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# Sustainability Practices as Determinants of Financial Performance: A Case of Malaysian Corporations

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## Abstract

This research is carried out to investigate the relationship between sustainability practices and performance in a financial sense for Malaysian Oil and Gas sector. Objectives include to study the state of sustainability disclosure among Malaysian oil and gas companies, to understand if companies that practiced sustainability had better performances to their financial bottom-line and to conduct a data analysis to understand the relationship between Environmental, social and governance performance [represented by the acronym ACSI] and financial performance. Sustainability performance is measured using ACSI checklist, which is an adaptation of the GRI 3.0 by Global reporting initiative while financial performance was measured on financial and profitability parameters namely EBITDA, EPS and PE ratio. Secondary data sources are used which were then converted into a rating scale to develop quantitative data. SPSS 21 is used for the analysis. The result shows that the majority of oil and gas companies in Malaysia had poor performance in terms of sustainability disclosure. On all three chosen profitability parameters, the companies that practiced sustainability were found to perform better than their counterparts that did not. Strong and significant relationship exists between sustainability practices and better financial performance.

**Keywords:** Sustainability, Financial Performance, Profitability, Oil & Gas Sector.

**JEL Classification Code:** M20, M14, M48, Q56.

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## 1. Introduction

According to the international institute of sustainable development, the concept of sustainability originated around 1962 when the post-world war II community and the environmental movement were being gradually merged (Lowitt et al., 2009). In 1987, the World Commission on Environment and Development's was summoned with the aim to come up with a standard definition for sustainable development, it was an event that was basically concerned about how continuous development can be achieved and managed without upsetting the balance of nature (Goodland, 1995). Since then, the term 'sustainability' has taken a new approach especially since the 1990s as there is now a shift from merely focusing on environmental issues to a focus on

merging environmental, social and global economic issues (Lowitt et al., 2009; Mebratu, 1998; Pearce & Warford, 1993; Reed, 1997). The recognition of sustainability can be seen today as many organizations are now embarking on programs such as corporate governance, CSR, green production, green value chain, paperless banking and reduction of water consumption (Choi & Yu, 2014; Lowitt et al., 2009; Statman, 2000); In addition, according to Siew et al. (2013) stakeholders are also seeking disclosures of organizations business activities that includes financial, social and environmental performance. Sustainability awareness in business organizations continues to grow as the world face up to social, environmental and ecological problems such as gender and economic inequality, human rights abuses, global warming, carbon emissions, gas flaring and various levels of environmental degradation (Enquist et al., 2007; Lowitt et al., 2009; Luus et al., 2007).

In respect to these events, the business case for sustainability has continued to grow to unprecedented levels over (Epstein & Buhovac, 2014). Various research works has been done on sustainability with the most research in developed countries like USA, Australia, United Kingdom, Germany, France and a few others (Epstein & Buhovac, 2014). The bulk of the research has focused on best

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practices across industries such as tourism, banking & finance, construction, transportation and agriculture (Christmann, 2000; Shriberg & MacDonald, 2013). In other parts of Europe, research has been done on sustainable management systems in Romania (Burja, 2012). There has also been notable research in developed countries that focused on the link between sustainability practices and company profitability on basis of firm valuation (Bartlett, 2012), ROE, EBITDA and ROI (Flammer, 2012; Griffin & Mahon, 1997; Kusuma & Koesrindartoto, 2014; Luus et al., 2007; Siew et al., 2013). In South America (Petriani & Pozzebon, 2010); Indonesia, Japan, China and India, research was also done on the effects of sustainability practices on profitability (Fuji et al., 2012; Kusuma & Koesrindartoto, 2014) and the effect of corporate sustainability on employees (Aggarwal, 2013; Choi & Yu, 2014). In Africa, major research work has been done in terms of rethinking environmental sustainability practices as well as reconciling sustainability and profitability (Kipesha & Zhang, 2013; Oribu et al., 2014). In Malaysia, majority of the research on sustainability focused on industry practices (Osman et al., 2012). There has been research linking sustainability practice and reporting to company financial performance in terms of share price stability and growth as well as on the issue of sustainability as it affects corporate performance. Research was also done on gender diversity in boards and management positions in Malaysia (Marimuthu, 2009). Generally, there is not adequate literature to determine the effects practicing sustainability will have on the financial performance of organizations in Malaysia. Therefore, this research will aim to plug that gap, add to existing literature and also provide scope for further research work on the subject.

The business case for sustainability continues to be made by scholars like (Epstein & Buhovac, 2014); however, there's also question to be asked in that, is there any real financial benefit for business organizations that practice sustainability? On top of this, considering that several factors can affect profitability of a business, such as size, marketing, location and even financial capability, does the practice of sustainability contribute in any way to said profitability? These are questions that need to be answered. Currently, most successful business organizations are integrating concept of environmental management, corporate ethics and brand reputation into their processes (Lopez et al., 2007). And it has often been argued that the ability of a firm to adopt sustainability practices should give them competitive advantage over firms that do not (Adams & Zutshi, 2004). However, the validity of this claim and the extent to which it is applicable remains an issue of debate. Looking around various academic literatures, it can be said that majority of the compliers to sustainability come from the

developed country (Flammer, 2012; Griffin & Mahon, 1997; Luus et al., 2007; Siew et al., 2013). So, it is interesting to know the position of developing countries on this matter. There might be a lack of legislation, willingness or even a lack of understanding on the part of business managers in these parts of the world as to the gains of practicing sustainability, if any.

The main aim of this research is to understand the effect that the practice of sustainability has on the profitability of Malaysian companies; it seeks to deal with the issue in a Malaysian context and the financial performance of the organization will also be reviewed which will then lead to an understanding as to whether Malaysian stakeholders have a preference for companies that practice sustainability. Objectives: (1) To understand the level involvement of Malaysian oil and gas companies in the practice of sustainability. (2) To understand if companies practicing sustainability perform better than those that do not. (3) To understand the strength of relationship between sustainability practices and better financial performance. Research Questions: (1) What is the level of involvement of Malaysian oil and gas in the practice of sustainability; and what is the outcome of this result in a ranking system? (2) In comparison, do companies that practice sustainability has better financial performance than those that do not? (3) Is there a linear association between sustainability practices and profitability; and in the case where a relationship exists, what is the strength of this relationship?

## 2. Literature Review

Research has revealed that there is no single accepted definition for the concept of sustainability at this point (Berns et al., 2009). However, the Brundtland commission summoned by the United Nations defined Sustainable development as "development that meets the present needs without compromising the ability of future generations to meet their needs". In other words, the need of the current day has to be met whilst preserving resources to meet the needs of future generations. Bartlett (2012) defined it as "*development that does not compromise the ability of future generations to meet their needs*". Despite a slight difference in these definitions, the key point of unity here is the commitment to a future generation and a general acceptance of the importance of the concept (Berns et al., 2009). Bartlett (2012) is of the opinion that the Brundtland commission focuses more on the needs of the present which he argued, has nothing to do with sustainability and only secondarily identified the needs of the future, which he argued should be the main concept of sustainability. From a business perspective, Kocmanova et al. (2011) defined

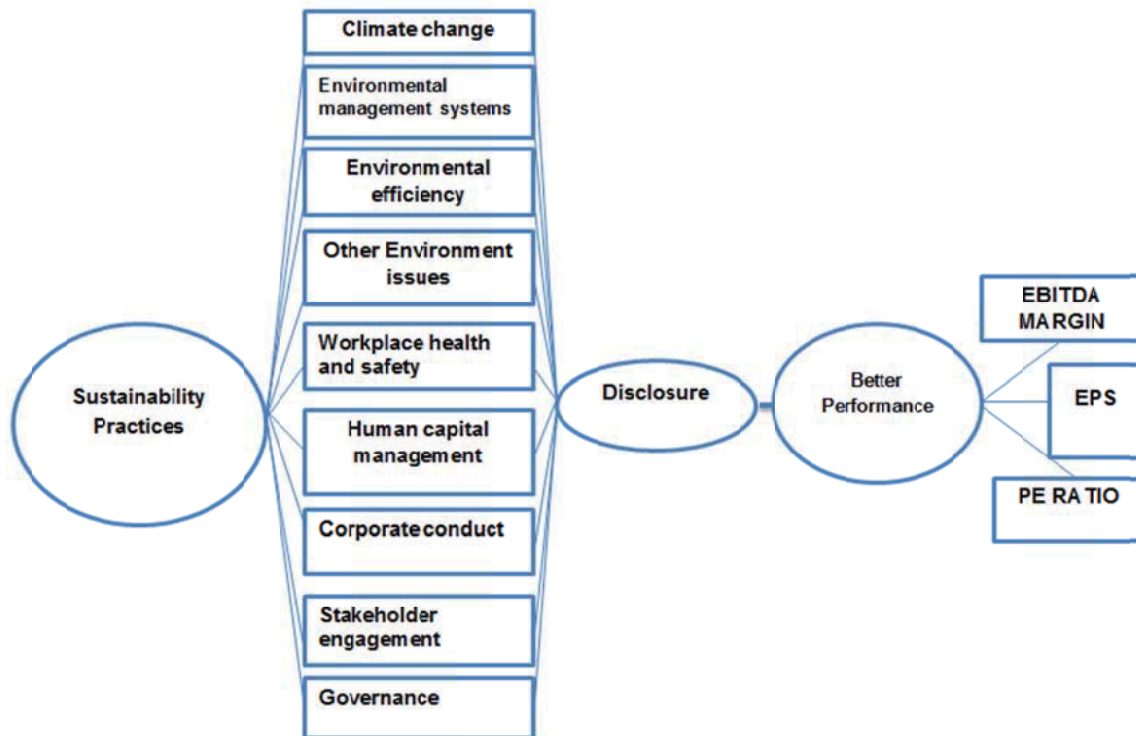
sustainability as the corporate strategy that monitors long-term corporate growth, efficiency, performance and competitiveness by incorporating economic, environmental and social performances into corporate management. This could be one of the most suitable definitions in terms of clarity in the business world, because, it directly echoes the sentiment of the Triple bottom line concept by John Elkington. From the perspective of this definition, the concept of sustainability is seen from the eyes of a business manager, and places a requirement that business organizations must be responsible to and accountable for their economic, social and ecological bottom lines.

The triple bottom line theory: This concept was introduced by John Elkington in the mid-1990s; it refers to how an organization deals with and reports on its impact and behavior towards people, planet and profit (Atu, 2013; Morland, 2006; Norman & MacDonald, 2003; Slaper & Hall, 2011; Sridhar & Jones, 2012). Triple bottom line concept places equal attention on the environmental, social and economic aspects of a business as the guide towards policy formulation and measurement of business performance (Sridhar & Jones, 2012). TBL places equal importance on the relationship between the planet, people and profit in the sense that, businesses derive the majority of their material inputs from the planet, while the process of converting these inputs to outputs is done by people and the basis of the organizations reaping profits come from these activities, Norman and MacDonald (2003) agree with these sentiments. Sustainability and the triple bottom line is made up of issues such as climate change, environmental management and systems, human capital management, corporate governance, stakeholder engagement, social responsibility and accountability (Petrini & Pozzobon, 2010); triple bottom line, 3p sheds more light on the inter relationship and the importance of being responsible to all these aspects of a business. In every way it is looked at, the activities of every business organization have various negative and positive impacts on people, the environment and the economy (Reddy & Gordon, 2010), therefore, this concept is important because of its consideration for all three components and its proposal that businesses must be both responsible for and accountable to all three components. However, on the flip side of the coin, there have been a few criticisms of the triple bottom line concept, according to Tripathi et al. (2013); Sridhar and Jones (2012), measuring social and environmental impacts can be difficult or even unrealistic, because unlike financial performance, it cannot be quantified in monetary terms; there is also a criticism that the practicality of the model is still in question according to (Hubbard, 2009; Norman & MacDonald, 2003; Tripathi et al., 2013). Despite these valid criticisms, there is a general acceptance that the 3BL remains the key model for

organizations to follow in their pursuit of sustainability. Due to its wide acceptability in the field of sustainability, this study will draw a lot from the theory of the triple bottom line in investigating and analyzing the impact of sustainability practices on organizational performance of Bursa Malaysia listed companies that fall under the oil and gas sector. It is the guiding concept for this research study.

Sustainability reporting: Sustainability reporting is a broad term that is used in describing the reporting on economic, social and environmental impacts of business which should clearly outline both the positive and negative impacts of the business (Atu, 2013; GRI, 2006). It is a concerted effort to integrate economic, environmental and social considerations into the evaluation and decision making processes of the reporting organization. What can be deduced from these definitions is that, all activities of organizations have various impacts on the society and environment (Reddy & Gordon, 2010); therefore, the concept of sustainability reporting was proposed in other to measure and disclose such impacts of the business organizations, beyond traditional accounting reports (Atu, 2013). The key for organizations to manage their progress towards sustainability is through measurement (Elkington, 1997; Elkington, 2004).

According to Maharaj and Herremans (2008) the number of companies that started reporting environmental or sustainability activities has increased greatly since Shell Canada started the trend in the year 1991. Despite this, the overall consensus remains that the level of involvement and reporting remains low. Factors such as government & stakeholder pressures, regulatory standards are some of the reasons why sustainability reporting became important (Pramanik et al., 2008; Roberts, 1992; Tilt, 1994; Yew, 2000). However, in Malaysia, just like the principal subject of corporate sustainability, TBL reporting is still at early stages (Janggu et al., 2007; Thompson & Zakaria, 2004). According to Mokhtar and Sulaiman (2012) there is now a growing worry among stakeholders and the general public that activities such as waste dumping, logging and bush burning are happening with high regularity, and this has led to serious questioning of the role of business organizations in the society. However, despite obvious merits of sustainability reporting, critics say it is just an organizational tool to make good impression, and to take away public attention from real ethical and moral accountability issues (Bansal, 2005). For this reason, the study, understanding and practice of sustainability and sustainability reporting cannot be underestimated. To enable proper understanding and reporting of sustainability activities, organizations like GRI and Dow Jones have come out with frameworks that have been acclaimed as generally acceptable and widely used for reporting triple bottom line activities of a business.



<Figure 1>: Conceptual framework adopted from ACSI framework. (ACSI, 2011)

These organizations have a set of parameters that can be used as a framework in measuring the involvement of organizations in practice of sustainability (see Figure 1).

Hypotheses:

- <H1> Publicly listed Malaysian companies in the energy sector have high levels of sustainability practices.
- <H2> Malaysian companies in the energy sector, which release/publish their sustainability initiatives, policies and practices, have better financial performance than those companies, which do not.
- <H3> There is strong positive correlation between the extent of sustainability practices and financial performance of the companies.

### 3. Methodology

This study uses combination of methods at various stages. Both exploratory and explanatory research design is applied; it will follow a deductive approach. This research is done by using qualitative, secondary data sources to generate quantitative data for analysis; some of the data sources include but are not be limited to sustainability reports, annual reports, press releases and independent research

articles. Also, the study uses secondary data sources collected from selected Malaysian companies listed on the Bursa Malaysia, the legitimacy of the data is not in question because the companies are recognized in Malaysia and are publicly listed in the Bursa Malaysia stock exchange, in addition, most publicly listed companies employ the services of external auditors to audit their accounts, therefore, as a result of this, secondary data source will usually have high level of credibility and reliability. The study will be done using time series of longitudinal data. For the time series data collection, annual reports and all relevant online text materials posted in the company's websites and other sources are be considered. The research considers annual reports from the chosen year of 2010 to 2013. Data from 2014 until 2016 is not included some of the parameters are not updated for certain companies.

The research uses purposive sampling as the samples will come from a sub-group; this is because it focuses on a particular sector and will involve all the companies operating under that sector. The samples to be used in the analysis is a selection from the Bursa Malaysia listings, based on a company's primary business activity falling under the energy sector specifically in oil & gas, therefore, organizations who are "Investment holding companies" and have other

businesses as core or supplementary businesses are not considered. The researcher only considers companies that have been publicly listed in the Bursa Malaysia not later than year 2008 and companies that have been incorporated for at least for the past 10 years. Out of 32 companies that fell under the oil and gas sector, 11 companies did not meet the target population criteria because they are either investment holding companies with multiple business focus or were listed in the Bursa Malaysia after the year 2008. So, the sample of 21 companies that met the criteria are oil and gas companies listed on the Bursa Malaysia. In the course of this paper, specifically to answer research question 2; the chosen companies are divided into 2 parts which are those companies that fully integrate the triple bottom line [economic, social and ecology] concept in their business and disclose accordingly in either a separate sustainability report or annual reports and the other section will be companies who have no record of full or partial sustainability practices and disclosure.

### 3.1. Data Analysis Technique

#### 3.1.1. The Level of Sustainability Practice Involvement.

Using annual/sustainability reports available online, this part examines the level of sustainability practices by Malaysian companies in the oil and gas sector on matters such as climate change, environmental issues, workplace health and safety, human capital management, corporate conduct, stakeholder engagement and governance which are the main domains for measurement according to the checklist adapted from (Siew et al., 2013). There are 9 domains with 68 items which are of the highest importance to institutional investors and stakeholders (ACSI, 2011, p.13); it is presented in a tabular form; the checklist is according to Australian Council of Super Investors, and is drawn heavily from the GRI 3.0 reporting guidelines. It was used in analyzing construction industry in Australia and the researcher found the checklist to be of relevance to analyze oil and gas sector. A rating value of 0 or 1 is used; 0 means the absence of information while 1 means presence of information provided by the oil and gas companies.

The aim of H1 is to understand the level of involvement of Malaysian oil and gas companies in the practice of sustainability. Once information has been entered into the checklist; Euclidean distance test is conducted to further balance the result of the checklist items against the reported items by the organizations. Euclidean distances are used to show the magnitude of differences in the level of disclosures (Danielsson, 1980). In this case, the problem can be viewed as the distance between 2 points whereby

one point represents what is expected of oil and gas companies in Malaysia [9 domains and 68 items] and the other point represents actual activities/practices disclosed by the organizations. Euclidean distances can be used in addressing the shortcomings that can come up as a result of using a simple checklist such as the one used in *Hypothesis 1*; it can also be used in simplifying the result of the data entered into the checklist. The representative score [which in this case is distance measured] is hence an accurate reflection of the level of consistency in reporting achieved throughout all domains (Siew et al., 2013). Because there are nine domains involved, Euclidean distance is measured by;

$$D = \sqrt{\sum (p_1 - q_1)^2 + (p_2 - q_2)^2 + \dots + (p_n - q_n)^2}$$

Adapted from: (Siew et al., 2013)

In this case, D is the Euclidean distance, p is the maximum number of items per domain, q is the number of disclosures by the companies and n = 9 represents the total number of domains. The scale used for measuring levels of sustainability practice involvement is as follows: excellent (0 - 6), good (7-14), average (15 - 20) and poor (> 20). After the Euclidean distance is calculated for each of the chosen companies, the result should fall under the scale and give a conclusive indication of the level of their involvement in sustainability practices based on their disclosures as identified in the checklist.

#### 3.1.2. Comparative Analysis of Practicing and Non-practicing Companies.

In this part, a comparative analysis is conducted. For clear comparison, the 21 participating companies are split into 2 parts which are – those that disclosed sustainability activities either in a separate report or through their annual report to be denoted by **D** and those companies that do not practice sustainability and did not disclose anything of such in any online document, to be denoted by **ND**.

Where D = “Disclosing” companies.

Where ND = “Non-disclosing” companies.

The chosen parameters for measurement and comparative analysis are **EBITDA margin** and **PE Ratio**. EBITDA margin is a profitability measure while PE ratio is an equity measure, both profitability and equity is measured in this study to give a broader and better balanced assessment of organizational performance in this context. In other to conduct the comparative analysis, the mean values

of both parameters will be compared over 4 years, from 2010 to 2013. The reason for this is that a longitudinal time series data of 4 consecutive years can give more consistency in terms of result, rather than measuring only for 1 or 2 years. The two parameters to be considered are EBITDA margin and PE ratio; both parameters have been identified in past research studies as important factors for the valuation of organizations (Kusuma & Koesrindartoto, 2014).

### 3.1.3. Strength of Relationship

Correlation analysis is used to understand if two measurement variables have a linear relationship, and to quantify the strength of that relationship. It's used to test hypotheses on the existence of relationship between variables, which in this case is sustainability practices & firm performance. The level of association is measured by a correlation coefficient, denoted by  $r$ . It is also called Pearson's correlation coefficient. Correlation coefficient is measured on a scale that varies from + 1 through 0 to - 1, complete correlation between two variables is expressed by either + 1 or -1. When one variable increases as the other increases, it denotes a positive correlation; when one decreases as the other increases it is negative. Complete absence of correlation is denoted by 0 (Saunders & Lewis, 2012). To do this, the 9 variables for measuring sustainability will be grouped under the acronym "ACSI". This is because the checklist used in deriving the quantitative data for statistical analysis in this study comes from the ACSI (2011), in addition, the 9 independent variables used in measuring sustainability are also adapted from the ACSI checklist. The statistical data was derived by converting the binary scores [0 for absence and 1 for presence of information reported] into an aggregate score by using a simple formula [number of disclosure/required disclosure \* 5], where 5 is the maximum attainable. For example; there are 9 disclosures under climate change; if an organization reports 6 disclosures, then that would be calculated as  $6/9*5$  to get an aggregate score of 3. Where an organization had 0 aggregate score, then a score of 1 will be given. These details are further clarified in the data sets and will be attached along with the research work.

## 3.2. Measures of Variables

### 3.2.1. Independent Variables

There is currently no framework by Malaysian investors or government to analyze sustainability practices. Therefore, this research has adopted a framework set by Australian Council of Superannuation Investors [ACSI]. The framework

draws from and combines a range of sustainability guidelines in the world such as GRI, Carbon disclosure project and global framework for climate risk control (ACSI, 2011). This framework/checklist was used in (Kusuma & Koesrindartoto, 2014; Siew et al., 2013) in analyzing construction sector in Australia. The researcher has found guidelines and provisions of the framework to be relevant to the oil and gas industry and therefore will be applying it in this study. This framework is also in line with the concept of the triple bottom line which is the guiding theoretical framework that has been used throughout this study. In the ACSI framework, there are originally 9 domains under which there are a further 68 items – therefore, the 9 domains make up the independent variables for this study, while the 68 items under it can be referred to as the independent sub-variables. Sustainability practices will be measured in this study based on these identified variables. Below, the independent variables to measure sustainability in this study are re listed as follows:

1. Climate change.
2. Environmental management systems.
3. Environmental efficiency
4. Environmental issues [others]
5. Work place health and safety.
6. Human capital management.
7. Corporate conduct.
8. Stakeholder engagement.
9. Governance.

### 3.2.2. Dependent Variables

Firm performance in this study will be measured based on profitability and equity. The 3 dependent variables that will be used to measure performance in this study are;

1. EBITDA margin =  $EBITDA/Revenue$   
When **EBIDTA** is not given in annual report, the formula will be as follows:  $Gross\ Profit + Interest + Taxes + depreciation\ and\ amortization/revenue$ .
2. PE Ratio =  $current\ share\ price/earnings\ per\ share$
3. EPS:  $net\ income / average\ outstanding\ common\ shares$

Measures like EBITDA, EPS and PE ratio have been identified as important parameters to judge financial performance of business organizations, both parameters have been used in previous research such as (Siew et al., 2013).

## 4. Results

### 4.1. H1 – level of sustainability involvement based on disclosure.

Based on the result of the checklist and Euclidean distance to measure the level of involvement as against the expectations of investors, the chosen companies can be judged as follows. Only 3 companies had “excellent” level of sustainability involvement and disclosure, 4 companies fell under the “good” category, 15 companies fell under the “average category” while none of the companies fell under the poor category; as show in below table (see Table 1).

<Table 1> Sustainability Involvement Rating

RATING	GRADE [Euclidean score]	Number of companies	% of companies
Excellent	0-6	3	14
Good	7-14	4	18
Average	15-20	15	68
Poor	> 20	0	0

Further analysis of the checklist reveals a very clear pattern in the involvement of Malaysian oil and gas companies in practice of sustainability, majority of the companies had excellent levels of involvement in terms of economic sustainability through corporate governance, whistle blowing policy, code of conducts and ethics and other aspects of economic sustainability, the level of involvement in terms of social sustainability was also found to be relatively good as majority of the companies engaged in philanthropic CSR, had good human capital management policies as well as good work place health and safety activities. However, for an industry that records one of the highest environmental impacts of any part of an economic, the involvement in environmental sustainability was really poor. Only about 7 companies had high level involvement in managing climate change and environmental efficiency, the majority of the oil and gas companies were found to be lacking very far behind in this regard. The result shows that the vast majority of the oil companies have average to low level of sustainability practices involvement, though there is no listed reasons for this by the companies individually, UNEP (2000) are of the opinion that reasons for not engaging in sustainability involvement could be as a result of doubts about the advantages of such practices; competitors not disclosing their involvement; a possible lack of interest by key stakeholders such as shareholders and clients and the possibility that revealing some information especially about carbon emission, waste and water handling could be damaging to the reputation of companies,

especially those that are not very strong from a financially point of view. It remains to be seen if this is the case with regards to the oil and gas companies in Malaysia.

### 4.2. H2: Below is the result of comparative analysis of both set of companies, as denoted by D and ND (see Table 2).

<Table 2> Comparative Analysis

RATIO	2010	2011	2012	2013
EBITDA MARGIN [D]	19%	26%	21%	26%
EBITDA MARGIN [ND]	30%	14%	20%	17%
PE RATIO [D]	17.35	21.37	16.64	23.62
PE RATIO [ND]	8.98	15.38	15.62	22.21
EARNINGS PER SHARE [D]	RM12.60	(RM4.92)	RM0.31	RM0.42
EARNINGS PER SHARE [ND]	RM0.05	RM0.04	RM0.09	RM0.08

EBITDA margin provides an indication of cash flows in a company and is normally used by analysts to assess corporate financial health (KPMG, 2010). It is calculated from a company's earning power divided by its operating revenue (KPMG, 2010). The result shows that in 2010, ND companies outperformed D companies by up to 11%; however, from 2011 to 2013, D companies outperformed ND companies by 12%, 1% and 9% respectively. *PE ratio* is an equity valuation used in measuring the share price of a company in other to know whether it has a high or low value, a high PE ratio shows high share price valuation while a low PE ratio shows that the share price of a company is undervalued. The result shows that D companies consistently outperformed ND companies in all the years under review 2010 to 2013; though in 2012 and 2013, the margin of was quite closer than the previous years. EPS was also used to measure financial performance in this study. EPS shows the profitability level of an organization from the perspective of the shareholders. For 3 out of the 4 years in review, D companies outperformed ND companies, except in 2011 when D companies recorded an average loss of RM4.92 as against a gain of 4 cents made by ND companies. Therefore, as the results of the comparative analysis shows, based on the 3 varying parameters that was used in measuring the financial performance of the Malaysian oil and gas companies over time, it can be said that Malaysian oil and gas companies that reported their sustainability involvement and practices performed considerably better than those that did not. However, this is not to say that this was the singular factor that was

responsible for better performances of the D companies, as this research acknowledges the role of other variables that might lead to organizations performing better, these other factors will be further highlighted in the closing section of this research.

### 4.3. Validity and Reliability Status

This is a measure of internal consistency of items in the scale (Iacobucci & Duhachek, 2003). The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale (Iacobucci & Duhachek, 2003). According to George and Mallery (2003) a common rule of thumb to follow is given as: “\_ > .9 – Excellent, \_ > .8 – Good, \_ > .7 – Acceptable, \_ > .6 – Questionable, \_ > .5 – Poor and \_ < .5 – Unacceptable. This research eliminated bias in its data collection by focusing on all companies listed in the Bursa Malaysia as oil and gas companies. In addition, external validity of data was achieved by using data sources posted by the companies itself, and this data sources were then checked against data source released by BURSA

Malaysia for validity and accuracy. Below is the result of SPSS analysis made for reliability test (see Table 3).

<Table 3> Reliability Statistics

Cronbach's Alpha	N of Items
.996	4

As seen above, after arriving at Cronbach's Alpha of  $\alpha \geq 0.996$ . Therefore, this is an excellent result and the data is highly reliable for the analysis to be conducted.

#### 4.3.1. Descriptive Statistics

These statistics are used in giving numerical and graphical procedures that is used in summarizing a collection of data in a clear manner, stating how centralized and dispersed the data as shown in below table (see Table 4). The data looks to be very central based on SPSS analysis, as figures have closeness with the others. Standard error is high due to the small sample size.

<Table 4> Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ACSI	21	2.00	2.11	4.11	2.8100	.55248	.305	1.359	.501	.977	.972
EBITDA	21	2.00	2.23	4.23	2.9519	.53431	.285	1.329	.501	1.084	.972
MARGIN											
EPS	21	1.89	2.37	4.26	3.0995	.51521	.265	1.257	.501	.777	.972
PE	21	1.77	2.52	4.29	3.2643	.45346	.206	.998	.501	.709	.972
Valid N(listwise)	21										

<Table 5> Correlation Analysis

		ACSI	EBITDA MARGIN	EPS	PE
ACSI	Pearson Correlation	1	.997**	.993**	.985**
	Sig. (2-tailed)		.000	.000	.000
	N	21	21	21	21
EBITDA MARGIN	Pearson Correlation	.997**	1	.988**	.985**
	Sig. (2-tailed)	.000		.000	.000
	N	21	21	21	21
EPS	Pearson Correlation	.993**	.988**	1	.993**
	Sig. (2-tailed)	.000	.000		.000
	N	21	21	21	21
PE	Pearson Correlation	.985**	.985**	.993**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	21	21	21	21

\*\* . Correlation is significant at the 0.01 level (2-tailed).



### 4.3.2. Correlation

This test is basically done to understand relationship between variables and to establish the strength of that relationship (Hinkle et al., 2003; Moinester & Gottfried, 2014; Taylor, 1990; Rodgers & Nicewander, 1988). The correlation statistical test data is show below and explained afterwards (see Table 5).

At  $p$  0.997, test showed that sustainability performance (measured by ACSI) had a strong positive relationship with EBITDA margin of the oil and gas companies, the same can be said of earnings per share at 0.993 and price to earnings ratio at 0.985. In addition to the positive correlation, the strength of this relationship was also significant for all three financial performance variables measured at Sig. (2-tailed) 0.000. Though a positive result, some scholars believe that a small sample size might not provide adequate consistency (Goodwin & Leech, 2006; Hinkle et al., 2003; Moinester & Gottfried, 2014) believes that a small sample size might also have some slight effect on  $r$  value making it either skew to a very strong or very weak relationship. Therefore, the sample size of 21 might not have been enough to show a high level of consistency for the results. The coefficient of determination ( $r^2$ ) is  $<0.5$  for all the measures of financial performance; that is  $<50$  per cent of the variation in a company's financial bottom line can be explained by variation in their sustainability performance measured here by the ACSI checklist scores. Therefore, there is adequate evidence from this research to justify claims that there is strong positive correlation between profitability and sustainability performance. All three of the correlation coefficients were well above the  $<0.5$  mark, which suggests a strong positive correlation.

## 5. Discussion

### 5.1. Hypothesis 1

Quite a number of scholars have done research on various areas of the economy that shows that there is some kind of gains to be had if companies are involved in sustainability practices (Feldman et al., 1996; Khaveh et al., 2012; Klassen & McLaughlin, 1996; Konar & Cohen, 2001). Based on the evidence of this study, only 14% of Malaysian oil and gas companies had excellent levels of sustainability evident in their reporting, while another 18% had considerably good level of involvement. Breaking it down though, majority of the companies had excellent level of corporate conduct, governance and stakeholder engagement, philanthropy was also another section where

the companies performed excellently, however, most were lacking in environmental performance. There could be a few mitigating factors for this such as lack of talent Baharin and Abdullah (2011), unwillingness from business managers (Adams et al., 2004), or even a lack of legislation or enforcement, though in the case of Malaysia, the Bursa Malaysia has adequate legislation, another mitigating factor for this might also be the lack of a localized framework with which Malaysian organizations can operate and implement sustainability processes, this is especially evident in this study seeing as a measurement framework by Australian investors was applied herein. Despite organizations like Global reporting initiative giving frameworks that can be used, it can be argued that such frameworks may only be more suitable for developed countries. Therefore, it might be time for Malaysian key stakeholders to develop a framework with which key industries can apply and measure sustainability performance and involvement.

Secondly, during the filling of the checklist, it can be seen that the extent of women in top management was either not reported or low altogether. This is also a sustainability issue that has been touched on in various reports such as Lord Davis report (Thornton, 2013). According to studies, these may be down to cultural factors, environmental factors or due to the fabric of the organizations founded by male managers; whatever the reasons might be, Malaysian oil and gas companies may want to start having more women in management and reporting as such, various scholars conducted research and found a positive correlation of this towards better organizational performance (Smith et al., 2006). Based on this evidence the research will reject the hypothesis 1 that oil and gas companies in Malaysia have high sustainability involvement.

### 5.2. Hypothesis 2

Over the four years reviewed, the result came out that companies that fully involved in and reported their sustainability activities performed better than their counterparts that did not, this is despite the fact that only 8 out of the 21 were in the D category. After the result, a review of the size of the organizations was also done to understand if the financial capability or size of the organization had any role in their activities, strikingly, some smaller organizations actually had far better sustainability performance than organizations bigger than them. This goes to reinforce the belief among scholars that commitment of management remains of the keys to sustainability involvement; it is a choice between the business managers whether or not they will go down the sustainability route. Below is a comparison of the size of companies sampled in this research (see Table 6).

**<Table 6>** Sustainability Disclosure

Participating companies	DISCLOSURE	Size [Mkt Cap]
PETRONAS Gas Berhad	D	44.48 B
Alam Maritim Resources Berhad	D	614M
Sapurakencana Petroleum Bhd	ND	14.02B
Perdana Petroleum Bhd	D	752.41M
Petra Energy Berhad	ND	440.80M
Scomi Group Berhad	ND	384.32M
Shell Refining Company Berhad	D	1.48B
Uzma Berhad	ND	552.17M
Petron Malaysia Refining & Marketing Bhd	D	699.30M
Petroliam Nasional Bhd (PETRONAS)	D	44.48B
Dayang Enterprise Holdings Berhad	ND	2.02B
Barakah Offshore Petroleum	D	695.26M
KNM Group Berhad	ND	1.20B
Daya Materials Berhad	ND	223M
Wah Seong Corporation Berhad	ND	976.36M
Kejuruteraan Samudra Timur Berhad	ND	88.96M
Petronas Dagangan Berhad	D	18.34B
Deleum Berhad	ND	628M
Dialog Group Berhad	ND	7.69B
Perisai Petroleum Teknologi Berhad	ND	686.05M
TH Heavy Engineering Bhd	ND	377.77M

Source: Bursa Malaysia (2015)

The above shows that though the size of a company might be a factor in sustainability involvement, it is basically a management decision whether or not they want to be involved. On this evidence therefore the proposition 2, that sustainability practicing organizations perform better than those that do not is valid and acceptable as a result of this study.

### 5.3. Hypothesis 3

Corporate sustainability & the perceived impact on organizational financial performance have been researched in recent times, a number of research studies have been performed over the past 10 years to examine this relationship. However, the results have been quite inconclusive, inconsistent, and contradictory at times. It ranges from positive (Burhan & Rahmanti, 2012; Ngwakwe, 2009; Orlitzky et al., 2003; Schadewitz & Niskala, 2010) to negative (Detre & Gunderson, 2011; Lopez et al., 2007) to mixed (Jones, 2005; Manescu, 2011) and even some researchers found out an insignificant relationship (Buys et al., 2011; Humphrey et al., 2012). The result of Pearson Correlation  $r$  conducted showed all profitability ratios had a

strong positive relationship with the level of sustainability involvement represented by the ACSI checklist, additionally, the strength of the relationship was discovered to be significant as well. Looking at the result of Pearson  $r$ , EBITDA margin displayed the best relationship with sustainability involvement at 0.993. The EBITDA is used in measuring the cash flow of an organization, overall it is known as a good measure to understand cash flow of very large organizations and how they can deal with debt, cash flow can come about as a result of investor confidence whereby they can invest more money into the organization (Flammer, 2012).

## 6. Conclusion

After environmental and social performance is compared against the financial performance of 21 Bursa Malaysia listed oil and gas companies, through SPSS Pearson Correlation data analysis, the research concludes that there is a strong relationship between sustainability practices and financial performance of the companies, in addition, these relationships were found to be very significance. Based on a

review of key literatures in this field of sustainability, it can be said that efforts to identify the impact of sustainability on financial performance are, at the very least in part, efforts to legitimize the practice of sustainability so that space can be created for broader purposes in business activities, with the aim being to establish that business can also be about doing good, rather than just doing well. The impact of business on our lives, along with the meaningful purposes that people [investors, shareholders, workers etc.] seek to pursue through them implies a bigger and far reaching question that organizational scholars are confronted with. In the Malaysian context and as a developing nation, how does the populace live with oil and gas companies that impact on lives, society, economy and environment both in a negative and positive way? What is the needed legislation that might be made to improve sustainability performance? How do oil

and gas companies adjust to sustainability demands as it is in the developed nations? These are key questions and a simple correlation between sustainability practices and financial performance, though useful for literature and partial decision making do not necessarily answer these questions, though based on this research, an argument can be made that there are indeed financial benefits for investing in sustainability. On the scholarly side of things, research still has to be done to reach a conclusive point at which we can determine the extent to which the financial bottom-line of an organization is positively affected by their involvement in sustainability practices, this research will include a model that can as well be used in determining the extent to which other variables [size, finances, location, employees, marketing] contribute to well-being of an organization.

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