

EXPLORING SUSTAINABILITY AND GREEN BANKING DISCLOSURES: A STUDY OF BANKING SECTOR

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ABSTRACT

This study examines the sustainability and green banking performance of Indonesian banking sectors from their disclosures in sustainability reports covering a period of nine consecutive years. The findings elucidate that sustainability and green-banking disclosures are still dynamic year to year. Economic disclosures are the most widely disclosed information, while environmental disclosures are the lowest. Applying a content analysis method, this study uses the sustainability disclosure guidelines from the Global Reporting Initiatives (GRI) and Measuring Green Banking Practices guidelines developed by Shaumya and Arulrajah (2016). Combining these two measurements provided a more comprehensive disclosure list as guidance. This study is important, as it will contribute to the literature on green banking, which is scarce in the extant literature. Given the lack of standardisation in sustainability, this study develops an indicator database to advance research on sustainability measurement and reporting in relation to green banking. The managerial implications for banks implementing sustainability they require sustainability governance as a platform to evaluate and monitor the sustainable finance action plan and build a sustainability strategy. This will enable banks to manage not only economic, but also environmental, social, and governance (ESG) risk.

Keywords: Sustainability, Green Banking, Disclosures, Indonesia, Banking Sector.

1. INTRODUCTION

Sustainable development, from the earliest years of the 21st century has been a growing issue globally, especially in developing countries (Ramnarain and Pillay, 2016). This increased attention has been triggered by growing concerns in social and environment issues, with one being the agenda of The Sustainable Development Goals (SDGs) initiated by the United Nations. As the commitment of each Nation in supporting SDGs is becoming more intense, the participation of many companies from different industries has also over time helped increase the achievement of SDGs. This situation provides strong evidence that environmental and social issues have now become crucial topics together with the economical issue.

The corporate social responsibility (CSR) activities performed by companies in various industries ignores the fact that their business operations are still threatening society and its environment. Financial institutions are seen as the least harmful to the environment. Some people still believe that these industries do create an environmental impact, as they do not contribute to emissions, pollution, waste, or environmental damage as their industries provide services, not manufactured items (Nwobu *et al.*, 2017). However, this perspective is no longer applicable as financial institutions provide funds for almost all companies and hence, they are playing an important role as major stakeholders in the industrial sectors. Consequently, banks must become ecologically and socially responsible when disbursing funds to other companies to support their businesses. Unfortunately, amongst all the industries, financial institutions are reported to have the least concern for environmental issues (Deb *et al.*, 2013). Thus, this paper examines the sustainability and green banking performance of Indonesian banking sectors from their disclosures in sustainability reports covering a period of nine consecutive years.

Organisations have started to modify their business operations in an attempt to increase their eco-friendly level (Singh and Singh, 2013; Mistry et al., 2014; De Villiers & Sharma, 2020). With a view to this challenge, banks play a significant role in the business environment by encouraging eco-friendly policies through green banking practices (Nanduri, 2016). Green banking refers to banks maximizing their potential by undertaking responsibility and showing care for the environment and social aspects, more importantly in providing loans to their debtors who show good environmental, social, and governance performances (Sharma *et al.*, 2014). According to Bihari (2011), green banking involves promoting environmental and social responsibility. It starts with lending policies, suggesting that banks consider environmental aspects and future implications before financing a project.

Banks may not directly contribute to social and environmental disaster activities, their activities are important in supporting other industries or projects financed by the banks. The role of banks in financing other industries or projects are commonly involved with social and environmental activities. Hence, the financial industries play a very crucial role in developing and promoting corporate social responsibility and environmental sustainability. Financial industries, including banks, often have a “catalytic role” in influencing the social and environmental behavior of other industries, in particular their debtors (Douglas *et al.*, 2004).

Although not massive, financial industries are directly responsible for environmental damage as they are contributing to the increase in greenhouse gas emissions through their use of paper, electricity, air conditioning, lighting, transportation, and other electronic equipment (Putri *et al.*, 2017). On the other side, most of them have completely agreed that the operations of the financial industry companies indirectly contribute to the environmental damage by providing capital funds for their ‘irresponsible clients’ in certain industries (Shaumya and Arulrajah, 2016; Nwobu *et al.*, 2017; Putri *et al.*, 2017). The financial institutions include commercial banks and insurance companies serving clients from various industries. Some of these clients, who are their debtors, may operate in the oil and gas, agriculture, mining, and manufacturing industries, which potentially damage the environment. For instance, irresponsible oil and gas companies will pose a great danger to the environment through pollution, greenhouse gas emissions, and spillage (Nwobu *et al.*, 2017).

It is notable that the direct environmental impacts of banking activities may be low, but the indirect impacts are much higher. There is an opportunity to maximise the banks’ power to influence sustainable businesses through its financing and innovations. Banking and financial institutions can be considered as holding a strategic position in creating and maintaining the green revolution to save this planet. Banks can support various initiatives towards a green and clean environment, such as green loans, green bonds, or sustainable bond for eco-friendly projects, including green buildings, solar panels, and renewable energy-related projects (Miah et al., 2020). Many industries and businesses obtain a large portion of their funds from the banking sector, and this financing role has created a huge responsibility and accountability on the banks. If banks fail to detect and identify the potential environmental impacts of their business clients, it may indirectly lead to environmental damage (Shaumya and Arulrajah, 2016). Siueia, Wang & Deladem (2019) also stated that because the banking industries are vital to improving the future economy, bank decision makers must behave in a sustainable manner. This behaviour demonstrates a concern, not only for the economic performance in the short term, but also economic performance in the long term by protecting the environment and social values. In this case, it describes the needs of future generations, and not only the maximizing of current shareholders’ returns.

To communicate the companies’ activities, especially for listed companies, they are required to publish an annual report to disclose their economic performance as a form of accountability to its stakeholders. Nevertheless, an annual report is considered inadequate to fully provide the information needed by

stakeholders (Nwobu *et al.*, 2017; Sharma *et al.*, 2013; Symes *et al.*, 2017). This is also reinforced by an argument from Usenko and Zenkina (2016), stating that financial performance cannot fully describe the companies' risks and performances without conveying the company's impacts on the economic, environmental, social, and governance (EESG) aspects, as well as information of positive and negative environmental and social externalities. The bankruptcy of large companies, such as Enron has provided strong evidence that a company should also report information related to their sustainability performance.

Sustainability is a major global concern and contains the efforts taken to protect the earth for future generations. The beginnings of 'sustainability' as an official term can be traced back to the eighties, where it addressed the survival of humanity on the planet, as the most common sustainability concepts, as noted by the The World of Convention Union, United Nations Environment Programme, World Wide Fund For Nature (1991). One way to examine the sustainable performance of a company is by checking its sustainability report. According to Global Reporting Initiatives (2013:1), a sustainability report is "a form of practice in measuring and disclosing corporate activities as a form of accountability to stakeholders about the organizational performances in actualizing the goal of sustainable development and becomes one of the media to describe EESG reporting".

Higgins and Coffey (2016) realized that firms that integrate sustainability into their strategic activities may gain more benefits from publishing sustainability reporting, compared to those that do not have any sustainability strategy. Romero (2016) stated that a sustainability report had become a media to provide stakeholders with information on sustainability strategy. It is also perceived as one way to disclose corporate transparency in a company's financial and non-financial performance. Investors and business stakeholders find it very useful as they can gain a clear and better view of a company's performance (Asuquo, 2012).

Since the 1990s, the number of companies providing information on their environmental, social, and governance (ESG) performance has increased significantly (Wensen *et al.*, 2011). Until recent years, the number of companies willing to publish sustainability disclosures keeps increasing, making the need for standardization more urgent (Zickiene and Juozaitiene, 2013). In an effort to promote transparency, reporting frameworks have been developed to ensure that corporations disclose relevant information. However, the use of standards and guidelines varies among countries in the world. There are standards and guidelines such as AccountAbility (AA), Global Reporting Initiative (GRI), Sustainability Accounting Standard Board (SASB), the United Nations Global Compact (UNGC), and Carbon Disclosure Project (Nwobu *et al.*, 2017). Despite these many standards, GRI is the most widely standard applied to many sustainability reports as they provide the most comprehensive guidelines.

Dobbs and Van Staden (2016) noted that community and shareholder pressure are the most significant factors that influence companies to publish a report. Also, the investors demand, not only financial, but also non financial information to support their investment decisions. Drivers for this demand include the size and type of industries, or economic, political, or social aspects. Other than that, the fundamental drivers of sustainability reporting include maintaining organizational legitimacy and managing risks to corporate reputation (Gunawan, 2010).

Additionally, many companies believe that sustainability reporting and assurance should remain voluntary. They view the additional regulations as a cost to their business. Therefore, the regulators should strive to convince the companies that the related costs far outweigh the benefits in the long run. Developed countries have addressed the issues related to the sustainability reporting regulations more often than developing countries. However, emerging countries such as Malaysia and South Africa have mandatory guidelines for sustainability reports that are expected to be employed by companies

(Nwobu *et al.*, 2017). Accordingly, Indonesia has issued mandatory guidelines regarding sustainability as stipulated by the Financial Service Authority (FSA) Regulation Number 51/POJK.03/2017. This regulation was applied to financial institutions as the first targeted sector, then will gradually be extended to other business sectors, and will cover all listed companies to mandate publishing sustainability reports in 2021.

In European countries, banks began to place an interest in the environment in the early 1990s (Delphi International Ltd and Ecologic GMBH, 1997). Financial institutions, such as banks and insurance companies revitalized their lending policies to reduce environmental damage, with a view towards sustainable development (Nwobu *et al.*, 2017). Peeters (2003) pointed out that the actualization of the sustainable development agenda must correlate to socially responsible investments. Regulations for financial institutions are really important to achieve the goals of sustainable development, considering that their clients may gain profits from non-sustainable activities with those banks as sources of funds (Richardson, 2009).

In developing countries, including Indonesia, there are limited studies on green banking (Sobhani *et al.*, 2012). The research conducted by Dewi and Dewi (2017) attempted to find the relation of Green Banking, Corporate Social Responsibility, and the Going Concern in the Indonesia Stock Exchange. However, their studies only explored three years of green banking disclosures and were limited in providing empirical evidence on how green banking was being practiced in Indonesia. Several prior studies also attempted to gain an understanding of green banking implementation in Indonesia. The concept of green banking is still unknown by the general public and corporations, as there is no specific literature on this topic (Maryanti *et al.*, 2021). While the concept of green banking evidently aligns with the Good Corporate Governance Principle, the implementation of local regulations such as an Environmental Impact Analysis (AMDAL) is still not effective in the banking environment (Dialysa, 2015; Kusumadewi & Paripurna, 2018). Thus, the objective of this study is to explore more comprehensively the sustainability information (economic, environmental, and social indicators) and green banking disclosures of Indonesian banks, based on the GRI guidelines format, in order to provide a universal understanding of green banking practices and the extent of disclosures as a base-line study for future research and also as a reference for sustainability banking measurements. Given the lack of standardization in sustainability, this study develops an indicator database to advance research on sustainability measurement and reporting in relation to green banking.

2. LITERATURE STUDY

2.1. GREEN BANKING

This study was carried out to explore sustainability disclosures, including sustainability and green information published by banks. Green information is part of the environmental information, which is included in the sustainability context. According to Porter and Kramer (2002), “in the long run...social and economic goals are not inherently conflicting but integrally connected”. With more people’s growing concern about environmental issues, the concept of sustainability has become a hot topic among stakeholders and academics. More proactive engagement in sustainable activities has led to increasing practices in sustainable finance and sustainable banking (Peiyuan and Yongda, 2010; Jeucken, 2001; Imeson and Sim, 2013). To achieve sustainable development, the banking sector plays its role by practicing the green banking concept. Sustainable banking often refers to delivering financial products and services, which are developed to support communities’ welfare and preserve the environment, while generating sustainable profit (Yip and Bocken, 2017).

The concept of sustainable banking practices is in line with the support of sustainable development

goals (Kumar and Prakash, 2019). Sustainable banking is considered as a global initiative to transform the traditional banking concept and develop new sustainable business models (Jeucken and Bouma, 1999; Jeucken, 2004, 2010). The notion of sustainable banking involves green banking practices to incorporate environmental considerations, community practices, and ethical values. To implement sustainable banking, it may require innovation, for example, Grameen Bank that provides microcredits to the poor with its inherent higher risk (Yunus *et al.*, 2010).

According to several sources, green banking has various types of practices. For instance, it provides low interest rate loans for greener investment in the early period of green banking development (Chaurasia, 2014); it supports the development of certain industries with environmental concerns such as renewable energies, energy efficiencies, and green buildings (Tran and Tran, 2015); it also offers credits with a requirement of environmental standards (Zhang *et al.*, 2011); and it applies electronic banking such as online inquiries, e-payments, e-transfers, and mobile banking (Tran and Tran, 2015; Singh, 2015). Each bank applies slightly different green banking practices, but the majority are similar.

On the other hand, adopting the green banking concept is also challenging. Banks will face a number of issues, such as lower cash flow and profit in the short term; higher operating costs in the early stage of implementation; lack of reliable data on the environmental measurement; long start-up time and fewer customers (Biswas, 2011; Zhang *et al.*, 2011; Gupta, 2015; Tran and Tran, 2015; Rahman and Barua, 2016). Further, Biswas (2011) and Rajput *et al.*, (2013) said that reputation risks due to the difficulty of assessing debtor's projects can also be a challenge, while a lack of formal guidelines, especially in developing countries can be a problem that needs to be solved first, despite formal legislation promulgated by government.

Regardless of these challenging issues, some studies have found a positive correlation between a company's profitability and its environmental initiatives (Russo and Fouts, 1997, Hart and Ahuja, 1994; 1996; Klassen and Curtis, 1996). There are also some studies attempting to examine the correlation between the performance of banks and the adoption of the green banking concept. Despite showing mixed results, Bhardwaj and Malhotra (2014) stated that there is a positive correlation between the adoption of green banking practices and a bank's profitability.

2.2. SUSTAINABILITY DISCLOSURES

Some empirical studies related to sustainability reporting have been conducted in Canada, Malaysia, Europe, and South Africa (Turley *et al.*, 2016; Harun *et al.*, 2013; Bollas-Araya and Segui-Mas, n.d; Nwobu *et al.*, 2017). Apparently, the findings in Europe and Malaysia were quite similar because the social aspect may dominate the sustainability disclosures (Bollas-Araya and Segui-Mas, n.d; Harun *et al.*, 2013). Further, Harun *et al.*, (2013) noted that social disclosures on labor practices and decent work were given priority by banks compared to disclosures on human rights. On the contrary, Tarna (1999) provide contrary findings where companies were more focused on environmental disclosures. Along with the need to adopt effective actions to reduce the impacts generated using natural resources, there is an increasing discussion on firms' to disclose environmentally related information to their investors, customers, debt holders, and other stakeholders (Pedron *et al.*, 2020).

Another study was conducted by Khan *et al.* (2011) in Bangladesh. They found that although labor and decent work disclosure were in line with GRI guidelines, companies tend to focus on society disclosures. Accordingly, Evangelinos *et al.*, (2010) noted that GRI guidelines were demanding for Greek banks, so they adopted sustainability reporting guidelines issued by Deloitte Touche Tohmatsu. Novokmet and Rogosic (2016) also undertook a case study in Europe and assessed the companies' compliance with GRI G4 guidelines, and found that companies in many countries seemed to disclose

less financial information in their integrated reports. Regardless of the compliance with GRI guidelines, the disclosures were deficient in environmental and social issues.

The deficiency in environmental and social issues disclosures seems to change from time to time as stated by Sobhani *et al.* (2012). Sobhani *et al.*, (2012) recorded improvement in sustainability disclosures by banking sectors across different time periods in countries, such as Bangladesh (2000-2009) and Malaysia (2008-2011). However, Pulejo *et al.* (2015) asserted that many ethical banks did not use standards and guidelines in reporting their sustainable performances due to the voluntary options in Europe (2000-2014) which hampered the comparability of sustainable disclosures.

A research by Turley *et al.* (2016) in Canada found that 67% of banks, credit unions, and crown corporations had an effective system and process for periodical measurement and sustainability reporting available for both internal and external stakeholders. Sustainability reporting provides the information to meet the stakeholders' needs by offering transparent communication of organizational values and performance towards sustainable development. Sustainability reporting is a "critically reflexive process where accepted rules, strategies and norms are developed and result in augmented employee-managers awareness and motivation to create a long-term stakeholder value by embracing opportunities and managing the risk from an economic, social and environmental perspective" (Singh *et al.*, 2020). Further, Casselman *et al.*, (2015) discovered that sustainable financial institutions were reported to have better social performance, compared to those which do not demonstrate sustainable activities.

Gambetta *et al.* (2016) asserted that companies in Europe have a higher quality of sustainability disclosures, but they tend to have a lower level of profits. They argue that profitability is the main factor influencing sustainability reporting. Furthermore, an absence of external assurance seemed to be the cause of low-quality sustainability information. Meanwhile, the majority of banks in Mauritius were reported to disclose more social information, particularly on human resources, than any other social indicators (Ramdhony, 2015). Such findings are in line with a stock exchange study by Euronext, stating that social responsibility disclosures are dominated by larger companies (greater visibility). In other words, external assurance and corporate visibility also affect sustainability reporting practices. Similarly, Andrikopoulos *et al.* (2014) proposed the same argument while adding financial leverage as another contributing element. Hence, more CSR disclosures are presented by companies with greater financial leverage.

2.3. LEGITIMACY THEORY

Among the theories explaining the sustainability concept, the dominant ones are the stakeholder, agency, and legitimacy theories (Aras, *et al.*, 2018). In relation to the purpose of this study, the legitimacy theory is used as a framework to evaluate voluntary disclosure practices. The legitimacy theory states the firms' behavior in disclosing voluntary environmental and social information to stakeholders (Suchman, 1995).

The legitimacy theory describes the existence of a social contract between firms and society, and the existence of asymmetry information between firms and their stakeholders (Pedron *et al.*, 2020). The legitimacy theory also recognizes that organizations are evolving within the community, and are seeking to establish a mutual understanding between community's expectations and an organization's value system (Prasad *et al.*, 2016). Further, Suchman (1995), defined legitimacy as a "generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, and beliefs, and definitions". These definitions refer to a particular legitimacy subject, such as an organisation or organisational practice, which gains

collective approval in the processes of social construction, and thus, resulting in a “social judgement” (Bitektine, 2011).

Legitimacy plays a significant role in an organization’s survival, and the legitimacy status is often seen as a strategy or precondition to obtaining support for the organisation’s existence. Meyer and Rowan (1977) stated that the institutional theory, regardless the quest for legitimacy, is a driving force that motivates organisations to adopt formal policies, including self-regulatory ones. This argument shows that examining the antecedents, processes, and consequences of legitimacy is imperative when determining an organisation’s growth and survival. Based on this reason, the legitimacy theory occupies a major position in institutional thought (Deephouse & Suchman, 2008).

The Legitimacy theory was applied in this paper as it is often seen as a theory of social judgement (Bitektine, 2011). Further, Bitektine explains that Legitimacy is “an evaluation that is conferred to an organization by its audience, thus, the evaluation plays a critical role in the legitimation process”. Scherer *et al.* (2013) supported this idea by stating that organizations tend to respond by disclosing more information to fulfill the community’s expectations and to assure their business is sustainable.

Related with this reason, for some banks, in order to implement the sustainability initiative, they issue green bonds, followed by their sustainability strategy (Ng, 2018). Another reason for issuing green bonds is to adopt risk management. This situation is supported by major financial regulators around the world monitoring the banking industries, who manage not only the economic, but also the social, and environmental risks.

Given such growing concern among financial stakeholders and regulators, the adoption of environmental, social, and governance (ESG) reporting as a legitimate global and regional trend is becoming more important. This potential concern could be deepened as firms of various professional backgrounds compete to provide compliance services to their clients. Hence, practising “green” legitimacy through issuing green bonds or even through “green washing” could be an incentive to gain a better reputation, as articulated by Gray *et al.* (1995).

2.4. LITERATURE GAP

Several studies and research have been reviewed in order to gain a better understanding of green banking practice in Indonesia and how Global Reporting Initiatives (GRI) guidelines can be used as the main format for any information related to sustainability disclosures.

The Green Banking concept has been used in several local researches with various methods. A study by Karyani and Obrien (2020) used the Ordinary Least Square (OLS) method to test the effect of green banking practices on bank service performance, and foreign ownership as its moderation variable. The study showed that green banking has a negative relationship to bank's profitability and foreign ownership. On the other hand, a study by Bhardwaj and Malhotra (2014), and Rachman and Saudi (2021) showed a positive relationship between green banking practices and a bank's profitability. These studies show that the approach to understanding the impact of green banking practices varies between studies. This is where the GRI guidelines can play a role to gain a better understanding of the green banking sustainability aspects, as they are specific guidelines related to the financial sector disclosures.

Another approach to green banking study by Haryanto and Olivia (2014) used secondary data from local banks as the research sample. Haryanto and Olivia (2014) used the local bank information (Bank Negara Indonesia - BNI) and compared it to a foreign bank (Triodos Bank) and this approach showed

that the green banking concept in BNI was still low due to BNI's lack of green products, even though BNI has a greater asset value than Triodos Bank. Furthermore, a secondary data study using content analysis was conducted by Handajani (2019), which specifically used banks' annual reports to identify reporting issues. The result showed that state-owned banks have adopted a green banking concept, but disclosures vary between concepts such as green products, green operations, green customers and green policies. In short there are no technical guidelines on how green banking is implemented by the financial institution.

This research further analyses how the concept of green banking is implemented based on the sustainability-related approach. The content from sustainability reports are considered as eligible as the disclosures may align to the green banking concept, especially regarding environmental and social information. The increasing application of GRI in sustainability reports shows that this guideline is generally acceptable when disclosing sustainability related topics. Thus, GRI may help the financial sector to gain a better understanding of green banking implementation.

Figure 1 shows the model used for the study in relation to sustainability disclosure and green information and how these dimensions leads the banking sector to gain legitimacy from their operations. The model shows that the sustainability disclosures and green information by banks is measured by the extent of environment, social and financial disclosures by banks.

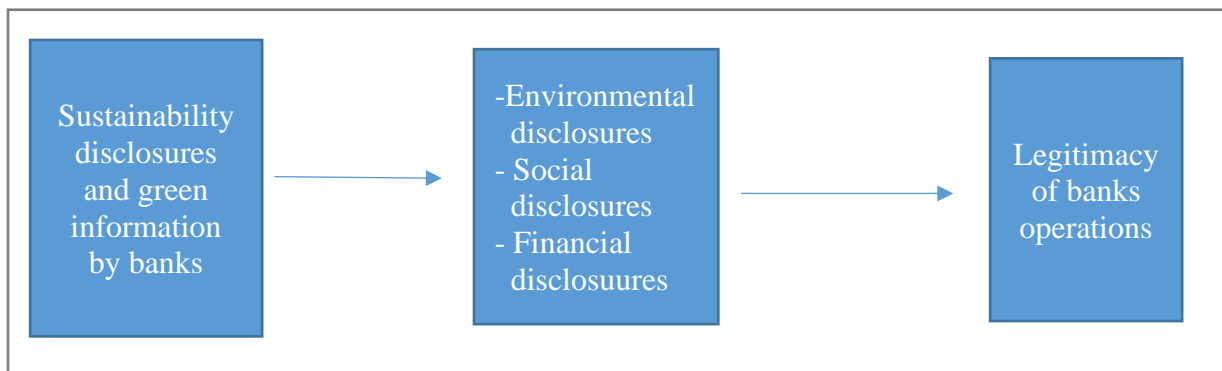


Figure 1: Model used for this study

3. METHOD

3.1 Coding and Content Analysis

This study applies content analysis to analyze the sustainability reports issued in the Indonesian banking sector from 2009-2017. According to Neumann (2003, p.219), content analysis is “a technique for gathering and analyzing the content of texts”. Content analysis is “a scientific tool and is also a research technique for making replicable and valid inferences from text to the context of their use”. “It provides new insights, increases a researcher’s understanding of particular phenomena, or informs practical actions” (Krippendorff, 2013:24). Weber (1990) also defines content analysis as “a set of procedures to make valid inferences from text”. The content analysis is frequently used to determine the extent of disclosures in the many reports, including sustainability reports.

Some academics measure the extent of disclosures by the number of pages, while others use the number of words (Ng, 1985) or the number of sentences (Gunawan, 2010). By using content analysis, the number of disclosed information is evaluated and then, converted into a score and ratio. The content refers to words, meanings, pictures, symbols, ideas, themes, or messages that are disclosed. The content

analysis transforms qualitative data into a quantitative format through scoring. Scoring is the analytic process through which the qualitative data gathered is evaluated. The purpose of scoring is to draw meaningful conclusions from the data.

To confirm reliability and validity in a content analysis process, Weber (1990) suggests the use of common-sense definitions to analyze the sentences as well as to apply scores or points. Based on the understanding of content analysis aspects, general guidelines have been developed, as inspired by Gunawan and Abadi (2017). These guidelines were explored and discussed in detail by the coders (in this study, coders refer to the researchers who applied the scores). The main purpose of these guidelines is to establish an agreement for conducting the content analysis process consistently and systematically, particularly in awarding scores.

3.2 General Guidelines

The coders are required to fully understand and carefully follow every step in the guidelines. The manuals and disclosure sheets for recording the scores should always be available during the content analysis process. Each of the coders carried out the content analysis independently, but communicated with each other whenever uncertainty arose. After the names of the companies were confirmed among the coders, the information was examined to monitor and trace the number of samples evaluated. Referring to the GRI standard guideline indicators, each of the disclosed items in the sustainability report samples were identified.

The guidelines emphasized the aspects considered vital for compiling a systematic content analysis procedure, and for providing more clarity and understanding. All coders applied the following steps conscientiously during the content analysis procedures.

- a) Reading the sustainability report text carefully from the first page until the last page.
- b) Finding the index of GRI and Shaumya and Arulrajah (2016) guideline indicators.
- c) Giving a Score of 1 if the indicator is disclosed in the company's sustainability report, and a score of 0 if the indicator is not disclosed in the sustainability report.
- d) Calculating percentages.

After the scoring process was completed, the scores for each theme were calculated. Then, all scores were accumulated to obtain a total disclosure percentage.

- e) Drawing inferences.

The total disclosure percentage explains to readers the extent of information disclosed in the banking sustainability report, as a picture of the green banking practices in Indonesia.

After conducting the content analysis every year for each indicator, the total scores were divided by the numbers of sustainability reports. The resulting percentages show how many sustainability reports disclose each indicator. Also, the percentage averages show the extent of each disclosure by all companies within a nine-year period, with the results grouped by very low (0-19.99%), low (20%-39.99%), medium (40%-59.99%), high (60-79.99%) and very high (80-100%).

4. RESULTS AND DISCUSSIONS

4.1 Results Based on GRI Indicators

This study provides a comprehensive evaluation using two disclosures indicator approaches, the GRI Guidelines and the disclosures developed by Shaumya and Arulrajah (2016). The GRI Guidelines were used to examine the sustainability disclosures as they are general and cover the financial sectors, and the disclosures developed by Shaumya and Arulrajah (2016) were used to examine the green banking disclosures, as they are specific. This twin approach provided more comprehensive results for the sustainability practices followed in the Indonesian banking sectors.

Table 1 shows the total percentages for the economic, environmental, and social indicators disclosed by 21 banks in Indonesia in accordance with the GRI Financial Services Sector

Table 1 – Total Percentage Disclosed Based on GRI Financial Services Sector

Year	Total Sustainability Report	Economy	Environment				Social							
							Human Rights	Product Responsibility					Society	
		EC1	EN15	EN16	EN17	EN23	HR1	FS6	FS7	FS8	FS10	FS11	FS13	FS14
2009 (GRI - G3)	1	100%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%
2010 (GRI - G3)	4	75%	0%	0%	0%	0%	0%	25%	25%	25%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	6	50%	0%	0%	0%	0%	0%	50%	50%	17%	0%	0%	0%	0%
2012 (GRI - G3.1)	10	90%	20%	10%	0%	0%	30%	80%	80%	50%	30%	0%	30%	30%
2013 (GRI - G3.1 and G4)	13	92%	23%	23%	0%	15%	38%	69%	85%	46%	23%	8%	54%	38%
2014 (GRI - G4)	16	100%	44%	25%	19%	25%	19%	63%	69%	31%	13%	0%	50%	38%
2015 (GRI - G4)	19	95%	5%	5%	0%	26%	16%	53%	53%	32%	11%	0%	53%	42%
2016 (GRI - G4)	18	100%	17%	6%	6%	6%	11%	61%	56%	44%	6%	6%	61%	39%
2017 (GRI - G4 AND GRI STANDARD)	14	100%	14%	7%	0%	21%	7%	64%	64%	36%	14%	14%	43%	14%
<i>Subtotal</i>	<i>101</i>	<i>93%</i>	<i>18%</i>	<i>11%</i>	<i>4%</i>	<i>15%</i>	<i>17%</i>	<i>61%</i>	<i>63%</i>	<i>37%</i>	<i>13%</i>	<i>4%</i>	<i>45%</i>	<i>31%</i>
<i>Total</i>	<i>101</i>	<i>93%</i>	<i>11.88%</i>				<i>33.79%</i>							

Table 1 shows that based on the percentage, the economic aspect with a percentage of 93.07% (very high) was the highest percentage, followed by the social and environmental aspects with 33.79% (low) and 11.88% (very low) respectively. This result is similar to Gunawan (2010) and Sobhani *et al.* (2009) who found that the banking industry discloses more economic and social, and less environmental information compared to other industries listed on the Indonesia, Dhaka, and Chittagong Stock Exchanges.

On the other hand, Aras *et al.*, (2018) stated that economic information has the high score even though it has fewer disclosures. Another finding from Rebai *et al.*, (2016) classified French banks' sustainability into four aspects: EESG quality. Based on a multi-attribute utility model for generating sustainability index results, all banks gained a considerably low performance in environmental information, but a relatively good performance in economic disclosures. However, the social and governance information is weighted equally and is the lowest scores even though both have ample disclosures among all aspects. Table 1 suggests that Indonesian banks have reported a different number of disclosures regarding their green banking practices, and there is no pattern or consistent improvement year-on-year.

Table 2 – Percentage of Economic Indicators Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>								
	EC1	EC8	EC7	EC3	EC5	EC4	EC2	EC9	EC6
2009 (GRI - G3)	100%	0%	0%	100%	0%	100%	0%	0%	0%
2010 (GRI - G3)	75%	25%	25%	25%	0%	25%	25%	25%	0%
2011 (GRI - G3 and G3.1)	50%	17%	17%	33%	17%	33%	33%	33%	0%
2012 (GRI - G3.1)	90%	70%	40%	70%	80%	60%	70%	60%	30%
2013 (GRI - G3.1 and G4)	92%	85%	77%	77%	69%	62%	62%	62%	38%
2014 (GRI - G4)	100%	94%	81%	75%	31%	25%	31%	6%	13%
2015 (GRI - G4)	95%	79%	74%	63%	42%	32%	26%	5%	16%
2016 (GRI - G4)	100%	78%	72%	61%	44%	39%	17%	22%	17%
2017 (GRI - G4 AND GRI STANDARD)	100%	86%	71%	21%	29%	29%	14%	14%	14%
<i>Total</i>	93%	75%	65%	58%	43%	39%	33%	25%	18%

Table 2 shows the economic indicators disclosed by 21 Indonesian banks and the EC1 (Direct Economic Value Generated and Distributed) realized the highest percentage of 93% (very high), which may suggest that the economic aspect is the most disclosed factor. The EC1 indicator is widely disclosed as this study and was applied in all banking sectors by the listed or public companies. Listed companies are required to publically disclose their audited financial performance. In addition, the GRI financial services sector discloses the EC1 indicator in their sustainability reports.

These findings are in line with Roca and Searcy (2012) who found that the EC1 indicator realized the highest percentage in sustainability disclosure. It was followed by EC8 (Significant Indirect Economic Impacts, Including the Extend of Impacts) with 75% (high) and EC7 (Development and Impact of Infrastructure Investments and Services Supported) with 65% (medium). These two indicators often reveal the banks' performances and achievements in community empowerment. These indicators are also included in the Financial Services Authority Regulation that states banks should disclose the impact of their activities in financial literacy and inclusion, as well as Environmental Social Responsibility activities in supporting the Sustainable Development Goals (SDGs). In contrast, the indicators for EC2 (climate change impact), EC9 (spending on locally-based suppliers), and EC6 (local senior management hired) are the least disclosed by the banking sectors. The lower disclosure rates for these three indicators may indicate that quantitative information on climate changes is difficult to calculate. In addition, hiring local employees may also be difficult due to their limited competencies, or lack of appropriate jobs to match their capabilities.

Table 3 – Percentage of Environmental Indicators Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>											
	EN6	EN3	EN1	EN8	EN7	EN13	EN5	EN30	EN27	EN19	EN31	EN15
2009 (GRI - G3)	0%	100%	100%	100%	0%	100%	0%	100%	0%	0%	0%	0%
2010 (GRI - G3)	25%	25%	25%	25%	0%	25%	25%	25%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	17%	17%	17%	17%	0%	33%	0%	33%	0%	0%	0%	0%
2012 (GRI - G3.1)	60%	40%	30%	30%	50%	50%	50%	60%	10%	20%	0%	20%
2013 (GRI - G3.1 and G4)	62%	69%	46%	38%	46%	38%	46%	46%	15%	31%	46%	23%
2014 (GRI - G4)	63%	63%	31%	31%	38%	31%	19%	6%	38%	25%	19%	44%
2015 (GRI - G4)	63%	53%	32%	26%	21%	11%	16%	5%	26%	21%	21%	5%
2016 (GRI - G4)	44%	44%	33%	33%	11%	6%	17%	11%	28%	17%	22%	17%
2017 (GRI - G4 AND GRI STANDARD)	43%	43%	43%	50%	14%	0%	7%	7%	7%	14%	7%	14%
Total	51%	50%	35%	34%	25%	22%	22%	21%	20%	19%	18%	18%

Table 3 (continued) – Percentage of Environmental Indicators Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>											
	EN2	EN29	EN11	EN23	EN12	EN18	EN26	EN4	EN16	EN22	EN10	EN14
2009 (GRI - G3)	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
2010 (GRI - G3)	0%	0%	0%	0%	25%	0%	25%	0%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	0%	0%	0%	0%	17%	0%	17%	0%	0%	0%	0%	17%
2012 (GRI - G3.1)	40%	20%	10%	0%	0%	50%	70%	30%	10%	60%	20%	40%
2013 (GRI - G3.1 and G4)	31%	23%	38%	15%	31%	23%	23%	23%	23%	23%	23%	8%
2014 (GRI - G4)	19%	13%	25%	25%	25%	13%	0%	19%	25%	0%	6%	0%
2015 (GRI - G4)	21%	16%	21%	26%	16%	5%	0%	0%	5%	0%	11%	5%
2016 (GRI - G4)	11%	22%	6%	6%	6%	6%	0%	6%	6%	0%	0%	0%
2017 (GRI - G4 AND GRI STANDARD)	0%	7%	0%	21%	0%	14%	0%	14%	7%	0%	0%	0%
Total	17%	15%	15%	15%	14%	14%	13%	12%	11%	9%	8%	8%

Table 3 (continued) – Percentage of Environmental Indicators Disclosed Based on GRI

Standards	Indicators									
	EN20	EN9	EN33	EN21	EN28	EN32	EN34	EN17	EN25	EN24
2009 (GRI - G3)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2010 (GRI - G3)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2012 (GRI - G3.1)	10%	20%	0%	20%	30%	0%	0%	0%	0%	10%
2013 (GRI - G3.1 and G4)	8%	23%	38%	23%	31%	8%	15%	0%	23%	0%
2014 (GRI - G4)	13%	0%	0%	6%	0%	6%	0%	19%	0%	0%
2015 (GRI - G4)	11%	5%	11%	0%	0%	11%	5%	0%	0%	0%
2016 (GRI - G4)	11%	6%	0%	6%	0%	6%	11%	6%	0%	0%
2017 (GRI - G4 AND GRI STANDARD)	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%
<i>Total</i>	8%	7%	7%	7%	7%	6%	5%	4%	3%	1%

Table 3 shows the total percentages for the environmental indicators, where many indicators were not disclosed. Based on Esteban-Sanchez *et al.* (2017), banking is not considered as sector that pollutes the environment. Although banks can indirectly affect the environment through their project financing decisions, the data reported by banks is still scarce, even when they have adopted the Equator Principles. Overall, even with the low percentages, this study can conclude that EN6 (reduction on energy consumption), EN3 (energy consumption within the organization), and EN1 (materials used) are the top three most disclosed environmental indicators with very low percentages of 0%, 17%, and 17% respectively and total average of 51%, 50%, and 35% respectively.

The results of this study are slightly different from Roca and Searcy (2012). Roca and Searcy found that EN3 was the indicator most often disclosed, and EN2 (recycled materials), and EN4 (energy consumption outside the organization) were the energy indicators most often disclosed by banks. The banks presenting their data showed that the amount of energy consumption from year to year had decreased. This decline is important and may imply sustainability practices. Some banks also try to reduce their energy consumption to meet the Green Economic Movement (GEM) criteria. Banks may also want to be seen as providing green banking in order to follow the latest trends and to satisfy stakeholder pressure.

The EN1 indicator has become the most widely disclosed as in banking operations, paper is the main material used for customer statements, mailing activities, and other operational support activities. Paper consumption reduction is also happening due to the growing "e-banking" trend in Indonesia today. By using digital e-banking, most transactions now incorporate green printing and paperless processes. The EN8 indicator is also widely disclosed, as the amount of water used in bank operations is one indicator measured to meet the GEMS banking criteria. On the other hand, EN17 (greenhouse gas/GHG emissions scope 3), EN25 (waste transported), and EN24 (spills) were the indicators with minimum disclosure, with very low percentages of 4%; 3%; and 1% respectively. These three indicators seem to be considered irrelevant to the banking industry, as they do not report any activities related to these disclosures in their sustainability reports.

Table 4 – Percentage of Social Indicators (Subcategory: Human Rights) Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>											
	HR3	HR4	HR6	HR5	HR7	HR1	HR12	HR2	HR10	HR8	HR9	HR11
2009 (GRI - G3)	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%
2010 (GRI - G3)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2012 (GRI - G3.1)	30%	50%	50%	40%	50%	30%	0%	40%	0%	30%	20%	0%
2013 (GRI - G3.1 and G4)	46%	69%	54%	46%	46%	38%	15%	46%	31%	38%	23%	8%
2014 (GRI - G4)	38%	25%	13%	13%	6%	19%	6%	6%	19%	6%	0%	0%
2015 (GRI - G4)	47%	26%	21%	21%	21%	16%	21%	16%	11%	5%	0%	11%
2016 (GRI - G4)	44%	39%	39%	44%	17%	11%	39%	6%	17%	11%	0%	6%
2017 (GRI - G4 AND GRI STANDARD)	36%	0%	7%	7%	7%	7%	7%	0%	7%	7%	0%	0%
Total	37%	30%	27%	26%	21%	17%	15%	15%	13%	13%	5%	4%

Table 4 shows the percentage for each social indicator in the human rights subcategory. For this Table, it can be concluded that HR3 (discrimination) is the most-disclosed indicator, followed by HR4 (collective bargaining) and HR6 (forced labour) with the low percentages of 37%; 30%; and 27% respectively.

The HR3 indicator is covered in the 2003 Republic of Indonesia Law Number 13 concerning Labor. This law stipulates that protection of workers is intended to guarantee the basic rights of workers/laborers and to ensure equal opportunities and treatment without discrimination on any basis to realize the welfare of workers/laborers and their families while taking into account the progress of the business world. In addition, the HR4 indicator is disclosed to show that the banking sector complies with the Article 28E paragraph (3) of the Law, which stipulates that "Every person shall have the right to the freedom to associate, to assemble and to express opinions", Law No. 21/2000 on Trade Unions, and International Labour Organization Convention No. 87/1948 on Freedom of Association and Protection of the Right to Organize.

Similarly, the HR6 indicator is disclosed, as this information is required under the Indonesian Constitution, which states that all people are free to choose their occupation and are entitled to receive income, as well as proper treatment in labor relations. Indonesia has ratified the two core International Labour Organization (ILO) conventions that aim to suppress forced labor: the Forced Labour Convention No.29/1930 (C29) and the Abolition of Forced Labour Convention No. 105/1957 (C105). On the other hand, the HR10 (suppliers screened using human rights criteria) HR 8 (incidents involving indigenous people), and HR9 (human rights assessment) indicators were least disclosed by Banks with the very low percentages of 13%; 13%; 5%; and 4% respectively.

Table 5 – Percentage of Financial Services Indicators Disclosed Based on GRI Financial Sector

Standards	Indicators															
	FS7	FS6	FS13	FS8	FS2	FS3	FS14	FS16	FS1	FS4	FS5	FS10	FS9	FS15	FS11	FS12
2009 (GRI - G3)	100%	100%	0%	0%	100%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%
2010 (GRI - G3)	25%	25%	0%	25%	25%	25%	0%	0%	25%	25%	25%	0%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	50%	50%	0%	17%	17%	17%	0%	0%	17%	17%	50%	0%	0%	0%	0%	0%
2012 (GRI - G3.1)	80%	80%	30%	50%	60%	50%	30%	20%	70%	50%	60%	30%	20%	20%	0%	0%
2013 (GRI - G3.1 and G4)	85%	69%	54%	46%	62%	54%	38%	23%	62%	69%	54%	23%	8%	23%	8%	0%
2014 (GRI - G4)	69%	63%	50%	31%	31%	31%	38%	38%	19%	25%	13%	13%	19%	6%	0%	6%
2015 (GRI - G4)	53%	53%	53%	32%	26%	26%	42%	32%	16%	16%	5%	11%	5%	5%	0%	0%
2016 (GRI - G4)	56%	61%	61%	44%	28%	33%	39%	39%	11%	11%	11%	6%	17%	6%	6%	6%
2017 (GRI - G4 AND GRI STANDARD)	64%	64%	43%	36%	36%	36%	14%	36%	21%	29%	21%	14%	21%	21%	14%	14%
Total	63%	61%	45%	37%	37%	36%	31%	29%	29%	29%	25%	13%	13%	11%	4%	4%

Table 5 shows that indicator FS7 (monetary value of products and services) has the highest disclosure with a total percentage of 63% (high), followed by FS6 (portfolio by region) and FS13 (access to disadvantage area) with percentages of 61% (high) and 45% (medium). From this result, it can be assumed that these three indicators are considered important sustainability practices for banking stakeholders, and the reason banks report this information in their sustainability reports.

Table 6 – Percentage of Social Indicators (Subcategory: Labor Practices and Decent Work) Disclosed Based on GRI

Standards	Indicators												
	LA1	LA9	LA2	LA11	LA10	LA12	LA8	LA13	LA3	LA6	LA14	LA4	
2009 (GRI - G3)	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
2010 (GRI - G3)	25%	0%	25%	0%	0%	0%	0%	0%	25%	0%	0%	25%	
2011 (GRI - G3 and G3.1)	50%	17%	33%	33%	33%	17%	17%	17%	33%	0%	17%	17%	
2012 (GRI - G3.1)	90%	50%	80%	50%	80%	80%	70%	90%	80%	20%	80%	60%	
2013 (GRI - G3.1 and G4)	85%	69%	85%	92%	85%	62%	77%	62%	62%	46%	77%	54%	
2014 (GRI - G4)	88%	81%	75%	56%	50%	31%	50%	31%	25%	25%	31%	13%	
2015 (GRI - G4)	84%	89%	58%	58%	47%	37%	58%	32%	37%	32%	26%	16%	
2016 (GRI - G4)	83%	78%	72%	56%	56%	56%	39%	44%	33%	56%	22%	22%	
2017 (GRI - G4 AND GRI STANDARD)	79%	79%	57%	50%	57%	57%	14%	50%	29%	43%	7%	14%	
Total	79%	70%	66%	55%	55%	47%	46%	44%	40%	34%	34%	27%	

Table 7 (continued) – Percentage of Social Indicators (Subcategory: Labor Practices and Decent Work) Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>			
	LA7	LA5	LA16	LA15
2009 (GRI - G3)	0%	100%	0%	0%
2010 (GRI - G3)	0%	25%	0%	0%
2011 (GRI - G3 and G3.1)	0%	17%	0%	0%
2012 (GRI - G3.1)	30%	40%	0%	40%
2013 (GRI - G3.1 and G4)	38%	23%	23%	23%
2014 (GRI - G4)	13%	13%	6%	0%
2015 (GRI - G4)	21%	16%	21%	11%
2016 (GRI - G4)	33%	11%	33%	17%
2017 (GRI - G4 AND GRI STANDARD)	14%	7%	7%	0%
<i>Total</i>	22%	18%	15%	12%

Table 6 shows that indicator LA1 (employees hired and turnover) has the highest disclosure with a total percentage of 79% (high), followed by LA9 (training hours) with 70% (high) and LA2 (benefits for employees) with 66% (high). The results are slightly different from the findings of Roca and Searcy (2012). Roca and Searcy (2012) where the LA13 (ratio of basic salary) was the most disclosed indicator, followed by LA1 and LA11 (employees regular performance evaluation).

The LA1 indicator was the most disclosed information as human resources are considered valuable assets for the Banks, and therefore, employees hired and turnover are significant. This resource composition is of concern to the Banks so they understand the trends and needs in accordance with the employee generation. Some banks also have internal regulations governing employee turnover. In addition, the LA9 indicator (training hours) was disclosed to inform the shareholders that the Banks continue to improve their human resource competencies to follow the global trend, one example being training for digital banking transformation. The banks also disclosed the average training hours by gender to explain their principle of gender equality, where both men and women receive equal training facilities.

The LA2 indicator (benefits for employees) was disclosed to show that banks provide adequate benefits and facilities for permanent and non-permanent employees. For this aspect, all banks in Indonesia must comply with the Financial Services Authority Regulation Number 45/POJK.03/2015 concerning the Implementation of Governance in the Provision of Remuneration for Commercial Banks. Having analyzed the human resources disclosures, it can be concluded that the Indonesian banks disclose major information related to the Regulations. For this stage, the legitimacy theory explains the Indonesian banking condition where the most disclosed information is always associated with regulatory compliance.

Table 8 – Percentage of Social Indicators (Subcategory: Society) Disclosed Based on GRI

Standards	Indicators											
	SO1	SO4	SO5	SO3	SO8	SO6	SO2	SO7	SO11	SO10	SO9	SO12
2009 (GRI - G3)	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
2010 (GRI - G3)	50%	25%	0%	25%	25%	0%	25%	0%	0%	0%	0%	0%
2011 (GRI - G3 and G3.1)	17%	33%	0%	17%	17%	0%	17%	0%	0%	0%	0%	0%
2012 (GRI - G3.1)	50%	70%	50%	70%	30%	50%	30%	10%	0%	10%	10%	0%
2013 (GRI - G3.1 and G4)	92%	77%	38%	54%	46%	62%	31%	38%	15%	8%	8%	0%
2014 (GRI - G4)	75%	69%	44%	44%	19%	13%	6%	0%	6%	0%	0%	0%
2015 (GRI - G4)	79%	63%	42%	42%	21%	11%	16%	11%	11%	11%	0%	0%
2016 (GRI - G4)	72%	61%	56%	39%	33%	33%	6%	17%	11%	11%	6%	0%
2017 (GRI - G4 AND GRI STANDARD)	64%	50%	50%	14%	14%	14%	7%	7%	0%	0%	0%	0%
Total	68%	61%	42%	40%	26%	25%	16%	12%	7%	6%	3%	0%

Table 7 shows that indicator SO1 (Percentage of operations with implemented local community engagement, impact assessments, and development programs) has the highest disclosure with a total percentage of 68% (high), followed by SO4 (anti corruption training) with 61% (high) and SO5 (incident of anti corruption) with 42% (medium).

The SO1 indicator disclosure is driven by the World Bank’s National Community Empowerment Program. Community empowerment will create economic independence especially in the productivity and income of the people who receive assistance. For the Company, implementing the Partnership and Community Development Program (PKBL) is a commitment to support the improvement of people's lives while promoting national economic growth. Bank Indonesia’s 2017 Regulation Number 19 states that acts of corruption are considered as a form of money laundering that must be eradicated. The Financial Services Authority regulation POJK Number 12 of 2017 stated that financial sector companies need to identify, assess, and understand the risks of money laundering.

Companies have an obligation to document risk assessments, and consider all relevant risk factors before determining the overall level of risk, as well as the level and type of risk mitigation needed, and must update risk assessments regularly, and have adequate mechanisms in place to provide risk assessment information to the authorized agency. With these two regulations, it is clear that financial institutions play an important role in the prevention and eradication of corruption, and as a result. G4-SO4 and G4-SO5 become very important indicators. Compliance with the applicable regulations and the disclosure of these two indicators are important in building a good corporate image and gaining trust from the public.

In line with the legitimacy theory, this situation shows that in the aspect of organizations, business firms are considered legitimate when their organizational practices are perceived to satisfy their external stakeholders’ expectations. Meyer and Rowan (1977) contended the legitimacy as a driving force that motivates organizations to comply with formal policies, including self-regulatory ones. The occurrence of corruption will damage the reputation of the bank. Banks in Indonesia also implement a whistleblowing policy for identifying the level of corruption occurring in banks. On the other hand, SO10 (negative impacts on society in the supply chain) with obtained 6% (very low), SO9 (suppliers screened criteria for society) with 3% (very low), and SO12 with 0% (very low), where the least disclosed information due to the infrequent involvement of suppliers in the banking sector.

Table 9 – Percentage of Social Indicators (Subcategory: Product Responsibility) Disclosed Based on GRI

<i>Standards</i>	<i>Indicators</i>								
	PR8	PR5	PR3	PR4	PR9	PR7	PR6	PR1	PR2
2009 (GRI - G3)	0%	100%	100%	0%	0%	0%	0%	100%	0%
2010 (GRI - G3)	0%	50%	50%	0%	0%	25%	25%	25%	0%
2011 (GRI - G3 and G3.1)	33%	83%	50%	17%	0%	17%	50%	17%	0%
2012 (GRI - G3.1)	70%	70%	50%	30%	40%	40%	60%	10%	20%
2013 (GRI - G3.1 and G4)	85%	85%	62%	62%	46%	62%	54%	15%	31%
2014 (GRI - G4)	63%	50%	38%	25%	25%	25%	0%	19%	0%
2015 (GRI - G4)	68%	84%	42%	37%	37%	26%	11%	11%	0%
2016 (GRI - G4)	78%	83%	44%	39%	39%	33%	17%	6%	6%
2017 (GRI - G4 AND GRI STANDARD)	79%	21%	50%	29%	21%	14%	7%	14%	7%
Total	67%	67%	48%	34%	31%	31%	23%	14%	8%

Table 8 shows that indicator PR8 (complaints regarding breaches of customer privacy and losses of customer data) with 67% (high) and PR5 (customer satisfaction survey) with 67% (high) had the highest product responsibility disclosures. This was in line with the findings of Roca and Searcy (2012), who found that PR5 was the most frequently disclosed indicator. PR8 and PR5 indicators are disclosed extensively in the sustainability reports to show that the banking sector pays high attention to its customers. These indicators can also provide information on whether there is an increase in customer service quality as this is essential in the banking sector.

Another indicator with a high percentage disclosure was PR3 (service information) with 48% (medium). This disclosure of PR3 forms part of good corporate governance. Banks disclose information on products and services to explain their transparency in managing customer complaints effectively, and in maintaining customer personal data and information, in accordance with the applicable regulations. This enables banks to maintain their legitimacy with the customers.

Regardless, the sustainability performance of the Indonesian banking sector shows some variation and it seems that there has been no consistent improvement over the nine-year period researched (2009 to 2017). It is important to highlight that there may be other reasons for the diversity of indicators disclosed. Findings from Aras et al., (2018) also confirms that economic indicators have a higher disclosure scores compared to social and environmental disclosures.

Furthermore, the Indonesian banking sector's sustainability performance is still underperforming. They have not yet realized the importance of being intermediaries, and their indirect impact on the people, planet, and profit. It is expected that Indonesian banks' sustainability performance will improve over time with the presence of POJK Number 51 that came into effect in 2018. However, Indonesian regulators should consider conducting more frequent evaluations as a follow up.

Balanced, relevant, accurate, and comprehensive information is useful for stakeholders, including investors and customers to understand and evaluate the banks' performance. Stakeholders gain comprehensive information from the sustainability reports published by banks; therefore, banks need to understand what information is needed by certain stakeholders groups, and try to provide more comprehensive disclosures (Turley et al., 2016). Banks underperforming in environmental and social

indicators risk their sustainability. If the banks disregard the regulations and provide non-green loans, it could increase their non-performing loans and increase the risk of investors and customers moving investments and savings to other banks (Turley et al., 2016).

4.2 Results Based on Shaumya and Arulrajah (2016) Indicators

Shaumya and Arulrajah (2016) examined disclosures in banking sustainability reports in Sri Lanka. This study applies their indicators to provide a more comprehensive picture of sustainability and green banking practices in Indonesia to enhance this study in the sustainability area. Sri Lanka and Indonesia are two developing countries with similar cultures. The 2017 GDP per capita for Indonesia was \$3,817 and for Sri Lanka was \$4,057. It was felt that using Shaumya and Arulrajah indicators was appropriate.

Table 9 shows the green banking practices indicators in Indonesia using four aspects developed by Shaumya and Arulrajah (2016).

Table 10 – Percentage Disclosed based on Shaumya and Arulrajah’s Indicators.

Dimension	Year								
	2009	2010	2011	2012	2013	2014	2015	2016	2017
Employee Related Practice									
1. Environmental Training and Education	100%	75%	67%	40%	38%	19%	11%	22%	21%
2. Green Performance Evaluation	100%	100%	100%	90%	100%	88%	100%	100%	86%
3. Green Reward System	100%	50%	67%	70%	85%	56%	74%	72%	71%
Subtotal	100%	75%	78%	67%	74%	54%	61%	65%	60%
Daily Operation Related Practice									
1. Paper Usage	100%	50%	50%	60%	85%	88%	84%	67%	71%
2. Energy Efficiency Equipment	100%	25%	33%	60%	85%	81%	89%	89%	79%
E-waste management	100%	75%	67%	70%	77%	69%	74%	83%	79%
Eco-friendly banking	100%	75%	67%	90%	85%	75%	79%	72%	79%
Subtotal	100%	56%	54%	70%	83%	78%	82%	78%	77%
Customer Related Service									
1. Green Loan	100%	100%	67%	80%	100%	88%	89%	89%	79%
2. Green Project	100%	100%	67%	90%	85%	75%	89%	72%	64%
3. Facilitate Green Enterprise	100%	75%	117%	80%	92%	81%	100%	100%	79%
4. Green Credit Evaluation	100%	50%	67%	80%	92%	88%	89%	83%	71%
Subtotal	100%	81%	79%	83%	92%	83%	92%	86%	73%
Bank's Policy related Practice									
1. Green Branch	100%	125%	133%	80%	100%	88%	100%	100%	86%
2. Green Policy	100%	75%	117%	80%	100%	88%	100%	100%	86%
3. Green Partnership	100%	75%	83%	70%	69%	81%	84%	78%	86%
4. Green Strategic Planning	100%	25%	33%	30%	31%	25%	11%	22%	21%
5. Green Procurement	100%	25%	67%	80%	92%	81%	84%	100%	86%
Subtotal	100%	65%	87%	68%	78%	73%	76%	80%	73%

Table 9 shows the linkage between Shaumya & Arulrajah indicators and GRI indicators. It shows four categories: employee related practice, daily operation related practice, customer related service, and bank’s policy related practice.

Table 11 - The GRI and Shaumya & Arulrajah (2016) Indicators

Shaumya Indicators		Linkage to GRI
Dimensions		
Employee Related Practice	1. Environmental Training & Education	G4-LA9, G4-LA10, FS4
	2. Green Performance Evaluation	G4-EC5, G4-EC6, G4-LA1, G4-LA2, G4-LA3, G4-LA13, FS9
	3. Green Reward System	G4-EC3, G4-LA2, G4-LA11
Daily Operation Related Practice	1. Paper Usage	G4-EN23
	2. Energy Efficiency Equipment	G4-EN3, G4-EN4, G4-EN5, G4-EN6, G4-EN7
	3. E-waste management	G4-EN23
	4. Eco-friendly banking	G4-EC2, G4-EC7, G4-EC8, G4-EC9, G4-EN8, G4-EN9, G4-EN10, G4-EN16, G4-EN17, G4-EN27, G4-EN30, G4-EN31, G4-HR1, FS3, FS5, FS7, FS8, FS9, FS14
Customer Related Service	1. Green Loan	G4-EN32, G4-EN33, FS2, FS11
	2. Green Project	FS2, FS10, FS11
	3. Facilitate Green Enterprise	FS2, FS11
	4. Green Credit Evaluation	G4-PR1, G4-PR2, G4-PR3, G4-PR4, G4-PR5, G4-PR6, G4-PR7, G4-PR8, G4-PR9, FS1, FS2, FS3, FS11
Bank's Policy related Practice	1. Green Branch	G4-LA1, G4-SO3, G4-SO4, G4-SO5, G4-SO6, G4-SO7, G4-SO8, FS1, FS2, FS3, FS4, FS5, FS9
	2. Green Policy	G4-EC9, G4-LA1, G4-LA3, G4-LA4, G4-LA5, G4-LA6, G4-LA7, G4-LA8, G4-LA12, G4-LA14, G4-LA16, G4-HR1, G4-HR3, G4-HR5, G4-HR7, G4-HR8, G4-HR9, G4-HR10, G4-HR11, G4-HR12, G4-SO1, G4-SO2, G4-SO9, G4-SO10, G4-SO11, FS1, FS5, FS12, FS13, FS14, FS15, FS16
	3. Green Partnership	FS5, FS10
	4. Green Strategic Planning	G4-LA15, FS9, FS12, FS14, FS16
	5. Green Procurement	FS1, FS2

Table 10 shows a more comprehensive list of disclosures by combining Shaumya and GRI Indicators. This combination can be considered as a newly modified green banking disclosure list, as a measurement for evaluating disclosure quality in any report.

Table 11 – Newly Modified Green Banking Measurement

Category	Dimension	Element	Disclosure/ Measurement
Employee Related Practice	Environmental Training & Education	ETE1	The average amount of hours spent for training per year in financial institutions, categorized by gender, position, region, and other indicators.
		ETE2	Programs that enhance employees' skills like training and education to help improve the quality of the employees in financial institutions.
		ETE3	Initiatives for financial institutions' employee sustainable finance competency improvement, such as developing policies that cover social and environmental risk topics.
	Green Performance Evaluation	GPE1	Comparison of ratios from standard entry wage to local minimum wage by gender at the financial institution's significant locations of operation.
		GPE2	The composition of financial institutions' senior management hired from local communities.
		GPE3	The number and rate of financial institutions' employee turnover, classified by age, gender, and region.
		GPE4	Financial institutions providing health facilities such as health insurance coverage and special health assistance, maternity allowance, life insurance, Old Age Benefits, Education loans, and loans for employees with various types of interest.
		GPE5	Financial institutions providing fair and competitive compensation to all employees by considering company business strategies and development, one example is by disclosing the rate of return to work after parental leave by gender. During their leave the company still provides compensation and benefits to its employees.
		GPE6	Comparison of ratios and remuneration of female to male employees at the financial institution's significant locations of operation.
		GPE7	Conducting risk assessment audits that cover financial institutions' business risk, including social and environment risk together with the standards used for the audit.
	Green reward system	GRS1	Disclose of the financial institutions' Defined Benefit Plan Obligations.
		GRS2	Financial institutions providing health facilities such as health insurance coverage and special health assistance, maternity allowance, life insurance, Old Age Benefits, Education loans, and loans for employees with various types of interest.
		GRS3	The percentage of periodic annual performance evaluations for all permanent employees at all job levels conducted by the financial institution.
Daily Operation Related Practice	Paper usage	PU1	The amount of waste by weight produced by financial institutions, classified by type, and the method of waste disposal.
	Energy Efficiency Equipment	EEE1	Financial institutions' total amount of energy consumption in the organization, accompanied by efforts in reducing the energy consumption.
		EEE2	Financial institutions' total amount of energy consumption outside of the organization, such as carbon footprint, with efforts in reducing the energy consumption.
		EEE3	Financial institutions' total amount of energy intensity.
		EEE4	Consumption reduction efforts made by financial institutions, such as paperless banking services, electricity saving, optimization energy, and investments in office energy efficient equipment.
		EEE5	Financial institutions conducting a system optimization not only to reduce paper, energy, and water consumption but also other effective ways of reducing emissions by focusing in digital banking services and optimizing a smart behavior to reduce the activities of customers who live in remote areas so they do not need to go to the town to conduct transactions.
	E-waste management	EM1	The amount of waste by weight produced by financial institutions, classified by type, and the method of waste disposal.
	Eco friendly banking	EFB1	Impact of climate change on financial performance, risks, and opportunities faced by financial institutions.
EFB2		Financial institutions helping and investing in community infrastructure development, for example the construction of bridges, community buildings, or places of worship, by disclosing the programs, amount of aid, and the impact for prospective development.	

Table 11 (continued) – Newly Modified Green Banking Measurement

Category	Dimension	Element	Disclosure/ Measurement		
Daily Operation Related Practice	Eco friendly banking	EFB3	Financial institutions' strategy on indirect economic impact, such as financial literacy, financial inclusion, financing society, or supporting the intermediary of the financial institution products and services with customers.		
		EFB4	The proportion of spending used by financial institutions with local suppliers.		
		EFB5	Financial institutions' amount of water consumption by source through water efficiency efforts to reduce the consumption.		
		EFB6	The source of water being affected by water consumption by financial institutions.		
		EFB7	Financial institutions' amount of water reused to reduce the total consumption.		
		EFB8	The amount of indirect GHG emission (scope 2) produced by financial institutions.		
		EFB9	The amount of other indirect GHG emission (scope 3) produced by financial institutions.		
		EFB10	The solutions offered, or how to reduce the environmental impact caused by financial institutions' products and services.		
		EFB11	The significant impact on the environment from transporting products or other materials used by the financial institutions, and from transporting its workforce to the workplace.		
		EFB12	The total expenses and investments incurred by financial institutions for environmental protection efforts classified by type.		
		EFB13	The amount and percentage of investment agreements and contracts by financial institutions that took human rights issues into account.		
		EFB14	Financial institutions conducting reassessments of the requirements that loan receiving companies must fulfill through periodic monitoring.		
		EFB15	Financial institutions carrying out strategic partnerships that develop and perfect sectoral policies of financing for environmental and social risks, as well as regularly coordinating with relevant agencies.		
		EFB16	Financial institutions providing financial products used for social purposes and social contributions. Social benefits such as for national development, home mortgages, health, education, or places of worship.		
		EFB17	Financial institutions providing financing to the environmentally friendly sectors, such as renewable energy, energy efficiency, waste management, sustainable agriculture and fishery, green building, and sustainable tourism.		
		EFB18	Conducting risk assessment audits covering the financial institutions' business risk, including social and environment risk together with the standards used for the audit.		
		EFB19	Financial institutions providing financial products and services that consider ease of access for disadvantaged people, such as persons with disabilities or with language difficulties by improving the products and services features and the convenience of handling the financial transactions with the public.		
		Customer Related Service	Green loan	GL1	The percentage of suppliers assessed by financial institutions using the environmental criteria before reaching agreements to cooperate.
				GL2	Financial institutions disclosing significant negative impacts and potential impacts to the environment caused by the supply chain and actions taken to resolve the issues.
GL3	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.				
GL4	The percentage of financial institutions' assets being selected for investment strategies on the basis of set environmental and social criteria and based on the financial institutions' positive or negative contribution to environmental or social performance.				
Green project	GP1		Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.		
	GP2		The number of companies involved in the financial institutions' environmental and social issues and the composition of financing disbursed to companies responsible for the environmental and social issues.		
	GP3		The percentage of financial institutions' assets being selected for investment strategies on the basis of set environmental and social criteria and based on the financial institutions' positive or negative contribution to environmental or social performance.		

Table 11 (continued) – Newly Modified Green Banking Measurement

Category	Dimension	Element	Disclosure/ Measurement
Customer Related Service	Facilitate Green Enterprise	FGE1	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.
		FGE2	The percentage of financial institutions’ assets being selected for investment strategies on the basis of set environmental and social criteria and based on the financial institutions’ positive or negative contribution to environmental or social performance.
	Green credit evaluation	GCE1	The percentage of financial institutions’ products and services where the health and safety impact is assessed for improvement.
		GCE2	Financial institutions disclose and resolve complaints and incidents of non-compliance regarding violation of regulations, and voluntary codes related to health and safety impact of products and services.
		GCE3	Clear information is provided to customers and prospective customers regarding the financial institutions’ way of marketing and advertising its products and services
		GCE4	Financial institutions disclose and resolve complaints and incidents of non-compliance regarding violation of regulations, and voluntary codes related to information and labeling of products and services.
		GCE5	The results of customer satisfaction measurement conducted by the financial institutions.
		GCE6	Whether there are any, or an absence of, recalled or banned financial institutions’ products or services from the market.
		GCE7	Financial institutions disclose and resolve complaints and incidents of non-compliance regarding violation of regulations, and voluntary codes related to marketing, promotions, and sponsorship.
		GCE8	The number of grievances made by customers regarding damage to customer data held by financial institutions, such as violation of customer privacy and safety of the data.
		GCE9	Financial institutions receiving significant fines or sanctions for non-compliance with laws and regulations regarding provisions and products and services (if any).
		GCE10	Strategies that involves an integration of environmental, social, and good governance in financial institution business activities.
		GCE11	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.
		GCE12	Financial institutions conducting reassessments of the requirements that loan receiving companies must fulfill through periodic monitoring activity.
GCE13	The percentage of financial institutions’ assets being selected for investment strategies based on established environmental and social criteria and based on the financial institutions’ positive or negative contribution to environmental or social performance.		
Bank’s Policy related Practice	Green branch	GB1	The number and rate of financial institutions’ employee turnover, classified by age, gender, and region.
		GB2	The number of fraud detection and assessments performed on financial institutions’ business operations to identify risks and indication of corruption.
		GB3	Actively disseminating information regarding fraud awareness and antigratification, as well as providing guidelines, communication, and training on anti-corruption in the financial institutions.
		GB4	Financial institutions disclose code of conduct violations such as corruption practices, charges, and sanctions regarding fraud, and actions taken to resolve the issues.
		GB5	The amount of contributions for politic matters that are distributed by financial institution to the country and the beneficiaries.
		GB6	The number of legal issues faced by financial institutions related to their business practices and the consequence to the companies and all parties involved.
		GB7	Financial institutions incurring significant fines or sanctions for non-compliance with the laws and regulations (if any).
		GB8	Strategies that involves integration of environmental, social, and good governance in the financial institutions’ business activities.
		GB9	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institution disburse financing.

Table 11 (continued) Newly Modified Green Banking Measurement

Category	Dimension	Element	Disclosure/ Measurement
Bank's Policy related Practice	Green branch	GB10	Financial institutions conducting reassessment of the requirements that loan receiving companies must fulfill through periodic monitoring activity.
		GB11	Initiatives for financial institutions' employee sustainable finance competency improvement, such as developing policies that cover social and environmental risk topics.
		GB12	Financial institutions conducting strategic partnerships that develop and perfect sectoral policies on financing for environmental and social risks, as well as regularly coordinating with relevant agencies.
		GB13	Conducting risk assessment audits that cover financial institutions' business risk, including social and environment risk together with the standards used for the audit.
	Green Policy	GPO1	The proportion of spending used by financial institutions with local suppliers.
		GPO2	The number and rate of financial institutions' employee turnover, classified by age, gender, and region.
		GPO3	Financial institutions providing fair and competitive compensations to all employees by considering company business strategies and development, one example is by disclosing the rate of return to work after parental leave by gender. During their leave the company still provides compensations and benefits to its employees.
		GPO4	Financial institutions providing notice period for operational change.
		GPO5	The percentage of employees represented on health and safety committees that contribute to monitoring and advising programs regarding occupational health and safety in financial institutions.
		GPO6	The number of work accident cases in financial institutions, detailed by type of injuries, diseases, lost days, total number of work related fatalities, categorized by region of operations and gender.
		GPO7	The presence of employees with a high occurrence or risk of diseases related to their occupation in financial institutions.
		GPO8	Health and safety topics mentioned and discussed in formal agreements in trade unions in financial institutions.
		GPO9	Financial institutions enforcing the diversity in company, such as gender, age, minority group, nationality, and other indicators.
		GPO10	The percentage of suppliers assessed by financial institutions using labor practices criteria before reaching agreement to cooperate.
		GPO11	The amount and percentage of investment agreements and contracts by financial institutions that took human rights issues into account.
		GPO12	The number of incidents regarding discrimination in financial institutions and actions taken to resolve the issues.
		GPO13	The identification of financial institutions' operations and suppliers that contain any risk for child labor and actions or measurements taken to eliminate child labor in the operations.
		GPO14	The percentage of security personnel members in financial institutions trained on human rights policies.
		GPO15	The number of incidents regarding indigenous peoples' rights violations in financial institutions and actions taken to resolve the issue.
		GPO16	The percentage of financial institutions' operations that are assessed based on human rights reviews and their impact.
		GPO17	The percentage of suppliers assessed by financial institution based on the human rights criteria before reaching agreements to cooperate.
		GPO18	Financial institutions disclosing significant negative impacts and potential impacts to human rights caused by the supply chain, and actions taken to resolve the issues.
		GPO19	The number of complaints regarding the impact of the financial institutions on human rights received and handled.
GPO20		The percentage of program initiated by financial institutions that take the positive and negative impact caused by the business practice into considerations; including environmental and social issues faced by local community.	
GPO21	Financial institutions disclosing its business operation practices that significantly impact the local communities, and any potential damage in the future.		
GPO22	The percentage of financial institutions' suppliers selected after assessment of their impact on society.		
GPO23	Financial institutions disclosing significant negative impacts and potential impacts to society caused by the supply chain, and actions taken to resolve the issue.		

Table 11 (continued) – Newly Modified Green Banking Measurement

Category	Dimension	Element	Disclosure/ Measurement
Bank's Policy related Practice	Green Policy	GPO24	The number of complaints regarding the impact of the financial institutions on society received and handled.
		GPO25	Strategies that involve an integration of environmental, social, and good governance in financial institution business activities.
		GPO26	Financial institutions carrying out strategic partnerships that develop and perfect sectoral policies of financing for environmental and social risks, as well as regularly coordinating with relevant agencies.
		GPO27	Financial institutions providing policies regarding granting voting rights to shareholders, directors, commissioners, or debtors who are considered to have a positive and a negative impact on the environment and social issue.
		GPO28	Financial institutions providing products and financial inclusion programs that reach all level of societies, rural and urban communities, and all corners of the country.
		GPO29	Financial institutions providing financial products and services that consider ease of access for disadvantaged people, such as persons with disabilities or with language difficulties by improving the products and services features and the convenience of handling the financial transactions with the public.
		GPO30	Conducting risk evaluations of each product released to the public to ensure products and services provided by financial institutions are in accordance with the laws and regulations established by the relevant regulators.
		GPO31	Initiatives by financial institutions to increase awareness and responsibility in the community through financial literacy programs and financial inclusion programs.
	Green partnership	GPA1	Financial institutions carrying out strategic partnerships that develop and perfect sectoral policies of financing for environmental and social risks, as well as regularly coordinating with relevant agencies.
		GPA2	The number of companies involved in the financial institutions' environmental and social issues and the composition of financing disbursed to companies responsible for environmental and social issues.
	Green strategic planning	GSP1	Financial institutions disclosing significant negative impacts and potential impacts to employment caused by the supply chain, and actions taken to resolve the issues.
		GSP2	Conducting risk assessment audits that cover financial institutions' business risk, including social and environment risk together with the standards used for the audit.
		GSP3	Financial institutions providing policies regarding granting voting rights to shareholders, directors, commissioners, or debtors who are considered to have a positive and a negative impact on the environment and social issue.
		GSP4	Financial institution providing financial products and services that consider the ease of access for disadvantaged people, such as persons with disabilities or with language difficulties by improving the products and services features and the convenience of handling the financial transactions with the public.
		GSP5	Initiatives by financial institutions to increase awareness and responsibility in the community through financial literacy programs and financial inclusion programs.
	Green procurement	GPR1	Strategies that involve an integration of environmental, social, and good governance in financial institution business activities.
		GPR2	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.

Notes

GL3 = GP1 = FGE1 = GCE11 = GB9 = GPR2	=	Assessment of environmental and social risks when transacting with potential customers or debtors before financial institutions disburse financing.
GCF10 = GB8 = GPO25 = GPR1	=	Strategy that involve an integration of environmental, social, and good governance in financial institution business activities.
GL4 = GP3 = FGE2 = GCE13	=	The percentage of financial institution's assets being selected for investment strategies on the basis of set environmental and social criteria and based on the financial institutions' positive or negative contribution to environmental or social performance.
EFB15 = GB12= GPO26 = GPA1	=	Financial institution carrying out strategic partnerships that develop and perfect sectoral policies of financing for environmental and social risks, as well as regularly coordinating with relevant agencies.
GPE7 = EFB18 = GB13 = GSP2	=	Conducting risk assessment audits covering financial institutions' business risk, including social and environment risk together with the standards used for the audit.
EFB19 = GPO29 = GSP4	=	Financial institution providing financial products and services that consider the ease of access for disadvantaged people, such as persons with disabilities or with language difficulties by improving the products and services features and the convenience of handling the financial transactions with the public.
EFB14 = GCE12 = GB10	=	Financial institutions conducting reassessment of the requirements that loan receiving companies must fulfill through periodic monitoring activity.
GPE3 = GB1 = GPO2	=	The number and rate of financial institutions' employee turnover, classified by age, gender, and region.

GP2 = GPA2	=	The number of companies involved in the financial institutions' environmental and social issues and the composition of financing disbursed to companies responsible for environmental and social issues.
GPO27 = GSP3	=	Financial institutions providing policies regarding granting voting rights to shareholders, directors, commissioners, or debtors who are considered to have a positive and a negative impact on the environment and social issue.
GPO31 = GSP5	=	Initiatives by financial institutions to increase awareness and responsibility in the community through financial literacy programs and financial inclusion programs.
ETE3 = GB11	=	Initiatives for financial institutions' employee sustainable finance competency improvement, such as developing policies that cover social and environmental risk topics.
EFB4 = GPO1	=	The proportion of spending used by financial institutions with local suppliers.
PU1 = EMI	=	The amount of waste by weight produced by financial institutions, classified by type, and the method of waste disposal.
EFB13 = GPO11	=	The amount and percentage of investment agreements and contracts by financial institutions that took human rights issues into account.
GPE4 = GRS2	=	Financial institutions providing health facilities such as health insurance coverage and special health assistance, maternity allowance, life insurance, Old Age Benefits, Education loans, and loans for employees with various types of interest.
GPE5 = GPO3	=	Financial institutions providing fair and competitive compensation to all employees by considering company business strategies and development, one example is by disclosing the rate of return to work after parental leave by gender. During their leave the company still provides compensation and benefits to its employees.

Table 11 shows the indicator database developed for this study and represents an original contribution providing a much-needed baseline to advance research on sustainability measurement and reporting in relation to green banking. The banking financial sector can use these indicators to measure their green banking scores.

The legitimacy theory describes the existence of a social contract between firms and society (Pedron et al., 2020). Legitimacy plays a significant role in a bank's survival, and the legitimacy status is often seen as a strategy to obtain support for the bank's existence by stakeholders. Indonesian banks have been disclosing the economic, social and environmental dimensions. However, the economic dimension is more significantly reported. The disclosed information is associated with regulatory compliance.

By complying with applicable regulations, the banks are able to build a good corporate image of themselves and garner trust from the public. By practicing green banking and sustainability practices, banks are considered to be legitimate, as their sustainability practices are perceived to satisfy their external stakeholders expectations.

There are two key factors that need attention. Firstly, it must be emphasized that there are few regulatory requirements for sustainability reporting in Indonesia. Thus, most of disclosures are in accordance to the regulations and the legitimacy theory and explains the extent of these disclosures (Suchman, 1995). Secondly, besides the extensive studies published in peer-reviewed literature, the sustainability and green banking practices in Indonesian banks are still rare and at a relatively early stage. Although voluntary sustainability reporting guidelines provide a starting point, there is still considerable discretion in determining what information to share publicly. These reasons undoubtedly contribute to the wide variation in indicators disclosed.

5. Conclusions, Limitations and Further Studies

This paper explores the sustainability performance and green banking practices by examining disclosures in sustainability reports using GRI standards and the Shaumya and Arulrajah (2016) framework. These two frameworks were applied to provide a more comprehensive picture of the disclosures, as well as to create more specific financial and green banking indicators.

The findings show that Indonesian banks appear to have a tendency towards economic indicators compared to others indicators, such as social and environment. This study has limitations. Firstly, this

research focuses on examining disclosures in sustainability reports without examining the actual practices and implementation of the green banking concept. Thus, the disclosures may not explain the real practices.

There are a number of possibilities for further research in this area; which can go beyond the content analysis of stand-alone sustainability reports. For example, the disclosure of indicators on corporate websites, annual reports, and in other communication media could be explored. Questionnaires could be used to explore in greater depth on the usefulness of the GRI indicators perceived by corporations, and whether GRI motivates corporations to apply the indicators in their companies. Interviews will allow decision makers to explain their responses on many issues, such as how the indicators are selected to portray material information; how the indicators relate to corporate strategy; how to decide methods which will be used to highlight each indicator (scorecards, charts, tables, or boxes), how the reported indicators are used to develop strategies, and how they would like to report in the future. Case studies can provide in-depth insights into the process of developing, implementing, and improving indicators over time.

This study reveals diversity in the indicators reported and underscores the difficulty of developing broadly applicable standard sets of scores. Given the lack of standardization in sustainability reporting, this study provides a basis for benchmarking the disclosure of indicators. This study also generates a comprehensive measurement model for green banking. The financial sector industry can use these indicators to measure their green banking score. The study also gives rise to further disclosure of the GRI indicators, which may provide a basis for further refinement in the use of the guidelines. This is an important guide for increasing the application of the GRI guidelines.

The managerial implications for the banks are in order to implement sustainability, they need to form sustainability governance as a platform to evaluate and monitor the sustainable finance action plan. As a part of sustainability governance, assigning a sustainability leader is crucial under one of top management, in example: sustainability director or chief sustainability officer.

In addition, the results of this study will benefit many scholars and practitioners to understand how the banking sector supports sustainability, particularly through green banking. This empirical evidence is expected to influence the banking sector, other industrial sectors and also the Government to collaborate in supporting sustainable development goals. This is not only applicable to Indonesia, but also for other countries in Asia.

Other topics for further research may explore the use of sustainability indicators beyond corporations or in other jurisdictions. The use of indicators in the public and private sectors can be compared. Further studies in other countries will provide the basis for additional comparisons and opportunities to explore the influence of national business systems on corporate sustainability disclosures. Finally, studies on mandatory reporting of indicators offer another potential stream of research. Future research can explore the benefits of mandatory reporting, the specification of required disclosures, and the requirements from different industry sectors.

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