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Sustainability Reporting Disclosure in Indonesia, Malaysia, Singapore, and Thailand

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ABSTRACT

This article explains the progress of sustainability reporting in various countries, particularly Indonesia, Malaysia, Singapore, and Thailand. The researchers selected these countries due to their significant roles in the Southeast Asian economy, varying levels of sustainability development, and differences in regulatory frameworks. This article examines the availability, extent, and quality of sustainability reported in these countries. It further discusses the most frequently used frameworks for preparing sustainability reports. Moreover, it presents how companies communicate their sustainability efforts to stakeholders, primarily through official websites and the internet. Future research will continue to explore sustainability reporting disclosures in various countries, especially in these four countries, based on the GRI 4 framework. It will compare the practices across several Asian countries.

Keywords: disclosure; framework; practices; sustainability reporting

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INTRODUCTION

The traditional economic business model is focused on generating profits for shareholders. It is quite short-term in focus. It takes resources (whether natural, human, or financial) and uses them to make products or deliver services with the aim of profitability which is then returned to shareholders (Conway, 2018). In recent years business paradigm (single P) has shifted into a sustainable development paradigm (Hak *et al*, 2018). John Elkington in 1997 through his book popularized the term Triple Bottom Line. The Triple Bottom Line concept explains that the company to be able to grow sustainably must increase the profit of the company (profit), be responsible for maintaining the earth (planet), and care about people (people) both employees and the community outside the company (Elkington, 1997). While the traditional business model primarily prioritizes financial returns, the Triple Bottom Line introduces a broader view, where success is measured not just by profit, but by a company's impact on society and the environment. This shift in perspective reflects a growing recognition that long-term success requires balancing economic, environmental, and social responsibilities. In contrast, the traditional model often overlooks environmental sustainability and social equity, focusing mainly on short-term financial performance and shareholder wealth.

This holistic approach to measuring success has become increasingly important in today's business world as stakeholders demand more transparency and accountability from companies. By considering the Triple Bottom Line, organizations can ensure they are not only financially successful but also contributing to a healthy planet and society (O'Neil, 2018). Contributing to the planet and society is central to the Triple Bottom Line because businesses are increasingly recognized as key players in addressing global challenges such as climate change, resource depletion, and social inequality. Companies that prioritize environmental and social well-being are more likely to build long-term trust with their stakeholders, reduce risks, and create sustainable value for both present and future generations. In this way, the Triple Bottom Line encourages businesses to go beyond mere profit-making to become responsible stewards of the environment and active contributors to the welfare of communities. This shift towards a more sustainable business model is essential for long-term viability and success in a rapidly changing global landscape.

Sustainability transformation is the transition from the current unsustainable state to society's desired state, using the SDGs as endpoints (Voulvoulis & Burgman, 2019), (Kioupi & Voulvoulis, 2019). System transformations require interconnected changes to technologies, social practices, business models, regulations, and societal norms. It is an intentional process designed to fundamentally alter the components and structures that cause the system to behave in its current unsustainable ways. It is a paradigm shift enabling the transition to sustainability (Voulvoulis *et al*, 2022).

Awareness in respect of environmental and social aspects began in 1983 when the United Nations established the Brundtland Committee, in which the mission of the Brundtland Commission was to unite countries to pursue sustainable development. Sustainability Report is increasingly becoming a trend and a need for progressive firms to inform the economic performance, as well as social and environmental impacts to all corporate stakeholders (NCSR, 2009). The Sustainability Reports are getting more attention in global business practices and become the criteria for assessing corporate social responsibility. Leaders of companies are increasingly recognizing that more comprehensive disclosure of the report will support the company's strategy (Bradford *et al*, 2017). Therefore, they are investing more resources into ensuring the accuracy and transparency of the information included (Gisladdottir *et al*, 2022).

A sustainability report is a practice of measurement, disclosing, and accountability effort of sustainability activities to achieve sustainable development (Stefanescu, 2022). Companies that consider sustainable development will be able to increase the value of the company with the support of

both internal and external stakeholders, such as consumers, employees, investors, regulators, suppliers, and other groups. The company's ability to communicate environmental activities and social performance effectively in the sustainability report is considered essential for the long-term success, survival, and growth of the organization (Ortiz-de-Mandojana & Bansal, 2015).

The company's ability to communicate its activities and performance effectively through sustainability reports is a form of corporate accountability, responsibility, and transparency to its stakeholders and is believed to increase the company's value. Investors prefer to invest in transparent companies because they have high confidence in the management with the accuracy of forecasting analysis and lower information asymmetries. Sustainability reporting is also believed to improve the reputation and trust of consumers. Companies with high reputations and trust from consumers have an impact on loyalty that will ultimately increase the company's revenue (Fernandez-Feijoo *et al*, 2014).

The most important types of legitimizing communicative practices articulated in the four types of studies were related to: seeking knowledge about stakeholders through perception, impact, and promotion activities; monitoring and controlling the environment through image and reputation activities; creating stakeholder value through collaboration and engagement; and persuading and convincing stakeholders through rhetorics, CSR models and concepts. Practices and activities related to perceiving stakeholders' expectations, needs, and requirements are assumed to be most effective for corporations aiming at building or maintaining legitimacy (Ellerup Nielsen & Thomsen, 2018).

There are various guidelines provided by governments and international agencies to make guidelines for Sustainability Reporting (Siew, 2015). One of the institutions that make these guidelines is the Global Reporting Initiative (GRI). GRI produces worldwide standards for sustainability reporting such as Environmental Social Governance (ESG) Reporting, Triple Bottom-Line (TBL) Reporting, and Corporate Social Responsibilities (CSR) Reporting. GRI strives to continue developing the "framework for sustainability reporting", and the G4 Guidelines were officially released in May 2013 (Jones *et al*, 2015).

The number of companies that disclose sustainability reports increases over time (Jeanice & Kim, 2023), either incorporating their reports into their financial statements or being reported as separate reports. However, this disclosure is voluntary (Searcy & Buslovich, 2014). This is confirmed by the results of a survey conducted by KPMG in 2013 which states that companies attaching environmental, social, and sustainability reports to their financial statements began to increase significantly. According to KPMG's 2013 survey, 71% of the 4.100 companies surveyed worldwide reported on corporate responsibility (CR) in 2013, marking a 7-percentage point increase from 64% in 2011. Among the world's largest 250 companies (G250), the CR reporting rate was even higher, with 82% reporting in 2013, up from 78% in 2011. Furthermore, over half (51%) of reporting companies worldwide now include CR information in their annual financial reports. It is a significant rise from just 20% in 2011 and 9% in 2008 (assets.kpmg.com, 2013).

Research has been related to sustainability reporting in Indonesia has been done by Christianty, *et al* (2024), Zakia, *et al* (2023), Dewi, *et al* (2023), Dewi & Maulana (2022), Syafrudin & Panjaitan (2020), Herman & Heriyanto (2017), Arthini & Mimba (2016), Atmajaya (2015), Rofelawaty (2014), Iriyanto & Nugroho (2014), focusing on companies participating in the ISRA (Indonesian Sustainability Reporting Award) and ASSRAT (Asia Sustainability Reporting Rating). However, it is not only in Indonesia that gives awards to companies that have disclosed their Sustainability reporting.

Other countries such as Malaysia give awards known as MaSRA (Malaysia Sustainability Reporting Awards). Researches related to sustainability reporting in Malaysia have been conducted by Jamil, *et al* (2021), Kee, *et al* (2021), Bakar, *et al* (2019), Aman & Takril (2016), Kasbun, *et al* (2016) and Zahid, *et al* (2016), Said, *et al* (2015), Abd-Mutalib, *et al* (2014), Amran (2012).

Singapore also awards companies that have reported sustainability reporting. This award is commonly called the Singapore Sustainable Business Awards (SBA). Research on sustainability reporting in Singapore has been done by Tan (2021), Loh & Tan (2020), Loh, *et al* (2017), Loh, *et al* (2016), Chiat, *et al* (2013), and The Association of Chartered Certified Accountants (2013).

In Thailand, the SET (The Stock Exchange of Thailand) has developed sustainable practices. SET awards to companies reporting sustainability reports are known as the SET Sustainability Awards. Research on sustainability reporting in Thailand has been done by Racela (2024), Suttipun, *et al* (2021), Petcharat & Zaman (2019), Chaisena, and Ussahawanitchakit (2016), Chindavijak, *et al* (2015), Suttipun (2015), Suttipun (2012), Suttipun & Stanton (2012).

This study explores the disclosure of sustainability reporting in some Asian countries, especially Indonesia, Malaysia, Singapore, and Thailand. In this paper, the researcher will describe the results of previous research and provide projections on sustainability reporting disclosure. Descriptions of various studies that have been conducted by researchers related to sustainability reports will be useful in providing referrals for further research related to sustainability reporting.

RESEARCH METHOD

This paper describes the result of research that has been done by previous researchers related to sustainability reporting in Indonesia, Malaysia, Singapore, and Thailand. This research applies a qualitative approach. In this paper, the researcher describes the results of previous research and provides projections on the disclosure of sustainability reporting.

RESULTS AND DISCUSSION

There has been enormous growth in the number of companies that publish CSR reports. Moreover, companies have been expanding the size of their reports, the range of topics covered, and the depth of their coverage, and increasingly providing independent assurance to make accurate disclosures. These reports, however, face major challenges from the perspective of their intended audience. Due to their voluntary nature, CSR reports are difficult to evaluate in absolute terms, and also in comparison with those of other companies in the same industry, country, and region, or any other criteria (Sethi *et al*, 2017).

This is confirmed by the results of a survey conducted by KPMG in 2015 stating that in 2013 the company reported on environmental, social, and sustainability in its financial statements of 54% -75%. If it was compared to 2011 by 40% -43%, CSR reporting began to increase significantly. This rise in CSR reporting could be attributed to several factors, including Increased Stakeholder Expectations, Growing Importance of Sustainability, Regulatory Pressure and Global Frameworks, and Public Awareness and Corporate Reputation.

Companies discuss their sustainability report practices in a global context. Barkemeyer, *et al* (2015) state that the GRI has been successful in terms of output effectiveness by promoting the dissemination of sustainability reporting, in particular among Asian and South American companies. The emerging trend of sustainability reporting from companies reflects their awareness of the benefits and usefulness of doing so. As it encourages companies to be transparent about the details of their operations, it thereby reflects their commitment to be responsible and accountable for their practices. From the perspective of a company, this transparency improves its reputation, not only for stakeholders and consumers but also for its main human capital which is its employees. A company becomes more aware of its operational efficiency. Thus, it could work towards increasing its sustainability efforts and

financial performance. Furthermore, sustainability disclosure could serve as a differentiator for potential stakeholders to invest in companies (Loh *et al*, 2016).

Companies also appear to increasingly recognize the importance of sustainability reports and make a progress to improve their quality of disclosure. A higher quality of disclosure is generally observed when companies adopt the GRI framework than other or no frameworks. As the GRI guidelines provide a comprehensive yet clear framework for companies to understand, it is therefore easier for them to communicate their sustainability practices. The increase in the quality of disclosure of GLCs/SOEs could be attributed to their links with the government, where there is a greater need for transparency of their actions and operations.

Sustainability Reporting in Indonesia

Indonesia as one of the emerging market countries has not yet established independent sustainable reporting regulations. However, a small number of companies in Indonesia are committed to following global regulations to support sustainable development. The research conducted by Sebrina, *et al* (2022) shows that the diffusion of sustainability reports is still shallow compared to mandatory social responsibility reports. The quality of sustainability reports based on disclosure is also still low, but industry groups vary in quality. The quality of Sustainability Reporting is based on timeliness, stakeholder engagement, comparability, and satisfaction. However, for clarity and accuracy, the results are acceptable, while reliability is less acceptable.

The evolution of sustainability reporting practices in Indonesia is declared by Gunawan *et al*, 2022. They found that the sustainability reporting trend in Indonesia increases from year to year. Indonesian companies (sensitive and non-sensitive industries) mainly disclosed most of the information on economic, social, and environmental aspects. The second most disclosed by the sensitive industry is community engagement, while one disclosed by the non-sensitive industry is information related to new employees and employee turnover. The Human Rights indicators have the lowest disclosure percentage among others.

Hanifa & Cahaya (2016) shows a relatively low level of voluntary society disclosure (40.27 percent). The highest level of communication is for issues related to society programs. Very few companies disclosed information about public policy, donations to political parties, and actions taken in response to corruption incidents. Statistical analysis reveals that company size is a positively significant predictor of 'society' communication.

Other studies on sustainability reporting practices analyze that sustainability reporting can increase financial performance (Fuadah *et al*, 2019), (Zakia *et al*, 2023). Companies that have published sustainability reports (SR) are expected to consistently publish SR every year because it can reduce the negative impact on the environment by identifying additional costs related to natural resources, and other environmental costs contained in SR (Rahim *et al*, 2023). In addition, it is also expected to increase the number of items reported in the SR so that it is clear that the company pays attention to SR disclosure by continuing to increase the number of items reported. Investors who want to invest in a company should be wiser in investing so that they are not concerned with profit alone but also see the impact caused by the company's operations on society and consumers to create sustainable company development in the future. Thus, they get attention and a good image in front of the community so that investors will be more comfortable investing.

Other studies on sustainability reporting exploration on the company website (Budisusetyo & Almilia, 2009) and social media (Rahmansyah *et al*, 2023) were also conducted. The use of social media changes the dynamics of reporting, leading to interactive communication processes where dialogue and engagement with stakeholders can be used to accompany disclosure of information to seek legitimacy.

The issues raised on social media by companies from the three platforms mostly consist of community, employees, diversity, gender equality, health, and corruption issues. Social media has been largely used even by SOEs as a legitimation tool for its stakeholders in constructing a dialogue regarding current issues affecting people and the environment.

The results of research by Jati, *et al* (2023) show an increase in the disclosure of sustainability reports when the audit committee and the board of directors hold regular meetings. Environmental performance associated with the type of industry and governance committee will increase sustainability reporting. Environmental performance measured by the PROPER scale positively affects sustainability reporting considering the type of industry, governance committee, audit committee, and board of directors of companies in Indonesia. The Indonesian government must support, facilitate, and encourage companies to achieve the gold category in the PROPER scale and promote higher disclosure of sustainability reports to contribute to sustainable development.

Another study on sustainability reporting using GRI 4 as a guide for SR compilation was conducted. The purpose of this research is to know the CSR reporting of the parent company and its subsidiaries using GRI G4 and also to know the difference from their CSR reporting. The study found that CSR reporting from parent and subsidiary companies using GRI G4. This can be seen from the reporting company which is by the value of materiality. The study also showed no material differences regarding the number of indicators reported between the parent company and its subsidiaries. In addition, the parent company and its subsidiaries report the same indicators, although there are several different aspects (Ladina, *et al.*, 2016).

Similar research was also conducted and examined sustainability reporting and earning management with a sample of listed companies in Indonesia that participated in the Indonesian Sustainability Report Award (ISRA) in 2015. All variables were measured by the disclosure index of Sustainability Reporting guidelines - Global Reporting Initiative (GRI) G4 which consisted of 7 indicators. Earning management was measured by discretionary accruals. The result of the analysis showed that all dimensions of sustainability reporting had a negative effect on earning management (Trisnawati, *et al.*, 2016).

In essence, companies that provide more transparent sustainability reports are less inclined to engage in earnings management, thereby demonstrating their commitment to upholding the integrity of the financial information they disclose. This implies that enhanced sustainability reporting can function as a governance tool that mitigates earnings manipulation, ultimately fostering greater trust among investors and other stakeholders. Collectively, the studies emphasize the critical importance of integrating sustainability reporting into corporate strategies. This not only fulfills social and environmental responsibilities but also promotes increased transparency and accountability. Such practices, in turn, are likely to lead to more ethical and sustainable financial and managerial decision-making.

Sustainability Reporting in Malaysia

Sustainability reporting was made mandatory for publicly listed companies effective in 2016 in Malaysia. Wong, *et al* (2018) found that while looking at the impact of regulation on reporting, other internal factors are also included to find out whether resources are essential for compliance. Without proper resources, the maintenance of the quality of compliance might be very challenging or even unachievable. By studying the disclosure pattern through impression management tactics, the study may also provide a picture of how firms' attitudes towards this regulation and whether sustainability development has improved since then.

The evolution of sustainability reporting in Malaysia has positively changed and the importance of the reporting has greatly increased throughout the years. It shows that Malaysian government has increased the awareness among companies and improved the standards nationally consistent with global. Apart from that, it also shows that the systematic changes progressively moving towards mandatory approach for public listed companies in Malaysia (Aizzuddin & Aishah, 2022). Therefore, companies in Malaysia have higher levels of disclosure compared to those in Indonesia due to the earlier implementation of the Global Reporting Initiative (GRI) (Utami *et al*, 2024). The act of evacuating the environment has a beneficial effect, which is seen in the appreciation shown by investors. The revelation of corporate governance has a favorable impact on the company's value in Malaysia, indicating that investors in Malaysia exhibit significant interest in governance matters. Higher levels of governance result in reduced risk and increased desirability for investors.

Research on sustainability reporting in Malaysia has been done by designing a survey to reveal the practices of CSR by Malaysian companies based on information disclosed through the website. The Internet makes it easy in many aspects of life. This technology can also be a significant enabler for stakeholders to put pressure on companies to be more caring and environmentally friendly. Instead, companies can also benefit from the technology to be transparent and reveal their sustainability reports and practices. Its findings indicate that the adoption of online sustainability reporting is still low in Malaysian companies (Amran, 2012).

The relationship between sustainability reporting and the financial performance of Public Companies in Malaysia has been conducted. The reporting percentage in Malaysia is still very low even though it is the highest ranking in Southeast Asia. The results of the analysis show that economic, social, and environmental reporting of sustainability is positively related to the financial performance measured using Return on Assets and Return on Equity (Kasbun *et al*, 2016).

Other research has investigated the quality of reporting on the Sustainability Reporting dimensions of the economic, environmental, and social sustainability reports of companies in Malaysia. The sample used is 113 listed companies from the real estate investment trust and property sector for 4 years, from 2010 to 2013. Data collected from websites and company annual reports shows variations in quality and disclosure of different dimensions (Zahid, *et al*, 2016). The studies highlight a positive correlation between sustainability reporting and financial performance, reinforcing the notion that companies adopting comprehensive sustainability practices, which include economic, social, and environmental reporting, are likely to experience improved financial outcomes.

In conclusion, the findings collectively demonstrate that while Malaysia has made significant progress in implementing mandatory sustainability reporting, further efforts are required to enhance both the quality and scope of disclosures. Companies that can effectively allocate resources to meet reporting standards and utilize technology to ensure greater transparency are poised to benefit not only in terms of reputation but also in financial performance.

Sustainability Reporting in Singapore

A study by Sun (2024) assesses the alignment of Singaporean companies' sustainability reporting with the newly introduced International Financial Reporting Standard S1, a global framework for sustainability-related financial disclosures. Given Singapore's role as a major financial hub, understanding the extent to which local companies comply with this standard is critical to promoting transparency and accountability in sustainability practices. Sun (2024) provides a reference for improving future sustainability reporting and encourages companies to align more closely with IFRS S1 to meet investors' growing demand for transparent and standardized sustainability disclosures.

Investigation of the equity market reaction to sustainability disclosure measures derived from firms' inaugural sustainability reports following the implementation of mandatory sustainability reporting in Singapore has been done by Chen (2024). He observes a significant equity market reaction when mandatory adopters adhere to a reporting framework and release sustainability reports as standalone documents. Additionally, the study indicates that government regulation amplifies the equity market reaction for companies that include a board statement within their sustainability reports, and present them as standalone publications.

The development of sustainability reporting in Singapore is explored using material from government agencies, company sustainability reports, conference speeches, and newspaper articles. Sustainability reporting in Singapore is strongly aligned with performance-oriented logic as emphasized in dominant standards like the GRI and infused heavily with business terms that cater mainly to investors. Sustainability reporting is further anchored in global environmental concerns that prompt a moral response by Singapore, and by drawing on the state's long history of engagement with sustainability via various national campaigns, which position sustainability as a win-win solution to enhancing urban lifestyles and economic competitiveness (Tan, 2021).

The development and progress of sustainability reporting disclosure were also conducted by 4 ASIAN countries (Indonesia, Malaysia, Singapore, and Thailand). The study was conducted on the Top 100 mainboard companies with the highest market capitalization (as of June 30, 2015) in their respective countries. The data analysis method used is content analysis with reference indicators of GRI G4 performance guidelines. The study found that if countries use the GRI G4 framework, higher quality of sustainability reporting disclosures generally happens (Loh, *et al.*, 2016).

Research on sustainability reporting in Singapore has been done and the result shows that disclosure of sustainability reports tends to increase in Singapore. Only a small portion (less than 30%) of companies listed on the Singapore Stock Exchange disclose voluntary sustainability reporting. This study analyzes perceptions of the importance and usefulness of sustainability reporting, reporting frameworks, and user needs for the report. The results of the survey show that respondents consider positive sustainability reporting and there is a need to provide training, especially in terms of the integration of financial reporting with sustainability reporting (Chiat, *et al.*, 2013).

ACCA has conducted research on sustainability reporting in Singapore. This study aims at exploring how sustainability reporting or SR is performed, understood, and used by selected companies in ASIAN countries (Indonesia, Malaysia, Singapore, Philippines, and Thailand) and how the stakeholders perceived responses to the report. This research not only explains what the benefits of SR are, but also reveals what are the main obstacles in SR reporting. In addition, this study describes how the response of shareholders or parties who read the SR report (ACCA, 2013).

In conclusion, these studies collectively highlight the importance of aligning sustainability reporting with global standards, the positive market response to comprehensive disclosures, and the necessity of ongoing efforts to improve the quality and integration of such reports in Singapore. As the country continues to lead in Southeast Asia, further advancements in training, stakeholder engagement, and regulatory enforcement will likely be essential in promoting greater sustainability reporting across industries.

Sustainability Reporting in Thailand

Sustainability reporting and integrated reporting perspectives of Thai-listed companies aim to satisfy the information needs of stakeholders and value creation to external users. Social implications for the Thai-listed companies, IR systems could be in their early stages and still have a long way to go. The results can greatly encourage Thai-listed firms to incorporate integrated information in annual

reports based on international standards. Thus, it can build trust in capital markets and wider society (Petcharat & Zaman, 2019).

The findings of research by Treepongkaruna & Suttipun (2024) highlight the importance of incorporating ESG considerations into companies' reporting and decision-making processes, as these can enhance firm profitability and performance, attract stakeholders, improve their competitive advantage, and step toward sustainability in Thailand.

Thai companies implement materiality assessments and stakeholder engagements in their sustainability reporting. Through a content analysis of GRI-aligned sustainability reports from top Thai firms, this study found that companies appear comprehensive in identifying material topics and stakeholders initially. However, a deeper analysis revealed primarily information-gathering approaches with stakeholders and limited disclosure of stakeholder impacts. Materiality assessments lacked clear information on how material issues affect both the organization and stakeholders (Tan & Dipendra, 2024).

Research on sustainability reporting disclosure has also been done in Thailand, such as by Suttipun (2012). This study aims to investigate the narration of TBL reporting in the annual report of the 50 largest companies listed on the Thai Stock Exchange (SET), to determine whether there is a correlation between the level of TBL reporting and the various factors suspected to influence it. By using the non-probability sampling method, 50 Top companies were used as samples based on annual reports in 2010. Statistical analysis (descriptive, regression, independent t-test, and ANOVA) was conducted to analyze the extent of TBL disclosure reporting by score (disclosure index) and ten characteristics affecting TBL disclosure. The results of the analysis showed that there was a statistically significant difference between the high and low-score TBLs in the sample companies. There are also significant differences in reporting by industry group even though the results of the analysis did not show an association between TBL disclosure scores and the various factors considered in previous studies.

Another study examined the extent and contents of the disclosure of environmental information provided in the company's annual report listed on the Thai Stock Exchange (SET) and tested whether there is a relationship between the amount of environmental disclosure and a number of corporate characteristics used in previous research conducted in more advanced countries. Using a sample of 75 listed companies, the research findings show that 62 firms (83%) provide environmental information in their annual reports. Companies in the mining industry group revealed the highest disclosure scores of environmental information, while low disclosure scores were found in companies in the agricultural and food industries. The most common themes of disclosure are environmental policies, environmental activities, and waste management. There is a positive relationship between the amount of environmental disclosure and company size (Suttipun & Stanton, 2012).

The study evaluates comprehensive information on sustainability reports to be disclosed at the industry level based on Global Reporting Initiatives (GRI) which is a universal measure for measuring sustainability reports in the world. The sample companies are petrochemical and energy industries in Thailand during the period of 2012-2013. A total of 41 companies participated in this research. Qualitative and quantitative content analysis is performed. The analysis results show disclosure of sustainability report indicators less than 50% of the total indicator mentioned in the GRI criteria. Most of the indicators disclosed are partial reports. The average number of disclosure indicators is 3.9 for economic indicators, 10.4 for environmental indicators, and 27.9 for social indicators (Chindavijak, *et al.*, 2015).

Related research aims to investigate the extent to which the reporting of sustainable development (SD) in the period of 2005-2012 at companies listed on the Stock Exchange of Thailand (SET) and to determine the relationship between corporate characteristics and sustainability reporting

level. The sample size is 100 companies listed in the SET. In addition, this study measures the rate of SD reporting. The results showed an increase in the level of sustainable development of the sample companies during the study period. Disclosure of the economic aspects is the most prominent, followed by social and environmental reporting. In addition, the level of SD reporting varies between small and large companies and between state and private companies. The results also show associations among company size, industry type, ownership status, and company performance with SD reporting rates (Suttipun, 2015).

This study analyzed the relationship between corporate social responsibility based on the ISO 14000 investigation and its consequences for corporate sustainability. Results from a survey of 147 business firms in Thailand show that corporate social responsibility in several dimensions has a positive effect on organizational credibility, stakeholder acceptance, corporate image, and corporate sustainability (Chaisena & Ussahawanitchakit, 2016).

The findings suggest that although Thai companies have made progress in sustainability reporting, substantial gaps remain, particularly in terms of the depth and integration of environmental and social factors. Collectively, these studies indicate the necessity for further advancement in reporting practices, with a focus on enhancing stakeholder engagement, comprehensively addressing materiality, and aligning with international standards to improve transparency and accountability in corporate sustainability efforts in Thailand.

Comparison

Table 1 provides a summary of key studies and findings related to sustainability reporting in Indonesia, Malaysia, Singapore, and Thailand, comparing various aspects such as the frameworks employed, challenges encountered, and significant findings. It serves to illustrate the similarities and differences in sustainability reporting practices across these four countries.

Table 1. Key studies and findings related to sustainability reporting in Indonesia, Malaysia, Singapore, and Thailand

Country	Key Studies	Key Findings	Reporting Framework	Challenges
Indonesia	Sebrina et al. (2022)	Low diffusion of sustainability reports, with industry group variation in quality	GRI G4, ISRA	Low quality of disclosures, especially on reliability and clarity
	Gunawan et al. (2022)	Most disclosures on economic, social, and community engagement aspects		Limited stakeholder engagement and clarity of reports
	Hanifa & Cahaya (2016)	Low level of voluntary society disclosures (40.27%)		Limited disclosure on public policy, donations, and corruption response
Malaysia	Kasbun et al. (2016)	Positive correlation between sustainability reporting and financial performance	GRI G4, MaSRA	Resource allocation for compliance; and quality maintenance remains a challenge

Country	Key Studies	Key Findings	Reporting Framework	Challenges
	Wong et al. (2018)	Mandatory reporting has led to increased transparency.		Low adoption of online reporting (Amran, 2012)
	Zahid et al. (2016)	Variations in sustainability disclosures based on industry		Further improvement is needed in report quality and scope.
Singapore	Sun (2024), Chen (2024)	Strong market reaction to sustainability disclosures	IFRS S1, GRI	Voluntary reporting remains low (less than 30%). Need for greater training and integration of financial and sustainability reports (Chiat, 2013)
	Tan (2021), Loh et al. (2016)	High level of alignment with international standards		
	ACCA (2013)	Government regulations amplify market reactions to standalone reports.		
Thailand	Suttipun (2012), Petcharat & Zaman (2019)	Progress in sustainability reporting, but gaps remain in environmental and social integration	GRI G4	Limited disclosure on stakeholder impacts, especially in materiality assessments
	Suttipun & Stanton (2012), Chindavijak et al. (2015)	High-quality environmental disclosures, especially in mining and petrochemical sectors		There is limited coverage of economic and social aspects in certain industries.
	Treepongkaruna & Suttipun (2024)	ESG integration linked to improved profitability and stakeholder attraction.		Further development is needed in integrating material issues and stakeholder engagement.

CONCLUSION

Research on sustainability reporting has been done by many previous researchers in various countries. The number of companies that disclose sustainability reports increases over time, is reportedly integrated into the company's financial statements, and is reported as separate reports although this disclosure is voluntary. The results of empirical findings indicate that the average disclosure rate of sustainability is high which is above 50%. The highest disclosure score is Singapore. For state-owned companies also revealed higher disclosure scores. The primary guidelines for measuring sustainability reporting (SR) disclosure are the G.4 Global Reporting Initiative. Additionally, disclosure index may also utilize ISO 26000 and the Dow Jones Sustainability Index (DJSI).

The legislation governing social and environmental responsibility (CSR) requires all companies to report their own environmental and social responsibilities, so there is a legal obligation that mandatory companies must undertake. However, there are differences in the arrangement, particularly

regarding the use of terms, scope, objectives, form of activities, execution, the amount of fees, regulatory agencies, and penalties in each State.

The results of this meta-analysis provide a foundation for further research on sustainability reporting, especially in ASIAN countries to be aware of the indicators items in the GRI G-4 so that the social and environmental responsibilities can be measured and described for each country.

Based on the comparison of sustainability reporting practices in Indonesia, Malaysia, Singapore, and Thailand, several key areas for future research emerge:

1. Comparative Analysis of Regulatory Impact.
2. Integration of Environmental, Social, and Governance (ESG) Metrics.
3. Stakeholder Engagement and Materiality Assessments.
4. Comparative Evaluation of Reporting Frameworks.
5. Impact of Sustainability Reporting on Corporate Financial Performance.
6. Digital Transformation in Sustainability Reporting.

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