CORPORATE SUSTAINABILITY ADOPTION AMONGST PUBLIC LISTED COMPANIES IN MALAYSIA

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ABSTRACT
The aim of this study is to investigate on the influence of government regulations, expanded consumer base and brand and reputation towards corporate sustainability adoption among public listed companies in Malaysia. The study further looks at each element of corporate sustainability together with company-specific characteristics which may impact the level of corporate sustainability. This study uses quantitative content analysis on latest company reports to collect data and different indices are used to measure the variables. Overall the study uses a sample of 49 listed companies and the analysis method used is negative binomial regression. The findings reveal that there is no relationship between government regulations, expanded consumer base and corporate sustainability adoption. But there is a positive relationship between brand and reputation and corporate sustainability adoption, if only measured in terms of the indices BRAND (disclosure of awards achieved) and STAKE (stakeholder engagement). In addition, only size and financial performance are seen to be the company-specific characteristics impacting on social sustainability, but only size of company has an impact on the drive towards corporate sustainability.

Keywords: Corporate Sustainability Adoption, Malaysia Public Listed Companies; binomial regression

INTRODUCTION
Towards the end of the 20th century companies began seeing the need to change their business activities, moving beyond the traditional view of profit maximization (Porritt, 2012) to placing strong emphasis in environmental, social, and economic issues (ESE) in their business activities. Today, companies worldwide have made a strategic commitment in corporate sustainability practices (CS) which acknowledges business growth together with goals relating to sustainable development; that is, ESE commitment (Sarvaiya and Wu, 2014). In light of this recent paradigm, therefore, what causes companies to engage in such practices? This question has been the prevalent theme in numerous researches on the rationale of the influences on companies to adopt CS, however, most studies have focused on Western countries such as those in the Europe, USA together with some studies on developing countries such as China, but with little emphasis on South East Asian nations such as Malaysia. Such as the study by Lozano (2013) based in the United Kingdom, which found the factors to include external and internal influences.

Recent research has viewed CS as a survival strategy for the company (Hu and Khabari, 2015; Lloret, 2016) as in its simplest form CS entails business continuity, however, this fails to look at other constituents in play such as the environment and society. Viewing CS as a strategy is what refers to as the business-case view of CS, where companies that engage in such activities aim to get enhanced company image, increased financial performance or achieve ease of doing business. The Government and its regulations may play an important role in facilitating the adoption of CS, especially as companies’ adherence to government regulations in the form of pollution controls or labour standards, may boost their images and facilitate the ease of achieving objectives. Moreover, the government is usually responsible in guiding the actions undertaken by companies, especially as certain directions a company chooses may prove to be detrimental to the public and without
government guidance, company actions may cause significant harm to the society and environment, either in
the short term or long-term.

Corporate sustainability in Malaysia
In regards Corporate Sustainability in Malaysia, it’s observed that, prior to 2015 Malaysian companies chose
to engage in CS issues on a voluntary basis. During this period companies decided whether or not to
incorporate ESE issues in their business operations. In addition, during this period the level of awareness on
ESE issues was low but managers understood social initiatives such as charity initiatives, volunteer activities
or other initiatives under social responsibility (Mohamed, Jamaluddin and Jamil, 2014). For the period
starting from 2015 onwards, the Bursa Malaysia Stock Exchange (BMSE) issued a mandate that listed in the
Main Market and the ACE market had to disclose on ESE issues. Because of the recent mandate CS adoption
in Malaysia can be categorized as still in an infant stage. Moreover, Zahid and Ghazali (2017) recently
provided that, there is an improvement in CS practices across Malaysian companies but the progress is still
slow.

In this vain, the current study is trying to investigate factors influencing CS adoption in context of Malaysia
public listed companies. The remainder of the paper is organized as follows. Section 2 describes the previous
literature related to the problem. Suitable ways to formulate the problem are presented in section 3, which is
followed by discussion in section 4 and lastly conclusions and suggestions are drawn.

LITERATURE REVIEW
Stakeholder and institutional theory are frequently used in literature to support a company’s commitment in
environmental, social and economic activities. Stakeholder theory posits that it’s in the best interest of the
company to maintain a positive relationship with its stakeholders (Nemetz, 2015) and institutional theory
states the importance of companies to adhere to institutional pressures to gain legitimacy and survive in the
long-term (Lloret, 2016).

To the best of my knowledge there is little research about CS that does not include Corporate Sustainability
Disclosure (CSD). CSD involves the reporting of a company’s CS information on annual reports or stand-
alone sustainability reports. CSD forms the basis of measuring CS adoption levels in companies. This arises
from the fact that it is not easy to observe the adoption of CS practices as pointed out by Herbhon, Walker
and Loo (2014), who found a positive relationship between CS performance in companies and CSD,
specifically for environmental disclosure, a subset of CSD. Other subsets of CSD includes social disclosure
and economic disclosure.

In terms of the government regulations influence on CS, a few researches have been conducted. Lozano
(2013) found out that national policies played an important role in driving CS, for example proactive
measures of some EU countries, such as the French government requiring all companies listed publicly to
report on CS thereby, showcasing their commitment to CS. In an in-depth study on government regulations
influence on CS, Nemetz (2015) further illustrated that companies in countries with stronger government
institutions tend to have higher levels of CS engagement. The results also suggested there may be an optimal
level of government strengths for influencing CS and beyond the optimal level increasing the strength of
government may diminish the impacts on CS adoption. In addition, Liu and Anbumozhi (2009) used the
environmental sensitivity of industries (ESI) to measure government regulations pressure, as companies in
ESI were more likely to cause damage to the environment hence regulations were stringent on them
compared to non-ESI. Providing a contradictory insight, the research by Hu and Karbhari (2015) done in
Malaysia and China found out that government regulatory influences offered the least motivation in
companies to engage in environmental disclosure but improving a company’s corporate image was the first
ranked reason for specifically companies in Malaysia, to engage and communicate in environmental
sustainability.

Expanded consumer base is regarded as a market-based view of CS adoption, where in this view, firms
seeking CS also seek new markets. Chen (2015) discovered that sustainability efforts had impacts on
consumers. The study also pointed out that consumers were in favor of companies practicing environmental
sustainability and that they continued seeking eco-friendly products. In addition, conscious consumers
towards the importance of environmental issues and responsibility of companies, increased purchasing of
eco-friendly products from these companies. Goettsche, steindl and Geitl (2016) suggested that the
implementation of CS strategies is mostly driven by end consumers especially in B2C companies. The study
also suggested that primary stakeholders, including customers and shareholders, are responsible in pushing and pulling companies strategies toward sustainable development, hence pressure towards sustainability proactivity increased as proximity toward end consumers increased.

However, some studies have pointed out a negative relationship between the marketplace influences and CS adoption. Luzio and Lemke (2014) offered that most green products or services are facing weak market acceptance due to the fact that the intended users, which are referred to as green customers, are not being satisfied by the products as they also seek for conventional product characteristics. Moreover, Stolz and Bautista (2015) found out that older consumers tend to place environmental sustainability actions by companies of lower importance compared to price of the products offered by the company, especially if these prices are lower.

Most research on brand and reputation influence on CS have only found a positive relationship between the variables. Hu and Karbhari (2015) found out that improving a company's corporate image was the first ranked reason for companies in Malaysia to engage and communicate in CS practices. Moreover, Michelon (2011) provided that commitment to stakeholders and media exposure are the main determinants of reputation in that, the more a company is exposed to the media, the more information is available for stakeholders to evaluate its commitment on ESE issues, therefore companies engage in these actions to maintain legitimacy. The study by Miller and Merrilees (2013), which was conducted on retailing companies, pointed out that company engagement in environmental sustainability practices are more likely to enhance their credibility and brand reputation. This study provides on the influence of retail companies adopting CS practices to gain respect and credibility, although, it was seen that customers may not necessarily achieve a higher perception of quality or additional service value from retailers engaging in CS practices but it may increase the probability of customers returning to the retailer compared to other conventional retailers.

In regards to the level of ESE commitment, size of the firm is seen to have a positive relationship to ESE commitment as pointed out by D’Amico et.al (2016) whereby large firms may be subjected to greater public scrutiny when they do not meet the ESE expectations, compared to small firms that may only face little public pressure. In regards to type of industry, this affects the level of ESE commitment in environmental sensitive industries but not limited to the category (Burgwal and Vieira, 2014), especially as a result of polluting activities of companies in these industries. Company age and financial performance are also seen to affect ESE commitment, as the age signifies a longer history in the commitment together with an increased inclination of maintaining the accumulated reputation. Lastly, financial performance illustrates the resources or financial capabilities needed to support the ESE commitment (Bayoud, Kavanagh and Slaughter, 2012). Therefore, understanding company size, type of industry, age and financial performance is key to determine the company-specific characteristics that may have an influence on the level of ESE commitment.

RESEARCH METHODOLOGY

The sample in this study is public listed companies in Malaysia. The sample size of companies under analysis is 49 out of 100 public listed companies, listed in the FTSE4Good Bursa Malaysia Top 100 companies. The study has utilized the disclosure-performance relationship, where information disclosed in the companies’ reports signifies their performance in CS activities.

This study has used quantitative content analysis on latest company annual reports or stand-alone sustainability reports. In order to operationalise CS, the study follows the guidelines of the Global Reporting Initiative (GRI) or FTSE4Good reporting guidelines as adopted by BMSE involving a set of indicators and elements belonging to three categories of information: economic, environmental and social, as adopted by Michelon (2011). A particular sentence is chosen as the recording unit and each sentence is matched with all items and is coded as follows: with a score of 0 if it provides no information; with a score of 1 if it discloses information. The level of CS adoption is measured by counting the frequency of items. For the analysis, economic information is given an index ECINF, environmental information is given the index ENIF and Social information is given the index SOINF, with the total of SOINF, ECINF and ENIF representing corporate sustainability information (CSINF), hence this measures the level of CS adoption.

To quantify government regulations influence, Government regulations influence is defined as a variable representing the environmental sensitivity of the industry in which companies operate, according to Liu and Anbumozhi (2009). A score of 1 will be given for firms belonging to environmentally sensitive industries (ESI) and a score of 0 will be given for those belonging to non-ESI. ESI may include mining, thermal power,
construction materials, pulp & paper products, metallurgy, petroleum, brewery, ferment, textile, pharmacy, tanning and chemical industries. This also includes companies in consumer products industry and plantation industry as provided by Said et.al (2016) the rest are regarded as non-ESI. For the analysis government regulation influence the index given is GOV.

To measure expanded consumer, as it also represents influence of customers and the marketplace, this study will adopt the some of the items adopted by Shirley et.al (2009). The items offered by Shirley et.al (2009) includes four main themes such as Product development, Product safety, Product quality and Consumer information together with their indicators. Each item has a value equal to 1 if the company is engaging in the particular item, and 0 otherwise. The ordinal variables of expanded consumer base influence vary between 0 and 4. The expanded consumer base influence will be given an index EXCB. For the brand and reputation variable, this is measured using three determinants. The first determinant equals to 1 if the firm has a trademark that wins the Malaysia Top Brand or a Famous brand in any category and this information is disclosed in the company reports. A score of 0 is given when no awards are disclosed (Zeng et.al 2012). The index to determine this variable is BRAND. The second determinant is media exposure, this is measured by using the total number of articles in the ProQuest database for 2016, the index given is MEDIA EXPOSURE, and the third determinant is stakeholder engagement, this is built from the definition of Stakeholder engagement from the Global Reporting Initiative (GRI) G4. The GRI identifies four items that represent stakeholder engagement (1) List of stakeholder groups engaged by the organization (2) Basis for identification and selection of stakeholders with whom to engage (3) Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group (4) Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Each item equals to 1 if the company is engaging its stakeholders and 0 if otherwise. The index STAKE is given for this item, which is measured using a four-point ordinal scale. The second and the third determinants are as adopted by Michelon (2011).

RESULTS ANALYSIS
Company characteristics in this study includes age, size, type of industry and financial performance (D’Amico et.al 2016; Burgwal and Vieira, 2014; Bayoud, Kavanagh and Slaughter, 2012). Specific measures of these characteristics can be seen in Table 1.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Company age.</td>
</tr>
<tr>
<td>Size</td>
<td>Natural logarithm of total assets for the latest financial year.</td>
</tr>
<tr>
<td>Type of industry</td>
<td>Companies’ industrial sector.</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>Return on equity for the latest financial year.</td>
</tr>
</tbody>
</table>

To test the hypothesis this study utilizes Negative binomial regression, which comes from a family of distributions under the Generalized Linear models. Negative binomial regression is used in modelling count-data dependent variables when data is over-dispersed (Blackburn, 2015), that is, the variance is greater than the mean. In order to test whether a relationship exists between CS adoption and government regulations, expanded consumer base and brand and reputation, the following Negative binomial regression model was specified:

\[ \text{Log(CSINF)} = \text{intercept} + b1(\text{BRAND}=1) + b2(\text{BRAND}=0) + b4(\text{GOV}=1) + b5(\text{GOV}=0) + b6(\text{EXCB}=0) + b7(\text{EXCB}=1) + b8(\text{EXCB}=2) + b9(\text{EXCB}=3) + b10(\text{EXCB}=4) + b11(\text{STAKE}=1) + b12(\text{STAKE}=2) + b13(\text{STAKE}=3) + b14(\text{STAKE}=4) + b15\text{MEDIA EXPOSURE} \]
RESEARCH FINDINGS
In order to measure the relationship between the variables, this began by conducting an Omnibus Test to test whether the factors significantly improved the intercept-only model.

Table 2: Omnibus Test

<table>
<thead>
<tr>
<th>Omnibus Test&lt;sup&gt;a&lt;/sup&gt;</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variables</td>
<td>Likelihood Ratio Chi-Square</td>
</tr>
<tr>
<td>ENIF</td>
<td>14.758</td>
</tr>
<tr>
<td>SOINF</td>
<td>25.149</td>
</tr>
<tr>
<td>ECINF</td>
<td>16.241</td>
</tr>
<tr>
<td>CSINF</td>
<td>23.762</td>
</tr>
</tbody>
</table>

<sup>*p<0.05</sup> Model: (Intercept), EXCB, GOV, STAKE, MEDIA EXPOSURE  a. Compares the fitted model against the intercept-only model.

From table 2, only SOINF and CSINF results are statistically significant, with both having significance levels below 5%. Therefore, analysis can be performed. Starting with the relationship between SOINF and the independent variables, the results show that government regulations (GOV) and expanded consumer base (EXCB) have no statistically significant relationship with social sustainability as seen in table 3. For brand and reputation, the BRAND and MEDIA EXPOSURE determinants have no relationship with social sustainability. In the case of stakeholder engagement (STAKE), it’s seen that there is a positive relationship between companies with high stakeholder engagement (STAKE=3) and social sustainability. Similarly, there is a positive relationship between companies with very high stakeholder engagement (STAKE=4) and social sustainability. But results also show that there is no relationship between companies in STAKE = 0, 1, 2. The results show that companies with higher stakeholder engagement (STAKE=3 and STAKE=4) have a higher social sustainability adoption level, this result is supported by Michelon (2011) who also found a positive relationship between social sustainability disclosure and stakeholder engagement.

Looking at the relationship between government regulations (GOV), expanded consumer base (EXCB) and brand and reputation (BRAND, STAKE, MEDIA EXPOSURE) influence on CS adoption, the result (table 3) show that for Government regulations, expanded consumer base, and media exposure, there is no statistically significant relationship towards CS. In the case of BRAND, that there is positive relationship with CS adoption, as companies move from not disclosing ‘awards’ to disclosing ‘awards’ in their reports. Similarly, in the case of Stakeholder engagement, its seen that there is a positive relationship between companies with high engagement (STAKE=3) and CS adoption. Therefore, the evidence shows that there is a relationship between CS and brand and reputation, if defined in terms of stakeholder engagement. The results support Hu and Karbhari (2015) and Zeng et.al (2012) who found that firms tend to engage and disclose in CS activities to improve corporate image and brand so as to gain business advantage. This is usually the case as companies try to influence public perception to earn legitimacy from stakeholders for business continuity.

Table 3: Parameter Estimates

<table>
<thead>
<tr>
<th>SOINF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>B</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>-.365</td>
</tr>
<tr>
<td>[BRAND=1.0]</td>
<td>.457</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CSINF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>B</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>2.397</td>
</tr>
<tr>
<td>[BRAND=1.0]</td>
<td>.415&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
For the relationship between the dependent variables and company-specific characteristics, this involves starting with an Omnibus Test. From table 4, it's seen that only SOINF and CSINF produce statistically significant models. The research shows that not all company-specific characteristics have an influence on the level of CS adoption. The results only showed that size of the company was the only characteristic to influence the level of CS as seen in table 5. For type of industry, as GOV index includes the variables non-environmentally sensitive industries (non-ESI) and environmentally sensitive industries (ESI). The result shows there is no relationship between CS and type of industry. But in the case of social sustainability, size

```
| [BRAND=.0]  | 0\(^a\) | 1 | [BRAND=.0]  | 0\(^a\) | 1 |
| [GOV=1.0]   | .079   | 1.082 | [GOV=1.0]   | .047   | 1.048 |
| [GOV=.0]    | 0\(^a\) | 1 | [GOV=.0]    | 0\(^a\) | 1 |
| [EXCB=3.0]  | .632   | 1.881 | [EXCB=3.0]  | .247   | 1.280 |
| [EXCB=2.0]  | .786   | 2.195 | [EXCB=2.0]  | .243   | 1.275 |
| [EXCB=1.0]  | .032   | 1.032 | [EXCB=1.0]  | -.100  | .905 |
| [EXCB=.0]   | 0\(^a\) | 1 | [EXCB=.0]   | 0\(^a\) | 1 |
| [STAKE=4.0] | 1.288\(^*\) | 3.624 | [STAKE=4.0] | .212   | 1.236 |
| [STAKE=3.0] | 1.556\(^*\) | 4.742 | [STAKE=3.0] | .407\(^*\) | 1.503 |
| [STAKE=2.0] | .435   | 1.545 | [STAKE=2.0] | -.275  | .759 |
| [STAKE=1.0] | .554   | 1.740 | [STAKE=1.0] | -.100  | .905 |
| [STAKE=.0]  | 0\(^a\) | 1 | [STAKE=.0]  | 0\(^a\) | 1 |
| MEDIA EXPOSURE | .106 | 1.112 | MEDIA EXPOSURE | -.032 | .969 |

(Scale) | 1\(^b\) (Scale) | 1\(^b\) (Negative binomial) | .519 | (.Negative binomial) | .147 |

*\(p<0.05\) Dependent Variable: SOINF, CSINF. Model: (Intercept), Brand, GOV, EXCB, STAKE, MEDIA EXPOSURE
\(\text{Scale}\) (Scale) | 1\(^b\) (Negative binomial) | .519 | (.Negative binomial) | .147 |

Table 4: Omnibus Test

# Dependent variables | Likelihood Ratio | Chi-Square | df | Sig. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SOINF</td>
<td>8.871</td>
<td>3</td>
<td>.031(^*)</td>
<td></td>
</tr>
<tr>
<td>CSINF</td>
<td>7.932</td>
<td>3</td>
<td>.047(^*)</td>
<td></td>
</tr>
</tbody>
</table>

\(\text{Scale}\) \(\text{Scale}\) | 1\(^b\) (Scale) | 1\(^b\) (Negative binomial) | .519 | (.Negative binomial) | .147 |

\(\text{Model:} (\text{Intercept}), \text{Brand}, \text{GOV}, \text{EXCB}, \text{STAKE}, \text{MEDIA EXPOSURE} \). a. Set to zero because this parameter is redundant. b. Fixed at the displayed value.

\(\text{Omnibus Test}^a\)

\(\text{Dependent variables} \quad \text{Likelihood Ratio} \quad \text{Chi-Square} \quad \text{df} \quad \text{Sig.} \)

\(\text{ENIF} \quad 2.486 \quad 3 \quad .478\)

\(\text{SOINF} \quad 8.871 \quad 3 \quad .031^*\)

\(\text{ECINF} \quad 6.133 \quad 3 \quad .105\)

\(\text{CSINF} \quad 7.932 \quad 3 \quad .047^*\)

\(\text{Model:} (\text{Intercept}), \text{size, age, ROE}. \text{a.} \text{Compares the fitted model against the intercept-only model.}\)

\(\text{*p<0.05 Model:} (\text{Intercept}), \text{size, age, ROE}. \text{a.} \text{Compares the fitted model against the intercept-only model.}\)
and financial performance (ROE) were seen to influence the level of social sustainability. But for age of company and type of industry, no relationship was found. The results for age of companies is seen to support the results of D’Amico et al. (2016). For type of industry, the results contradict those that found a relationship between type of industry and CS (Bayoud, Kavanagh and Slaughter, 2012; Burgwal and Vieira, 2014; D’Amico et.al 2016; Michelon 2011), this may be due to the recentness in CS activities in Malaysia, as it only became mandatory to disclose CS activities in 2015. In the case of financial performance (ROE), the results support those found by D’Amico et.al (2016), where no relationship was also observed.

Table 5: Parameter Estimate

<table>
<thead>
<tr>
<th>Parameter</th>
<th>SOINF</th>
<th>CSINF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-4.876</td>
<td>-.331</td>
</tr>
<tr>
<td>B</td>
<td>.008</td>
<td>.718</td>
</tr>
<tr>
<td>size</td>
<td>.591*</td>
<td>.294*</td>
</tr>
<tr>
<td>Exp(B)</td>
<td>1.805</td>
<td>1.342</td>
</tr>
<tr>
<td>age</td>
<td>-.002</td>
<td>.002</td>
</tr>
<tr>
<td>Exp(B)</td>
<td>.998</td>
<td>1.002</td>
</tr>
<tr>
<td>ROE</td>
<td>.008*</td>
<td>.003</td>
</tr>
<tr>
<td>Scale</td>
<td>1a</td>
<td>1a</td>
</tr>
<tr>
<td>(Negative binomial)</td>
<td>1.050</td>
<td>.234</td>
</tr>
</tbody>
</table>

*p<0.05 Dependent Variable: SOINF, CSINF. Model: (Intercept), size, age, ROE. a. Fixed at the displayed value.

CONCLUSION

The main objective of this research was to study on the factors influencing corporate sustainability adoption among public listed companies in Malaysia. The study used two theories which include the stakeholder and institutional theory that aimed to support the relationship between the independent variables, government regulations, expanded consumer base and brand and reputation, and the dependent variable, CS adoption. From the research, it has been discovered that not all firm specific characteristics have an influence on the level of CS adoption. The results only showed that size of the company was the only characteristic to influence the level of CS. But in the case of social sustainability, size and financial performance were seen to influence the level of social sustainability. In the case of age of company and type of industry, no relationship was found. The results were unexpected especially for type of industry as companies in environmentally sensitive industry are expected to engage more in CS activities because of the negative externalities caused by their activities, in the case of age and financial performance of company, this result was understood because of the recentness of CS activities in Malaysia, where prior to 2015 there was no mandate that made companies adopt CS. The research also found that CS adoption is still at an infant stage, this was determined by the level of CS information in the companies’ reports and especially as until recently CS practices were voluntary and most companies lack awareness on the issue. It was also discovered that some companies in the BMSE have not yet adopted CS, but expected to engage in CS activities in 2018.

Throughout, the research aimed at proving three relationships. Firstly, no relationship found between government regulations influences on CS adoption. This meant that companies in the sample were not heavily influence by policies, laws or rules that mandated the adoption of CS. Secondly, no relationship was found between expanded consumer base and CS adoption. This provided that companies were not generally influenced by the marketplace, which demands sustainable products and services from the companies. This may be as a result of lack of public awareness of sustainable products or services, therefore, companies place less emphasis on providing such products and services. Thirdly, there was a relationship between CS adoption and brand and reputation. This was only if defined in terms of the determinants stakeholder engagement (STAKE) and BRAND. The results showed that companies with high stakeholder engagement were more likely to adopt CS, as this meant that they supported sustainable development of their business as well as the community in which they are situated. Also, CS adoption showed that companies were interested...
in activities other than profit-oriented ones, which are important to stakeholders. The construct BRAND was used because firms with a good brand value have a higher reputation and hence, more likely to engage in CS. But for the case of the third construct in brand and reputation, there was no significant relationship found. The third determinant was based on an assumption that high media exposure influenced public perception on the companies hence, to portray a good image companies engage in CS activities. But this wasn’t the case in the research as the results were not statistically significant.

Corporate Sustainability is a current high-profile topic among the businesses and communities which has generated a great public attention and debate. Moving forward, CS is seen to provide more benefits to companies as it provides managers to further understand where they need to take their companies and how to get there. Although no relationship was found between government regulations, expanded consumer base and CS adoption, but the factors present a great incentive for companies in Malaysia to engage in CS activities. In the case of brand and reputation, companies can benefit a great deal when they adopt CS. This comes from the higher reputation and brand value that comes with the adoption. This will enable companies to smoothly achieve its objectives if the corporate image is greatly respected and valued by stakeholders, as provided by the stakeholder theory. This higher reputation will only come if companies engage solely on CS activities, placing equal emphasis on every element of CS. More benefits of higher reputation may also come from the ability to attract talent and also deter away any negative public or government perception.

CONFLICT OF INTEREST
The authors confirm that this article content has no conflict of interest.

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APPENDICES

APPENDIX 1

GRI or FTSE4Good Sustainability guidelines as adopted by (Michelon, 2011)

ELEMENT 1: ECONOMIC (ECINF)

Procurement practices (PP)
1. Percentage of the procurement budget used for significant locations of operation spent on suppliers local to that operation

Community investment (CI)
1. Total amount invested in the community where the target beneficiaries are external to the entity (e.g. not-for-profit organisations)

Indirect economic impact (IE)
1. Report the current or expected impacts on communities and local economies - both relevant positive and negative impacts

ELEMENT 2: ENVIRONMENTAL (ENIF)

Emissions (E)
1. Scope 1 emissions in tonnes of CO2
2. NOx emissions in g/Nm3 per product or operating hour
3. SOx emissions in g/Nm3 per product or operating hour

Waste and effluent (W AND E)
1. Particulate emissions (mg) per operating hour
2. Total volume of effluent generated
3. Total weight or volume of Hazardous waste generated
4. Total weight or volume of waste sent to landfill for disposal
5. Ratio of waste production
6. Ratio of waste repurposed and disposed
7. Amount of drilling waste and strategies for treatment and disposal
8. Oil spills
9. Amount of e-waste disposed

Water (W)
1. Total volume of water used
2. Percentage of water recycled
3. Water usage per product output

Energy (EN)

1. Amount of reduction in energy consumption achieved as a result of conservation and efficiency initiatives
2. Energy intensity (kWh/MWh per employee/ man-hours/ square meter
3. Alternative energy research (e.g. wind, biomass, solar, clean fuels, and other climate change related matters.
4. Use of renewable energy(kWh/MWh)
5. Total energy produced(kWh/MWh)
6. Total energy consumed(kWh/MWh)

Biodiversity (B)

1. Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored.
2. Areas of high conservation value
3. Description of significant impacts of activities, products and services on biodiversity value outside protected areas
4. Habitats protected or restored

Supply Chain (Environmental) (SC)

1. Assessment of new and existing suppliers to identify environmental impacts (e.g. resource use, waste management, impact on biodiversity)
2. Results of supplier monitoring/Auditing
3. Actions on supplier’s non-compliance to supplier’s environmental impact assessment (e.g. training and communication)

Products and services Responsibility (Environmental) (P AND S)

1. Product stewardship (product’s impact on the environment)
2. Benzene, lead and sulphur content in fuels
3. Product innovation to reduce impacts (e.g. eco-friendly, less chemicals/toxic substances etc.)

Materials (M)
1. Ratio of raw materials sourced from sustainable source
2. Policies and commitment to certified raw materials sourcing
3. Materials used by weight or volume
4. Percentage of recycled input materials

Compliance (Environment)(C)

1. Total monetary value of fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

Land remediation, contamination or degradation (LCD)

1. Land remediated or in need of remediation for the existing or intended land use, according to applicable legal designations
2. Number of operations for the year and how many have conducted environmental impact assessments
3. Disclosure on current practice and soil management strategy
4. Number of sites that have been decommissioned and sites that are in the process of being decommissioned.

ELEMENT 3: SOCIAL

Diversity (D)

1. The percentage of employees per employee category in each of the following diversity categories gender, age group, ethnicity
2. The percentage of directors in each of the following diversity categories gender, age group and ethnicity
3. Ratio of foreign to local hire of low-drilled workers
4. Employment arrangement-local and foreign

Human Rights (H)

1. Percentage of employees trained in human rights policies or procedures concerning aspects of human rights that are relevant to operations
2. Percentage of existing and new suppliers assessed for human rights policies and practices
3. Number of child labour incidents
4. Measures taken to support freedom of association
5. Number of grievances about human rights issues
6. Number of forced or compulsory labour incidents
   • Percentage of investment agreements that underwent human rights screening

Occupational Safety and Health (O)
1. Percentage of workers undergoing safety and health training per annum
2. Number of work related injuries per annum
3. Rate of work related injuries per annum
4. Number of work related fatalities (Includes employees and contractors)
5. Accident frequency rate
6. Severity rate
7. Number and percentage of workers undergoing health surveillance
8. Brief description of the Health, Safety and Environment (HSE) Organizational chart and the HSE committee at the work site

Anti-competitive behaviour (AB)
1. Number of legal actions pending or completed regarding anti-competitive behaviour

Anti-corruption (A)
1. Percentage of employees that have received training on anti-corruption by employee category
2. Percentage of operations assessed for risks related corruption

Labour Practices (L)
1. Average hours of training per annum by employee category
2. Total number of employee turnover (broken down by employee type) during the reporting period by age group and gender
3. Rate of employee turnover (broken down by employee type) during reporting period, by age group and gender
4. Employee benefits

Society (S)
1. Initiatives to improve access of financial services to disadvantaged people
2. Disclosure of social impact assessment performed (if any) and current practices in order to mitigate negative impacts
3. Number of people physically or economically displaced and compensated broken down by utility project
4. Operations where involuntary resettlement took place, the number of households resettled in each, and how their livelihoods were affected in the process

Product and services responsibility (Social) (P AND S)
1. Number of complaints
2. Customer relationship management (grievance mechanism)
3. Transparency in product information and labelling
4. Number of incidents of attacks
5. Product adherence to chemical content/composition specification
6. Health risks from exposure to electromagnetic radiation from use of products and services
7. Ingredients used in personal care products
8. Financial literacy

Supply chain (Social) (SS)
1. Assessment of new and existing suppliers to identify existing or potential negative social impacts
2. Results of supplier monitoring/auditing
3. Actions on supplier’s non-compliance to social impacts assessment

Compliance (Social) (CS)
1. Total monetary value of fines and total number of non-monetary sanctions for non-compliance with laws and regulation

APPENDIX 2

Expanded consumer base guidelines adopted by (Shirley et.al 2009)

Product Development (PD)
1. Information on developments related to the company’s products, including its packaging, e.g., making containers reusable;
2. The amount/percentage figures of research and development expenditure and/or its benefits;
3. Information on any research project set up by the company to improve its products in any way.

Product Safety (PS)
1. Disclosing that products meet applicable safety standards;
2. Making products safer for consumers;
3. Conducting safety research on the company’s products;
4. Disclosing improved or more sanitary procedures in the processing and preparation of products;
5. Information on the safety of the firm’s product.

Product Quality (PQ)
1. Information on the quality of the firm’s products as reflected in the prizes/awards received;
2. Verifiable information that the quality of the firm’s products has increased (e.g. ISO9000).
Consumer Information (CI)

1. Disclosing of customer safety practices;
2. Customer complaints;
3. Specific consumer relations (over and beyond “our duty to the consumer”);
4. Provision for the disabled, aged, etc., customers;
5. Provision for difficult-to-reach customers.