

## THE EFFECT OF CORPORATE GOVERNANCE AND FIRM'S CHARACTERISTICS ON THE QUALITY OF SUSTAINABILITY REPORTING ON COMPANIES IN INDONESIA

Wijaya TRIWACANANINGRUM<sup>1</sup>, Janice HAMDARI<sup>2</sup>, Savira Sandra PRISCILLA<sup>3</sup>,  
VALERIE<sup>4</sup>

Accounting Department, Faculty of Business School, Pelita Harapan University.

wijaya.tri@uph.edu, janice.hamdari@gmail.com, savirasandra001@gmail.com,  
valeriewidjaja@outlook.com

**ABSTRACT** - This study aims to provide empirical evidence regarding the effect of corporate governance and company characteristics on the quality of sustainability reporting. Where the corporate governance component used is the board size (BD\_SZ), board independence (BD\_ID), and audit committee (AU\_CM) while the characteristic component is the return on assets (ROA), current ratio (CR), leverage (DER) and company size (SIZE). The sampling method using purposive sampling method and for data analysis using multiple regression analysis methods with the help of the SPSS program application. This study uses a sample of 106 companies in Indonesia. Hypothesis testing results show that BD\_SZ and ROA further enhance the quality of sustainability reporting. DER negatively affects the quality of sustainability reporting. Whereas BD\_ID, AU\_CM, CR and SIZE are proven to have no effect on the quality of sustainability reporting.

**Keywords:** *company responsibility, corporate governance, firm's characteristics, quality of sustainability reporting.*

---

### INTRODUCTION

At this time the era of industrial revolution 4.0 is ongoing. The main objectivity to be achieved is to increase the level of effectiveness and efficiency of the company's operations to produce better quality (Ślusarczyk, B., 2018). Professor Klaus Schwab, an inventor and Executive Chairman of the World Economic Forum has great concern that in this era organizations may not be able to adapt, governments can fail to use and regulate new technologies to capture their benefits, shifting power will create new security problems, inequality can grow, and fragmentary societies (Schwab K, 2016). This shows that it is very important for companies to not only focus on financial factors but also non-financial factors so that they can survive in the middle of this era.

Company began to carry out activities that are more beneficial for the environment and social, known as the triple bottom line (3P). Triple bottom line, or 3P, namely profit, people, and planet. Profit, pursue profits for the benefit of shareholders, and pay attention to the interests of stakeholders. People, fulfill people's welfare. Planet, actively participates in protecting the

environment (Global Reporting Initiative, 2015). The 3P concept is considered as a main pillar in building a sustainable business, as well as for realizing sustainable development.

The company's main goal is to stay sustainable. Companies began to use corporate governance and corporate sustainability into business practices with the aim of achieving competitive advantage (Zeeshan Mahmood .; Rehana Kouser .; Waris Ali .; Zubair Ahmad .; Tahira Salman., 2018). The relationship between corporate governance and corporate sustainability is a two-way relationship. Sustainable corporate must be integrated into the company's functions and integrated with all management processes. (Valeria Naciti, 2019). Company is expected to produce long-term sustainable shareholder value and be able to mitigate negative impacts on the environment. (Sahar E-Vahdati, Norhayah Zulkifli, Zarina Zakaria, 2018). Achieving sustainable goals will benefit the private sector, companies will get new business opportunities, as well as the ability to maintain relationships with stakeholders. (Valeria Naciti, 2019).

According to the Global Reporting Initiative (GRI), sustainability reporting is an overview of the company's economic, environmental and social impacts, caused by daily activities. This kind of report that show a company's commitment to a sustainable global economy can help organizations to measure, to understand, and to communicate their economic, environmental, social and governance performance, and then set goal. Sustainability reporting helps to understand and communicate the impact of current issues such as climate change, human rights, governance and social welfare, concrete actions as one of the things to create good social, environmental and economic benefits for everyone. (Global Reporting Initiative, 2016). Indonesian companies have concerns about economic, environmental and social impacts. (Caturida M.D, Dewi, Safira, Salimah Y, Shinta M, 2018). The Global Reporting Initiative (GRI) conveys the importance of publication of sustainability reporting in European countries, but in Indonesia, they are still voluntary. Therefore, awards will be given to companies that implement sustainability reporting as an encouragement to the Indonesian government. (Simbolon, J. and Sueb, 2016).

Therefore, the problem for this research is as follows:

1. Does Board Size affect the quality of Sustainability Reporting for companies in Indonesia?
2. Does Board Independence influence the quality of Sustainability Reporting for companies in Indonesia?
3. Does the Audit Committee affect the quality of Sustainability Reporting for companies in Indonesia?
4. Does profitability affect the quality of Sustainability Reporting for companies in Indonesia?
5. Does the Liquidity affect the quality of Sustainability Reporting for companies in Indonesia?
6. Does Leverage affect the quality of Sustainability Reporting for companies in Indonesia?
7. Does Company Size affect the quality of Sustainability Reporting for companies in Indonesia?

According to Mahmood (2018), large board size has a significant effect on sustainability reporting. Similarly, according to Janggu (2014) board size is the strongest determinant of sustainability reporting. However, this contradicts with the findings of Hussain (2018) which

states that there is no relationship between board size and sustainability dimensions (economic, social, and environment). Seeing this, the researcher formed the hypothesis that:

*H1: Board size has a positive effect on disclosure of sustainability reporting.*

The independence of the company's board of directors is important for the functioning of a board objectively. National stock exchanges (NYSE, Nasdaq, and AMEX) require the entire board of directors of independent registered companies. The independent director has an important role in enhancing the corporate image and ensuring the company is well managed. Lately several studies (Janggu, 2014; Mahmood, 2018) found a positive relationship between board independence and disclosure. Therefore, researchers form the hypothesis that:

*H2: Board independence has a positive effect on disclosure of sustainability reporting.*

According to Karamanou and Vafeas (2002), the effectiveness of the audit committee motivates management to disclose information. Companies are challenged when they are under pressure from stakeholders to disclose information about sustainable practices and corporate social responsibility. Wang (2017) states that the audit committee is positively related to the disclosure of sustainability reporting. Seeing this, the researchers formed the hypothesis that:

*H3: The audit committee has a positive effect on the disclosure of sustainability reporting.*

Profitability is a factor that gives management freedom and flexibility to conduct and disclose social responsibility programs widely. Thus, the higher the level of corporate profitability, the greater will be the disclosure of social information (Munif, 2010). Companies with high levels of performance will increase shareholder value in the process of image building to maintain stakeholder confidence (Widianto, 2011). Based on the description above, the researcher proposes the following hypothesis:

*H4: Profitability has a positive effect on disclosure of sustainability reporting.*

Liquidity ratios are ratios that measure a company's ability to meet its short-term obligations to creditors (Prastowo and Juliaty, 2005). Companies that have a high level of liquidity are considered able to manage their business, resulting in a low level of risk. A company that has a high level of liquidity is a picture of the company's success in paying its short-term obligations on time. This certainly shows a credible company capability so as to create a positive outlook that is firmly attached to the company. Sustainability reporting is one of the ways for companies to show their concern in carrying out social and environmental responsibility. Based on the description above, the researcher proposes the following hypothesis:

*H5: Liquidity has a positive effect on disclosure of sustainability reporting.*

Leverage is the company's ability to meet long-term obligations (Rahardjo, 2005). The higher level of leverage, the higher companies trying to report their profitability. If related to the theory of legitimacy, companies that have a high level of debt have higher financial risks, resulting in decreased external parties trust, therefore it is necessary to disclose information about company’s social responsibility. In achieving high profit, company will reduce costs, including costs for disclosing social responsibility. The process of publishing sustainability reporting requires a long process and costs more to company, therefore many companies choose to reduce the level of disclosure of reports that are still voluntary.

*H6: Leverage has a negative effect on disclosure of sustainability reporting.*

Assets are future economic benefits that may be obtained in the future as a result of transactions or past events (Kieso, 2008). Large-scale companies generally have a greater amount of assets compared to small-scale companies. Sari (2011) states that large-scale companies have broader disclosure capabilities because they have more resources and large capital to finance the provision of information to external parties. The greater the company, the greater the possibility of spending will be in realizing the legitimacy of the company, it is because the company will disclose more information.

*H7: Firm size has a positive effect on sustainability reporting disclosures.*

## RESEARCH METHODOLOGY

**Research Period and Sample Selection.** The sample consists of 106 companies and data were collected from Bursa Efek Indonesia (BEI) websites and firm websites for period 2017-2018. Those companies consists of various sectors such as, mining, agriculture, finance, miscellaneous industry, property, real estate, and building construction and many more.

**Variable Definitions.** Table 1 and 2 below summarized each variables used as variables dependent, independent, and controls also with their proxy.

Table 1. Summary of variables

Category	Sub-Category	Code	Proxy
Dependent Variables	Sustainability Reporting Quality	QSR	Sustainability Reporting Score $= \frac{\text{Total scores from each indicator}}{\text{Highest Score}}$
Independent Variables	Board Size	BD_SZ	Total number of directors on the board
	Board Independence	BD_ID	Percentage of independent directors to total directors
	Audit Committee	AU_CM	Total number of annual audit committee meetings
	Profitability	ROA	Return on Assets Ratio = $\frac{\text{Net Income}}{\text{Total Assets}}$
	Liquidity	CR	Current Ratio = $\frac{\text{Total Liability}}{\text{Total Assets}}$
	Leverage	DER	Debt to Equity Ratio = $\frac{\text{Total Debt}}{\text{Total Equity}}$
	Size	SIZE	$\text{Size} = \log \text{ of total asset}$

Control Variables	Sales Growth	SGROW	$\text{Sales Growth} = \frac{\text{Change in Total Assets}}{\text{Total Assets in past}} \times 100\%$
	Capital Intensity	CAP_INT	$\text{Capital Intensity} = \frac{\text{Total Fixed Assets}}{\text{Total Sales}} \times 100\%$
	Firm Equity	ROE	$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholder's Equity}} \times 100\%$
	Firm Size	AGE	Number of company established

Table 2. Sustainability report quality score

Score	Definition
0	Not disclosed sustainability reporting at all
1	Not fully disclosed sustainability reporting
2	Fully disclosed sustainability reporting

**Research Model.** The research model used as follows:

$$\text{QSR}_{it} = \alpha_0 + \beta_1 \text{BD\_SZ}_{it} + \beta_2 \text{BD\_ID}_{it} + \beta_3 \text{AU\_CM}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{CR}_{it} + \beta_6 \text{DER}_{it} + \beta_7 \text{SIZE}_{it} + \beta_8 \text{SGROW}_{it} + \beta_9 \text{CAP\_INT}_{it} + \beta_{10} \text{ROE}_{it} + \beta_{11} \text{AGE}_{it} + \text{eit}$$

This research model used to examine all hypothesis to determine whether corporate governance and firm’s characteristics affect sustainability reporting quality.

## EMPIRICAL RESULTS AND ANALYSIS

Methods used in this study was purposive sampling method, which the sample selection process based on a certain criteria.

Descriptive analysis is a statistical method used to analyze data by describing or giving an overview of the data that has been collected as it is without intending to make conclusions that apply to the public or generalization. Syamsudin and Damiyanti (2011) revealed that this analysis is a study that has the aim of explaining existing phenomena by using numbers to standardize individual or group characteristics. The following is the result of descriptive statistical analysis for data in Indonesia:

Table 1. Descriptive Statistics Analysis

Variable	N	Minimum	Maximum	Mean	Std, Deviation
QSR	106	,30	,61	,4395	,06319
BD_SZ	106	3,00	12,00	8,3585	2,28947
BD_ID	106	6,00	66,00	30,7642	14,66226
AU_CM	106	1,00	59,00	12,6792	10,29984
ROA	106	-,29	,47	,0414	,08949
CR	106	,05	1,03	,5383	,24054
DER	106	,16	14,75	2,3478	2,61703
SIZE	106	5,28	15,11	12,8248	2,10336
S_GROW	106	-84,22	181,71	9,4390	24,60854
CAP_INT	106	,00	6,58	,7926	,98959
ROE	106	-,44	1,35	,0957	,20739
AGE	106	,00	41,00	15,9151	10,09113
Valid N(listwise)	106				

To answer the problem and achieve the purpose of research, then tested the hypothesis that has been built. Test the hypothesis that will be discussed in this study is to test the coefficient of determination and overall fit test following hypothesis test data in Indonesia:

Table 2. Statistic Descriptive Result

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,531 <sup>a</sup>	,282	,198	,05658

a. Predictors: (Constant), AGE, S\_GROW, BD\_ID, ROE, DER, BD\_SZ, AU\_CM, CAP\_INT, CR, SIZE, ROA

The results of the coefficient of determination test show the proportion of independent variables to the dependent variable, with the rest explained by other variables not included in the model. In accordance with table 2 above, it is known that the R square value is 0.282. This shows that the disclosure of corporate governance and company characteristics to the quality of sustainability reporting explained by the independent variables, namely board size, board independence, audit committee, profitability, liquidity, leverage, and company size of 28.2%. The remaining 71.8% is explained by other variables which not analyzed in this study.

Table 3. Results of T test

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,394	,057		6,954	,000
BD_SZ	,006	,003	,232	2,273	,025
BD_ID	,000	,001	,078	,830	,409
AU_CM	,000	,000	-,101	-1,066	,289
ROA	,159	,065	,226	2,436	,017
CR	,041	,033	,157	1,252	,214
DER	-,008	,003	-,346	-2,785	,006
SIZE	,001	,003	,026	,254	,800
S_GROW	5,328E-5	,000	,021	,218	,828
CAP_INT	-,015	,007	-,228	-2,152	,034
ROE	-,025	,029	-,082	-,845	,400

AGE	,000	,001	-,064	-,633	,528
-----	------	------	-------	-------	------

a. Dependent Variable: QSR

Variable board size which is proxied by the number of boards of directors contained in a company, has a significant effect on the quality of sustainability reporting. This can be seen from the significance value of 0.025 and  $\beta$  value of 0.006 with a positive direction. Thus H1 is accepted. The results of this study are also supported by research conducted by Mohamed M. Shamil, Junaid M. Shaikh, Poh-Ling Ho and Anbalagan Krishnan (2014), Meibo Hu and Lawrence Loh (2018), which revealed that board size has a significant effect on sustainability reporting. The greater the size of the board of directors of a company, the more it will support the disclosure of the company's sustainability reporting quality.

Variable board independence which is proxied by the percentage of independent directors in a company, has no significant effect on the quality of sustainability reporting. This can be seen from the significance value of 0.409 and  $\beta$  value of 0.000 with a negative direction. Thus H2 is rejected. Several previous studies revealed that board independence has an important role in improving corporate image and ensuring the company is well managed. The results of this study were supported by Jangu (2014) and Mahmood (2018) who found that board independence had a negative effect. This can be caused by a lack of independence in the case of a family-owned company, accompanied by a lack of integrity, concern, due diligence in taking action in the board of directors.

Variable audit committee which is proxied by the number of audit committee meetings in a company, has no significant effect on the quality of sustainability reporting. This can be seen from the significance value of 0.289 and  $\beta$  value of 0.000 with a positive direction. Thus H3 is rejected. The results of this study are in line with those conducted by Lucia Lucia and Rosinta Ria Panggabean (2018) and Aziz (2014) which state that the audit committee has no effect on disclosure of sustainability reporting. This indicates that the meetings conducted by the audit committee are running less effectively and efficiently. A possible reason for inefficient and ineffective meetings is that there is a predominance of votes over the interests of certain groups in each audit committee meeting.

Variable profitability which is proxied by the calculation of return on assets, has a significant positive effect on the quality of sustainability report. This can be seen from the significance value of 0.017 and  $\beta$  value of 0.159 with a positive direction. Thus H4 is accepted. Some previous studies such as those conducted by Idah (2013), Muhammad Khafid and Mulyaningsih (2012), and Wanda Adila and Efrizal Syofyan (2016) show that company profitability is an indicator of good corporate management, so management will tend to disclose more information when there is an increase in company profitability. This is in line with the results of research conducted. However, these results are not in line with research conducted by Fauzi Dwi Raharjo (2016). As revealed by Suryono (2011), companies with high levels of profitability will encourage managers to disclose more information to convince



investors and creditors. This is because profitability is one of the performance indicators that must be disclosed in the sustainability reporting report.

Variable liquidity which is proxied by calculating the current ratio, does not significantly influence the quality of sustainability reporting. This can be seen from the significance value of 0.214 and  $\beta$  value of 0.041 with a positive direction. Thus H5 is rejected. The results of this study are consistent with discussions of agency theory, in the relationship between management and creditors. Management as an agent will endeavor to disclose ongoing reports to a minimum to avoid pressure from creditors, making it possible for creditors to take action that will put management under pressure if too much is involved in discussions about social activities because creditors expect their interests to take precedence over social activities. Research conducted by Lucia Lucia and Rosinta Ria Panggabean (2018) and Nasir et al. (2014) also supports the research results obtained.

Variable leverage, which is proxied by the calculation of debt to equity ratio, has a significant negative effect on the quality of sustainability reporting. This can be seen from the significance value of 0.006 and  $\beta$  value of -0.008 with a negative direction. Thus H6 is accepted. The results of this study are supported by research conducted by Mao-Chang Wang (2017) which states that there is a negative influence of leverage on sustainability reporting. The higher the level of corporate leverage, the more likely the company to break the agreement will be even greater so the company tries to report a greater amount of revenue to reduce costs including costs for the disclosure of non-financial information disclosed in sustainability reporting. This is because the costs incurred by companies to issue sustainability reports are quite large.

Variable the size of the company proxied by the year the company was established does not have a significant effect on the quality of sustainability reporting. This can be seen from the significance value of 0.800 and  $\beta$  value of 0.001 with a negative direction. Thus H7 was rejected. The results of this study are in line with research conducted by Cynthia Dwi Putri (2013) and Wanda Adila and Efrizal Syofyan (2016) which state that company size does not affect sustainability reports. This is because the size of the company is not the main basis for companies to disclose information. Both large and small scale companies are equally obliged to disclose their environmental and social information.

## CONCLUSIONS

Board size which is proxied by the number of directors has a significant positive effect on the quality of sustainability reporting. This indicates the greater number of boards of directors contained in a company will further enhance the quality of sustainability reporting. Board independence proxied by the number of independent directors has no significant effect on the quality of sustainability reporting. This indicates that a large or small number of board of directors contained in a company will not affect the quality of sustainability reporting. Audit committee which is proxied by the number of audit committee meetings does not significantly

influence the quality of sustainability reporting. This indicates that the large number of audit committee meetings conducted by the company does not improve the quality of sustainability reporting.

Profitability proxied by calculating return on assets has a significant positive effect on the quality of sustainability reporting. This indicates that the higher the level of profitability, the better the quality of sustainability reporting produced. Liquidity which is proxied by calculating the current ratio, does not significantly influence the quality of sustainability reporting. This indicates that the high or low level of liquidity does not affect the quality of the resulting sustainability reporting. Leverage, which is proxied by calculating the debt to equity ratio, has a significant negative effect on the quality of sustainability reporting. This indicates that the higher the level of leverage, the quality of the resulting sustainability reporting will be lower. The size of the company proxied by log assets does not significantly influence the quality of sustainability reporting. This indicates that the high or low level of company size does not affect the quality of sustainability reporting produced.

## **SUGGESTIONS**

The next researcher is expected to be able to use other corporate governance variable components that have not been examined in this study such as dual leadership, female directors and other variable components. The next researcher also expected to be able to increase the period of the sample in this research.

## REFERENCES

- Allegrini, Marco., Greco, Giulio. (2011). Corporate Boards, Audit Committees, and Voluntary Disclosure: Evidence from Italian Listed Companies. *Journal of Management & Governance*. Doi: 10.1007/s10997-011-9168-3.
- Amran, Azian. Lee, Shiau Ping dan Selvaraj, Susela. 2013. *The Influence of Governance Structure and Strategic Corporate Social Responsibility Toward Sustainability Reporting Quality*. University Sains Malaysia, School of Management, Minden Penang, Malaysia.
- Aziz, Abdul. 2014. *Analisis Pengaruh Good Corporate Governance (Gcg) Terhadap Kualitas Pengungkapan Sustainability Report (Studi Empiris Pada Perusahaan di Indonesia Periode Tahun 2011-2012)*. Jurusan Akuntansi Fakultas Ekonomi Universitas Tanjungpura.
- Buallay, Amina., Al-Ajmi, Jasim. (2018). The Role of Audit Committee Attributes in Corporate Sustainability Reporting. *Journal of Applied Accounting Research*. Diakses dari: <http://www.emerald.com>.
- Diouf, Dominique dan Boiral, Olivier. 2017. *The Quality of Sustainability Reports and Impression Management (A Stakeholder Perspective)*. Laval University, Quebec City, Canada.
- Doktoralina, Caturwida M. Anggriani, Dewi. Safira. Yahya, Salimah dan Melzatia, Shinta. 2018. *The Importance of Sustainability Reports in Non-Financial Companies*. Faculty of Economics and Business, Universitas Mercu Buana, Jakarta.
- E-Vahdati, Sahar., Zulkifli, Norhayah, Zakaria, Zarina. (2018). Corporate Governance: The International Journal of Business in Society. *Corporate Governance*, 19, 255-269. Doi: 10.1108/CG-03-2018-0111.
- Global Reporting Initiative. 2013. *Prinsip-Prinsip Pelaporan dan Pengungkapan Standard*. <https://www.globalreporting.org/standards>. Diakses pada Agustus 2016.
- Hasanah, Ni'matul., Syam, Dhaniel., Jati, A. Waluya. 2015. *Pengaruh Corporate Governance terhadap Pengungkapan Sustainability Report pada Perusahaan di Indonesia*. Fakultas Ekonomi dan Bisnis Universitas Muhammadiyah Malang.
- Hasnita. 2016. *Analisis Kualitas Sustainability Reporting Berdasarkan Global Reporting Initiative (GRI) Index dan Islamic Social Reporting (ISR) Index (Studi Komparatif Perbankan Syariah dengan Perusahaan Terdaftar Jakarta Islamic Index)*. Fakultas Ekonomi dan Bisnis Islam Universitas Islam Negeri Alauddin Makassar.
- Hu, Meibo., Loh, Lawrence. (2018). Board Governance and Sustainability Disclosure; A Cross-Sectional Study of Singapore-Listed Companies. *Sustainability*, 10, 2578. Doi: 10.3390/su10072578.

- Hussain, Nazim., Rigoni, Ugo., Oriji, Rene P. (2018). Corporate Governance and Sustainability Performance: Analysis of Triple Bottom Line Performance. *Journal of Business Ethics*. Diakses dari <http://www.springer.com>
- Jangu, Tamoi., Darus, Faizah., Zain, Mustaffa Mohamed., Sawani, Yussri. (2014). Does Good Corporate Governance Lead to Better Sustainability Reporting? An Analysis Using Structural Equation Modeling. *Procedia-Social and Behavioral Sciences*, 145, 138-145. Diakses dari <http://sciencedirect.com>.
- Karamanou, Irene., Vafeas, Nikos. (2005). The Association Between Corporate Boards, Audit Committees, and Management Earnings Forecasts: An Empirical Analysis. *Journal of Accounting Research*, 43, 453-486. Diakses dari: <http://onlinelibrary.wiley.com>.
- Khalid, Muhammad. (2017). *Kontribusi Karakteristik Perusahaan dan Corporate Governance Terhadap Publikasi Sustainability Reporting*. *Research Gate*, 9, 344-353. Doi: 10.24034/j25485024.y2015.v19.i3.1772 .
- Lucia dan Panggabean, Rosinta Ria. 2018. *The Effect of Firm's Characteristic and Corporate Governance to Sustainability Report Disclosure*. Finance and Accounting Division, Agung Sedayu Group, Bina Nusantara University.
- Loh, Lawrence., Thomas, Thomas., Wang, Yu. (2017). Sustainability Reporting dan Firm Value: Evidence from Singapore-Listed Companies. *Sustainability*, 9,2112. Doi: 10.3390/su9112112.
- Mahmood, Zeeshan., Kouser, Rehana., Ali, Waris., Ahmad Zubair., Salman, Tahira. (2018). Does Corporate Governance Affect Sustainability Disclosure? A Mixed Methods Study. *Sustainability*, 10, 207. Doi: 10.3390/su10010207.
- Masud, Mb. Abdul Kauim., Nurunnabi, Mohammad., Mi Bae, Song. (2018). The Effects of Corporate Governance on Environmental Sustainability Reporting: Empirical Evidence from South Asian Countries. *Asian Journal of Sustainability and Social Responsibility*, 3, 4-16. Doi: 10.1186/s41180-018-0019-x.
- Michelon, Giovanna dan Parbonetti, Antonio. (2010). The Effect of Corporate Governance on Sustainability Disclosure. *Journal of Management & Governance*. Diakses dari <http://www.springer.com>.
- Nasir, Azwir. Ilham, Elfi dan Utara, Irna. 2014. *Pengaruh Karakteristik Perusahaan dan Corporate Governance terhadap pengungkapan Sustainability Report pada Perusahaan LQ45 yang Terdaftar*. Jurusan Akuntansi Fakultas Ekonomi Universitas Riau Kampus Bina Widya Simpang Baru, Pekanbaru.
- Naciti, Valeria. (2019). Corporate Governance and Board of Directors: The Effect of Board Composition on Firm Sustainability Performance. *Journal of Cleaner Production*. Doi:10.1016/j.jclepro.2019.117727.

- Ong, Tricia., Djajadikerta, Hadrian Geri. (2018). Corporate Governance and Sustainability Reporting in The Australia Industry: An Empirical Analysis. *Social Responsibility Journal*. Diakses dari <https://www.emerald.com>.
- Prasetyo, Banu., Trisyanti, Umi. 2018. *Revolusi Industri 4.0 dan Tantangan Perubahan Sosial*.
- Putri, Cynthia Dwi. 2013. *Pengaruh Corporate Governance dan Karakteristik Perusahaan terhadap Pengungkapan Tanggungjawab Sosial Perusahaan Di Dalam Sustainability Report: Studi Empiris Perusahaan yang Terdaftar di BEI*. Fakultas Ekonomi Universitas Negeri Padang.
- Rezaee, Zabihollah. (2008). *Corporate Governance and Ethics* (5<sup>th</sup> ed.). United States: Wiley.
- Said, Roshima., Omar, Noorain., Abdullah, Wan Nailah. (2013). Empirical Investigations on Boards, Business Characteristics, Human Capital, and Environmental Reporting. *Social Responsibility Journal*. Diakses dari <http://www.emerald.com>.
- Samaha, Khaled., Kjlif, Hichem., Hussainey, Khaled. (2015). The Impact of Board and Audit Committee Characteristics on Voluntary Disclosure: A Meta-Analysis. *Journal of International Accounting, Auditing, and Taxation*, 24, 13-28. Diakses dari: <http://www.elsevier.com>.
- Simbolon, J dan Sueb, M. 2016. *Pengaruh Pengungkapan Sustainability Report terhadap Kinerja Keuangan Perusahaan (Studi Empiris pada Perusahaan yang Terdaftar dalam Bursa Efek Indonesia)*.
- Shamil, Mohamed M., Shaikh, Junaid M., Ho, Poh-Ling., Krishnan, Anbalagan. (2014). The Influence of Board Characteristics on Sustainability Reporting. *Asian Review of Accounting*, 2, 78-97. Diakses dari: <http://www.emerald.com>.
- Slusarczyk, Beata. (2018). Industry 4.0 – Are We Ready?. *Research Gate*, 36, 233-237. Doi: 10.24034/j25485024.
- Tarigan, Joshua dan Semuel, Hatane. 2014. *Pengungkapan Sustainability Report dan Kinerja Keuangan*. Fakultas Ekonomi Universitas Kristen Petra Surabaya.
- Wang, Mao-Chang. (2017). The Relationship between Firm Characteristics and The Disclosure of Sustainability Reporting. *Sustainability*, 9, 624. Doi: 10.3390/su9040624.
- Wijayanti, Rita. 2016. *Pengaruh Pengungkapan Sustainability Report Terhadap Kinerja Keuangan Perusahaan*. Fakultas Ekonomi dan Bisnis Universitas Muahammadiyah Surakarta.