Corporate Characteristics and Sustainability Reporting: From the Lens of the Legitimacy Theory

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ABSTRACT

This study intended to achieve two main objectives, which were to determine the level of sustainability reporting disclosure and to examine the relationship between corporate characteristics and sustainability reporting disclosure. This study used the latest Sustainability Framework introduced by Bursa Malaysia in 2015 as the basis for evaluating and measuring the level of sustainability reporting disclosure. 80 of the top 100 companies by market capitalization in the Malaysian Stock Market were taken as the sample. The published sustainability reports (within the annual reports or stand-alone sustainability reports) from 2017 to 2018 were reviewed and analyzed using the content analysis approach to test the objectives of this study. Drawing on the theory perspectives, corporate characteristics, such as firm size, industry type, and assurance statement practices, were chosen as the independent variables. The findings showed that firm size, industry type, and assurance statement practices had a significant positive relationship with the level of sustainability reporting disclosure. These findings are consistent with the legitimacy theory, which suggests that large companies in high risks industries with assurance statement practices tend to disclose higher sustainability information to legitimize their business operations and activities and maintain their image and reputation.

Keywords: sustainability, corporate characteristic, sustainability reporting, legitimacy theory

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INTRODUCTION

The public's interest and awareness of sustainable developments and sustainability practices haveincreasedg, especially in developing countries, such as Malaysia (Zainal, Zulkifli, & Saleh, 2013; Abd-Mutalib, Muhammad-Jamil, & Wan-Hussin, 2014; Aman, Ismail, & Bakar, 2015). Malaysians started to be concerned about these matters due to the country's increasing number of social and environmental problems (Aman & Takril, 2016). There is an increasing trend of environmental and social issues arising from business activities such as climate change, global warming, pollution, natural disasters, and the safety and health of workers. In particular, the fall of a resident engineer to his death at the mass rapid transit (MRT) construction site in Kuala Lumpur while doing inspection activities at the site in 2019 (The Star Online, August 2019) also shows a substantial social impact arising from organizational activities. The statistics have shown that 3749 cases of occupational accidents have occurred in the workplace from January until June 2019. The manufacturing industry reported the highest number of worker deaths due to occupational accidents (Department of Occupational Safety and Health (DOSH), 2018). The failure of organizations' corporate sustainability practices may have caused the rising numbers. (Kasbun, Boon, & Tze, 2017).

Global statistics of occupational accidents have led to an increased awareness of the importance of sustainable development worldwide (Kasbun, Boon, & Tze, 2017). The public, especially the stakeholders of an organization, are very interested in understanding the concept of sustainable development, approaches taken by the organization for sustainability, and how these practices impact the economic, environmental and social (EES) (Bursa Malaysia, 2015). According to Zainal et al. (2013) and Amran, Hamidu, and Md Haron (2015), the failure of organizations to engage in sustainability development and practices in their business operations and activities contribute to the rise of environmental and social issues. Abd Mutalib et al. (2014) suggested that the issues related to sustainability require much attention from various interested parties, including business organizations. Sustainability engagement is one of the best ways to reduce or solve these issues. Therefore, organizations must have sustainability plans and strategies to sustain longer and stay competitive in the market (Amran, Lee, & Selvaraj, 2013).

In addition, an organizations' sustainability engagement, strategies, and plans must be followed by sustainability disclosures or sustainability reporting. According to Aman and Takril (2016), sustainability disclosures or sustainability reporting is also one of the crucial elements in sustainability engagement as it provides stakeholders with comprehensive information regarding the sustainability and performance of organizations. Hence, to solve the issues related to sustainability, business organizations need to engage in sustainability practices and reporting. However, the trend of sustainability reporting among companies worldwide is still low, especially in developing countries like Malaysia. Zainal et al. (2013) found that the level of information disclosed by the public listed companies (PLCs) in Malaysia in 2010 was low, and the information disclosed was very general. Subsequent to the mandatory requirement of reporting, Abd Mutalib et al. (2014) found that the extent and quality of sustainability reporting among Malaysian listed firms across all industries for 2011 were still low. Sheikh Abu Bakar, Ghazali, and Ahmad (2019a) recently examined the extent and quality of sustainability reporting of Malaysian listed companies in 2015 after the Bursa Malaysia Sustainability Framework was launched. The study found that the overall score for the extent and quality of information was still low. However, disclosures for companies in the oil and gas industry were found to be the most extensive and had the highest quality. Given that many initiatives had been taken at the company level, the outcomes from previous literature still raised the common question of what caused such a low level of reporting among the PLCs in Malaysia.

Based on the issues above, the level of sustainability reporting and the factors that may influence sustainability reporting are still unclear. Therefore, this study aimed to determine the level of sustainability reporting disclosure and examine the relationship between corporate characteristics (firm size, industry type, and assurance statement practices) and sustainability reporting disclosure among Malaysian public listed companies from the perspective of the legitimacy theory.

LITERATURE REVIEW

Sustainability Reporting in Malaysia

In Malaysia, the trend of sustainability reporting began in September 2006, when the Prime Minister and Minister of Finance of the time, YAB Dato' Seri Abdullah bin Hj Ahmad Badawi, announced in the budget speech that all Malaysian PLCs were required to disclose their sustainability practices in their annual reports beginning from the financial year ending December 31, 2007 (Aman & Takril, 2016). In conjunction with the announcement, regulators and practitioners, such as Bursa Malaysia, made many efforts to encourage and guide the implementation of sustainability reporting among companies.

In 2015, Bursa Malaysia introduced a sustainability framework, focusing on four local areas: environment, workplace, marketplace, and community (Bursa Malaysia, 2015). At the same time, the sustainability disclosure requirements were gazetted in its Listing Requirements under Appendix 9C, Para 29 (Aman & Takril, 2016). In 2010, Bursa Malaysia revisited the framework, and, in October 2015, it launched a new sustainability framework in its continuous efforts to promote sustainability engagement among the PLCs. The new framework comprised amendments to the Listing Requirements and the issuance of a Sustainable Reporting Guide (SRG) for Malaysian-based PLCs. The objectives of the latest SRG are to provide guidance for the companies in identifying, evaluating, and managing the material EES risks and opportunities. The Guide would also assist companies in embedding and preparing sustainability reports in accordance with the Bursa Malaysia Listing Requirements (Bursa Malaysia, 2015).

In the early days of implementing sustainability reporting, the number of companies that made efforts to produce sustainability disclosures was very low (Amran et al., 2015). Numerous studies were done during Malaysia's early implementation and enforcement of sustainability reporting. Such studies include Abd-Mutalib et al. (2014) and Amran et al. (2015). Most of the studies indicated that the level of sustainability reporting practices and sustainability disclosures in Malaysia were low, and the developments were slower than in other countries (Abdul Aziz & Bidin, 2017; Haji, 2013; Abd-Mutalib et al., 2014; Amran et al., 2015). Some of the reasons were the voluntary basis of disclosures and the low awareness of the importance of sustainability reporting as one of the strategies in managing public perception and maintaining organizational legitimacy (Sheikh Abu Bakar et al., 2019). However, with the continuous efforts of regulators and practitioners, sustainability reporting practices among the PLCs have improved.

The level of sustainability disclosures among the Malaysian PLCs improved from 2006 to 2013 (Kasbun et al., 2016). The KPMG Survey of Corporate Responsibility Reporting (KPMG, 2017) reported that 97% of the Top 100 profitable companies in Malaysia (N100) disclosed corporate responsibility information (also known as sustainability information) in their annual reports. The rate had increased to 99% in 2020 (KPMG, 2020). According to KPMG's Head of Governance and Sustainability, the statistics showed that the organizations' awareness and acceptance of sustainability reporting had increased. In other words, the organizations agreed and believed that sustainability reporting could be treated as one of the strategies to strengthen the relationship between organizations and stakeholders, enabling the organizations to gain competitive business advantage in pursuing business longevity (KPMG, 2017; 2020).

Firm Size and Sustainability Reporting Disclosure

Tong (2017) discovered that company size is one of the significant determinants of corporate social responsibility (CSR) and sustainability disclosures among companies in the United Kingdom's FTSE100 Index and the Malaysian FTSE KLCI. His findings were consistent with prior studies that proved the explanatory factor of company size as a consistent predictor for CSR and sustainability disclosures in both developed and developing countries. It is argued that large companies tend to receive much pressure from stakeholders on CSR and sustainability disclosures to improve corporate legitimacy and maintain a good image and reputation (Tong, 2017).

In addition, Reverte (2009) found that company size is also one of the significant contributors to the level of CSR disclosure. These findings proved that companies with higher CSR reporting and CSR ratings are primarily large companies with higher media exposure in environmentally sensitive industries. The study also argued that the influence of large companies on CSR and sustainability reporting is significant as their business operations and activities have a larger effect on the environment, society, and community. Therefore, companies must disclose their CSR and sustainability information to obtain acceptance and approval of the stakeholders, eventually enhancing their corporate legitimacy (Uyar, Kilic, & Bayyurt, 2013).

Industry Type and Sustainability Reporting Disclosure

The level of sustainability reporting disclosure is dependent on industry types they belong to (Kumar, 2022). Industry variables in most previous studies are classified into two groups: high-profile industries and low-profile industries. High-profile industries are environmentally sensitive, whilst low-profiles industries are non-environmentally sensitive. High-profile or environmentally sensitive industries refer to industrial products, plantations constructions, property, and mining (Ahmad, Wan Abdullah, A Manap & Jamil, 2019; Jaffar, 2006; Manaf, Atan & Mohamed, 2006; Nik Ahmad & Sulaiman, 2004). The business activities of these companies are prone to have adverse effects on the environment or EES. Examples of high-profile or environmentally sensitive industries are the construction, plantation, and manufacturing industries. On the other hand, low-profile industries or non-environmentally sensitive industries which refer to services, banking and finance, securities (Ali Sahboun, 2017). Uyar, Kilic, and Bayyurt (2017) found that the tendency of the companies in the high-risk industries and environmentally sensitive industries to publish sustainability reports is higher than in the low-risk industries and non-environmentally sensitive industries (Ahmad, Wan Abdullah, A Manap, & Jamil, 2019).

Braam, Uit de Weerd, Hauck, and Hujibregts (2016) suggested that companies in environment-sensitive industries would communicate their sustainability practices and information in the sustainability reports to improve their credibility and transparency. They would also obtain external assurance for the reports. The suggestion is supported by Faisal, Tower, and Rusmin (2012), which stated that companies in high-profile industries need to disclose a higher level of sustainability information than those in low-profile industries to strengthen their legitimacy and enhance their reputation and image.

Moreover, Kilic and Kuzey (2017) stated that companies in sensitive industries tend to receive criticism from the public on sustainability matters due to the nature of business operations and activities that have a high potential impact on the environment and society at large. Therefore, much research has concluded that companies in environmentally sensitive industries would report a higher level of CSR disclosures to legitimize their business operations and activities to stakeholders. Hence, Faisal et al.'s (2012) arguments suggest that the legitimacy theory is synonymous and best used to explain the relationship between industry sensitivities and the level of sustainability reporting seems valid.

Assurance Statement Practices and Sustainability Reporting

In response to the public's and stakeholders' concerns on the importance of sustainable developments and sustainability information, some companies may take the initiative to obtain third-party assurance on their sustainability reports (Braam et al., 2016). The assurance statements given by the third party or the external assurance firms will provide a qualified or non-qualified report and can confer the validity and credibility of the sustainability information disclosed by the companies (Al Farooque & Ahulu, 2017; Larrinaga, Rossi, Luque-Vilchez, & Nunez-Nickel, 2020). Thus, a company's assurance statement practices help increase the trust and confidence of the public, society, and stakeholders in the credibility and transparency of the sustainability information provided (Moroney, Windsor, & Ting Aw, 2012).

Previous studies have found a significant association between assurance statement practices or third-party verification on the sustainability reports and sustainability reporting. One of the reasons for this relationship is to enhance corporate legitimacy. For example, Al Farooque and Ahulu (2017) mentioned that to enhance accountability, reliability, and materiality of the sustainability reports, external assurance (also known as external oversight or third-party verification) is needed as the bridge between corporate legitimacy and stakeholders' expectations.

The other reasons for assurance are to increase the stakeholders' confidence level and trust in the sustainability reports' accuracy and quality and prove the companies' high commitment to sustainability plans and strategies (Faisal et al., 2012). Companies that purchase assurance services usually produce high-quality sustainability reports (He, 2018). They need external assurance because sustainability reporting is crucial in legitimizing their business activities. However, negative judgments from the external assurance firms would tarnish the reputation and image of companies.

THEORETICAL FRAMEWORK & HYPOTHESIS DEVELOPMENT

Legitimacy Theory

The Legitimacy Theory is one of the most famous theories to explain environmental CSR and sustainability disclosures in corporate communication. The theory argues that organization's actions and behaviours reflect society's norms and values. In other words, theTheory posits that an organization must always uphold society's values, demands, and expectations while carrying out its business operations (Sahari, Ansari, & Yusof, 2018). Mousa and Hassan (2015) reported that the Theory is derived from the idea of 'organizational legitimacy'. It is defined as the organization's value system being congruent with society's value system. Therefore, any disparity or inequality between the two systems may affect organizational legitimacy.

According to Burhan and Rahmati (2012) and Faisal et al. (2012), society allowing the organization to operate in the market depends on the 'social contract' between the organization and the society as long as the organization is willing to fulfill their expectations. The interdependent relationship between the organization and the society is undeniable (Mahmud, 2019), binding the parties into a 'social contract'. The concept of 'social contract' between these two parties determines the going concern and survival of a company, where the company is expected to operate within the bounds and norms of society (Deegan, 2002).

He further argues that legitimization is one of the essential processes for an organization to obtain acceptance or approval from society (Deegan, 2002). If a company fails to operate within society's acceptable norms, the public or society would feel unhappy and dissatisfied, which would eventually affect the company's overall performance and may lead the company to wind up. Therefore, annual reports are needed for corporate social and sustainability disclosures as they can be treated as the 'legitimizing instruments' between companies, stakeholders, and society (Guthrie & Parker, 1989). According to Hooghiemstra (2000), the reports are also important to influence society's perceptions towards the companies, maintain a healthy relationship between the two parties, and, eventually, help the companies gain higher profits. Therefore, it can be argued that corporate social reporting or sustainability reporting may help companies to obtain 'organizational legitimacy' (Mahmud, 2019) and ensure that organizations obtain society's consent for all their actions and operations (Sheikh Abu Bakar et al., 2019b).

Cooper et al. (1993) outlined several ways that the organization can take to legitimize their business activities and operations to the stakeholders. One of the ways is through communication. The legitimacy theory encourages organizations to practice CSR disclosures and sustainability reporting as they provide information that legitimizes their behavior and reputation to influence society's and stakeholders' perception of the companies (Loh, Thomas, & Wang, 2017; Sheikh Abu Bakar et al., 2019a). According to Kuzey and Uyar (2016), sustainability reports are one of the mediums of legitimizing a business as the organization is deemed to get the 'license to operate its businesses within the acceptable boundaries of the society. Therefore, the organization must demonstrate its legitimacy to the public and society to ensure its going concern status and survival in the long run (Bachoo, Tan, & Wilson, 2013).

The legitimacy theory perceives that corporate characteristics, such as firm size, industry type, and assurance statement practices influence sustainability reporting. Previous studies have found a positive relationship between firm size and the level of environmental, CSR, and sustainability disclosures (Siregar & Bachtiar, 2010; Artiach & Walker, 2010; Kuzey & Uyar, 2016; Kilic & Kuzey, 2017; Tong, 2017; Ali Sahboun, 2017). According to Siregar and Bachtiar (2010), the larger the size of a company, the larger the public attention, and visibility they receive. As a result, they tend to receive high pressure from stakeholders, and to improve their corporate image and organizational legitimacy (Haniffa et al., 2005; Tong, 2017), the companies would disclose a high level of non-financial information in formal reports, particularly on the social and environmental issues.

Besides that, large companies require a lower cost to maintain, collect, analyze, and report a large number of data, as they have stronger financial, organizational, and human resources (Kilic & Kuzey, 2017). Furthermore, because of their in-house resources, large companies usually have a developed and systematic information system and better organizational structures than smaller companies (Uyar et al., 2013). Eventually, this resource would help large companies legitimize their operations (Kuzey & Uyar, 2016) by facilitating the preparation and publication of sustainability reports. Also, according to Artiach and Walker (2010), the chances of large companies creating social and environmental problems are high because of the big scale of their business operations and activities. Thus, companies need to communicate all their EES activities via sustainability reporting to obtain public legitimization. This study developed the following hypothesis based on the discussion above:

H1: There is a positive relationship between firm size and sustainability reporting disclosure

Industry type is also one of the significant corporate characteristics being used by previous researchers to obtain a clear explanation of the level of disclosures (Faisal et al., 2012; Kuzey & Uyar, 2016; Kilic & Kuzey, 2017; Ali Sahboun, 2017; Al Farooque & Ahulu, 2017;). Previous studies used the legitimacy theory to examine the relationship between the type of industry and the level of environmental, CSR, and sustainability disclosures. For example, Kuzey and Uyar (2016) and Kilic and Kuzey (2017) found that different characteristics of different industries in Turkey contributed different impacts on the environment and society. This difference is due to the different nature of business activities, potential growth, employment opportunities, competition, and government interference.

In addition, prior studies also found that the type of industry has a significant impact on sustainability reporting (Faisal et al., 2012; Jamil, Mohd Ghazali, & Puat Nelson, 2021; Kuzey & Uyar, 2016; Kilic & Kuzey, 2017; Ali Sahboun, 2017; Al Farooque & Ahulu, 2017). By analyzing companies from diverse countries, Faisal et al. (2012) found that industry type is one of the company characteristics influencing the sustainability reporting level among big companies worldwide. The study also found that firms in high-profile industries tend to disclose more sustainability information than those in low-profile industries.

Besides that, Reverte (2009) also studied whether industry characteristic is one of the potential determinants of CSR disclosure practices by Spanish-listed firms. Its findings showed that type of industry is one of the influential variables in explaining the level of CSR reporting and CSR rating besides media exposure and firm size. The study further proved that companies categorized as more environmentally sensitive tend to make a higher level of CSR disclosures and have a higher CSR rating than non-environmentally sensitive companies. Therefore, the second hypothesis of this study was:

H2: There is a positive relationship between industry type and sustainability reporting disclosure

He (2018) found that third-party verification positively influences the completeness and comparability of sustainability reports among companies complying with the Global Reporting Initiatives (GRI) standards. It showed that sustainability reports with third-party verification tend to disclose a high level of sustainability information, which eventually leads to higher completeness and comparability of sustainability reports than companies with no third-party verification. It is argued that the companies decide to publish high-quality sustainability reports to prevent any harmful or negative comments and judgments from the third-party assurance firms, which may tarnish the image and reputation of companies.

Moreover, Faisal et al. (2012) also discovered that firms that make an effort to pay for additional voluntary assurance statements provide more sustainability information in their sustainability reports. By reviewing the 2009 sustainability reports of large companies from 24 countries around the world, they proved that additional voluntary assurance statements have positively influenced companies' sustainability reporting level. The results obtained from their study are consistent with the legitimacy theory that states that firms voluntarily purchase third-party verification services to strengthen their legitimacy and enhance their reputation.

Although previous studies on third-party assurance are very few, it can be concluded that assurance statement practices are crucial in improving the transparency and accountability of the sustainability information disclosed in the reports. Therefore, this study hypothesized the following:

H3: There is a positive relationship between assurance statement practices and sustainability reporting disclosure

Figure 1 shows the theoretical framework of the study. It shows the relationship between firm size, industry type, assurance statement practices, and sustainability reporting disclosure. The legitimacy theory explains the relationship between the dependent variables and the sustainability reporting disclosure.

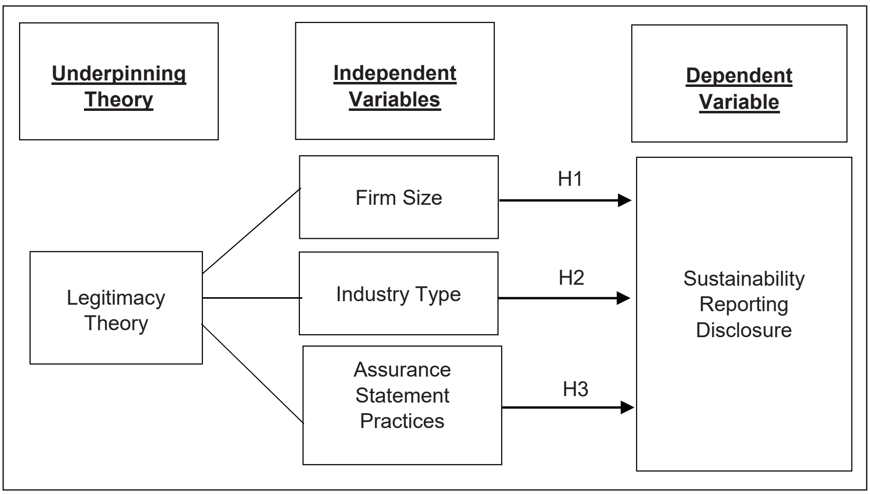

Figure 1: Theoretical Framework

RESEARCH METHODOLOGY

Sample Selection and Data Collection

This study used the Sustainability Reporting Framework launched by Bursa Malaysia in October 2015 as the basis to evaluate the sustainability disclosures since it is the latest sustainability reporting framework that has to be followed by Malaysian companies. There were three stages for implementing the Sustainability Reporting Framework over three years, starting from December 31 2016 to December 31 2018. In the first stage of implementation, public listed companies with a market capitalization of over MYR 2 billion are required to disclose their Sustainability Reports in their annual reports according to the guidelines issued by the Bursa for the financial year ending on or after December 31 2016. The second stage of implementation involved the PLCs with a market capitalization between MYR 1 billion and MYR 2 billion. They need to follow the guidelines in disclosing the Sustainability Report in their annual reports for the financial year ending on or after December 31 2017. Lastly, the final implementation stage involved the PLCs with a market capitalization of MYR 1 billion and below. The effective year-end for them was on or after December 31 2018 (Teh, 2016; Sheikh Abu Bakar et al., 2019). Therefore, this study focused on the companies involved in the first stage of the Sustainability Reporting Framework implementation, i.e., public listed companies with a market capitalization of above MYR 2 billion. Hence, the population of this study was top 100 companies by market capitalization in the Malaysian Stock Market.

Since the focus of this study was on publicly listed companies with a market capitalization of over MYR 2 billion, the most suitable sampling method for this study was the non-probability sampling technique. According to the sample size table by Sekaran (2016), 80 companies were sufficient as sample for this study. However, since not all the sample companies had their financial year ending on December 31 2016, the financial, non-financial, and sustainability information for all 80 companies were collected for two years (2017-2018). Thus, the total sample size for this study was 160 units.

This study employed the content analysis approach to collect the sustainability data of the sample units. The selected companies published their sustainability report either within their annual reports or as stand-alone reports. Therefore, the CSR reports were collected, reviewed, and analyzed to obtain the relevant data for the level of sustainability reporting. Moreover, this study also collected the relevant information from the Thompson Reuters' Datastream, especially for the independent variables (firm size and industry type).

Measurement

This study adapted and followed the sustainability themes, indicators, or dimensions of the information listed in Bursa Malaysia's 2015 SRG to evaluate the scores for the level of sustainability reporting. Four (4) economic sustainability indicators, nine (9) environmental sustainability indicators, and 25 social sustainability indicators total 38 indicators were used in this study. As for the disclosure-scoring index, this study adapted the disclosure-scoring index from Ameer and Othman (2012), and Sheikh Abu Bakar et al. (2019), as shown in Table 1.

Table 1: Disclosure-Scoring Index and Descriptions

Disclosure-Scoring Index	Descriptions
0	Do not disclose any information related to the indicators
1	Disclose the information related to the indicators but the information disclosed are general and in a common qualitative manner with no tangible contribution in the form of statistics and data
2	Disclose information related to the indicators but the information are disclosed in a qualitative manner with some explanation and small tangible contribution in the form of statistics and data
3	Disclose the information related to the indicators and the information are disclosed in a quantitative manner with a significant tangible contribution in the form of statistics and data

Source: Cooke (1989), Ameer and Othman (2012) and Sheikh Abu Bakar et al. (2019)

Once the scoring was done, the sustainability reporting disclosure index was derived by computing the ratio of the total scores to the maximum score attainable, using the following formula:

$$SUSRD_j = \frac{\sum_{i=1}^{n} xij}{nj}$$

Where,

$SUSRD_j$ = total of sustainability disclosure scores for j^{th} company
n_j = total number of items estimated for j^{th} company with maximum score assigned
xij = a score of 3 for the i^{th} item if quantitative data was disclosed, a score of 2 for the i^{th} item if qualitative data with specific explanation was disclosed, a score of 1 for

the i^{th} item if general qualitative data was disclosed and a score of 0 for the i^{th} item if there was no disclosure

There were three independent variables of corporate characteristics (firm size, industry type, and assurance statement practices) in this study. The measurement of the independent variables is summarized in Table 2.

Table 2: Summary of Measurements of Independent Variables

Variable	Acronym	Measurement	Prior Studies
Firm Size	FSIZE	Natural logarithm of total assets of the company	Siregar and Bachtiar (2010); Artiach and Walker (2010); Kuzey and Uyar (2016); Kilic and Kuzey (2017); Ali Sahboun (2017); Tong (2017); Ganesan and Jaafar (2017); Al Farooque and Ahulu (2017); He (2018)
Industry Type	INDUS	Sector as per registered in the Bursa Malaysia website. The companies were rated as; ‘1’ if the sector is a high-risk industry ‘0’ if the sector is a low risk industry	Artiach and Walker (2010), Faisal et al. (2012); Kuzey and Uyar (2016); Kilic and Kuzey (2017); Ganesan and Jaafar (2017)
Assurance Statement Practices	ASSUR	Availability of the independent or the external assurance statement. The companies will be rated with; ‘1’ if there is assurance statement practices ‘0’ if there is no assurance statement practices	Faisal et al. (2012); Al Farooque and Ahulu (2017); He (2018)

RESULTS AND DISCUSSION

Tables 3 to 5 explain the descriptive statistics for firm size, industry type, and assurance statement practices. The mean score for firm size was 9.4660, which represented the average firm size of the sample companies.

Table 3: Descriptive Statistics of Firm Size

	N	Minimum	Maximum	Mean	Standard Deviation
Firm Size	160	5.9713	13.6011	9.4660	1.6084

The companies in this study were listed under several industries: financial services, property, plantation, healthcare, telecommunication and media, construction, consumer products and services, and others. The companies were categorized into two industry types, namely low-risk industries and high-risk industries. Table 4 shows that there were 60 companies in the low-risk industries category and 100 in the high-risk industries category.

Table 4: Frequencies of Industry Type

	Number (N)	Percentage (%)
Low-risk Industries	60	37.5
High-risk Industries	100	62.5
Total	160	100.0

Table 5 shows that 83.1% of the sample does not have assurance statement practices, while 16.9% of the sample has assurance statement practices that verify the accountability and transparency of their sustainability reports. These findings indicated that most sample companies didnot have assurance statement practices.

Table 5: Frequency of Assurance Statement Practices

	Number (N)	Percentage (%)
No assurance statement practices	133	83.1
Assurance statement practices	27	16.9
Total	160	100.0

Sustainability Reporting Disclosure in Economic Perspective

From the economic perspective, four indicators from the SRG 2015 were used in this study to evaluate the economic sustainability disclosure. Table 6 presents the companies' sustainability disclosure mean and standard deviations. From the table, the highest mean was shown by the indicator EC2 (mean score = 2.49, SD = 0.514). These figures showed that most of the companies managed to provide sufficient information relating to the indicator. This indicator requires the companies to disclose the 'total amount of money invested by them in the community whereby the target beneficiaries are external to the entity, such as non-profit organizations (NGO)'. This result is consistent with Sheikh Abu Bakar et al. (2019), which found that most PLCs in Malaysia disclosed this information.

Table 6: Mean and Standard Deviation of Economic Sustainability Reporting Disclosure

	Indicator	Mean	SD
EC1	Percentage of the procurement budget used for significant locations of operation spent on suppliers local to that operation	1.10	1.023
EC2	Total amount invested in the community where the target beneficiaries are external to the entity (e.g. not-for-profit organizations)	2.49	0.514
EC3	Report the current or expected impacts on communities and local economies - both relevant positive and negative impacts	2.26	0.675
EC4	Potential positive and negative impacts of climate change on the organization	2.09	0.772

On the other hand, the lowest mean of economic sustainability disclosure was for indicator EC1 (mean score = 1.10, SD = 1.023). This indicator requires the companies to disclose the amount or percentage of the procurement budget used and spent by the companies on local suppliers for significant locations of operation. During the data collection process, it was observed that there were a number of companies scoring ‘0’ and ‘1’ for this indicator, denoting that they did not disclose any economic sustainability information or the information disclosed was very little. GRI (2016) argued that the low level of reporting for indicator EC1 could be due to the companies overlooking the importance of disclosing the information related to vendors or suppliers.

Sustainability Reporting Disclosure in Environment Perspective

Table 7 presents the mean and standard deviations of all the nine indicators for environmental sustainability disclosure.

The table shows that the indicator EN2 had the highest mean score (mean = 2.20, SD = 0.853). These figures show that the sample companies disclosed sufficient information relating to the total weight or the total volume of non-hazardous waste generated and the method of waste disposal. An example of the common non-hazardous waste generated by companies was papers. Most companies used paper in their business operations, and they were aware of the impact of paper waste on the system’s biodiversity if they are not disposed of carefully. Thus, the companies took many initiatives to manage the disposal and disclose the information in their sustainability reports.

The lowest mean for environmental sustainability disclosure was for EN9 (mean = 1.31, SD = 1.284). More than half of the sample companies scored ‘0’ and ‘1’ out of ‘3’, indicating that the company’s information was very brief, simple, and general, without any quantitative information or disclosure. EN9 requires the companies to disclose the intensity, volume, or degree of the energy consumed for every product, employee, or output. These findings are also consistent with Sheikh Abu Bakar et al. (2019), which found that this indicator was the least disclosed item in the sustainability reports.

Table 7: Mean and Standard Deviation of Environmental Sustainability Reporting Disclosure

	Indicators	Mean	SD
EN1	Emissions in ton of CO2e	1.83	1.188
EN2	Total weight or volume of non-hazardous waste generated and method of disposal	2.20	0.853
EN3	Total volume of water used	1.89	1.105
EN4	Percentage of water recycled and reused	1.64	1.157
EN5	Water usage per product/ output	1.43	1.179
EN6	Description of how the organization interacts with water, and the water-related impacts caused or contributed to, or directly linked to the organization’s operations	1.43	1.125
EN7	Total energy consumed (kWh/MWh)	2.02	1.043
EN8	Amount of reduction in energy consumption achieved as a result of conservation and efficiency initiatives	1.72	1.193
EN9	Energy intensity – kWh/MWh per product/ output/ employee/ man-hours/ square meter	1.31	1.254

Sustainability Reporting Disclosure in Social Perspective

Table 8 shows the mean and standard deviations for 25 social sustainability indicators, such as diversity, human rights, occupational safety and health, labor practices, and many more.

The results showed that SC1, which represents ‘the percentage of employees per employee category in each of the following diversity categories: (a) gender, (b) age group, (c) ethnicity, and (d) disability’, records the highest mean of social sustainability reporting disclosure. The mean score was 2.37 (SD = 0.533). These figures indicated that most sample companies disclosed almost complete and comprehensive information on the number of employees they recruited according to gender, age group, ethnicity, and disability. The employees' information and details were the common and easiest information for the companies to obtain and disclose in the sustainability reports as employees are the backbone and assets of the companies.

The indictor SC25 presents the lowest mean of social sustainability reporting disclosure (mean score = 0.00, SD = 0.00). This output indicated that none of the sample companies in this study reported the total monetary value of fines and the total number of non-monetary sanctions for noncompliance with laws and regulations. A few reasons may contribute to the non-reporting of the information. The first reason is the clean record of the companies. They hadno noncompliance and legal issues to report. The second reason could be the bad image or negative reputation if they were to report such noncompliance and legal issues. Since disclosing such information is important as it may affect the judgment of stakeholders, the GRI (2016) argued that company resources spent on the legal issues may impact companies' ability to expand their business operations and obtain permits.

Table 8: Mean and Standard Deviation of Social Sustainability Reporting Disclosure

	Indicators	Mean	SD
SC1	The percentage of employees per employee category in each of the following diversity categories: (a) gender, (b) age group, (c) ethnicity, and (d) disability	2.37	0.533
SC2	The percentage of directors in each of the following diversity categories: (a) gender, (b) age group, (c) ethnicity, (d) disability	2.16	0.781
SC3	Employment arrangement – local and foreign	2.04	0.726
SC4	Percentage of employees trained in human rights policies or procedures concerning aspects of human rights that are relevant to operations	1.00	0.945
SC5	Percentage of existing and new suppliers assessed for human rights policies and practices	0.81	0.933
SC6	Number of discrimination incidents	0.49	0.691
SC7	Measures taken to support freedom of association	0.51	0.801
SC8	Percentage of workers undergoing safety and health training per annum	2.02	0.904
SC9	Number of work-related injuries per annum	1.69	1.128
SC10	Number and percentage of workers undergoing health surveillance	0.97	1.132

SC11	Brief description of the Health, Safety and Environment (HSE) organizational chart and the HSE Committee (if available) at the work site	0.45	0.759
SC12	Number of legal actions pending or completed regarding anti-competitive behavior	0.06	0.257
SC13	Percentage of employees that have received training on anticorruption by employee category	0.91	0.830
SC14	Percentage of operations assessed for risks related to corruption	0.54	0.784
SC15	Average hours of training per annum per employee by employee category	2.27	0.513
SC16	Total number of employee turnover (broken down by employee type) during the reporting period, by: (a) age group, (b) gender, and (c) disability	1.69	1.117
SC17	Rate of employee turnover (broken down by employee type) during the reporting period, by: (a) age group, (b) gender, and (c) disability	1.47	1.192
SC18	Employee benefits	2.28	0.665
SC19	Number of complaints	0.50	0.735
SC20	Customer relationship management (grievance mechanism)	2.10	0.803
SC21	Number of incidents of cyber attacks	0.22	0.546
SC22	Assessment of new and existing suppliers to identify existing or potential negative social impacts	1.03	1.049
SC23	Results of supplier monitoring/auditing	0.49	0.816
SC24	Actions on supplier's noncompliance to social impacts assessment	0.13	0.464
SC25	Total monetary value of fines and total number of non-monetary sanctions for noncompliance with laws and regulations	0.00	0.000

Trend Analysis of Sustainability Reporting Disclosure by year

Table 9 shows the trend analysis of the sustainability reporting disclosure scores for 2017 and 2018. Based on the table, the highest mean score of sustainability disclosure was recorded in 2018 (mean = 55.1750, SD = 22.5532) compared to 2017 (mean = 48.0125, SD = 21.2648). These figures indicated that, since the implementation of the Bursa Malaysia Sustainability Framework in 2015, the level of sustainability reporting disclosure by the PLCs was higher in 2018 than in 2017. In other words, the level of sustainability reporting disclosure among the PLCs in Malaysia s increasedfrom year to year.

Although there is a promising trend, the overall mean score of sustainability disclosure as in Table 9 showed that the level of sustainability reporting among the Malaysian PLCs after introducing the latest Bursa

Malaysia Sustainability Framework was still low. The mean scores for 2017 and 2018 were only 48.0125 (SD = 21.2648) and 55.1750 (SD = 22.5532), respectively. These numbers were still low compared to the total sustainability reporting disclosure score of 114. The maximum scores obtained in both years are also low at 90 in 2017 and 96 in 2018. The results are supported by Sheikh Abu Bakar et al. (2019), which revealed that the overall score for sustainability reporting by the PLCs in Malaysia was still low.

One of the reasons contributing to such results is the flexibility of the companies in choosing 'what' and 'how' sustainability information to be disclosed. Another reason is the companies' discretion in deciding the materiality of sustainability information and the scope of sustainability reporting (Sheikh Abu Bakar et al., 2019). For example, the Bursa Malaysia Sustainability Framework suggests that companies disclose water and electricity consumption in the sustainability report. However, some companies may conclude that their water and electricity consumption is not material. Thus, they would not disclose the information in the report.

Table 9: Trend Analysis of Sustainability Reporting Disclosure 2017-2018

Year	Min	Max	Mean	SD
2017	11.00	90.00	48.0125	21.2648
2018	11.00	96.00	55.1750	22.5532

Table 10 presents the results of the regression analysis of this study. Based on the table, the R^2 value for this study was 0.259. This value indicated that 25.9% of the variation in sustainability reporting can be explained by the variation of the corporate characteristics (firm size, industry type, and assurance statement practices). The R^2 value or the percentage of variation was relatively low, indicating that other determinants can influence the sustainability reporting of the Malaysian PLCs. Besides that, the significant value or p-value was equal to 0.000, less than 0.05. Since $F_{(5,154)} = 10.758$ (p-value < .05), the result indicated that the overall regression model was significant, and the null hypothesis of no relationship between the independent variables and the dependent variable was rejected. Thus, it is suggested that at least one independent variable had a significant linear relationship with the dependent variable. In other words, at least one of the corporate characteristics used in this study influenced the sustainability reporting of the sample companies.

Table 10: Results of Regression Analysis

Variables	Unstandardized Coefficients		Standardized Coefficient			Collinearity Statistics	
	B	Std Error	Beta	T	Sig.	Tolerance	VIF
Constant	0.453	0.013		33.708	0.000		
Firm Size	0.035	0.009	0.294	3.933	0.000	0.862	1.160
Industry Type	0.076	0.028	0.190	2.666	0.008	0.948	1.055
Assurance Statement Practices	0.142	0.039	0.275	3.687	0.000	0.863	1.159
R^2	0.259						
Adjusted R^2	0.235						
F	10.758						
Df	(5,154)						
Sig.	0.000						

The multiple linear regression equation for this study is as follows:

$$\mathbf{SUSRD = 0.453 + (0.035 \times FSIZE) + (0.076 \times INDUS) + (0.142 \times ASSUR) + e}$$

Based on the above equation, the coefficient β_o is 0.453, denoting that when all the three corporate characteristics are '0' or constant, the sustainability reporting disclosure level is 0.453. The figure shows that other factors or determinants influence sustainability reporting disclosure in Malaysia. In addition, the results show that there would be a 0.035 unit increase in sustainability reporting disclosure for every one-unit increase in firm size. In contrast, the disclosure would increase by 0.076 if the companies are categorized under high-risk industries. Moreover, assurance statement practices would increase sustainability reporting disclosure by 0.142.

The results as in Table 10 revealed that there was a significant positive relationship between firm size and sustainability reporting disclosure ($b = 0.035$, $T = 3.933$, $p < .05$). Hence, the first hypothesis of this study was accepted, indicating that an increase in firm size would increase sustainability reporting disclosure of the PLCs. The result obtained in this study is supported by a number of previous studies (e.g., Siregar & Bachtiar, 2010; Artiach & Walker, 2010; Kuzey & Uyar, 2016; Kilic & Kuzey, 2017;

Tong, 2017; Ali Sahboun, 2017). It is also consistent with the theory of legitimacy.

From the perspective of legitimacy, large companies tended to disclose more sustainability information due to the greater attention, visibility, and pressure from the public and the stakeholders (Siregar & Bachtiar, 2010). According to Haniffa et al. (2005) and Tong (2017), most companies would decide to disclose a higher level of sustainability developments and information in the sustainability or annual reports to cope with the pressures. This disclosure is also one of the companies' strategies to enhance organizational legitimacy and improve corporate image. Besides that, the higher number of resources, better organizational structures, and large scale of operations contribute to the higher sustainability disclosures among large companies (Kilic & Kuzey, 2017; Uyar et al., 2013; Artiach & Walker, 2010). Large companies also have to legitimize their business operations. Therefore, they need to obtain public legitimization or acknowledgment for all their EES activities.

Previous studies have also proved that type of industry significantly influences sustainability reporting (Faisal et al., 2012; Kuzey & Uyar, 2016; Kilic & Kuzey, 2017; Ali Sahboun, 2017; Al Farooque & Ahulu, 2017, Uyar et al., 2017). The results of this study are consistent with the results of prior studies in this aspect. They show that there is a significant positive relationship between industry type and sustainability reporting ($b = 0.076$, $T = 2.666$, $p = .008$). Hence, the second hypothesis of this study is accepted.

The mean of sustainability reporting disclosure in high-risk industries ($m = 0.4691$, $t = -1.396$ and $p = 0.1650$) was higher than the low-risk industries ($m = 0.4250$, $t = -1.396$, $p = 0,1650$). This result is also consistent with the legitimacy theory. The theory suggests that companies in high-risk or environmental-sensitive industries are more likely to disclose a high level of sustainability. According to Faisal et al. (2012), companies in high-risk industries tend to receive much criticism from the public and the stakeholders on sustainability matters due to the nature of their businesses that have a high potential to impact the EES. Therefore, the companies must publish sustainability reports to legitimize their business activities, improving their sustainability reports' credibility and transparency (Braam et al., 2016).

In addition, this study found a significant positive relationship between assurance statement practices and sustainability reporting ($b = 0.142$, $T = 3.687$, $p < .05$). This finding indicated that the presence of assurance statement practices influences sustainability reporting. According to He (2017), companies with external or third-party assurance tend to report a high level of sustainability information in their sustainability reports to legitimize their business activities. The assurance statements also represent the companies' high commitment to sustainability plans and strategies (Faisal et al., 2012). This commitment is crucial to increasing the trust and confidence level of stakeholders towards accountability, reliability, and materiality of the companies' sustainability reports (Al Farooque & Ahulu, 2017). The result of this study is consistent with the literature on sustainability reporting and is supported by the legitimacy theory. Therefore, the third hypothesis of this study was accepted.

CONCLUSION

One of the advantages of this study is the application of the latest Sustainability Framework introduced by Bursa Malaysia as the basis for evaluating the level of sustainability reporting disclosure of the PLCs. As this framework has just been implemented, minimal studies have determined the level of sustainability reporting disclosure according to the dimensions and indicators suggested by the framework. The findings of this study may contribute to the literature regarding the level of sustainability reporting disclosure among the PLCs in Malaysia and the level of compliance with the latest sustainability framework. The information may be helpful for regulatory bodies, such as Bursa Malaysia and the Securities Commission, to structure plans and strategies needed to promote and encourage companies in Malaysia to disclose material information on sustainability developments and practices. The outcomes of this study may also be helpful for practitioners, such as companies, to better understand the motivation and factors influencing the level of sustainability disclosure from the legitimacy theory's perspective. The companies must identify the issues and the problems that hinder them from disclosing or publishing sustainability reports following sustainability standards or frameworks. The findings may trigger the awareness of the practitioners and the top management of companies on the importance of sustainability reporting for the image and reputation of the companies in the eyes of the public and other stakeholders.

In conclusion, this study empirically discovered several significant corporate characteristics that influenced sustainability reporting in Malaysia from the view of the legitimacy theory. The corporate characteristics are firm size, industry type, and assurance statement practices. The outcomes of this study showed that all three corporate characteristics could significantly explain the level of sustainability reporting disclosure of Malaysian companies. From the legitimacy theory perspective, the results are consistent with the concepts and ideas of the theory. The theory suggests that most large companies, high-risk industry companies, and companies with assurance statement practices tend to disclose sustainability information in the sustainability reports to maintain their image and reputation.

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