Review

A Systematic Literature Review: Determinants of Sustainability Reporting in Developing Countries

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Abstract: This study aimed to find out how the development of sustainability reporting is seen from the theoretical and practical perspectives and how the solutions are solved. This study used a systematic literature review approach. Using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method, 24 selected articles were obtained that matched the criteria. The results show that research related to sustainability reporting currently focuses on nine aspects (variables): firm size, profitability, financial leverage, corporate governance structure, ownership structure, firm age, industrial sector, corporate posture, and board qualification and experience. However, from these studies, it was found that there were inconsistencies in the results. Some results showed that a determinant is significant in influencing the company’s sustainability, whereas other studies indicated that the relationship between the two variables was not significant. Research related to sustainability reporting has been carried out jointly in developed and developing countries. However, research focusing on sustainability reporting in developing countries has not been widely carried out; therefore, this study is expected to be a reference for further research on this topic, especially in the decision-making process related to setting priorities in SDG planning and funding allocation. This study focused on companies in developing countries.

Keywords: determinant variable; financial management; sustainability reporting; systematic literature review; PRISMA

1. Introduction

The 17 goals in “The 2030 Agenda for Sustainable Development” were finally inaugurated at the United Nations Sustainable Development Summit in December 2015 in New York (United States). A few months later, in April 2016, an international agreement to prevent human-caused global warming and climate changes was successfully signed. This agreement is known as the “Paris Climate Agreement”. These two agreements are inseparable, functioning as a unified, comprehensive global cooperation framework to achieve sustainable development goals. Three important aspects exist in the basic concept of sustainable development to achieve all the goals: economic, social, and environmental. The important point is introducing the sustainable development concept guiding companies to carry out their business activities according to the triple bottom line or 3Ps (profit, people, and planet). In optimizing profits, companies are required to maintain balance on Earth (planet), as well as care about humans (people) [1].

Through their activities and networks, all organizations make positive and negative contributions to sustainable development goals. Therefore, organizations or companies have a key role in achieving the goals. One way to apply the 3Ps (profit, people, and planet) and implement the sustainable development concept is to conduct sustainable reporting [2]. Sustainable reporting is an organization’s practice of reporting publicly on its economic, environmental, and/or social impacts, thus indicating its contribution—positive or negative—toward the goals of sustainable development [3]. Sustainable reporting is
practically the measurement, disclosure, and accountability of organizational performance in achieving sustainable development goals to internal and external stakeholders [4].

Some advantages of making sustainable reporting according to several previous studies are that companies voluntarily provide information about the economic, environmental, and social impacts of corporate activities [5]. This will reduce the information asymmetry and increase the transparency of the corporate sustainability activities [6]. Furthermore, the increased transparency of the information provided will make it easier for investors to evaluate and direct their investments to companies with positive impacts [5]. Furthermore, it can make companies more competitive and gain advantages in the market or industry [7].

Through sustainability reporting, an organization identifies its significant impacts on the economy, environment, and/or society and discloses them according to globally accepted standards. Sustainability reporting has been developed since 1992 with an international standard reference from the Global Reporting Initiative (GRI) based in Amsterdam, the Netherlands. The Global Reporting Initiative (GRI) is a leading organization in sustainability. The GRI promotes the use of sustainability reporting to make companies more sustainable and better contribute to sustainable development [8]. Today, the GRI is regarded as “the de facto global standard” for sustainability reporting [9] and is the most widely adopted voluntary reporting worldwide [10]. In 2018, the GRI and the United Nations Global Compact (UNGC) initiated the sustainable development goals (SDGs) for a more sustainable world. This initiative allows companies to incorporate the SDGs into their business and reporting processes. The reporting integrates GRI standards with the United Nations Global Compact Communication on Progress [3]. The contribution to achieving the SDGs is very important to realize the sustainable development goals in different areas [11].

Several previous studies have found that sustainability reporting in developing countries is still low. According to Haider [12], several characteristics of developing countries, such as political, social, and economic aspects, affect sustainability reporting, which is clearly a problem because most of the world’s population lives in developing countries. Meanwhile, according to research conducted by Sridhara et al. [13], regional production systems play an important role in strengthening India’s national sustainable development priorities. Therefore, in order to realize the dimension sustainable development in a more meaningful way, sustainability needs to be prioritized in an agrarian economy. Furthermore, the research conducted by Yu et al. [14] found that the policy of the authorities in promoting waste management and recovery can achieve sustainability, while revealing that Industry 4.0 played a positive role in the application of circular economy practices and supply chain capabilities. In addition, the practice of circular economy provides evidence of a positive relationship with operational and economic performance. On the other hand, supply chain capability has a positive relationship with operational performance and has an insignificant relationship with economic performance, while operational performance improves economic health.

Therefore, it is necessary to conduct research on the determinants of sustainability reporting in developing countries. Several previous systematic literature review studies on the determinants of sustainability reporting have focused on developing and developed countries [15,16]. In addition, this study combines sustainability reporting, including the 3P principles (people, planet, profit or economic, environment, and social) with reports that only cover social and environmental issues. In this regard, it is necessary to conduct a systematic literature study on the determinants of sustainability reporting (covering the three principles) specifically for developing countries so that it can be used by decision makers, academics, and practitioners to improve sustainability reporting in developing countries. The gap in the literature is the difference in the results of research on the determinants that affect sustainability reporting in developing countries, which have not been widely studied. Accordingly, this study is expected to be a reference for further research on this topic, especially in the decision-making process related to setting priorities in SDG planning and funding allocation. Therefore, this study focuses on companies in Indonesia. In this study, Section 1 briefly discusses the background, Section 2 provides information about
the theory in this field, Section 3 provides information on the information source, study selection, data collection process, and data items, Section 4 provide information on the results of the research, Section 5 summarizes the conclusions obtained from the research.

RQ: What determinant variables of sustainability reporting in developing countries can be identified through empirical research?

2. Literature Review

2.1. Sustainability Reporting Disclosure

The Global Reporting Initiative (GRI) defines sustainability reporting as a reporting system enabling all companies and organizations to measure, understand, and communicate responsibly economic, environmental, and social information to stakeholders, both internal and external, related to the organizational performance of achieving the targets of sustainable development [4]. Sustainability reporting is identified according to the Global Reporting Initiative (GRI) framework consisting of three categories, namely, the economic, environmental, and social indicators, all of which are measured on the basis of content analysis to get the disclosure score [17].

Sustainability reporting is an organization’s practice of reporting publicly on its economic, environmental, and/or social impacts, thus indicating its contribution, positive or negative, toward SDGs [3]. Sustainable reporting is practically the measurement, disclosure, and accountability of organizational performance in achieving sustainable development goals to internal and external stakeholders [4].

Some advantages of sustainable reporting according to several previous studies are that companies voluntarily provide information about the economic, environmental, and social impacts of corporate activities [5]. This reduces the information asymmetry and increases the transparency of the corporate sustainability activities [6]. Moreover, the increased transparency of the information provided will make it easier for investors to evaluate and direct their investments to companies with positive impacts [5]. Furthermore, it can make companies more competitive and gain advantages in the market or industry [7]. Through sustainability reporting, an organization can identify its significant impacts on the economy, environment, and/or society and disclose them according to globally accepted standards.

2.2. Systematic Literature Review

A systematic literature review (SLR) refers to a specific research or research methodology and development undertaken to collect and evaluate studies related to certain topics. Systematic literature reviews are conducted for various purposes, including identifying, reviewing, evaluating, and interpreting all existing studies in the area of interest with relevant research questions. A systematic literature review is also often required to define a research agenda, as part of a dissertation or thesis, and as a complementary part of a research grant application. A systematic literature review is widely used by researchers and academics in reviewing the scientific literature because it can avoid bias and a subjective understanding of the research [18]. SLR has proven to be a method that can provide an overview of research trends and their effectiveness, as well as coverage of field research in previous studies [19,20].

3. Research Methods

A Systematic Literature Review was carried out in May 2021 using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. According to Liberati et al. [21], this method consists of several stages as follows:
1. Defining eligibility criteria,
2. Defining information sources,
3. Study selection,
4. Data collection process,
5. Data item selection,
6. Eligibility criteria.

The following inclusion criteria (IC) were used as the systematic literature review guidelines:

- IC1: all original and peer-reviewed literature written in English,
- IC2: research aimed at obtaining the determinant variables of sustainability reporting in developing countries,
- IC3: research using quantitative or mixed (qualitative and quantitative) method.

For IC1, only research written in English was selected because researchers commonly use English. Meanwhile, IC2 refers to the definition of sustainable development according to the World Commission on Environment and Development, i.e., “development that meets the current needs without compromising the ability of future generations to meet their own needs” [22]. To achieve this goal, companies must also consider the economic, social, and environmental impacts on the community in general and stakeholders in particular. Elkington [1] introduced the triple bottom line and then also added the concept of corporate governance to environment and social, governance, which are all related to the sustainability concept [16]. Meanwhile, the category of developing countries in this research was based on the “World Economic Situation and Prospect”.

Exclusion criteria for sustainability reporting in this research refer to all reporting types including only one or two elements, such as CSR. Likewise, reports combining sustainability reporting with financial reports (integrated reporting) were also excluded. As for IC3, this research focused on journal articles using a quantitative or mixed (qualitative and quantitative) method. In other words, journal articles using a qualitative method were excluded in this research.

3.1. Information Source

The search for information was carried out on an online database with large repositories of academic studies, namely, Elsevier (SCOPUS), with more than 23,500 peer-reviewed journals. Not fully accessible articles were also excluded in this research.

3.2. Study Selection

Study selection was conducted in three stages as follows:

1. Using search keywords following the research objectives, namely, the determinants of sustainability reporting or other keywords of similar reports (“factor*” OR “challenge*” OR “motivation*” OR “driver*” OR “drive* factor*” OR “critical factor*” OR “critical success factor*” OR “success factor*” OR “key factor*” OR “CSF” OR “determinant*”) AND (“sustainability report*” OR “sustainable report*” OR “global report*” OR “GRI” OR “TBL report*” OR “triple* report*”).
2. Exploring and selecting the article titles, abstracts, and keywords on the basis of the eligibility criteria.
3. Exploring and selecting all articles not eliminated in the previous selection by fully reading all articles while adhering to the eligibility criteria.

3.3. Data Collection Process

The data were collected manually by content analysis-based data extraction, including the article type, journal name, year of publication, topic, title, research methodology, respondents/research data, country of research location, variables related to determinants of sustainability reporting, indicators of sustainability reporting, and research results in the form of the effects of determinant variables on sustainability reporting.

3.4. Data Items

Data items extracted from each article were summarized as follows: year of publication, researchers, country and sample, research objectives, research variables, determinants of sustainability reporting, and research results of the effect of determinant variables on
sustainability reporting. The stages of the systematic literature review are presented comprehensively in Figure 1.

**Literature search**

**Database: Elsevier (SCOPUS)**

**Key word:**

("factor" OR "challenge" OR "motivation" OR "driver" OR "driv factor" OR "critical factor" OR "critical success factor" OR "success factor" OR "key factor" OR "CSF" OR "determinant") AND ("sustainability report" OR "sustainable report" OR "global report" OR "GRI" OR "TBL report" OR "triple report")

Limits: English-language articles only (IC-1)

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**Figure 1.** PRISMA flow diagram.

### 4. Results and Discussion

#### 4.1. Research Results and Qualitative Synthesis

The search results in the SCOPUS databases through the keywords ("factor*" OR "challenge*" OR "motivation*" OR "driver*" OR "driv factor*" OR "critical factor*" OR "critical success factor*" OR "success factor*" OR "key factor*" OR "CSF*" OR "determinant*") AND ("sustainability report*" OR "sustainable report*" OR "global report*" OR "GRI*" OR "TBL report*" OR "triple report*") resulted in 1254 articles published in the period 1949–2021 written in English. The articles were then explored and selected on the basis of IC2 and IC3 by considering the titles, abstracts, and keywords, resulting in 102 articles. At the next stage, the remaining 102 articles were screened again on the basis of IC2 and IC3 by reading them fully. One article could not be accessed, which was categorized among those we eliminated or did not research. Finally, following this process, 24 articles were left to be further analyzed.

Several journals on sustainability reporting disclosure were published every year, mostly in 2020. These journals used qualitative and quantitative approaches. The process indicated that studies related to sustainability reporting disclosure were still relevant in the last few years, as depicted in Figure 2 below.
Sustainability reporting disclosure was published every year, mostly in 2020. These journals used qualitative and quantitative approaches. The process indicated that studies related to sustainability reporting disclosure were still relevant in the last few years, as depicted in Figure 2 below.

Furthermore, a qualitative synthesis was performed on the 24 selected articles, as shown in Table 1.

Table 1. List of Articles and Qualitative Synthesis.

<table>
<thead>
<tr>
<th>No</th>
<th>Years</th>
<th>Author</th>
<th>Title</th>
<th>Country &amp; Sample</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2021</td>
<td>Haladu and Nashwan</td>
<td>The moderating effect of environmental agencies on firms’ sustainability reporting in Nigeria</td>
<td>218 companies on the Nigerian Stock Exchange, 2015–2016</td>
<td>Investigating the direct relationship between corporate attributes and SR disclosures, and the moderating effect of environmental policy administrators</td>
</tr>
<tr>
<td>2</td>
<td>2020</td>
<td>Siahaan et al.</td>
<td>Effect of firm characteristics on firm value through triple bottom line disclosure: Pharmaceutical companies on the Indonesia Stock Exchange</td>
<td>Determinants of sustainability reporting under a Global Reporting Initiative: empirical evidence from Iraq</td>
<td>Investigating the effect of firm characteristics on firm value through TBL disclosure, using stakeholder theory, signal theory, and legitimacy theory</td>
</tr>
<tr>
<td>3</td>
<td>2020</td>
<td>Oleiwi et al.</td>
<td>Determinants of sustainability reporting</td>
<td>100 public companies on the Iraq Stock Exchange</td>
<td>Disclosing the determinants that affect the level of reporting sustainability referring to the GRI</td>
</tr>
<tr>
<td>No</td>
<td>Years</td>
<td>Author</td>
<td>Title</td>
<td>Country &amp; Sample</td>
<td>Purpose</td>
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</tr>
<tr>
<td>5</td>
<td>2020</td>
<td>Giron et al.</td>
<td>Sustainability reporting and firms’ economic performance: evidence from Asia and Africa</td>
<td>366 companies in developing countries in Asia and Africa</td>
<td>Investigate the factors influencing the adoption of new SR practices and external assurance; examining the relationship between reporting actions and the company’s economic performance</td>
</tr>
<tr>
<td>6</td>
<td>2020</td>
<td>Correa-Garcia et al.</td>
<td>Corporate governance and its implications for sustainability reporting quality in Latin American business groups</td>
<td>324 samples from Chile, Colombia, Mexico, and Peru for the period 2011–2015</td>
<td>Investigating the determinants of SR quality in Latin American BGs</td>
</tr>
<tr>
<td>7</td>
<td>2020</td>
<td>Raquiba &amp; Ishak</td>
<td>Sustainability reporting practices in the energy sector of Bangladesh</td>
<td>19 energy companies listed on Dhaka Stock Exchange, Bangladesh from 2011 to 2017</td>
<td>Describing the extent of reporting related to sustainability at 19 energy companies in Bangladesh and its determinants</td>
</tr>
<tr>
<td>8</td>
<td>2020</td>
<td>Sharma et al.</td>
<td>Sustainability reporting challenges in developing countries: toward management perceptions research evidence-based practices</td>
<td>82 companies listed on the Bombay Stock Exchange for the period 2012–2013</td>
<td>Examining the relationship between financial performance and the extent of ESG disclosure of Indian companies</td>
</tr>
<tr>
<td>9</td>
<td>2020</td>
<td>Tauringana</td>
<td>Managing sustainable business practices of LQ45 companies</td>
<td>194 companies in Uganda Manufacturing Association</td>
<td>Investigating the determinants of the managerial perception base of the adoption of SR by firms in Uganda</td>
</tr>
<tr>
<td>10</td>
<td>2020</td>
<td>Yanto et al.</td>
<td>Bank financial soundness and the disclosure and the disclosure of banking sustainability reporting in Indonesia</td>
<td>LQ45 companies listed on the IDX for the period 2014–2016, 135 data sources</td>
<td>Identifying of the antecedents of SR disclosure among LG 45 companies</td>
</tr>
<tr>
<td>11</td>
<td>2020</td>
<td>Embuningtiyas et al.</td>
<td>Board expertise and sustainability reporting in listed banks in Nigeria</td>
<td>7 conventional banks in Indonesia for the 2014–2018 Period</td>
<td>Investigating whether the disclosure of sustainability reporting in banking companies as measured by content analysis is influenced by the soundness of the bank</td>
</tr>
<tr>
<td>12</td>
<td>2019</td>
<td>Umukoro et al.</td>
<td>Sustainability reporting in Indonesian listed banks: do corporate governance, ownership structure and digital banking matter?</td>
<td>10 Nigerian Banks 2014–2016</td>
<td>Investigating the influence of environmentally sensitive, certified, or educated board members on SR disclosures</td>
</tr>
<tr>
<td>13</td>
<td>2019</td>
<td>Amidjaya and Widagdo</td>
<td>Bank financial soundness and the disclosure and the disclosure of banking sustainability reporting in Indonesia</td>
<td>31 commercial banks listed on the IDX from 2012 to 2016</td>
<td>Knowing the empirical evidence of the influence of ownership structure and corporate governance on registered banks in SR Indonesia</td>
</tr>
</tbody>
</table>
### Table 1. Cont.

<table>
<thead>
<tr>
<th>No</th>
<th>Years</th>
<th>Author</th>
<th>Title</th>
<th>Country &amp; Sample</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>2019</td>
<td>Chang et al.</td>
<td>Drivers of sustainability reporting quality: financial institution perspective</td>
<td>100 financial institutions for 2016 using content analysis</td>
<td>Explaining how institutional, cultural, and company factors affect SR quality and the moderating effect of the equatorial principle</td>
</tr>
<tr>
<td>17</td>
<td>2018</td>
<td>Bae et al.</td>
<td>Investigating the main corporate characteristics influencing SR by public companies in Sri Lanka</td>
<td>88 registered companies in Bangladesh, India, and Pakistan, 2009–2016</td>
<td>Researching corporate governance and total sustainability disclosure in developing South Asia</td>
</tr>
<tr>
<td>18</td>
<td>2018</td>
<td>Hu and Loh</td>
<td>Investigating the relationship between governance and sustainability disclosure in Singapore-listed companies</td>
<td>462 companies listed on the Singapore Exchange Mainboard as of 30 June 2016</td>
<td>Investigating managerial perceptions of SR determinants in Nigeria</td>
</tr>
<tr>
<td>19</td>
<td>2018</td>
<td>Nwobu et al.</td>
<td>The influence of institutional environment on corporate responsibility disclosure in Ghana</td>
<td>81 companies in the oil and gas, banking, industrial goods, and consumer goods sectors in Nigeria</td>
<td>Analyzing the level and trend of corporate responsibility disclosure in the annual reports of companies listed on the Ghana Stock Exchange against the GRI</td>
</tr>
<tr>
<td>20</td>
<td>2017</td>
<td>Welbeck</td>
<td>Determinants of sustainability reporting and its impact on firm value: evidence from the emerging market of Turkey</td>
<td>17 companies registered in Ghana over a 10 year period (2003–2012)</td>
<td>Investigating the factors that affect GRI-based SRs, adoption assurance statements, and application-level SRs; examining whether SRs are value-relevant</td>
</tr>
<tr>
<td>21</td>
<td>2016</td>
<td>Kuzey and Uyar</td>
<td>Examining SR in public listed companies in Sri Lanka, as well as its extent, nature, and possible drivers, particularly the use of KPIs</td>
<td>100 issuers of Borsa Istanbul for the period 2011–2013</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>2016</td>
<td>Dissanayake et al.</td>
<td>Sustainability reporting by publicly listed companies in Sri Lanka</td>
<td>60 Sri Lanka public companies for 2011–2012</td>
<td></td>
</tr>
</tbody>
</table>

Cont.
Table 1. Cont.

<table>
<thead>
<tr>
<th>No</th>
<th>Years</th>
<th>Author</th>
<th>Title</th>
<th>Country &amp; Sample</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>2014</td>
<td>Amran et al.</td>
<td>The Influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality</td>
<td>113 companies from 12 countries (Australia, New Zealand, China, Malaysia, Philippines, Singapore, Taiwan, Thailand, and Japan)</td>
<td>Examining the influence of governance structure on the quality of SR in the Asia Pacific region using legitimacy theory and resource-based view theory</td>
</tr>
<tr>
<td>24</td>
<td>2011</td>
<td>Amran and Haniffa</td>
<td>Evidence in development of sustainability reporting: a case of developing country</td>
<td>201 companies listed on Bursa Malaysia</td>
<td>Interpreting the interview findings (i.e., mechanisms are isomorphic, coercive, normative, and memetic) through institutional theory for possible determinant identification</td>
</tr>
</tbody>
</table>

4.2. Systematization of Determinants

From the 24 selected articles, the determinants of sustainability reporting were further analyzed with the following additional criteria:

1. Sustainability reporting was used as the dependent variable;
2. As the dependent variable, Sustainability reporting was measured or calculated in various forms, such as disclosure, quality, extent, or score;
3. Determinants included as research results were those studied at least in three articles and used as independent variables. In other words, determinants included or studied in 1–2 articles only were excluded as research results;
4. Research focused on companies or holding companies;
5. Research with determinants related to the country was excluded;
6. Research with determinants related to industrial groups was excluded.

On the basis of the criteria above, the determinants, indicators, results, conclusions, and references of sustainability reporting are presented in Table 2 (containing 37 indicators).
Table 2. Determinants of sustainability reporting.

<table>
<thead>
<tr>
<th>No</th>
<th>Determinant Variable</th>
<th>Indicator</th>
<th>Result</th>
<th>Conclusion</th>
<th>Previous Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Firm Size</td>
<td>Many employees</td>
<td>Positive/negative</td>
<td>Inconsistent results</td>
<td>Giron et al. (2020) [5], Kuzey and Uyar (2016) [11], Haladu and Nashwan (2021) [23], Tauringana (2020) [24], Sharma et al. (2020) [25], Orazalin and Mahmood (2019) [26], Dissanayake et al. (2016) [27], Chang et al. [28], Dissanayake et al. (2019) [29], Amran and Haniffa (2011) [30]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total assets</td>
<td>Positive/negative</td>
<td>Negative</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market capitalization</td>
<td>Positive/negative</td>
<td>Negative</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales amount</td>
<td>Positive/negative</td>
<td>Negative</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of regions</td>
<td>Positive/negative</td>
<td>Negative</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on assets (ROA)</td>
<td>Positive</td>
<td>Not significant</td>
<td>Non-negative effect, positive trend</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EBITDA</td>
<td>Positive</td>
<td>Positive</td>
<td>Not significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Profit margin</td>
<td>Positive</td>
<td>Not significant</td>
<td>Non-negative effect, positive trend</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on equity (ROE)</td>
<td>Positive</td>
<td>Not significant</td>
<td>Non-negative effect, positive trend</td>
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<td>Return on capital employed (ROCE)</td>
<td>Positive</td>
<td>Not significant</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Revenue</td>
<td>Positive</td>
<td>Not significant</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Ratio of total liabilities to total assets</td>
<td>Positive/negative</td>
<td></td>
<td>Inconsistent results</td>
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<tr>
<td></td>
<td></td>
<td>Debt-to-equity ratio</td>
<td>Negative/not significant</td>
<td>Positive/not significant</td>
<td>Inconsistent results</td>
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<tr>
<td></td>
<td></td>
<td>Gender diversity</td>
<td>Positive/not significant</td>
<td></td>
<td>Inconsistent results on board size</td>
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<td></td>
<td>Corporate Governance Structure</td>
<td>Average age BOD</td>
<td>Positive</td>
<td>Not significant</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Proportion of independent directors on the board</td>
<td>Positive</td>
<td>Positive</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Board meetings held in a year</td>
<td>Positive</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of board subordinate committees</td>
<td>Positive</td>
<td>Positive</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>CEO duality</td>
<td>Positive</td>
<td>Positive</td>
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Table 2. Cont.

<table>
<thead>
<tr>
<th>No</th>
<th>Determinant Variable</th>
<th>Indicator</th>
<th>Result</th>
<th>Conclusion</th>
<th>Previous Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Ownership Structure</td>
<td>Institutional ownership</td>
<td>Positive</td>
<td></td>
<td>Kholis et al. (2020) [8], Kuzey and Uyar (2016) [11], Tauringana (2020) [24],</td>
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<tr>
<td></td>
<td></td>
<td>Foreign ownership</td>
<td>Positive/not significant</td>
<td></td>
<td>Sharma et al. (2020) [25], Chang et al. (2019) [28], Dissanayake et al. (2019) [29],</td>
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<td></td>
<td></td>
<td>Ownership concentration</td>
<td>Positive/negative</td>
<td></td>
<td>Amran and Haniffa (2011) [30], Siahaan et al. (2020) [32], Correa-Garcia et al. (2020) [33],</td>
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<td></td>
<td></td>
<td>Majority shareholder</td>
<td>Positive/positive/negative/not</td>
<td>Inconsistent results</td>
<td>Raquiba and Ishak (2020) [34], Bae et al. (2018) [36], Amidjaya and Widagdo (2019) [39],</td>
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<td></td>
<td></td>
<td>Government ownership</td>
<td>Positive/negative/not</td>
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<td>Management ownership</td>
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<td>Family ownership</td>
<td>Not significant</td>
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<td>Dispersed ownership structure</td>
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<td>6</td>
<td>Firm Age</td>
<td>Company age</td>
<td>Positive/not significant</td>
<td>Positive tendencies</td>
<td>Haladu and Nashwan (2021) [23], Tauringana (2020) [24], Orazalin and Mahmood (2019) [26], Dissanayake et al. (2016) [27], Siahaan et al. (2020) [32], Correa-Garcia et al. (2020) [33],</td>
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<td>7</td>
<td>Industrial Sector</td>
<td>Industrial sector</td>
<td>Positive/not significant</td>
<td>Positive tendencies</td>
<td>Giron et al. (2020) [5], Kuzey and Ural (2016) [11], Sharma et al. (2020) [25], Dissanayake et al. (2019) [29], Amran and Haniffa (2011) [30], Oleiwi et al. (2020) [40],</td>
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<td>8</td>
<td>Corporate Posture</td>
<td>Mention of the company’s social and environmental responsibilities in a mission or vision statement Board experience and qualifications</td>
<td>Positive/not significant</td>
<td>Positive trend, research is still scarce</td>
<td>Chang et al. (2019) [28], Amran and Haniffa (2011) [30], Raquiba and Ishak (2020) [34], Amran et al. (2013) [38],</td>
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<td>9</td>
<td>Board</td>
<td>Council expertise</td>
<td>Not significant</td>
<td>Positive trend, research is still scarce</td>
<td>Umukoro et al. (2019) [17], Tauringana (2020) [24], Amran and Haniffa (2011) [30],</td>
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<td>Executive director skills</td>
<td>Positive</td>
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<td>Skills of nonexecutive director</td>
<td>Not significant</td>
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<td>Director’s education level</td>
<td>Positive</td>
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4.3. Variable Determinants

4.3.1. Firm Size

The company size determinant was used in 10 studies [5,11,24–30]. Tauringana [24] and Dissanayake et al. [27] found a positive relationship between company size and sustainability reporting using the number of employees as an indicator, while Giron et al. [5] found the opposite result (negative relationship). On the other hand, using the total asset calculation indicator, Giron et al. [5], Sharma et al. [25], Orazalin and Mahmood [26], and Kuzey and Uyar [11] found a positive relationship between company size and sustainability reporting, while Haladu and Nashwan [23] found the opposite result (negative relationship). Moreover, using the market capitalization indicator, Giron et al. [5] found a negative relationship between company size and sustainability reporting. A positive relationship between company size and sustainability reporting was also found by Sharma et al. [25] and Amran and Haniffa [30] using total sales as an indicator. Meanwhile, Chang et al. [28] found an insignificant effect of company size on sustainability reporting using the number of regions as an indicator.

4.3.2. Profitability

The profitability determinant was used in eight studies [5,11,23,25–27,31]. Sharma et al. [25], and Embuningtias et al. [31] found a positive relationship between return on assets (ROA) and sustainability reporting, while Giron et al. [5] found no significant relationship between the two. Giron et al. [5] also showed no significant effect of EBITDA on sustainability reporting but found a positive correlation between profit margin and sustainability reporting. Furthermore, Haladu and Nashwan [23] and Orazalin and Mahmood [26] found a positive relationship between return on equity (ROE) and sustainability reporting, while Giron et al. [5] and Dissanayake et al. [27] found no significant relationship between the two. Sharma et al. [25] found a positive correlation between return on capital employed (ROCE) and sustainability reporting. Meanwhile, Dissanayake et al. [27] found no significant effect on sustainability reporting using the revenue indicator.

4.3.3. Financial Leverage

The financial leverage determinant was used in six studies [5,8,11,23,26,32]. Using the ratio of total liabilities to total assets as an indicator, Giron et al. [5], Orazalin and Mahmood [26], and Kuzey and Uyar [11] found a negative relationship between financial leverage and sustainability reporting, while Siahaan et al. [32], using the same indicator, found a positive relationship between the two. On the other hand, Haladu and Nashwan [23], using the debt-to-equity ratio as an indicator, found a negative relationship between financial leverage and sustainability reporting, while Kholis et al. [8] did not find a significant relationship between the two.

4.3.4. Corporate Governance Structure

The corporate governance structure determinant was used in nine studies [5,23,30,33–37]. Using the gender diversity indicator, Giron et al. [5] found a positive relationship between corporate governance structure and sustainability reporting, while Amran et al. [38] found no significant relationship. Similarly, using the average age of BOD as an indicator, Giron et al. [5] showed no significant effect of corporate governance structure on sustainability reporting. Furthermore, using the board size indicator, Correa-Garcia et al. [33], Raquiba and Ishak [34], Bae et al. [36], and Hu and Loh [37] found a positive relationship between Corporate governance structure and sustainability reporting, Haladu and Nashwan [23] found a negative relationship between the two, and Amran et al. did not find a significant relationship.

Using the proportion of independent directors on board as an indicator, Raquiba and Ishak [34], Bae et al. [36], and Hu and Loh [37] found a positive relationship between corporate governance structure and sustainability reporting, while Correa-Garcia et al. [33] and Amran et al. [38] did not find a significant relationship between the two. As for the number of board meetings held in a year as an indicator, Raquiba and Ishak [34], Yanto et al. [35],
and Hu and Loh [37] found a positive relationship between corporate governance structure and sustainability reporting. Likewise, Raquiba and Ishak [34] and Amran et al. [38] found a positive relationship between corporate governance structure and sustainability reporting through the number of subordinate committees of board as an indicator. Meanwhile, Hu and Loh [37], using the CEO duality indicator, did not find a significant relationship between corporate governance structure and sustainability reporting.

4.3.5. Ownership Structure

The ownership structure determinant was used in 13 studies [8,11,24,25,28–30,32,33,36,39]. Using the institutional ownership indicator, Raquiba and Ishak [35], Siahaan et al. [32], Chang et al. [28], and Bae et al. [36] found a positive relationship between ownership structure and sustainability reporting. Using the foreign ownership indicator, Kholis et al. [8], Tauringana [24], Correa-Garcia et al. [33], Raquiba and Ishak [34], Amidjaya and Widagdo [39], Chang et al. [28], and Bae et al. [36] showed a positive relationship between ownership structure and sustainability reporting. In contrast, using the same indicator, Sharma et al. [25], Dissanayake et al. [29], and Amran and Haniffa [30] did not find a significant relationship between the two.

Kholis et al. [8], using the majority of shareholder as an indicator, found a positive relationship between ownership structure and sustainability reporting, while Correa-Garcia et al. [33] found a negative relationship between the two. The three studies using the government ownership indicator had different results. Raquiba and Ishak [34] obtained a positive relationship between ownership structure and sustainability reporting. In contrast, Chang et al. [28] found a negative relationship, while Amran and Haniffa [30] did not find a significant relationship between the two. Using the management ownership indicator, Raquiba and Ishak [34] found a positive relationship between management ownership and sustainability reporting. Bae et al. [36] found a negative relationship between the two. Amidjaya and Widagdo [39], using the family ownership indicator, found a positive relationship between family ownership and sustainability reporting. On the other hand, Kuzey and Uyar [11], using the dispersed ownership structure indicator, did not find a significant relationship between the two.

4.3.6. Firm Age

The firm age determinant was used in six studies [23,24,26,27,32,33]. Haladu and Nashwan [23] found that the level of sustainability reporting was very low, whereas Siahaan et al. (2020) and Correa-Garcia et al. [33] found a positive relationship between company age and sustainability reporting. Meanwhile, Tauringana [24] found that GRI efforts had a limited impact on increasing SR in developing countries, Orazalin and Mahmood [26] found that determinants such as independent reporting, reporting language, firm profitability, firm size, and type of auditor substantially affected the level, nature, and quality of Kazakhstan’s corporate sustainability reporting practices, and research conducted by Tauringana [24] and Dissanayake et al. [27] found a size effect on the basis of market capitalization and number of employees being very significant, supporting H1A, finding no positive relationship between the two.

4.3.7. Industrial Sector

Industrial sector indicators were used in seven studies [5,11,25,27,29,30,40]. Oleiwi et al. [40], Giron et al. [5], and Sharma et al. [25] found that financial and market performance had a positive and significant relationship with the level of ESG disclosure, while FII’s stock and leverage had a negative and significant relationship with the level of ESG disclosure. Kuzey et al. [11] found that firm size is a significant determinant of sustainability reporting; therefore, larger companies are more likely to publish sustainability reports than smaller companies. Further research conducted by Amran and Haniffa [30] found that only large government-linked companies in the plantation industry have a significant amount of sustainability reporting, showing a positive relationship between the industrial sector and
sustainability reporting. In contrast, Dissanayake et al. [27,29] did not find a significant relationship between the two.

4.3.8. Corporate Posture

Determinants of corporate posture were used in four studies [28,30,34]. Chang et al. [28], Amran et al. [38], and Amran and Haniffa [30] found a significant relationship (at the 5% level) between the two corporate governance variables (i.e., the chairman who is a nonexecutive director and the dominance of family members on the board) and the level of voluntary disclosure. These studies indicated a positive relationship between corporate posture and sustainability. Meanwhile, Raquiba and Ishak [34] found that the energy sector in any country has an important role in economic development, while it is also important to maintain responsibility for employees, the environment, and society in general. Breadth reporting on sustainability by working companies in Bangladesh’s energy sector is bleak. Nevertheless, it is significantly affected by the number of subordinate committees of the board, number of board meetings held during the year, board independence, board size, and ownership structure company. This study did not find a significant relationship between the two.

4.3.9. Board Qualification and Experience

The board qualification and experience determinant was used in three studies [17,24,30]. Using the board expertise indicator, Tauringana [24] found that board qualification and experience are positively correlated with sustainability reporting. Similarly, using the director’s education level indicator, Umukoro et al. [17] discovered that board qualification and experience are positively correlated to sustainable reporting. Using the board experience and qualification indicator, Amran and Haniffa [30] did not find a significant effect of board qualification and experience on sustainability reporting. Meanwhile, using the director’s expertise and nonexecutive director’s expertise, Umukoro et al. [17] did not find a significant relationship between the two.

4.4. Discussion

According to the 24 selected articles describing the determinants of the sustainability reporting variable as presented in Tables 1 and 2, there were a total of nine determinants, namely, company size, profitability, financial leverage, corporate governance structure, ownership structure, company age, industrial sector, corporate posture, and board qualification and experience. The nine determinants are shown below.

The first determinant, firm size, refers to an important factor influencing sustainability reporting because a larger company with a bigger impact will make it more visible in the eyes of stakeholders. In other words, the company will be more supervised by stakeholders, have more potential to be regulated, and get more attention from the media [27]. A study conducted by Sumiani et al. [41] on the sustainability reporting of large companies in Malaysia concluded that company size is one of the factors influencing sustainability reporting due to the increasing stakeholder demand for information on large companies and the increasing external pressure faced companies. This is consistent with the previous studies finding an increase in environmental disclosure in large companies [27].

The second determinant, profitability, refers to a company’s ability to earn a profit within a certain period. Similarly, Husnan [42] defines profitability as a company’s ability to generate a profit at a certain level of sales, assets, and share capital. Haladu and Nashwan [23] and Orazalin and Mahmood [26] found a positive relationship between corporate profitability and sustainability reporting.

The third determinant, financial leverage, refers to the use of external sources of funds (debts) by a company to acquire additional assets; as a consequence, the company must bear a fixed cost in the form of interest and installment debt [43]. Leverage also reflects the company’s ability to meet its obligation to bear the corporate fixed costs and debts.
In this case, a company’s financial leverage can affect sustainability reporting, ultimately influencing the corporate performance [23].

The fourth determinant, corporate governance structure, refers to a set of regulations for the relationship between shareholders, corporate management, creditors, government, employees, and other internal and external stakeholders related to their rights and obligations, or, in other words, a system regulating and controlling a company. Corporate governance structure can play an important role in sustainability reporting behavior [27,29]. The indicators mostly used in this determinant include the proportion of independent directors on board [44], the number of subordinate committees of board, the number of board meetings held in a year, the CEO duality, and the ratio of the number of directors representing the interests of active divided shareholders to directors on board [16,45].

The fifth determinant, ownership structure, is generally calculated using proxies, including the percentages of government ownership, foreign ownership, institutional ownership, and concentrated or dispersed ownership [34]. Ownership structure is the proportion of managerial ownership, institutional ownership, and public ownership, representing a mechanism to reduce conflicts between management and shareholders [46]. The structure of share ownership can influence a company’s operation, which affects the company’s performance in achieving its goal of maximizing corporate values.

The sixth determinant, company age, refers to a company’s maturity level. A company improves the information disclosed over time. An increasing company age is in line with the company’s growing disclosure. A longer existence in business will motivate a company’s corporate disclosure (stakeholder theory), as well as more extensive disclosure of financial information. Companies with a longer existence or age also have more experience disclosing annual reports. Accordingly, it can be concluded that companies with a long life can be considered mature and more extensive in making disclosures.

The seventh determinant, industrial sectors, refers to the type of industry run by a company. According to Ahmad [47], the industry has a positive and significant effect on sustainability reporting. Trencansky et al. [48] found the opposite result with the same variables, whereby the type of industry did not significantly affect the disclosure of sustainability activities and was negatively correlated with sustainability reporting. The legitimacy theory supports this statement that disclosures made by companies depend on environmental factors, including social, economic, and political [49].

The eighth determinant, corporate posture, applies to companies that continuously monitor their relationship with key stakeholders and manage the interdependence relationship at the optimum level. Chan and Kent [50] measured corporate strategic posture through the existence of a social and/or environmental reporting committee in the company and through the existence of corporate responsibility for social and/or environmental factors contained in the corporate vision and mission [34].

The ninth determinant, board qualification and experience, refers to the corporate director’s ability level. However, this determinant is not observable in most cases; thus, it is typically measured as a function of educational qualifications. Further research concluded that a high level of managerial ability and performance is often consistent with a high educational level of directors [51].

On the basis of the discussion above, the nine determinants obtained from the 24 selected articles (previous studies) had inconsistent results, representing the novelty of this research. The results indicated both consistent and inconsistent results on the determinants of sustainable reporting according to previous studies. The results indicated inconsistencies in the company size, financial leverage, and ownership structure determinants, whereas the research results of corporate posture and board qualification and experience tended to show positive results. However, research focusing on these determinants remains rare; thus, these inconsistencies become challenges to be further studied in Indonesia’s companies.
5. Conclusions

On the basis of the designed inclusion and exclusion criteria, 24 studies were selected and identified. The analysis of the main study revealed that research related to sustainability reporting focuses on nine topics and trends: company size, profitability, financial leverage, corporate governance structure, ownership structure, company age, industry sector, company posture, and board qualifications and experience. The results of this study highlight innovations that refer to previous relevant studies, which adds insight into sustainability reporting. However, the results of the selected articles showed inconsistencies. Some results showed a significant relationship between the determinants and company sustainability, while others showed the opposite result (insignificant relationship between the two variables). This inconsistency is expected to be investigated further by further researchers.

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