

## THE LEVEL OF ENVIRONMENTAL DISCLOSURE IN LISTED PROPERTY SECTOR COMPANIES

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### Abstract

Corporate environmental information disclosure is a means through which corporation respond to the demands of the community and stakeholders. The real estate sector accounts for about 30 percent of global greenhouse gas emissions hence the concern for measurement and disclosure by industry plays toward carbon disclosure and mitigation. The study examines the level of corporate environmental disclosure as an industrial performance measure for policy making and benchmarking for international best practices. Environmental disclosure is a cardinal component of the corporate social responsibility requirement of the Malaysian stock exchange market. The study is based on the theories of Legitimacy, Stakeholders, and Voluntary Disclosure Theory. The study is limited to the real estate sector of Malaysia, comprising real estate investment companies, property companies and construction companies making up the sector. A total of 126 companies were sampled and their annual reports for 2013 analyzed through discriminant analysis and quantitative content analysis and result shows a marginal level of environmental disclosure in the property sector. Corporate real estate disclosure links commercial real estate with greenhouse gasses emission, energy consumption, waste management, and sustainability practices. The implication of the result suggests a possible low level of public and stakeholders' awareness, and the need for policies to generate incentives to enhance the practice of environmental disclosure and climate change mitigation, as a corporate social responsibility, as proposed by legitimacy and stakeholders' theories. The application at the industrial level propose that corporate real estate managers should acknowledge the growing quest by stakeholders for concerted effort by the industry toward the reduction of the environmental impact associated to the industry. There is also need for the sector to seek to meet both regional and global best practices with respect to environmental disclosure in other to remain competitive and attract institutional investor to the market.

**Keywords:** *Environmental disclosure, Property sector, Legitimacy theory, Stakeholders theory.*

### 1.0 INTRODUCTION

The influence of environmental factors on the society and the economy has led to the demand for environmental disclosure by corporations. Corporate Social Responsibility (CSR) recognizes the concerns of community as it related to the human resources management, environment and community concerns (Roberts, 1992). The emphasis has moved from corporate social disclosure to corporate environmental information disclosure (Hossain, Islam & Phil, 2006). Providing environmental information as a

means through which companies' response to the demands of CSR (Adams, 2004; Brammer & Pavelin, 2006; Burgwal & Vieira, 2014).

A number of attempts have been made all over the world in analyzing environmental reporting practices by companies; which reveals an impressive rise in the use of sustainability disclosure. Other study show organizations are revealing sustainability information in their yearly reports. There is a possibility that corporate environmental reporting may not be operative globally, as most nations are at various stages of economic growth and organizations at

various levels of consciousness as regards company environmental reporting. However, as economic systems grow, there is an expectation for increase in the level of sustainability reporting by most companies (Hossain *et al.*, 2006; Ismail & Koh, 1999).

There have been researches on environmental disclosure in the western world but a few have focused on developing countries, and there has been a lack of empirical evidence on the extent of environmental disclosure at sectorial and industrial level in developing countries. Amran, *et al.* (2013) and Haji & Ghazali (2012) analyzed the consequence of economic factors on industry voluntary disclosure in Malaysia, and found that the effectiveness of corporate disclosure did not meet minimum requirements, and argued that the economic effect of global financial crisis may have inferenced most industries. Furthermore, the implementation of sustainable practice in the Malaysian Property sector, with data from annual reports of listed property companies, the study shows that the overall sustainability performance in the property sector did not meet international best practice Newell & Manaf (2008) Yam, (2013). In contrast, Mohd Aini & Sayce (2010) considered sustainability practice in REITs companies and submitted similar results. Hence the study on the extent of environmental reporting at the industrial level of the corporate real estate sector is needful. This study assesses the environmental disclosure in the real estate investment trust companies, the property companies and construction companies, with a view, to ascertaining the industrial level and current extent of environmental disclosure. This study will be significant for policy making so that appropriate incentive could be initiated for each industry. Secondly, it will be beneficial for industrial and inter-industrial performance measurement on climate change mitigation and sustainability practices. Finally, the results will aid industrial benchmarking nationally and for international best practices.

## **2.0 BACKGROUND**

Corporate environmental reporting conveys a corporation's environmental accomplishments; it has extended significantly around the globe, with national governments, international organizations, and academia calling for greater information to inform policymaking and also to enable the market on a right-to-know the environmental effects of industrial activities (Abel, Kraft & Stephan, 2011). Environmental disclosure involves mandatory and voluntary reporting by organizations on non-financial issues of interest to their stakeholders. (Gray, Kouhy & Lavers, 1995, Tilling, 2001).

The current challenge of climate change and the indication the buildings are considered by policy-makers, organizations, and institutional investors to provide an important source for realizing energy-efficiency and carbon reduction. This is due to the extent of energy use in properties and the subsequent carbon emission, which contributes to global warming. This change in view and consumption of real estate properties is gradually resulting to commercial property markets increasing the levels of energy efficiency and 'sustainable management (Chegut, Eichholtz & Kok, 2013).

Real estate properties are responsible for about 30% of global emissions in greenhouse gases Royal Institution of Chartered Surveyors (RICS, 2005). Urge-Vorsatz argues that commercial properties offer one of the single most veritable means of reducing greenhouse gas emission (Urge-Vorsatz *et al.*, 2007). So the built environment and the property sector have a crucial part in climate change mitigation (Schleich, Lindholm & Falkenbach, 2009), as a result the environmental impact of the property sector, the property industry has been encouraged to integrate more environmentally responsible (UNEPFI, 2008).

### **2.1 Environmental Disclosure in Malaysia**

Chambers *et al.* (2003) study show that green disclosure in Japan is at a lower level in comparison to western countries. However, half of Malaysian organizations were found to have environmental reporting in comparison to UK

organizations with 98%, in the same accounting period (Guthrie & Parker, 1989), but the substances of reporting varied, with most sustainability reporting in Malaysia focusing on humanitarian initiatives, while the climate change mitigation issues were not properly reported (Thompson & Zakaria, 2004).

The CSR framework of Securities Exchange Commission of Malaysia was released in 2006, explaining that CSR is not about community and philanthropy projects. From 2007 all public listed companies with Bursa Malaysia were required to reveal CSR undertakings in their yearly reports (Bursa Malaysia, 2011). Also, public corporations were required to include environmental information as part of their CSR in their annual report; though there was no precise requirement on the contents (Yam, 2012).

There has been a surge in carbon emission in Malaysia, from 221% since 1990; the growth is documented to the highest among world's top emitters Watkins, (2007), Zaid *et al.* (2015). The surge in emissions is despite Malaysia's ratification of the Kyoto Protocol. The effect of continued carbon emission on the real estate market of Malaysia includes; property occupants experiencing hotter and longer dry seasons, with the health quality of most buildings may not be certain both within and outside the buildings. There may be an increase in the risk of flooding and the possible destruction of urban infrastructure and disruption on urban city operations, with the attendant threat to human lives, damage to property and impact on the national and regional economy (Mohd Aini & Sayce, 2010).

### **3.0 THEORETICAL FRAMEWORK**

#### **3.1 Legitimacy theory**

Environmental disclosure is mainly supported by Legitimacy theory. The theory claims that environmental disclosure is a product of the amount of public and governmental pressure on an organization (Cho & Patten, 2007). In reactions to the pressure, companies reveal environmental evidence to the public. Corporations try to keep stability between their

values and social values. Social agreements exist between an organization and the society when equilibrium of values is achieved. When the public finds that an organization has not maintained the balance of values with it, there will be a negative perspective by the public on the organization (Milne & Patten, 2002). When such an opinion is widespread, it becomes a threat to the company, and where the company continues to operate in that kind of environment, it will destroy the company's social contract with the community, which is bad for its continued operation. Public response will result to reduced patronage toward the company and its products (Deegan *et al.* 2002). When there is a legitimacy gap or damaged social contract, corporations try to fix such damaged agreement (Deegan *et al.* 2002). Environmental disclosure is a means through which companies amend damaged social contract or bridge legitimacy gap (Milne & Patten, 2002; Patten, 1992).

#### **3.2 Stakeholder theory**

Stakeholder model describes the community as composed of different categories of stakeholder. These categories have an irregular capability to impact the actions of a company, but all categories are involved with the sustainability performance of the corporation (Roberts, 1992). While the activities of a company need the support of stakeholders, so the companies' tasks should be modified to suit the stakeholders' requirements. The more powerful stakeholders are; the more the influence they have on the company's operation, and the more willing the company is to adapting to their requirement (Gray *et al.*, 1995), due to the fact that stakeholders have capacity to influence resource circulation that are important to the operations of the company (Ullmann, 1985). Furthermore, Roberts (1992) added that information reporting is a form of communication between the corporation and its investors for discussing the public agreements. Stakeholder theory and legitimacy are linked and are regarded as opposite but in a sense are matching (Deegan, 2002; O'Donovan, 2002).

### **3.3 Voluntary disclosure theory**

Brammer and Pavelin (2006), argue that the substance of voluntary disclosure is to reduce information discrepancy between the company and outside agents. Voluntary disclosure theory claims that corporations, with superior environmental performance, will not feel to disclose their high sustainability information of their initiatives, but are willing to disclose to stakeholders their mitigation activities. The voluntary disclosure theory predicts that information imbalance between present and prospective traders will be reduced with disclosure (Brammer & Pavelin, 2006). The theory is also of the opinion that conservation actions and the impact such actions have on the environment gives competitive advantage, which is the bases for disclosure of superior information. But where there is absence of disclosure, shareholders assume inadequate implementation of corporate climate change mitigation projects (Clarkson *et al.*, 1983). Higher the performance, the more information disclosure is made regarding sustainability activities. The companies trust their advantage will offset their weaknesses (Clarkson *et al.*, 2008).

## **4.0 METHODOLOGY**

### **4.1 SAMPLE**

The sample for the study comprises of 126 real estate sector companies representing three major industries, viz. Real Estate Investment Trust companies, Construction companies, and Property companies. Due to the high emission intensity of the industry the subject companies are expected to make sustainability reporting. Companies whose operational activities directly affect the environment are more likely to divulge information about their impacts on the environment than corporations in other industries (Sen *et al.*, 2011). In addition, the environmental sensitivity of the industry has been argued to influence the level of environmental reporting (Sen *et al.*, 2011).

### **4.2 Data source**

Data was collected from 2013 annual reports of Bursa Malaysia listed property sector companies. Data collection on the volume of environmental disclosure was based on annual reports as it is considered the foremost medium of sustainability reporting. This is because annual reports are recognized as the major source of corporate announcement and sustainability reporting (Sen *et al.*, 2011).

### **4.3 Content analysis**

The research method used for the study in measuring the data is content analysis. Content analysis is a set of processes for gathering and planning information in a consistent format. In Sen *et al.*, (2011), content analysis is explained as the technique of investigation for the unbiased, logical, and measurable description of the evident content of a statement (Sen *et al.*, 2011). Similarly, Jariya (2015) defined it as an approach for gathering information in literary form in order to obtain quantitative scales of varying levels of complexity. According to Krippendorff (2010), content analysis is an examination strategy for making replicable and legitimate inferences from information. There are several choices with regards to determining the recording unit, such as a word, a group of words, a sentence, a paragraph or an entire document (Jariya, 2015). The use of "words" is not the correct technique as understanding the meaning of individual terms in solitude is difficult (Jariya, 2015). A "paragraph" is not appropriate unless the whole paper is about sustainability information (Milne & Adler, 1999). This research uses "number of sentences" as a recording unit for the purpose of content analysis. Sentences have been used in previous empirical studies, and number of sentences is considered both as the most appropriate measure of disclosure, and also as the most appropriate basis for coding and analysis. Content analysis has been done on the basis on established disclosure index or themes related to environmental information.

5.0 RESULTS AND ANALYSIS

The disclosure index used for the study is an adaptation from that used in Choi *et al.* (2010) and (Ieng Chu, Chatterjee & Brown, 2012). It was chosen because the measurement categories were closely related to environmental disclosure for the study. However, Choi index was modified to include additional items/categories of environmental information.

The statistics show a mean values are positive definite, indicating favorable

environmental disclosure on average. There is no variable with a median of zero implying there was no company which did not disclosure on any environmental disclosure index. While there are parameters with zero in the minimum values, indicating some companies in one of the parameters did not disclosure environmental information. The dispersion in the in the maximum values show that some companies disclosure more information under a certain parameter than in others.

Table 1: Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Error	Std. Deviation	Variance
Environmental	126	18.0	0.0	18.0	602.6	4.782	0.381	4.278	18.304
Greenhouse gas	126	2	0	2	38	0.30	0.037	0.411	0.169
Conservation	126	1.86	0.00	1.86	34.12	0.271	0.037	0.413	0.171
Energy Consumption	126	1.72	0.00	1.72	33.25	0.264	0.033	0.371	0.138
Valid N (listwise)	126								

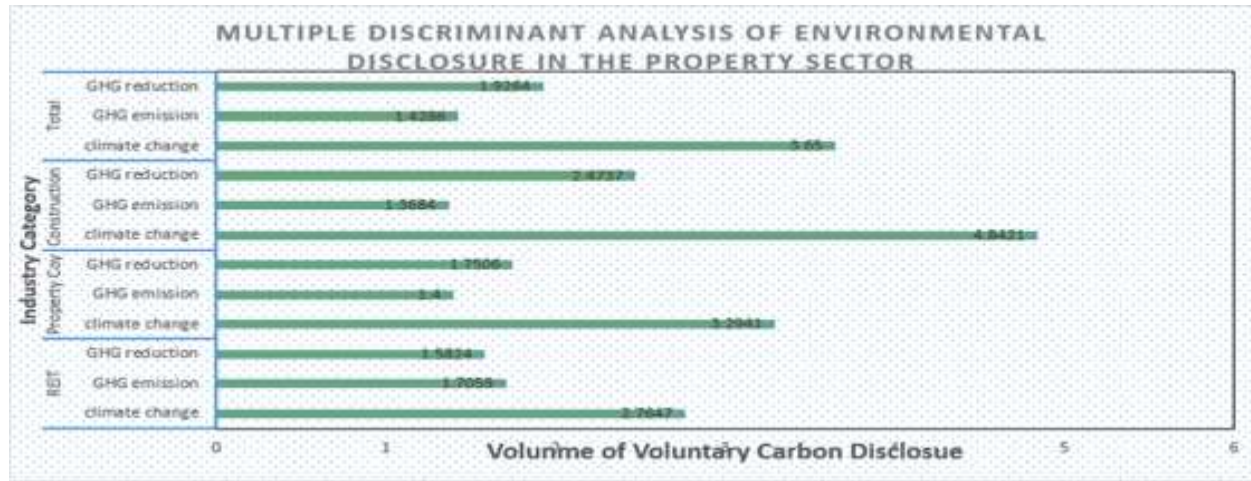


Figure 1: Showing Mean and Median values for each disclosure Parameter

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There is a wide range in the total disclosure scores from the companies (Table 1). The highest maximum environmental disclosure score is 18 and the lowest is 0. The range of mean disclosure score is 0.30 to 4.782, suggesting that the discourse performance in the sector is marginal, this agrees with the findings of Newell & Manaf (2008) and Yam (2013) on the overall sustainability performance in the property sector, a similar result was found Mohd Aini & Sayce (2010) in a study on sustainability reporting and environmental practices in the property sector and the real estate investment trust companies. The absence of disclosure in some disclosure indices is evidenced by the presence of zero score in some disclosure items. The standard deviation of less than one for all, but one, indicates that there is no wide variability within the industry on the level of environmental disclosure. Secondly, all the Standard Error are less than 1.96 thresholds, this indicates a strong level of reliability of the mean values that is shown in the result. In Figure 1, it shows the multiple discriminant analysis result for environmental information disclosure among the three industry categories of REITs, Construction companies and Property companies. The result shows that the highest disclosure was that of climate change information among the construction industry also the lowest disclosure is still with the industry on GHG emission with the group average of 1.3684. The study show construction industry and REITs are higher than the total average disclosure in GHG reduction initiatives and GHG emission respectively.

## **6.0 CONCLUSION**

This study assesses the environmental disclosure in the real estate investment trust companies, and the property and construction companies, with a view to ascertaining the level of environmental

disclosure in the sector and the distribution of the extent of disclosure among the component industries. The study submits that critical mass has not been achieved in the level of environmental disclosure in the real estate sector of Malaysia. The construction industry seems to be performing relative better than the other industries in the sector, with a disclosure level higher than total average in GHG emission and climate change information disclosure, followed by REITs which is higher than the total in GHG emission information. But the overall performance is low. The range of mean disclosure score is 0.30 to 4.782, suggesting that the environmental disclosure performance in the sector have not achieved critical mass, this finding agrees with Newell & Manaf (2008) and Yam (2013) on the level of sustainability performance in the property sector, a similar outcome was submitted in Mohd Aini and Sayce (2010); the implication of these is that there is need for an enhanced rate of growth and development in the environmental disclosure in view of the global effort toward carbon mitigation.

The legitimacy and stakeholder theories argue that environmental disclosure is a function societal and political pressure, from the results one could adduce there is a general low level of awareness on the necessity for environmental information disclosure among the public and stakeholders; hence the low-level demand for disclosure. This may also be extended to the ownership of the companies, represented by the company board, as the voluntary disclosure theory states that management discloses to bridge information asymmetry between it and the ownership of the companies. So as the public, stakeholder and board did not pressure the company management on her activities and efforts toward environmental sustainability the management failed to disclose.

The result indicates that there is a slow rate of development and growth in the adaptation and practice of environmental disclosure, hence the need of public awareness among the public, stakeholders and company board members so that commitment of corporations in climate change mitigation will not be undermined. The study is limited to the property sector hence; further

studies could be carried out on other sectors of the economy; also a study on the variables that can motivate corporate participation in environmental disclosure within the economy can be undertaken.

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