	1	2%
	(IJAFB		
14	International Journal of Agriculture and Economic	1	2%
	Development		
15	International Journal of Applied Economics, Finance and	1	2%
	Accounting		
16	International Journal of Commerce and Finance	1	2%
17	International Journal of Energy Economics and Policy	2	3%
18	International Journal of Engineering and Technology (UAE)	1	2%
19	International Journal of Ethics and Systems	1	2%
20	International Journal of Law and Management	1	2%
21	International Journal of Research in Business and Social	1	2%
	Science		

	amount	62	100%
45	International Conference	3	5%
44	Sustainability Accounting, Management and Policy Journal	2	3%
43	Sustainability Journal (Switzerland)	5**	8%
	Business		
42	Sriwijaya International Journal of Dynamic Economics and	1	2%
41	South East Asia Journal of Contemporary Business, Economics and Law	1	2%
40	Social Responsibility Journal	4***	6%
39	Serbian Journal of Management	1	2%
38	Scientific Papers of the University of Pardubice	1	2%
37	Science & Technology Development	1	2%
36	Review of Business Management	1	2%
35	Procedia Economics and Finance	1	2%
34	Procedia - Social and Behavioral Sciences	1	2%
33	Pakistan Journal of Commerce and Social Science,	1	2%
32	Pacific Accounting Review	1	2%
31	Meditari Accountancy Research	1	2%
30	Journal of Management and Governance	1	2%
29	Journal of Economics, Management and Social Sciences	1	2%
28	Journal of Cleaner Production	6*	10%
27	Journal of Business Research	1	2%
26	Journal of Business Ethics	1	2%
25	Journal of Asian Finance, Economics and Business	1	2%
24	Journal of Applied Accounting Research	1	2%
23	Izvestiya Journal of the University of Economics – Varna	1	2%
22	International Journal of Sustainable Strategic Management,	1	2%

Note: Google Scholar, Prequest, Science Direct and Emerald Insight

### 4.2 Distribution by Year of Publication

Figure 1 shows the largest sample distribution was in 2019 with 19 articles, in 2020 of 14 articles, and 13 articles published in 2018. In 2020 only 14 articles, probably due to the author downloading the last article in February 2021, at which time some articles " accepted" by the end of 2020 have not been published.

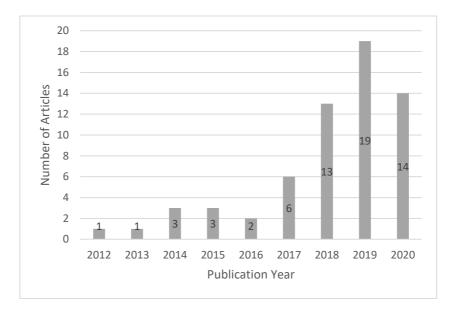


Figure 2: Distribution by Year of Publication

### **4.3. Distribution by Research Object**

The majority of articles feature stock exchange-listed firms as their primary study subject. Some come from all industrial sectors, and some come from one industry sector such as manufacturing, oil and gas, or banking. In the review, the author was unable to map the research based on whether the research was conducted in a particular sector. This is due to the limited information presented in each article. The research objects used also vary. As presented in Figure 2, 49 articles (79%) used research objects from one country, and the remaining 13 articles (21%) used more than one state as research objects.

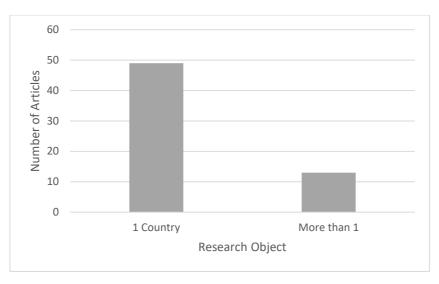


Figure 3: Distribution by Research Object

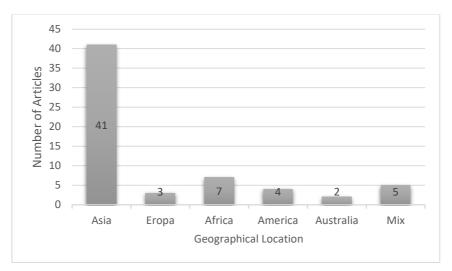


Figure 4: Distribution by Geographical Location

In Figure 3, most of the research was done in Asia. 41 articles are using a sample in Asia, 7 articles on the African continent, 4 articles in the Americas, 3 articles on the European continent, 2 articles on the Australian continent, and 5 articles use sample mixed countries from several continents for analysis. Analysis of a combination of countries from several continents e.g. Continents Europe, Latin America, North America, Caribbean, Oceania, Africa, and Asia (Karaman et al., 2018). Asia and Australia consist of Korea, India, Japan, Malaysia, China, Australia, Taiwan, New Zealand, Indonesia, Philippines, Singapore and Thailand (Amran et al., 2013). America and Europe (Michelon & Parbonetti, 2012). 28 countries in the region of 5 Continents region, namely the United States, South America, Canada, United Kingdom,

Orazalin, 2017; Z. Mahmood et

al., 2018; Mascena et al., 2020;

Munir et al., 2019; Raquiba &

Kuzey, 2020; Mudiyanselage,

Ishak, 2020; Wang, 2017)

(Bae et al., 2018; Kılıç &

2018; Shamil et al., 2014)

(Jouha, 2015)

(Naciti, 2019)

Europe, South Africa, Australia, and Asia (Chams & Blandon, 2019). Countries in the Continent of Africa, Asia, Europe, Latin America, North America, and Oceania (Naciti, 2019).

### 4.4 Corporate Governance Effect on Sustainability Reporting

Natural log number of directors

Board independent

"0" if the majority of board

100 if two or more are

independent

members are not independent,

Independence

Board

Based on the SLR that has been done, the corporate governance's impact on SR is divided into 3 namely board characteristics, board diversity, and audit committee characteristics.

Independent	Measurement	Result	Author
Variable			
Board size	Number of board members	+	(Alotaibi et al., 2019; Janggu et
			al., 2014)
	Number of directors	+	(Awodiran, 2019; Bello &
			Abdul-Manaf, 2017; Chams &
			Blandon, 2019; Ganesan et al.,
			2019; Garcia et al., 2020;
			Hashim et al., 2015; Hu &
			Loh, 2018; Husted & Sousa-
			Filho, 2019; Khalili & Azwan,
			2020; M. Mahmood &

Table 2: Sy	vstematization	of Board	Characteristics	Variables
	ystomatization	or Dourd	Characteristics	v an autores

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	Number of independent	+	(Hashim et al., 2015; Khalili &
	directors		Azwan, 2020; Raquiba &
			Isaac, 2020)
	Percentage of board members	+	(Özcan, 2020)
	from outside		
	Percentage of independent	+	(Alotaibi et al., 2019;
	directors		Awodiran, 2019; Ganesan et
			al., 2019; Hu & Loh, 2018;
			Hussain et al., 2018; Husted &
			Sousa-Filho, 2019; Mahmood
			et al., 2018; Nguyen &
			Nguyen, 2020)
	Proportion of independent	-	(Mahmood & Orazalin, 2017)
	directors	+	(Arayssi et al., 2020; Bello &
			Abdul-Manaf, 2017; Mascena
			et al., 2020; Mudiyanselage,
			2018; Ong & Djajadikerta,
			2018; Wang, 2017).
Board	Number of board meetings	+	(Alotaibi et al., 2019; Hu &
Meeting			Loh, 2018; Hussain et al.,
			2018; Munir et al., 2019;
			Raquiba & Ishak, 2020;
			Sunday et al., 2019)
		-	(Bello & Abdul-Manaf, 2017;
			Hardika et al., 2018)
CEO Duality	"1" if CEO holds chairman	+	(Ganesan et al., 2017; Munir et
	position, "0" otherwise		al., 2019; Shamil et al., 2014;
			Wang, 2017)
	Number of directors who	+	(Anazonwu et al., 2018)
	serving on more board		

	"1" if the CEO is concurrently	-	(Arayssi et al., 2020; Chams &
	chairman of board directors, "0"		Blandon, 2019; Hussain et al.,
	otherwise		2018; Husted & Sousa-Filho,
			2019; Khanh & Tuan, 2018)
	"0" if the CEO and chairman are	+	(Naciti, 2019)
	the same person, "100"		
	otherwise		
CSR	"1" has a Social Responsibility	+	(Amran et al., 2013; Arayssi et
Committee	Committee, "0" otherwise.		al., 2020; Awodiran, 2019;
			Hussain et al., 2018; Kılıç &
			Kuzey, 2020; M. Mahmood &
			Orazalin, 2017; Z. Mahmood et
			al., 2018)
	Number of active committees in	+	(Chams & Blandon, 2019).
	the company		
	The ratio of the total score given	+	(Jamil et al., 2020)

### a. The Board Characteristics

Table 2 shows the board characteristic variables that affect SR, along with its measurements. The findings of 21 articles showed that board size variables can be operationalized through 3 measurements, and all three proved to have a positive influence on SR consistently. 7 articles found board size variables did not effect on SR (Amran et al., 2013; Arayssi et al., 2020; Bhatia & Tuli, 2017; Fuadah et al., 2019; Ganesan et al., 2017; Hussain et al., 2018; Khanh & Tuan, 2018). And 3 articles used board size variables as control variables (AA Zaid et al., 2020; Michelon & Parbonetti, 2012; Umukoro et al., 2019).

The findings of 19 articles demonstrated that board independence had a favorable impact on SR., on the contrary, 2 articles found board independence had an unfavorable effect on SR. While Munshi & Dutta (2016), Ganesan et al. (2017), Jamil et al. (2020), Amran et al. (2013),

Garcia et al. (2020), Karaman et al. (2018), Michelon & Parbonetti (2012), Shamil et al. (2014) did not prove a connection between SR and board independence..

6 articles prove boards meeting had a positive effect on SR, in turn, 2 articles prove a negative effect. While Hidayah et al. (2019) and Khalili & Azwan (2020) did not find a relationship between board meetings with SR, while Hussain et al. (2018) found a positive influence between a board meeting and social disclosures but found no relationship between board meeting with disclosures in the economic and environmental fields.

6 articles prove a positive relationship between duality CEOs towards SR, on the contrary, 5 articles found a negative relationship direction. Ganesan et al. (2019), Hu & Loh (2018), Khalili & Azwan (2020), Michelon & Parbonetti (2012), Mudiyanselage (2018), and Munshi & Dutta (2016) found no relationship between duality CEOs to SR. Hussain et al. (2018) found that the duality of CEOs had no effect on SR disclosure in the economic and social fields, but negatively impacted environmental disclosure.

9 articles' findings demonstrate that the CSR committee attribute has a favorable impact on SR, while Chams & Blandon (2019) and Michelon & Parbonetti (2012) did not find any influence between the CSR committee variable and SR. Hussain et al. (2018) found the existence of sustainability committees had an influence on environmental and social disclosure but had no effect on economic disclosure.

### **b.** The Board Diversity

Independe	Measurement	Res	Author
nt Variable		ult	
Community	Proportion of influential board of directors	+	(Michelon &
influential	members in community		Parbonetti, 2012)
members	Board designation	+	Janggu et al. (2014)

 Table 3: Systematization of The Board Diversity Variables

Independe	Measurement	Res	Author
nt Variable		ult	
Board of	Average age of directors; Young BOD is	+	(Chams & Blandon,
Directors	% of directors under 45 years old, and old		2019)
age	BOD is % of directors over 70 years old.		
	"1" if the board directors average age are	-	(Musa et al., 2020)
	less than 60 years, "0" otherwise		
Educational	Number of Directors with a Higher	+	(Umukoro et al., 2019)
Background	Education Certifications		
	"1" if the board director has a second/third	-	(Musa et al., 2020)
	degree, "0" otherwise		
Director	Participation in professional institutions	+	(Janggu et al., 2014)
Expertise/S	Percentage of board directors experience in	+	(Jamil et al., 2020)
kills/Profess	sustainability		
ionalism	Number of board directors trainings in	+	
	sustainability		
Board	"1" if the company's executive director	+	(Hu & Loh, 2018)
Incentive/	remuneration package includes incentives		
Compensati	based on performance over one year, "0"		
on	otherwise.		
	Total compensation given to board of	+	(Alotaibi et al., 2019)
	directors		
	Natural logarithm of total compensation	+	(Sunday et al., 2019)
	paid to directors a year.		
	% attendance meeting of compensation	+	(Munir et al., 2019)
	committee		
	% independent directors on the	+	(Munir at al. 2010)
	compensation committee		(Munir et al., 2019)
Ethnicity	Blau foreign ; Blau index of nationality		(Kilia & Kuzay 2020)
Board	diversity	-	(Kılıç & Kuzey, 2020)
	Proportion of foreign directors	-	(Kılıç & Kuzey, 2020)

Independe	Measurement	Res	Author
nt Variable		ult	
	Number of foreign board	+	(Chams & Blandon, 2019; Sunday et al.,
			2019)
	% foreign directors on the board	+	(Bae et al., 2018; Musa et al., 2020)
	Subsidiaries / total foreign subsidiaries.	+	(Garcia et al., 2020)
Gender	Number of female directors	+	(Bello & Abdul-Manaf, 2017; Chams & Blandon, 2019)
	Proportion of female board members	+	<ul> <li>(Anazonwu et al., 2018;</li> <li>Arayssi et al., 2020;</li> <li>Khalili &amp; Azwan, 2020;</li> <li>Khanh &amp; Tuan, 2018;</li> <li>Z. Mahmood et al.,</li> <li>2018; Ong &amp;</li> <li>Djajadikerta, 2018)</li> <li>(Husted &amp; Sousa-Filho,</li> <li>2019; Wiryania et al.,</li> <li>2019);</li> </ul>
		-	(Shamil et al., 2014)
	"1" if female directors presence on the board, "0" otherwise.	+	<ul><li>(Abu Bakar et al., 2019;</li><li>M. Mahmood &amp;</li><li>Orazalin, 2017;</li><li>Mudiyanselage, 2018)</li></ul>
	"0" if the majority of board members are from the same nation as the company and the majority are not women; "100" if at least two thirds of the board members are	+	(Naciti, 2019)

Independe	Measurement	Res	Author
nt Variable		ult	
	from nations other than the company and		
	at least two thirds of the board are women.		

Table 3 shows independent factors and how they are measured concerning SR. The findings of 2 articles show that community influential members have a positive effect on SR. BOD age and educational background variables show inconsistencies in the direction of the relationship towards SR, the research findings show the positive and negative relationship directions respectively in one article. On the contrary, the director expertise/skills/professionalism variable shows a positive and consistent relationship direction in 3 research results. In line with that, board incentives/compensations found a positive effect on SR in 4 articles. The board ethnicity variable showed results, not in the same direction, 5 research findings showed a positive influence and 2 studies found a negative influence. 22 articles looking at how SR is affected by board gender diversity. Using 4 proxy measurements, a favorable correlation between board gender diversity and SR was found in 11 papers, while a negative correlation was found in 3 articles.

### c. The Audit Committee Characteristics

Independent	Measurement	Result	Author
Variable			
AC Size	Number of audit committee	+	(Buallay & Al-Ajmi, 2019;
	members		Buallay & AlDhaen, 2018)
AC	Amount of independent audit	+	(Buallay & Al-Ajmi, 2019;
Independence	committee		Buallay & AlDhaen, 2018)
	% independent directors on the	+	(Munir et al., 2019)
	audit committee		
	Proportion of independent non-	+	(Said et al., 2020)
	executive directors		

**Table 4:** Systematization of The Audit Committee Characteristic Variables

AC Meetings	Number of audit committee	+	(Buallay & Al-Ajmi, 2019;
	meetings		Buallay & AlDhaen, 2018;
			Hidayah et al., 2019; Musa et
			al., 2020)
		-	(Hardika et al., 2018)
	% audit committee attendance	+	(Munir et al., 2019)
AC Expertise	Number of members who have	-	(Buallay & Al-Ajmi, 2019;
	more than 5 years of experience		Buallay & AlDhaen, 2018)
	as an audit committee member		

Table 4 describes characteristics of the audit committee (AC) that have an impact on SR are AC size, AC independence, AC meetings, and AC expertise. The findings of 2 articles show the audit committee size with the proxy number of audit committee members has a positive effect on SR. Using 3 different proxies, 4 articles revealed the same conclusion: SR was enhanced by AC independence. Instead, Sunday et al. (2019) found no influence between the proportion of independent directors in the audit committee to SR. 5 articles found that audit committee meetings with a proxy number of audit committee meetings in a year, proved to have a positive influence on SR. In turn, Hardika et al. (2018) found a negative influence. The audit committee expertise variable presented a negative effect on SR in 2 articles.

### 5. Conclusion

The results showed corporate governance that affects SR is divided into 3, attributes of the board consisting of 5 variables (board size; board independence; board meeting; CEO duality; CSR committee). Board's diversity consists of 7 variables (community influential members; board age; board expertise; board incentives; board education; board nationality and gender diversity). the audit committee attributes consist of 4 variables (audit committee expertise; audit committee size; audit committee independence; audit committee meeting). The board size variables, CSR committee, board expertise, board incentives, audit committee expertise, and audit committee size show the direction of a positive relationship towards SR consistently. While the variables of board independence, board meetings, and CEO duality, board age, board

education, ethnic board, board diversity, audit committee independence, and audit committee meetings show the direction of inconsistent relationships thus providing further research opportunities to ensure the direction of the relationship between these variables to SR.

This article has limitations, first in this SLR's findings of the sample articles concluded as SR drivers if the variable has a significant influence on SR, although in reality such influences are found only in 1 article. Further research would be better if considering certain criteria when determining driver variables, for example limiting the amount of consistency of research findings in research, so that it's more represented and scientifically tested. Second, in the sample collection process, some sample articles lead to disclosures of the economic, social, and government (ESG) fields rather than on the economic, social, and environmental. However, researchers still include it as a sample because the topic of discussion led to SR. Future research should be done consistently, namely issuing sample papers that are less focused on the economic, social, and environmental fields so that the results of the research will be more objective and not subjective. Third, the focus of this research is on the object of research in large companies so that the research results cannot be generalized. It would be interesting if the next SLR used different research objects for example focusing on micro, small and medium enterprises to find out if the factors that affect SR will be the same. Lastly, the keywords in the sample article search are only 3 keywords. Further research should use more diverse keywords, so it is expected that the sample paper obtained will be larger and more varied.

### References

Aboud, A., & Diab, A. (2018). The impact of social, environmental and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*.

Bakar, A. B. S. A., Ghazali, N. A. B. M., & Ahmad, M. B. (2019). Sustainability reporting and board diversity in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 9(3), 91-99.

Akbas, H. E. (2016). The relationship between board characteristics and environmental

disclosure: Evidence from Turkish listed companies. South East European Journal of Economics and Business (Online), 11(2), 7.

Al-Shaer, H., & Zaman, M. (2018). Credibility of sustainability reports: The contribution of audit committees. *Business strategy and the environment*, 27(7), 973-986.

Alotaibi, M. Z., Aburuman, N. M., & Hussien, L. F. (2019). The impact of board characteristics on the level of sustainability practices disclosure in Jordanian commercial banks listed on the ASE. *European Journal of Scientific Research*, *153*(4), 353-363.

Zorio, A., García-Benau, M. A., & Sierra, L. (2013). Sustainability development and the quality of assurance reports: Empirical evidence. *Business strategy and the environment*, 22(7), 484-500.

Anazonwu, H. O., Egbunike, F. C., & Gunardi, A. (2018). Corporate board diversity and sustainability reporting: A study of selected listed manufacturing firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management*, 2(1), 65-78.

Arayssi, M., Jizi, M., & Tabaja, H. H. (2020). The impact of board composition on the level of ESG disclosures in GCC countries. *Sustainability Accounting, Management and Policy Journal*, *11*(1), 137-161.

Awodiran, M. A. (2019). Corporate governance and sustainability disclosure: Evidence from listed industrial goods firms in Nigeria. *Journal of Economics, Management and Social Sciences*, *5*, 2616-1141.

Bae, S. M., Masud, M. A. K., & Kim, J. D. (2018). A cross-country investigation of corporate governance and corporate sustainability disclosure: A signaling theory perspective. *Sustainability*, *10*(8), 2611.

Beasy, K., & Gale, F. (2020). Disrupting the status-quo of organisational board composition to improve sustainability outcomes: Reviewing the evidence. *Sustainability*, *12*(4), 1505.

Baba, B. U., & Abdul Manaf, K. B. (2017). Board governance mechanisms and sustainability disclosure: A moderating role of intellectual capital. *Asian Journal of Multidisciplinary* 

*Studies*, *5*(10), 163-189.

Bhatia, A., & Tuli, S. (2017). Corporate attributes affecting sustainability reporting: an Indian perspective. *International Journal of Law and Management*, *59*(3), 322-340.

Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, *30*(1), 98-115.

Hassan, A., & Guo, X. (2017). The relationships between reporting format, environmental disclosure and environmental performance: An empirical study. *Journal of Applied Accounting Research*, *18*(4), 425-444.

Buallay, A. M., & AlDhaen, E. S. (2018). The relationship between audit committee characteristics and the level of sustainability report disclosure. In *Challenges and Opportunities in the Digital Era: 17th IFIP WG 6.11 Conference on e-Business, e-Services, and e-Society, 13E 2018, Kuwait City, Kuwait, October 30–November 1, 2018, Proceedings 17* (pp. 492-503). Springer International Publishing.

Chams, N., & García-Blandón, J. (2019). Sustainable or not sustainable? The role of the board of directors. *Journal of cleaner production*, 226, 1067-1081.

Songini, L., & Pistoni, A. (Eds.). (2015). Sustainability disclosure: State of the art and new directions.

De Villiers, C., Naiker, V., & Van Staden, C. J. (2011). The effect of board characteristics on firm environmental performance. *Journal of Management*, *37*(6), 1636-1663.

Fischer, D. D. R. S. J. Sustainability Accounting, Management and Policy Journal.

Suganthi, L. (2019). Examining the relationship between corporate social responsibility, performance, employees' pro-environmental behavior at work with green practices as mediator. *Journal of cleaner production*, 232, 739-750.

Fernandes, S. M., Bornia, A. C., & Nakamura, L. R. (2018). The influence of boards of directors

on environmental disclosure. Management Decision.

Fuadah, L. L., Safitri, R. H., & Yuliani, Y. (2019). Factors Influencing Financial Performance Through Sustainability Reporting in Indonesia. *Sriwijaya International Journal Of Dynamic Economics and Business*, *3*(1), 53-72.

Ganesan, Y., Hwa, Y. W., Jaaffar, A. H., & Hashim, F. (2017). Corporate governance and sustainability reporting practices: the moderating role of internal audit function. *Global Business and Management Research*, 9(4s), 159-179.

Ganesan, Y., Poongan, V., & Haron, H. (2019). Is a risk management committee essential in moderating the relationship between corporate governance and sustainability disclosure?. *International Journal of Sustainable Strategic Management*, *7*(1-2), 152-171.

Plata, L. G., Ramos, C. G., Oliveira, M. L. S., & Oliveira, L. F. S. (2021). Release kinetics of multi-nutrients from volcanic rock mining by-products: Evidences for their use as a soil remineralizer. *Journal of Cleaner Production*, 279, 123668.

Tarno, H., Qi, H., Endoh, R., Kobayashi, M., Goto, H., & Futai, K. (2011). Types of frass produced by the ambrosia beetle Platypus quercivorus during gallery construction, and host suitability of five tree species for the beetle. *Journal of Forest Research*, *16*(1), 68-75.

Gnanaweera, K. A. K., & Kunori, N. (2018). Corporate sustainability reporting: Linkage of corporate disclosure information and performance indicators. *Cogent Business & Management*, *5*(1), 1423872.

Odoemelam, N., & Ofoegbu, G. (2018). Corporate board characteristics and environmental disclosure quantity: a comparative analysis of traditional and integrated reporting evidence.

Maharani, A., & Rozzaid, Y. The Effect Of Disclosure CSR GRI-On Market Reaction In Listed Energy Based Companies In Indonesia.

Onwuka, G. (2021). Determinants of sustainability reporting: A review of literature. *Journal of Social and Administrative Sciences Studies*, *5*(1), 89-105.

Hardika, A. L., Manurung, D. T., & Mulyati, Y. (2018). Corporate governance mechanism, company size financial performance and sustainability reporting. *International Journal of Engineering & Technology*, 7(4.34), 201-203.

Hashim, F., Mahadi, N. D., & Amran, A. (2015). Corporate governance and sustainability practices in Islamic financial institutions: the role of country of origin. *Procedia Economics and Finance*, *31*, 36-43.

Hidayah, N., Badawi, A., & Nugroho, L. (2019). Factors affecting the disclosure of sustainability reporting. *International Journal of Commerce and Finance*, *5*(2), 219-229.

Hu, M., & Loh, L. (2018). Board governance and sustainability disclosure: A cross-sectional study of Singapore-listed companies. *Sustainability*, *10*(7), 2578.

Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *The business lawyer*, 59-77.

Husted, B. W., & de Sousa-Filho, J. M. (2019). Board structure and environmental, social, and governance disclosure in Latin America. *Journal of Business Research*, *102*, 220-227.

Jamil, A., Mohd Ghazali, N. A., & Puat Nelson, S. Scopus-Print Document https://www. scopus.com/citation/print.uri?origin=recordpage&sid= &sr...

Janggu, T., Darus, F., Zain, M. M., & Sawani, Y. (2014). Does good corporate governance lead to better sustainability reporting? An analysis using structural equation modeling. *Procedia-Social and Behavioral Sciences*, *145*, 138-145.

Jouha, F. (2015). Effect of corporate governance on corporate financial and market performance with sustainability reporting as intervening variable. *Science Journal of Economics*, 2015.

Karaman, A. S., Kilic, M., & Uyar, A. (2018). Sustainability reporting in the aviation industry: worldwide evidence. *Sustainability Accounting, Management and Policy Journal*.

Khalili, M. I. B. K. A., & Azwan, B. A. R. (2020). Board Composition and Characteristics ' Effect on the Quality of Sustainability Reporting Among Companies in Malaysia. *Global*  Business and Management Research: An International Journal, 12(4), 278–296.

Khanh, H. T. M., & Tuan, N. A. (2018). Determinants of sustainability reporting: An empirical research on Vietnamese Listed companies. *VNUHCM Journal of Economics, Business and Law*, *2*(2), 62-73.

Kılıç, M., & Kuzey, C. (2020). The influence of board structure on GRI-based sustainability reporting: Evidence from Turkish listed companies. *Ethics, Governance and Risk Management in Organizations*, 109-129.

Cheng, H., Chen, C., Wu, S., Mirza, Z. A., & Liu, Z. (2017). Emergy evaluation of cropping, poultry rearing, and fish raising systems in the drawdown zone of Three Gorges Reservoir of China. *Journal of Cleaner Production*, *144*, 559-571.

Mahmood, Z., Kouser, R., Ali, W., Ahmad, Z., & Salman, T. (2018). Does corporate governance affect sustainability disclosure? A mixed methods study. *Sustainability*, *10*(1), 207.

Mascena, K. M. C. D., Barakat, S. R., Isabella, G., & Fischmann, A. A. (2020). The Influence of Board Structure and Ownership Concentration on GRI Reporting. *Revista Brasileira de Gestão de Negócios*, 22, 608-627.

Masud, M. A. K., Nurunnabi, M., & Bae, S. M. (2018). The effects of corporate governance on environmental sustainability reporting: Empirical evidence from South Asian countries. *Asian Journal of Sustainability and Social Responsibility*, *3*, 1-26.

Michelon, G., & Parbonetti, A. (2012). The effect of corporate governance on sustainability disclosure. *Journal of management & governance*, *16*, 477-509.

Morioka, S. N., Iritani, D. R., Ometto, A. R., & Carvalho, M. M. D. (2018). Systematic review of the literature on corporate sustainability performance measurement: a discussion of contributions and gaps. *Gestão & Produção*, 25, 284-303.

Mudiyanselage, N. C. S. R. (2018). Board involvement in corporate sustainability reporting: evidence from Sri Lanka. *Corporate Governance: The international journal of business in society*.

Munir, A., Khan, F. U., Usman, M., & Khuram, S. (2019). Relationship between Corporate Governance, Corporate Sustainability and Financial Performance. *Pakistan Journal of Commerce & Social Sciences*, *13*(4).

Munshi, D., & Dutta, S. (2016). Sustainability reporting quality of Indian and American manufacturing firms: A comparative analysis. *Serbian Journal of Management*, *11*(2), 245-260.

Saidu, M., Gold, N., & Aifuwa, H. O. (2020). Board diversity and sustainability reporting: Evidence from industrial goods firms. *MUSA*, *S.*, *GOLD*, *NO*, *AIFUWA*, *HO* (2020). *Board Diversity and Sustainability Reporting: Evidence from Industrial Goods Firms. Izvestiya Journal of Varna University of Economics*, 64(4), 377-398.

Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, 237, 117727.

Nguyen, A. H., & Nguyen, L. H. (2020). Determinants of sustainability disclosure: Empirical evidence from Vietnam. *The Journal of Asian Finance, Economics and Business* (*JAFEB*), 7(6), 73-84.

Odoemelam, N., & Okafor, R. G. (2018). The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management*, 2(1), 25-49.

Odoemelam, N., & Okafor, R. G. (2018). The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management*, 2(1), 25-49.

ÖZCAN, A. (2020). Sustainability Reporting and Corporate Attributes: An Emerging Market Perspective. *Asian Journal of Accounting & Governance*, *14*.

Raquiba, H. (2020). Sustainability reporting practices in the energy sector of Bangladesh. *International Journal of Energy Economics and Policy*.

Said, R. M., AAWIZM, A., & Rashid, N. (2020). Audit committee effectiveness and

sustainability disclosure of Ftse4good bursa Malaysia indexed companies. *International Journal of Accounting*, 5(30), 248-257.

Sar, A. K. (2018). Impact of corporate governance on sustainability: A study of the Indian FMCG industry. *Academy of Strategic Management Journal*, *17*(1), 1-10.

M. Shamil, M., M. Shaikh, J., Ho, P. L., & Krishnan, A. (2014). The influence of board characteristics on sustainability reporting: Empirical evidence from Sri Lankan firms. *Asian Review of Accounting*, 22(2), 78-97.

Greiling, D., Traxler, A. A., & Stötzer, S. (2015). Sustainability reporting in the Austrian, German and Swiss public sector. *International Journal of Public Sector Management*, 28(4/5), 404-428.

Sunday, O. T. U. Y. A., Fidelis, A. K. P. O. R. I. E. N., & Godwin, O. F. E. I. M. U. N. (2019). Influence of companies' governance process on sustainability reporting in Nigeria. *International Journal of Applied Economics, Finance and Accounting*, *5*(1), 31-38.

Trireksani, T., & Djajadikerta, H. G. (2016). Corporate governance and environmental disclosure in the Indonesian mining industry.

Umukoro, O. E., Uwuigbe, O. R., Uwuigbe, U., Adegboye, A., Ajetunmobi, O., & Nwaze, C. (2019, September). Board expertise and sustainability reporting in listed banks in Nigeria. In *IOP Conference Series: Earth and Environmental Science* (Vol. 331, No. 1, p. 012048). IOP Publishing.

Wang, M. C. (2017). The relationship between firm characteristics and the disclosure of sustainability reporting. *Sustainability*, *9*(4), 624.

Wiryani, D. A. S. S. P., Sukoharsono, E. G., & Mardiati, E. (2019). Profitability, feminism of board of directors and corporate sustainability performance: Role of independent board as a moderating variable. *International Journal of Research in Business and Social Science (2147-4478)*, 8(6), 351-356.

Cheng, H., Chen, C., Wu, S., Mirza, Z. A., & Liu, Z. (2017). Emergy evaluation of cropping,

poultry rearing, and fish raising systems in the drawdown zone of Three Gorges Reservoir of China. *Journal of Cleaner Production*, *144*, 559-571.