Research Article

ESG Disclosure in Thailand: An Analysis of Hard and Soft Disclosures

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ABSTRACT

This study examines the Environmental, Social, and Governance (ESG) disclosure of listed firms in Thailand. Using a scoring index based on the Global Reporting Initiative (GRI) guideline, the study measures ESG hard and soft disclosure of 67 listed firms in the Stock Exchange of Thailand (SET) over a four-year period from 2016 to 2019, resulting in a sample size of 241 firm-year observations. The findings indicate a slight increase in the level of ESG hard and soft disclosure over time, with a shift in the dominant type of disclosed ESG information from social to environmental issues, specifically energy, water, and emissions. However, the average scores of hard disclosure were low, while those of soft disclosure were high, suggesting that Thai listed firms may be strategically using soft disclosures to legitimize their business activities, rather than disclosing their actual ESG performance. This issue seems to be particularly relevant to companies in the property and construction sector. The study highlights the importance of investors being aware of this phenomenon when considering ESG disclosures of Thai listed firms. Additionally, the study provides insights for regulators in Thailand, emphasizing the need to identify specific hard disclosure items required to be disclosed in regulations and guidelines in order to enhance the quality of ESG disclosure.

Keywords: ESG Disclosure, Hard Disclosure, Soft Disclosure, Thai Listed Firms, Stock Exchange of Thailand

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บทคัดย่อ

งานวิจัยนี้ทำการศึกษาการเปิดเผยข้อมูลด้านสิ่งแวดล้อม สังคม และการกำกับดูแลกิจการ (Environment, Social, and Governance: ESG) ของบริษัทที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย โดยทำการเก็บค่าคะแนนการเปิดเผยข้อมูล 2 รูปแบบคือ ข้อมูลลักษณะทั่วไป (Soft Disclosure) และข้อมูลลักษณะเชิงวิเคราะห์ (Hard Disclosure) ของบริษัทจำนวน 67 บริษัทในระยะเวลาตั้งแต่ปี พ.ศ. 2559-2562 ได้จำนวนกลุ่มตัวอย่างทั้งสิ้น 241 ตัวอย่าง โดยเครื่องมือวิจัยที่ใช้ในการเก็บค่าคะแนนการเปิดเผยข้อมูลอ้างอิงจาก Global Reporting Initiative (GRI) Guideline

ผลการวิจัยพบว่า บริษัทมีการเปิดเผยข้อมูลด้าน ESG เพิ่มขึ้นเล็กน้อยทั้งข้อมูลลักษณะทั่วไป (Soft Disclosure) และข้อมูลเชิงวิเคราะห์ (Hard Disclosure) ในช่วงระยะเวลา 4 ปีที่ทำการศึกษา และได้มีการเปิดเผยข้อมูลด้านสิ่งแวดล้อมเพิ่มขึ้นเป็นอย่างมากโดยเฉพาะเรื่องพลังงาน น้ำ และการปล่อยมลภาวะทางอากาศ นอกจากนี้ ค่าคะแนนแบบ Hard Disclosure อยู่ในระดับน้อย ในขณะที่ค่าคะแนนของ Soft Disclosure สูงมาก สะท้อนให้เห็นแนวโน้มว่าบริษัทในประเทศไทยมีโอกาสที่อาจจะใช้การเปิดเผยข้อมูลแบบ Soft Disclosure ในการสร้างการยอมรับในสังคม

มากกว่าที่จะมีการปฏิบัติด้าน ESG อย่างจริงจัง โดยเฉพาะบริษัทในกลุ่มอุตสาหกรรมอสังหาริมทรัพย์ที่ดูเหมือนว่าจะมีค่าคะแนนการเปิดเผยข้อมูลแบบ Soft Disclosure สูงกว่า Hard Disclosure อย่างมาก ซึ่งผลการวิจัยนี้น่าจะช่วยกระตุ้นให้นักลงทุนที่สนใจด้านความยั่งยืนมีความระมัดระวังในการอ่านข้อมูล ESG มากขึ้นก่อนการตัดสินใจลงทุน และกระตุ้นให้หน่วยงานกำกับดูแลต่าง ๆ ได้มีมาตรการหรือการสนับสนุนที่จะทำให้บริษัทไทยมีการเปิดเผยข้อมูล ESG ลักษณะเชิงวิเคราะห์มากขึ้น โดยอาจกำหนดในกฎ ข้อบังคับหรือระเบียบสำหรับการเปิดเผยข้อมูล

คำสำคัญ: การเปิดเผยข้อมูล ESG ข้อมูลเชิงวิเคราะห์ ข้อมูลลักษณะทั่วไป บริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย ตลาดหลักทรัพย์แห่งประเทศไทย

1. Introduction

The growing attention toward a firm's environmental and social responsibility over the past five decades has developed into sustainability issues. This development has been evidenced in several situations initiated by regulators. For example, in 2012, the US formed the Sustainability Accounting Standards Board (SASB) to develop standards and guidelines for US listed companies (Hales et al., 2016). More recently, in 2020, the IFRS Foundation established the International Sustainability Standards Board (ISSB) to issue IFRS for sustainability-related financial reporting (IFRS Foundation, 2023).

In response to this trend, firms have employed disclosure as a tool to communicate with stakeholders. Various types of disclosure have developed, starting with a focus on social and environmental disclosure in Corporate Social Responsibility (CSR) reports. Later, due to the occurrence of several financial scandals, the need for mechanisms to prevent such scandals, as well as the disclosure of these mechanisms have been arisen (Revelli, 2017). As a result, the CSR report has evolved in various forms, including the integrated report, ESG report, sustainability report, and triple bottom line report. More recently, the IFRS Foundation has also responded to stakeholder requirements by establishing the ISSB, which is responsible for issuing standards for sustainability-related financial information. The aim is to provide a disclosure guideline and ensure that the main users of financial reporting receive sufficient non-financial information for economic decision-making. The ISSB has issued drafts of IFRS S1 (General requirements for disclosure of sustainability-related financial information) and IFRS S2 (Climate-related disclosure) for public hearing in 2022, with the standards expected to be effective in 2024 (IFRS Foundation, 2023).

The various types of reports have both similarities and differences. Some researchers (Bernardi & Stark, 2018; Lokuwaduge & Heenetigala, 2017; Auer & Schuhmacher, 2011) have applied them interchangeably. These reports primarily aim to present financial and non-financial information that demonstrates a firm's responsibility and accountability to its stakeholders (Permatasari & Narsa, 2022). However, their scope and focuses differ. Currently, the ESG report has garnered more attention from stakeholders as it encompasses three main perspectives: social, environmental, and governance which seems to directly address their requirement, while other reports may provide broader aspects or may not cover all the related information that stakeholders may require. Several researchers (Dhaliwal et al., 2012; Bernadi & Stark, 2018) confirmed the relevance of ESG disclosure to the decision making of stakeholders, particularly of investors.

ESG disclosure aims to integrate information that stakeholders expect to know about corporate activities relating to sustainability, beyond financial data, in order to make informed economic decisions (Chen et al., 2016). It is a valuable mechanism for firms to strategically communicate private information on past, current, and future prospects to investors (Bhimani et al., 2016; Ioannou and Serafeim, 2017; Chen et al., 2016; Jain et al., 2016; Hummel & Schlick, 2016). Previous research has demonstrated the importance of disclosing this information to a firm, including improvements in investor satisfaction (Jain et al., 2016), reductions in information asymmetry (Bhimani et al., 2016; Ioannou & Serafeim, 2017), increased reputation (Chen et al., 2016), and lower cost of capital (Hummel & Schlick, 2016).

Although ESG disclosure has been widely recognized as a strategic tool, many countries do not have a regulatory framework for it, making it generally a voluntary practice (Buallay, 2019). As a result, ESG information disclosed by firms varies widely in terms of format, content, style, boundary, and complexity across different firms and countries. The practice of disclosure in a particular country is therefore an interesting issue that has been extensively investigated in many studies, such as Gunawan (2007), Camilleri (2015), Chi et al. (2020), Lokuwaduge and Heenetigala (2017), and Slacik and Greiling (2020). Bhatia and Makkar (2020) reviewed these studies and found that most of the previous research in this area showed an increasing trend of disclosure over time; however, the extent and quality of disclosure were different between developed and emerging markets, with the former having a higher level than the latter. Regulators in emerging markets have acknowledged this low level of disclosure and, in the past few years, have intensively promoted ESG disclosure as international and national investors focus more on these matters. ESG disclosure is expected to improve significantly, and some organizations in emerging markets have already been successful in improving their ESG reporting quality and being recognized internationally, such as the Stock Exchange of Thailand (SET), which was ranked among the top 10 in other countries by Corporate Knights magazine in 2018 (Walker, 2021). Therefore, it is interesting to investigate how ESG disclosure has progressed at the corporate level in emerging markets, specifically in Thailand, in the past few years. This research aims to enhance investors' knowledge of ESG disclosure in such markets and to ensure that regulators’ encouraging work on ESG disclosure practices among companies has been successful.

In Thailand, the Stock Exchange Commission (SEC) of Thailand and the Stock Exchange of Thailand (SET) have played a vital role in encouraging Thai listed companies to engage in ESG practices. The SET initiated the Thailand Sustainability Investment (THSI) in 2015 to urge Thai listed companies to commit to sustainability activities and disclose them publicly. The THSI aims to attract investors who prefer to make responsible investments by listing sustainable Thai companies that operate based on

ESG practices. Additionally, several reporting guidelines have been provided by SEC and SET, such as the CG Code in 1995, the CSR guideline issued in 2012, and the Sustainability Reporting Guide for listed companies in 2018, which was revised in 2020 with the introduction of ESG metrics by industry. Recently, in 2020, SEC of Thailand has issued the regulation requiring all Thai listed companies preparing the 56-1 one report which combines financial and non-financial information into one report, and this requirement has been affective from 2022. As a result of these intensive efforts, several Thai listed companies have been recognized globally as top performers in sustainability practices, with 24 Thai listed firms selected for the Dow Jones Sustainability Indices (DJSI) in 2021. Furthermore, SET has also made significant progress in sustainability practices, with its ESG reporting ranking among the top in ASEAN countries. Therefore, the ESG disclosure in Thailand are worth exploring.

There have been previous studies thoroughly determining disclosure in Thailand, but they were conducted in the 1990s. These include Kuasirikul and Sherer (2004) and Ratanajongkol et al. (2006) that studied Thai social and environmental reporting practices between 1993–1997 and 1997–2001 respectively. Since then, significant changes have taken place in Thailand's ESG disclosure practices. This study is thus a follow up of their work, but uses the updated and globally recognized Global Reporting Initiative (GRI) framework to assess the disclosure. Although there have been several Thai disclosure research after Ratanajongkol et al. (2006), they have focused on either the determinants of Thai disclosure (Wuttichindanon, 2017; Li, et al., 2019; Cheung, et al., 2007) or the relationship between disclosure and firm performance (Jitaree, 2015; Suttipun, 2019; Phoprachak & Buntornwon; 2020). Recent studies by Jaturat et al. (2021) and Suttipun (2021) have investigated ESG disclosure in Thailand, but they have not thoroughly scrutinized the disclosure practices.

Therefore, the current research thoroughly investigates ESG disclosure in two perspectives: hard and soft disclosure. Hard disclosure comprises quantifiable and verifiable information that can provide insight into the various aspects of ESG's performance, while soft disclosure consists of descriptive information such as a firm's vision and ESG strategy. Understanding these two types of disclosure can move the focus of the study beyond simply the level of disclosure and help stakeholders evaluate the quality of Thai ESG disclosure, and partially assess management disclosure behavior.

The paper is structured as follows: the literature review is presented first, followed by an explanation of the research methodology. The results and discussion are then presented, followed by the conclusion, research recommendations, and limitations.

2. Literature review: ESG disclosure in Thailand

ESG disclosure refers to the communication and presentation of information about a company's environmental, social, and governance activities to interested parties. These components can be divided into three dimensions. First, environmental disclosure pertains to a range of topics related to environmental activities such as materials, energy, water, biodiversity, emissions, effluents and waste, products and services, compliance, transportation, overall supplier environmental assessment, and environmental compliance and expenditures (Clarkson et al., 2008; Hummel & Schlick, 2016). Second, social disclosure involves the disclosure of information related to social activities such as policies, goals, and performance on labor practices, human rights, society, and product responsibility to stakeholders. The purpose of social disclosure is to increase transparency and help stakeholders understand how the company manages social issues (Hummel & Schlick, 2016; Kuasirikun & Sherer, 2004). Finally, governance disclosure provides information on how the company complies with rules and regulations related to the code of corporate governance. Governance disclosure is characterized as disclosure-reporting activities that enhance transparency and communication with stakeholders about a company's governance (Gandía, 2008).

Several studies have investigated the level of ESG disclosure in different forms in emerging markets. Some studies focused on CSR disclosure (Bhatia & Makkar, 2020; Tan et al., 2016; Jitaree, 2015; Jamali, 2014; Haji, 2013), while others investigated only environmental disclosure (Suttipun & Stanton, 2012; Wang et al., 2013), and some examined ESG disclosure (Sharma et al., 2020; Balogh et al., 2022). In general, a low level of disclosure has been reported. Bhatia and Makkar (2020) reviewed previous studies on CSR or sustainability disclosure in both developed and developing countries, and confirmed that the former has significantly higher disclosure scores than the latter. The low level of ESG disclosure in emerging markets has been attributed to their institutional framework, which has not encouraged companies to engage in ESG disclosure practices (Iatridis, 2013; Jamali, 2014; Balogh et al., 2022). Each country has its own quality of investor protection mechanisms, environmental care, and magnitude of environmental problems, which can affect the level of ESG disclosure (Iatridis, 2013; Silberhorn & Warren, 2007; van der Laan Smith et al., 2005). Balogh et al. (2022) also suggested that stakeholders' perception of the importance of sustainable activities can affect the development of ESG disclosure practices in emerging markets. To move ESG disclosure practices forward, Jamali (2014) suggested that emerging markets should strengthen their institutional drivers of CSR. Zahid et al. (2019) found that changes in regulation, such as the introduction of the Malaysian Code on Corporate Governance (MCCG) in 2012, can significantly increase disclosure.

Many regulators in emerging markets have recognized the importance of promoting best practices of CSR and sustainability among their listed companies, and have changed their regulatory environments accordingly. Thailand is a successful example of such efforts. In 1995, all Thai listed companies were required to set up an audit committee, and in 2002, the SET issued the first version of Principles of Good Corporate Governance (CG) for Thai listed companies, which was the first step towards the concept of sustainability development in Thailand. Corporate social responsibility (CSR) practices were strongly introduced in 2006, alongside the revision of the CG framework. The Corporate Social Responsibility Institute (CSRI) was established to promote CSR practices and issued CSR guidelines for Thai listed companies. In 2012, the focus shifted to sustainability reporting, with CSRI increasing its role by initiating Sustainability Development (SD) report guidelines that covered the requirement of ESG information to be disclosed. During the same period, the SEC identified the Codes of Governance, issuing the Principles of Good Governance for Listed Companies 2012, which companies were required to comply with. The principles were later superseded by the Corporate Governance Code for Listed Companies 2017 (Jantadej, 2018). Such principles have been employed as a guideline for CG disclosure among Thai listed companies.

Another key development was the establishment of the Thailand Sustainability Investment (THSI) by SET in 2015 (Sucharitakul, 2019). Through the THSI, Thai listed firms are encouraged to operate their businesses sustainably by prioritizing ESG practices. The THSI comprises a list of companies that create long-term returns by managing their business transparently and in line with CG principles, while valuing their responsibilities to society and the environment (SET, 2020). Companies voluntarily participate in the ESG assessment process, and those that make it onto the list may potentially be included in the SETTHSI index, which is expected to attract funds from investors who support sustainable businesses. Since its launch in 2015, the number of listed companies voluntarily participating in the ESG assessment has increased from 100 to 196 companies as of 2021 (SET, 2021), indicating the success of SET's sustainable development policies. However, this figure represents only about 25% of the total listed companies, which is roughly 850. Recently, in 2020, SEC of Thailand has stimulated ESG disclosure by issuing the regulation requiring all Thai listed companies preparing the 56-1 one report which combines a firm’s information in the old form 56-1 and annual report (56-2) into one report, and this requirement has been affective since 2022. This combination aims to facilitate investors’ decision making by providing all related decision-making information in one place. Thus, this one report includes both financial and non-financial (mainly ESG) information.

As reviewed, there have been several main changes incurred in Thailand regarding ESG disclosure but most studies on social disclosure practices in Thailand was done prior 2015. For instance, Kuasirikun and Sherer (2004) analyzed the annual reports of Thai firms from 1993 to 1999 and found that the disclosures were predominantly soft, unverifiable, marginal, limited, narrative-based, and ambiguous. However, since 2014, Thai listed companies have been required by SEC of Thailand to disclose some or all aspects of ESG (Wuttichindanon, 2017). While many firms have started voluntarily disclosing environmental information in their annual reports, several studies have revealed a low level of either environmental disclosure (Suttipun & Stanton, 2012; Acaranupong, 2015) or CSR disclosure (Kuasirikun & Sherer, 2004; Ratanajongkol et al., 2006). Ratanajongkol et al. (2006) found that the amount of CSR disclosure in Thailand was lower than in developed markets such as the UK and US, although there was an increasing trend over time. In addition, most firms disclosed their environmental information in a narrative style, often preferring soft or unverifiable disclosure (Suttipun & Stanton, 2012; Kuasirikun & Sherer, 2004). Jitaree (2015) found that CSR disclosure in Thailand remained stagnant between 2009 and 2011, with the greatest increase in “community” information. CSR disclosure in Thailand is primarily in the form of narrative and/or photographs, with limited monetary information.

Furthermore, since 2015, several studies have examined ESG disclosure in Thailand, but most have focused on either its determinants or its relationship with firm performance. Consequently, the level of ESG disclosure in Thailand remains unclear, even though campaigns have been launched to encourage Thai listed firms to engage with ESG practices. For example, Jaturat et al. (2021) used the GRI framework to measure ESG disclosure in 2018 and found that on average, their sample of Thai listed companies disclosed only 17% of the total disclosure items listed in their disclosure measurement tool. More recently, Suttipun (2021) used a word-counting method to determine ESG disclosure practices in Thailand from 2015–2019 and reported an increase in the level of ESG disclosure over time. However, the actual level of disclosure was not clearly indicated. As ESG disclosure is voluntary, firms have different levels and qualities of disclosure, and some may use soft ESG disclosure to reduce exposure to the social and political environment. Given this variation, it is worth scrutinizing the state of ESG disclosure in Thailand after 2015 to provide investors with information that can inform decision-making and help regulators decide whether they need to initiate changes to ESG disclosure policies.

3. Methodology

Sample

The target population for this study comprised companies listed on the SET from 2016 to 2019. This period was chosen because, as mentioned previously, no research had scrutinized Thai ESG disclosure after 2015. Additionally, during this period, the SEC of Thailand embraced the concept of sustainability by proposing the new CG Code in 2017, which integrates corporate governance and sustainable development. Therefore, an analysis of this period may reveal interestingly positive changes in ESG disclosure by Thai listed companies. Furthermore, the determination was made only until 2019 due to the onset of the Covid-19 pandemic, which created a dynamic business environment. Many firms encountered challenges in their operations, leading to cost reductions and corporate activity reductions. Consequently, starting from 2020, inconsistent ESG disclosure practices may have emerged. This inconsistency resulted in ESG disclosure that was not driven by normal operations, and therefore may not directly address the objectives of this current research.

Regarding the sample, to ensure consistency and comparability, financial industry firms, funds, rehabilitating and suspending status companies were excluded due to their unique laws, regulations, and financial structures. Additionally, companies without a standalone ESG report were excluded from the final sample. Standalone ESG reports were preferred as they are known to contain extensive and valuable ESG information (Ong et al., 2016). The final sample consisted of 241 firm-year observations from 67 firms. Table 1 provides a detailed breakdown of the sampled firms by year and industry.

Table 1 Sample distribution by year and by industry.

Sector	2016	2017	2018	2019	Total Observations	Percentage
Agro & Food Industry	8	9	10	10	37	15.35
Consumer Products	4	6	7	6	23	9.54
Industrials	9	9	9	8	35	14.52
Property & Construction	12	12	13	13	50	20.75
Resources	12	15	15	16	58	24.07
Services	6	6	8	8	28	11.62
Technology	2	2	3	3	10	4.15
Total	**53**	**59**	**65**	**64**	**241**	**100**

Table 2 presents a diverse sample, with total assets ranging from a minimum of 250 million to 2,484 billion Baht. The return on assets (ROA) ranged from a high positive ratio to a negative ratio. Additionally, the sample included companies with as few as 114 employees and as many as 122,894 employees.

Table 2 Descriptive statistics of the sample characteristics.

	Min	Max	Mean	Std. Error of Mean	Percentiles 05	Median	Percentiles 95
Revenue (mill. baht)	254	2,367,959	117,009	18,765	1,121	22,304	488,708
Asset (mill. baht)	250	2,484,439	140,774	21,015	1,091	29,596	593,126
ROA (%)	–6.67	22.39	8.29	0.32	0.33	7.61	17.53
Leverage (%)	0.06	2.79	0.48	0.02	0.11	0.47	0.76
Employee (No.)	114	122,894	9,137	1,196	248	2,309	63,126

Measurement of ESG disclosure: Hard and soft disclosure

Many studies have used various methods to measure the level of ESG disclosures, such as word counts (Suttipun, 2015; Suttipun & Stanton, 2011), line counts (Patten, 2002), and scoring indexes (Braam et al., 2016; Clarkson et al., 2008; 2011). However, for this study focusing on ESG disclosures in the Thai language context, the word count approach is deemed unsuitable as it is difficult to determine the individual word's meaning in isolation and relies heavily on the researcher's judgment on whether the words relate to ESG issues or not (Acaranupong, 2015). Similarly, line counts are not appropriate since Thai language lacks the punctuation used in English to separate lines or sentences (Acaranupong, 2015). Instead, this study utilized a disclosure scoring index method, which is one of the most common techniques used in studies that measure the level of disclosure (Scaltrito, 2015). A checklist of ESG disclosure items was developed based on the Global Reporting Initiative (GRI) G4 framework as a guideline, covering the required disclosure items on ESG issues. The framework consists of four main parts: 1) general standard disclosure containing CG information, 2) economic disclosure, 3) environmental disclosure, and 4) social disclosure. While many researchers have adopted this framework to measure environmental disclosure (Clarkson et al., 2008; 2011; Ong et al., 2016), sustainability reporting (Ong et al., 2016), and ESG disclosure (Sharma et al., 2020), this study included ESG disclosure items that were specifically relevant to the Thai context. Initially, several companies' reports were examined to identify the items commonly presented by Thai companies. Then, the researchers considered the nature of business in each sector to determine additional items that should be disclosed. Finally, the ESG disclosure checklist underwent a thorough review by three professionals to ensure that the selected items were applicable to Thai companies.

This study also utilized the hard and soft disclosure framework proposed by Clarkson et al. (2008). The ESG hard disclosure component was evaluated using a six-point scale. One point was allocated for the presentation of performance data. Two points were rewarded when performance data was presented in comparison to industry peers or rivals. Three points were assigned for the presentation of performance data relative to previous periods through trend analysis. Four points were allocated when there was the presentation of performance data relative to targets. Five points were given for the presentation of performance data in both absolute and normalized form. Lastly, six points were rewarded to a firm with the disaggregated presentation of performance data at the level of business units, plants, or geographic segments. For ESG soft disclosure, it was scored on a binary scale of either zero or one, regarding descriptive and unverifiable qualitative information a firm provided. The number of items of hard and soft disclosure list is demonstrated in Table 3.

Table 3 Numbers of ESG disclosure items based on GRI guideline.

Dimension	Number of items	
	Hard disclosure	Soft disclosure
Environment	18	25
Social	26	25
Governance	17	10
Total	**61**	**60**

The ESG hard disclosure component was scored on a scale ranging from 0 (representing no disclosure) to 366 (representing the highest level of disclosure). Similarly, the ESG soft disclosure component was scored on a scale from 0 (denoting no disclosure) to 60 (denoting the highest level of disclosure). These scores were then used to calculate the overall disclosure index for each company. The disclosure index was calculated using the following disclosure equation for both ESG hard and soft disclosure:

$$\text{disclosure index} = \frac{\text{actual score of disclosure (either hard or soft disclosure)}}{\text{potential maximum score of disclosure (either hard or soft disclosure)}}$$

Therefore, the disclosure index was found to be between zero and one. Furthermore, it is worth mentioning that the potential maximum score for ESG hard and soft disclosure varied across industries, as certain disclosure items were not applicable to all industries (Hummel & Schlick, 2016).

Data collection

ESG disclosure data was collected from two sources: form 56-1 and ESG standalone reports (in Thailand, these reports are referred to by different names such as sustainability reports, CSR reports, or sufficiency economy philosophy reports). The reports were obtained directly from the sampled firms' websites or the official website of SET for the period from 2016 to 2019. Two data collectors were employed to manually collect the data, and to ensure consistency, ten firms were selected, and their disclosure scores were marked by both data collectors. There were no significant differences in the scores assigned by the two collectors. After a two-month interval, another ten firms were randomly selected and their scores were marked again by the same two data collectors. Once again, there were no significant differences in the disclosure scores assigned by the two collectors. These tests were carried out in line with the methodology proposed by Clarkson et al. (2011).

4. Results and discussion

ESG hard disclosure and soft disclosure

Table 4 presents the results of the study, which indicate that, on average, Thai listed firms tend to provide more soft information than hard information when disclosing ESG-related information. This suggests that these firms prefer to present ESG information in a narrative and qualitative style rather than using numerical or quantitative data. This type of disclosure may be difficult for investors and other stakeholders to verify, and may be reported by any firm, regardless of its actual ESG performance. This finding is consistent with the results of previous studies, including Ong et al. (2016) and Clarkson et al. (2008, 2011), which also found that firms tended to score higher in terms of soft disclosure than hard disclosure.

Table 4 The corporate ESG disclosure scoring indexes across year.

Year	N	Hard disclosure index				Soft disclosure index			
		Mean	Min.	Max.	Std.Dev.	Mean	Min.	Max.	Std.Dev.
2016	53	0.17	0.05	0.28	0.053	0.70	0.45	0.88	0.088
2017	59	0.19	0.06	0.33	0.062	0.75	0.43	0.98	0.099
2018	65	0.20	0.07	0.36	0.066	0.79	0.53	1.00	0.099
2019	64	0.22	0.11	0.38	0.069	0.84	0.63	1.00	0.090
Total	**241**	**0.20**	**0.05**	**0.38**	**0.067**	**0.77**	**0.43**	**1.00**	**0.107**

Additionally, Table 4 shows a slightly increasing trend in ESG disclosure levels for both hard and soft disclosure from 2016 to 2019. The minimum and maximum disclosure scores also indicate a positive trend, particularly for soft disclosure. In 2019, the minimum score for soft disclosure was 0.63 (more than 50 percent of the total soft disclosure score) and the maximum was 1.00, suggesting best practice among some Thai listed firms that disclosed all required ESG items. However, the minimum score for hard disclosure was 0.11 and the maximum was 0.38, indicating the need for improvement. This may not be good news for Thai regulators who have been promoting ESG disclosure practices among listed companies. The increase in ESG hard disclosure seems incomparable to the regulatory effort. The average mean score for hard disclosure increased slightly over the period from around 0.17 to 0.22 only, which is still considered a very low level. This finding is similar to other studies such as Ching et al. (2017) that found low sustainability disclosure scores among Brazilian companies. On the other hand, the ESG soft disclosure scores increased substantially, from about 0.70 in 2016 to 0.84 in 2019. This is not surprising, given that soft disclosure is unverifiable and qualitative in nature. As such, any company can easily disclose it without necessarily having real commitments to ESG activities.

The findings discussed above indicate that Thai listed firms tend to disclose more soft information than hard information in their ESG reporting. However, as Clarkson et al. (2008) suggested, the soft disclosure scores may not be a good indicator for evaluating a company's environmental performance. To gain a deeper understanding of how Thai listed companies disclose their ESG information and what implications can be derived from these behaviors, we provide a detailed analysis of ESG disclosure in the following section. Hummel and Schlick (2016) argued that high-quality reporting of quantitative sustainability information allows outsiders to assess a company’s true sustainability performance. They further suggested that companies with high sustainability performance tend to disclose high-quality sustainability information, and vice versa. This implies that companies might use soft disclosure as a strategic tool to legitimize their business activities, particularly those related to social and environmental issues (Braam et al., 2016; Ong et al., 2016).

Types of information disclosed

The results presented in Table 5 reveal the average level of ESG hard and soft disclosure for each dimension of environment, social, and governance from 2016 to 2019. The findings in Table 5 Panel A indicate a slight increase in the hard disclosure score for each dimension over the period studied. Notably, the environmental dimension had the highest score compared to the other dimensions, with a significant increase observed from 2017 to 2019, rising by approximately 0.04 every year, while the other periods rose about 0.02. The social and governance disclosure scores also increased by 0.02 over the period studied, except for governance disclosure between 2018 and 2019, where the disclosure score rose by about 0.03.

Table 5 The corporate ESG disclosure scoring index of each dimension.

Panel A: ESG hard disclosure scoring index

Year	Hard ESG disclosure index											
	Environment				Social				Governance			
	Min.	Max.	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.
2016	0.07	0.55	0.27	0.11	0.03	0.25	0.14	0.06	0.06	0.26	0.12	0.04
2017	0.07	0.70	0.29	0.13	0.03	0.31	0.15	0.06	0.07	0.36	0.13	0.05
2018	0.08	0.70	0.33	0.13	0.03	0.31	0.16	0.07	0.09	0.38	0.15	0.06
2019	0.07	0.76	0.36	0.14	0.03	0.33	0.18	0.07	0.10	0.39	0.18	0.06
Total	**0.07**	**0.76**	**0.31**	**0.13**	**0.03**	**0.33**	**0.16**	**0.07**	**0.06**	**0.39**	**0.15**	**0.06**

Table 5 The corporate ESG disclosure scoring index of each dimension. (Cont.)

Panel B: Soft disclosure scoring index

Year	Hard ESG disclosure index											
	Environment				Social				Governance			
	Min.	Max.	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.
2016	0.28	0.92	0.66	0.12	0.44	0.96	0.70	0.11	0.50	1.00	0.79	0.13
2017	0.36	1.00	0.71	0.12	0.48	1.00	0.75	0.11	0.60	1.00	0.84	0.11
2018	0.52	1.00	0.76	0.12	0.52	1.00	0.79	0.11	0.50	1.00	0.86	0.12
2019	0.60	1.00	0.82	0.11	0.56	1.00	0.84	0.10	0.40	1.00	0.89	0.13
Total	**0.28**	**1.00**	**0.74**	**0.13**	**0.44**	**1.00**	**0.77**	**0.12**	**0.40**	**1.00**	**0.85**	**0.13**

Table 5 Panel B reveals that the average soft disclosure scores for all types of information are quite high, ranging from 0.74 to 0.85, and seem not to be significantly different from each other. This observation aligns with Clarkson et al. (2008), which consider that soft disclosure tends to indicate less distinction between good and poor environmental performance, as it is easy to mimic and unverifiable.

To provide more detailed insights into each dimension of ESG disclosure, Table 6 presents the average ESG disclosure score for each sub-dimension, grouped according to GRI sub-groups. Under the environmental disclosure section, the results indicate that Energy had the highest hard disclosure score of 0.43, followed by 'Water' at 0.38 and 'Emissions' at 0.32. In 2019, the disclosure index for 'Energy' and 'Water' was approaching 0.5, meaning nearly 50 percent of the total 'Energy'/'Water' disclosure score, which is relatively good. The increase in hard disclosure scores over time suggests that Thai listed companies are likely committing to environmental activities in reality, as several studies (Clarkson et al., 2008; 2011; Hummel & Schlick, 2016) have viewed that hard disclosure items are objective and verifiable, and such disclosure would be relatively difficult for a firm with poor environmental performance to mimic. The positive results of some aspects of hard environmental disclosure are encouraging for Thai regulators.

Table 6 Detail of average ESG disclosure scores by each dimension and sub-dimension.

Panel A: Hard disclosure scoring indexes

Dimensions and sub-dimensions	2016	2017	2018	2019	Total
Environment					
Material	0.19	0.22	0.27	0.28	0.24
Energy	0.38	0.40	0.43	0.48	0.43
Water	0.32	0.35	0.41	0.43	0.38
Bio-diversity	0.11	0.10	0.14	0.15	0.12
Emission	0.29	0.29	0.33	0.37	0.32
Effluents and waste	0.21	0.22	0.25	0.28	0.24
Overall	0.15	0.17	0.19	0.21	0.18
Supplier environment assessment	0.09	0.10	0.12	0.14	0.11
Total	**0.27**	**0.29**	**0.33**	**0.36**	**0.31**
Social					
Labour practices and decent work	0.23	0.25	0.27	0.28	0.26
Human right	0.07	0.08	0.08	0.09	0.08
Society	0.08	0.09	0.10	0.12	0.10
Product responsibility	0.40	0.43	0.42	0.48	0.43
Total	**0.14**	**0.15**	**0.16**	**0.18**	**0.16**
Governance					
Governance structure and composition	0.10	0.12	0.13	0.15	0.13
Highest governance's role, competencies and performance evaluation	0.13	0.15	0.16	0.20	0.16
Total	**0.12**	**0.13**	**0.15**	**0.18**	**0.15**

Table 6 Detail of average ESG disclosure scores by each dimension and sub-dimension. (Cont.)

Panel B: Soft disclosure scoring indexes

Soft disclosure	2016	2017	2018	2019	Total
Environment					
Material	0.51	0.56	0.63	0.72	0.61
Energy	0.81	0.86	0.95	0.97	0.90
Water	0.87	0.86	0.92	0.95	0.90
Bio-diversity	0.67	0.75	0.78	0.87	0.77
Emission	0.71	0.75	0.79	0.86	0.78
Effluents and waste	0.73	0.81	0.86	0.89	0.83
Overall	0.62	0.66	0.69	0.76	0.69
Supplier environment assessment	0.46	0.58	0.64	0.80	0.63
Total	**0.66**	**0.71**	**0.76**	**0.82**	**0.74**
Social					
Labour practices and decent work	0.65	0.72	0.75	0.80	0.73
Human right	0.55	0.64	0.70	0.76	0.67
Society	0.80	0.81	0.85	0.91	0.85
Product responsibility	0.81	0.85	0.88	0.92	0.87
Total	**0.7**	**0.75**	**0.79**	**0.84**	**0.77**
Governance					
Governance structure and composition	0.87	0.92	0.91	0.92	0.91
Highest governance’s role, competencies and performance evaluation	0.72	0.76	0.81	0.86	0.79
Total	**0.79**	**0.84**	**0.86**	**0.89**	**0.85**

However, the low scores of certain sub-dimensions of environmental disclosure, particularly ‘Supplier environmental assessment’ with an average score of 0.11, indicating that this matter probably has not been in concern of Thai listed firms. However, with the sustainability trend worldwide, Thai regulators may need to encourage these companies to screen their suppliers regarding environmental issues before doing business with them.

In term of social disclosure, the average score slightly increased over the period of time studied, with the ‘Product responsibility’ sub-category contributing to this increase. This sub-category discloses the ratio of customer satisfaction with a firm's products/services. However, the average scores of other sub-categories are considered low, indicating that Thai listed firms may perform well in areas that favor them, but not in areas where the costs outweigh the benefits. This finding supports Hummel and Schlick's (2016) suggestion that firms may provide high-quality information regarding topics that are favorable to themselves while disclosing low-quality information on topics that may be unfavorable to their interests.

The results also indicate that all sub-categories of governance disclosure have low average scores and slightly increased over time, which is surprising given the SEC’s requirement for Thai listed firms to disclose CG information. The low CG hard disclosure suggests that CG information disclosed by Thai listed firms may be descriptive in nature in response to the SEC requirement. This implication is consistent with the result of CG soft disclosure presented later, which shows the highest average governance disclosure score compared with environmental and social soft disclosure.

Table 6 Panel B presents the average scores of soft disclosures by sub-categories, indicating a slight increase in the average soft disclosure score for all sub-categories over the studied period, similar to the hard disclosure score. Among the environmental disclosure sub-categories, ‘Energy’ and ‘Water’ information had the highest soft disclosure score, followed by ‘Effluents and waste’ and ‘Emission’, which is consistent with the sub-categories of environmental hard disclosure score. For social soft disclosure, the average score ranged from 0.67 to 0.87, with the highest average score being ‘Product responsibility’ information and the lowest being ‘Human rights’. This finding also aligns with the sub-categories of social hard disclosure score. The similar results of environmental and social hard and soft disclosure sub-categories suggest that Thai listed firms may be disclosing both types of information in a similar manner although their disclosure scores are quite different.

In contrast, the governance soft disclosure results indicate that the average score of information about ‘Governance structure and composition’ was higher than that of information about ‘Highest governance’s role’. This outcome differs from the governance hard disclosure score, suggesting that Thai listed firms tend to disclose descriptive CG information, particularly governance structure and composition, in response to the CG Code by the SEC (2017) of Thailand. This provides a thought that CG soft disclosure has been employed to indicate CG performance of Thai listed firm but to what extent of CG performance is achieved is uncertain.

ESG disclosure by sector

Based on the sector-specific data analyzed in Table 7, the research findings indicate that the natural resource sector has the highest average score for hard ESG disclosure (0.2229), followed by the technology and industrials sectors. Conversely, the consumer products sector has the lowest average score for disclosure (0.1529). The study conducted an ANOVA to assess if there was a significant difference in ESG disclosure across firms in various industries, and the results indicated a significant difference in hard disclosure.

Table 7 ESG hard disclosure scoring indexes by sector.

Panel A: Hard disclosure scoring indexes

Industry	Min.	Max.	Mean	Ranking	Std.Dev.	F-test	p-value
Agro & Food	0.06	0.33	0.1933	4	0.0606	4.474	0.000***
Consumer Products	0.05	0.33	0.1529	7	0.0634		
Industrials	0.10	0.35	0.2169	3	0.0647		
Property & Construction	0.07	0.37	0.1875	5	0.0688		
Resources	0.08	0.38	0.2229	1	0.0644		
Services	0.09	0.29	0.1860	6	0.0531		
Technology	0.09	0.31	0.2175	2	0.0705		
Total	**0.05**	**0.38**	**0.1989**		**0.0665**		

Panel B: Soft disclosure scoring indexes

Industry	Min.	Max.	Mean	Ranking	Std.Dev.	F-test	p-value
Agro & Food	0.45	1.00	0.7514	5	0.1409	1.954	0.073
Consumer Products	0.43	0.93	0.7399	7	0.1235		
Industrials	0.57	1.00	0.7600	4	0.1132		
Property & Construction	0.58	0.98	0.7890	2	0.0836		
Resources	0.58	0.97	0.8006	1	0.0938		
Services	0.57	0.88	0.7435	6	0.0871		
Technology	0.60	0.93	0.7883	3	0.1045		
Total	**0.43**	**1.00**	**0.7700**		**0.1070**		

*** significant at 0.01 level.

The three sectors with high disclosure scores have been classified as sensitive industries due to their business activities potentially impacting the environment and society significantly. Consequently, their operations are critical, and society expects acknowledgment to assess their legitimacy. This observation is consistent with prior research (Wang et al., 2013; Tan et al., 2016) indicating that companies classified as sensitive sectors tend to disclose more CSR, ESG, or sustainability information compared to those in non-sensitive sectors. Such companies have stronger incentives, particularly social pressure, to disclose their activities.

Similarly, Table 7 Panel B reveals that the natural resource sector achieved the highest average score for ESG soft disclosure (0.8006), followed by the property and construction sector and technology sector. On the other hand, the consumer products sector obtained the lowest average score. The ranking of sectors with the highest and lowest soft disclosure scores aligns with that of ESG hard disclosure scores (shown in Table 7 Panel A). That is, companies in the natural resource sector tend to disclose ESG information more than those in other sectors and companies in the consumer products sector are likely to disclose the least. This indicates that these firms tend to disclose both hard and soft ESG information in a similar manner.

However, the substantially higher scores for soft disclosure raises questions among stakeholders, especially investors, as to whether firms are strategically shaping public perception of their ESG performance through disclosure or genuinely reflecting their actual ESG activities. Several studies (Braam et al., 2016; Ong et al., 2016) have suggested that ESG disclosure may be used as a communication tool rather than a genuine reflection of ESG performance. This thought should be aware, particularly, for companies in the property and construction sector, because the sector ranking for hard and soft disclosure differs. While it was ranked the fifth for hard disclosure in Table 7 Panel A, it was the second in terms of soft disclosure score in Table 7 Panel B. The current research only raises awareness among stakeholders to be cautious for ESG disclosure of Thai listed firms, especially companies in the property and construction sector, when they are considering ESG information.

The results of the study show that firms in the sensitive sector, such as the natural resource, technology, and industrial sector, tended to disclose higher levels of ESG information in both hard and soft forms compared to firms in other industries. This could be attributed to the potential impact of their operations on the natural environment and society, which may raise concerns among investors and society at large. These firms may face societal and stakeholder pressures, as well as regulatory and legal requirements related to environmental and social risks (Ong et al., 2016; Clarkson et al., 2008; Deegan, 2002), leading them to provide more ESG disclosure to ensure their survival. On the other hand, companies in the consumer product sector and the service sector tended to disclose the least ESG information in both hard and soft forms, which is reasonable since both sectors are considered low-polluting performers compared to other sectors. These findings are consistent with a study by Ratanajongkol et al. (2006), which also found that the service sector had the lowest disclosure score in Thailand.

The ANOVA test results show that there are statistically insignificant differences in the soft disclosure score among the seven sectors, while the hard disclosure results (Table 7 Panel A) reveal statistically significant differences at a 0.01 level. This suggests that firms tend to disclose soft information in a similar manner across different sectors, while hard disclosure is more likely to vary significantly among firms in different industries. This supports the idea that hard disclosure can be used by firms to differentiate themselves from others. Previous research has indicated that firms with superior ESG performance are more likely to disclose high-quality, verifiable, and objective hard ESG information to the public (Hummel & Schlick, 2016; Clarkson et al., 2008, 2011), and this implication may also hold in the Thai context. However, further investigation is needed to confirm this relationship.

5. Conclusion, research recommendations and limitations

This study aims to comprehensively investigate the level of ESG disclosure of Thai listed firms from 2016 to 2019. A total of 241 firm-year observations from 67 listed companies across seven industries were analyzed using content analysis. The level of ESG disclosure was measured in terms of hard and soft disclosure, and data was collected from standalone ESG reports, which are known in Thailand under different names such as sustainability reports, corporate sustainability reports, environmental reports, Triple Bottom Line reports, and sufficiency economy philosophy reports. The items in both hard and soft disclosure were categorized based on the GRI framework and analyzed across three dimensions: environment, social, and governance, and each dimension was further examined into various sub-dimensions.

The study found a slight increase in the scores of both hard and soft ESG disclosure, as well as in all three dimensions of ESG disclosure, over the period from 2016 to 2019. Notably, the average score for soft ESG disclosure was quite high, which is a positive indication for stakeholders, particularly Thai regulators, of some progress in the disclosure practices of Thai listed firms. However, there is still room for improvement in ESG hard disclosure.

The results also indicate that Thai listed firms tend to disclose more ESG soft information than hard information. This means that most firms provide descriptive information, such as their vision and ESG strategy, which cannot be audited and do not indicate specific ESG performance, making it easy for other firms to mimic. In contrast, few firms disclose quantifiable and verifiable information that provides insight into various aspects of ESG performance and the true outcome of their efforts in addressing ESG activities. As soft disclosure is generally applied indifferently among firms, the research suggests that in Thailand, ESG soft disclosure could be applied to serve a corporate strategy aiming to recover, boost, or maintain public perception of a firm's ESG performance for its legitimacy. The results of hard and soft disclosure by sector suggest that companies in the property and construction sector should receive more attention regarding this strategic matter. However, this thought is not strongly confirmed by the current research; it only raises awareness among investors to be cautious regarding ESG disclosure by Thai listed firms, particularly in the property and construction sector. Future research is required to study the association between ESG performance and hard and soft disclosure in Thailand, especially in the property and construction sector.

Regarding the types of information disclosed, the research reports that there have been significant changes over time. Previous studies by Ratanajongkol et al. (2006) and Suttipun (2015) reported that human resources and economic aspects were the dominant areas of CSR and sustainability disclosure by Thai firms, respectively. However, this research shows that during the recent period (2015–2019), environmental information dominates ESG hard disclosure, while governance information is the primary contributor to ESG soft disclosure by Thai firms. Interestingly, the sub-category of environmental hard disclosure, particularly 'Energy,' has witnessed a significant increase in disclosure, which was the least disclosed area in the past (Ratanajongkol et al., 2006). These findings suggest that Thai listed firms are responding to the growing global awareness of environmental and governance issues in business operations.

The research results also suggest that in Thailand, regulations, guidelines, and ESG campaigns provided by regulators may encourage firms to disclose more information; however, they may tend to apply soft disclosure rather than hard disclosure in response to these requirements. The quality of disclosure may still be in doubt. Therefore, to ensure that listed companies practice hard disclosure, Thai regulators may need to clearly indicate the specific information that should be disclosed in their guidelines.

Although the research makes valuable contributions to various groups, it is important to recognize its limitations. First, the calculation of the disclosure index was based on ESG information found in standalone reports. However, in today's digital age, companies have multiple communication channels, such as websites and social media, through which they publicly disclose information (Fatemi, Glaum & Kaiser, 2018). Consequently, the disclosure index may not encompass all ESG information disclosed by a firm. Nevertheless, previous research (Dhaliwal et al., 2012) has confirmed that standalone reports remain the primary source of non-financial information that is useful and relevant to stakeholders' decision-making, indicating that they cover significant ESG information. Second, it is crucial to note that the disclosure index indicates the extent of ESG information disclosed but does not reveal ESG performance (Qian & Schaltegger, 2017). Therefore, a high ESG disclosure index, whether through hard or soft disclosure, does not necessarily indicate high ESG performance. Future research should delve into investigating ESG performance, as previously mentioned as a requirement for this study, specifically examining the association between ESG performance and hard and soft disclosure in Thailand, particularly in the property and construction sector. Lastly, this research focused on ESG disclosure from 2015–2019 due to concerns regarding inconsistent ESG disclosure practices during the Covid-19 period that might have affected the consistency of ESG disclosure. Future research could expand the study's timeframe to emphasize the impact of Covid-19 on ESG disclosure and explore other determinants. Additionally, as IFRS S1 and S2 are set to take effect in 2024, it would be interesting to determine the changes in ESG disclosure before and after the effective date.

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