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The Effects of Stakeholders and Corporate Performance on Environmental Information Disclosure on Corporate Website

Sheue-Ching Hong *
Associate professor, Department of Accounting, Tamkang University,
151, Ying-chuan Road, Tamsui, Taipei County 251, Taiwan ROC
(O) 886-2-26215656 ext. 3366 (Fax) 886-2-26209738
E-mail: schong@mail.tku.edu.tw

Kwo-Dong Wey
Professor, Department of Economics, National Taipei University, Taiwan
151, University Rd., 237 San Shia, Taipei, Taiwan
(O) 886-2-86747186 (Fax) 886-2-26739727
E-mail: kwey@mail.ntpu.edu.tw

Min-han Lin
Auditor, Deloitte
6th Floor, Allied Association Industries 2 Prosperity Road, I Hsinchu Science-Based Industrial Park
Hsinchu 30078, Taiwan, ROC
(O)886 (3) 578-0899 (Fax) 886 (3) 577-2218
E-mail: auonyaya@hotmail.com.tw

* corresponding author

Introduction

As entrepreneurs scramble to compete in a global business, profit maximization is just a minimum requirement which can not satisfy all stakeholders' demands any more. A firm must sustain social pressure characterized by ever-increasing environmental accountability. This accountability includes heightened public concerns of both the firm's performance and its environmental disclosure. This study provides and integrated analysis of how a firm's performance and stakeholders' influence might affect the level of environmental disclosure on corporate website. Understanding these interrelations is of increasing interest to both internal and external stakeholders in an era in which corporate environmental costs have become a significant business expense.

We also can notice that the explosive growth of the internet provides firms the opportunity to disseminate information to a wide audience of shareholders, potential investors, and other institutions more economically, quickly in an undiluted fashion (Antin and Haas, 2001). We are not surprised to find out the dissemination of environmental information and reports on internet corporate websites have become increasingly popular ever since. The internet will provide both new channels for existing forms of corporate accountability and corporate governance. However, Pattern and Crampton (2004) contend this may be overly optimistic based on some evidence that website environmental disclosure seems to serve more as a legitimating device than as an effort at greater corporate accountability.

Environmental disclosure is an important media which can pass green operation message to all kinds of stakeholders. Sometimes such information might be reacted on capital market spontaneously（Gupta and Goldar, 2006）. A firm may not be able to fully capture the whole results of its environmental management through financial reporting. Therefore, it might cause stakeholders cannot reasonably evaluate a firm's environmental risks accordingly (Rubinstein, 1989). Stakeholder groups quite often demonstrate their needs for firms to fulfill their social responsibility and their obligation. In a way, corporate environmental disclosure is a means for firms to exhibit their social responsibility.

Previous studies demonstrate a correlation between stakeholders and environmental disclosure（Neu, Warsame and Pedwell, 1998；Hughes, Anderson and Golden, 2001；Elijido-Ten, 2004； Liu and Anbumozhi, 2009； Huang and Kung, 2010）. However, few researches have been done in Taiwan, especially in the areas of corporate website and stakeholders' power. On top of these, past researches regarding the impact of corporate performance on environmental disclosure show different results. Some studies show positive relationship（Gamerschlag, Möller, and Verbeeten, 2010）, ; others show negative relationship instead（Alnajjar, 2000；Huang and Kung, 2010）. Even more, some argue that the reason why a firm is engaged to environmental disclosure is to cover up a firm's misconduct（Moneva and

Cuellar, 2009） or to react to a potential treat imposed on a firm's normal operations（Cho and Roberts, 2010）.

The purpose of this study is to examine the content and presentation of corporate environmental disclosure in relation to firm's stakeholder groups and financial performance. With 292 samples of Taiwanese listed companies in manufacturing industry, we investigate whether stakeholder powers influence website environmental disclosure. Our results suggest that major key stakeholders such as government, competitors, employees and foreign institutional investors positively affect the level of environmental information disclosure. Ffurthermore, it seems that poor performance of the corporations will focus on environmental information disclosure, in order to enhance the corporate image and reputation. In addition, firms with higher environmental sensitivity industry, higher market share ratio, more employees and higher foreign institutional investor holdings tend to reveal the opportunity of the environmental information in general.

The remainder of the article is organized as follows: the following reviews the pertinent literature and frames the testable hypotheses; we then present our research design and sample selection process; further section discusses our empirical evidence; and the final section summarizes our conclusions, implications, and limitations.

Literature review

Stakeholder theory

A stakeholder as defined by Freeman (1984) "is any group or individual who can affect or is affected by the achievement of the organization's objectives" (p. 46). Stakeholder Theory explains a firm's specific actions using a stakeholder-agency approach, and is concerned with how stakeholders, with their competing interests, are managed by organizations in terms of acknowledgment of stakeholder accountability (Freeman et al., 2007; Mitchell et al., 1997). The Justification is that stakeholders are those who have ''a stake'' in an organization and have something ''at risk'' (Collier, 2008).

If stakeholders' interests are satisfied, the chance of successfulness for a firm will be greatly enhanced (Freeman, 1984). Hillman and Keim（2001）argue that an effective stakeholders' management will constitute intangible assets for firms and will facilitate mutual trust and commitments between firms and stakeholders, therefore it will lift firms' competition advantages accordingly.

With the surge of environmental protection consciousness, firms must undertake pressure from all kinds of stakeholders and have to satisfy stakeholders' demand. Stakeholders are intrinsically concerned about the organization's performance and activities because of their societal expectations and the social contract (Matthews, 1993; Deegan and Rankin, 1996; Deegan et al., 2002). Such expectations are complemented by a desire to acquire pertinent information about the organization since it enables the stakeholders and relevant publics to know in advance what the organization will expect of them and what they may expect of the organization. Liu and Anbumozhi（2009）contend that government can lift the level of corporate environmental disclosure through environmental legislation requirements. Recently, some empirical evidence has found stakeholders are important factors for corporate environmental disclosure (Neu et al., 1998；Hughes et al., 2001；Elijido-Ten, 2004；Liu and Anbumozhi, 2009; Huang and Kung, 2010）. Corporate stakeholders are composed of external and internal stakeholders.

External stakeholders and website environmental disclosure

Government power is oriented from legislation which can impose firms to disclose environmental information and other activities. Prior study point out that if a firm belongs to environment sensitive industry, it might do more extensive disclosure (Neu et al., 1998; Liu and Anbumozhi, 2009).

Creditors' power is determined by the extent of corporate financing demand (Roberts, 1992). Empirical evidence shows that corporate liability ratio has positive association with social disclosure (Roberts, 1992) and that creditors might evaluate corporate risk by means of environmental performance (Hughes, 2000).

Customers' power comes from themselves since they provide revenues for firms. Damiano-Teixeira and Pompermayer (2007) demonstrate when customers make consumption; they would consider suppliers' social behavior. Huang and Kung (2010) also contend that there is a positive relation between customer and environmental disclosure.

It is obviously that suppliers play as an important role in terms of entire supply chain. Suppliers will demand to see more transparent environmental information to keep themselves updated on the latest corporate environmental strategies. Huang and Kung (2010) argue that the higher inventory turnover, the more suppliers' influence. Gray, Javad, Power and Sinclair（2001）also conclude that inventory turnover (a proxy of suppliers) is significantly related to the level of environmental disclosure.

Due to a higher elimination rate, firms need to take on more active measures to retain their place in the industry. Gale (1972) argues that firms with a higher market share may wield greater influence in controlling the market. This argument also suggests that firms will receive more attention from the outside world than their competitor counterparts. For the purpose of maintaining the upper hand, firms need to pursue proactive strategies, including policies to reveal more environmental information.

It is always wise for firms to be in a leading position in a marketplace. However, firms need to take more proactive strategy and conduct than other competitors. As a whole, implementation corporate social responsibility is a key; environmental disclosure is part of such implementation. Gale (1972) points out that the higher firm market share, the more influence in the marketplace. Huang and Kung (2010) use market share as a proxy for competitors' expectation.

Auditing firm's reputation and scale determine majority of part of clients' financial statements' quality. Sometimes, it even extends to the quality of other information disclosure. Ahmed and Courtis（1999）claim that if firms are audited by a well-know auditing firm, like Big 4, analysts would be persuaded such firms having higher disclosure quality.

Professional analysts provide important information, which might have some impact on firms' stock price, to investors. Lang and Lundholm (1996) state that the higher transparent information is, the more analysts would recommend. Richardson and Welker (2001) contend the number of analysts' prediction is positively associated with social disclosure. The aforementioned literature and inferences regarding external stakeholder groups lead to the following hypothesis.

H1: External stakeholders are significantly associated with website environmental disclosure.

$H1_a$: Government power is positively associated with website environmental disclosure.

$H1_b$: Creditors' power is positively associated with website environmental disclosure.

$H1_c$: Clients' power is positively associated with website environmental disclosure.

$H1_d$: Suppliers' power is positively associated with website environmental disclosure.

$H1_e$: Competitors' power is positively associated with website environmental disclosure.

$H1_f$: Analysts' power is positively associated with website environmental disclosure.

Internal stakeholders and website environmental disclosure

When firms with more concentrated ownership, the less incentive for firms to respond potential investor's needs for environmental disclosure (Cormier, Magnan and Van Velthoven ,2005). On the other hand, when firms with more diffused ownership, shareholders might demand firms to disclose more relevant information and take a step further to monitor the transparency of information provided (Clarkson, Li, and Richardson, 2004). Cormier et al.'s (2005) finding demonstrates that the concentrated ownership structure is negatively related to environmental disclosure. Therefore, shareholders with more diffused ownership could have a strong impact on firms' environmental disclosure.

Ruland, Tung, and George (1990) argue that when managers with less holding shares might voluntarily disclose earnings forecasting in order to reduce agency problem. We can infer that when managers with more holding shares, they might lack of incentive to increase the information transparency (including environmental information).

Managing supervisors' main function is to supervise the operation of board of directors and firm's accounting issues. Shyy and Vijayravan (1996) claim that the stock price to book value of firms with board of directors and supervisors is higher than that of firms only with board of directors. It appears that setting up managing supervisors for firms is need.

When firms have produced environmental pollution, their employees usually very concern about their work environment and safety. Gray et al.（2001）and Gamerschlag et al.（2010）state that the number of employees has positive relation with the level of environmental disclosure.

Foreign institution shareholders usually possess professional expertise and knowledge. El-Gazzar (1998) contends that when foreign institution with higher holding ratio, they tend to demand firms to disclose more environmental information in order to raise information transparency. Similarly, domestic institution will do the same thing. Based on aforementioned literatures, we lead to the following hypotheses.

H2: Internal stakeholders are significantly associated with website environmental disclosure.

$H2_a$: Shareholders' poser is positively associated with website environmental disclosure.

$H2_b$: Managers' poser power is positively associated with website environmental disclosure.

$H2_c$: Managing supervisors' power is positively associated with website environmental disclosure.

$H2_d$: Employees' power is positively associated with website environmental disclosure.

$H2_e$: Foreign institutions' power is positively associated with website environmental disclosure.

$H2_f$: Domestic institutions' power is positively associated with website environmental disclosure.

Financial performance and environmental disclosure

Prior researches indicate that those firms with better performance are capable to disclose related environmental information about their corporate strategies, corporate operations and implementation performance to whoever needs such information to get father understanding about those firms. Besides, these firms also have enough resources to devote themselves to environmental disclosure. According to Gamerschlag et al.'s（2010）finding, the return rate of stockholders' equities is significantly associated with the level of environmental disclosure. However, the environmental disclosure might also be overly exaggerated to disclose positive contribution on top of concealing negative behavior instead (Moneva and Cuellar, 2009).

Shane and Spicer (1983) document a negative market reaction two days preceding the release of environmental reports. Richardson and Welker (2001) observe that there is positive relation between social disclosure (which subsumes environmental disclosure) and cost of capital, with more profitable firms being penalized more for their environmental disclosures. Cho and Roberts (2010) contend that firms might pretend everything is going well when they are exposed to the public's watch over. Alnajjar（2000）argues that firm's profitability is negatively associated with the level of social responsibility disclosure. Huang and Kung (2010) obtain similar results as well.

These researchers point out significantly negative relation between the level of environmental disclosure and the cost of capital. These findings may imply that increased environmental disclosure is associated with lower share prices. Obviously, this evidence is not consistent with the notion that discretionary disclosure reduces asymmetrical information or that increased social disclosure might trigger a favorable investor preference. Since above prior researches show inconsistent results, we do not predict positive or negative association between financial performance and environmental disclosure. We can infer the following hypotheses:

H3: Financial performance is significantly associated with website environmental disclosure.

$H3_a$: The return rate of total assets is significantly associated with website environmental disclosure.

$H3_b$: The return rate of Sales is significantly associated with website environmental disclosure.

$H3_c$: The return rate of Market to book value is significantly associated with website environmental disclosure.

$H3_d$: The Tobin's Q is significantly associated with website environmental disclosure.

Methodology

Sample selection and data collection

The sample we use is Top 500 manufacturers chose by Common Wealth Magazine No. 446 in May 2010. After excluding those firms that did not have sufficient data, our final sample consists of 292 firms. Stakeholders' information and firms' financial performance of 2009 are collected from individual firm and the Taiwan Economic Journal (TEJ) database. In addition, environmental disclosure is taken from firm's official website using content analysis from September 2010 to December 2010.

Measurement

Dependent variable-website environmental disclosure

Environmental disclosure is an important media to a firm. It can pass "green" operation message to all kind of stakeholders. Patten (2002) defines environmental disclosure as collective form of the past, present, and future environmental activities and performance information. The level of environmental disclosure (LEID) is measured by disclosure scoring technique similar to that of Cho and Roberts (2010). According to the checklist on the measurement scale items, one point is assigned to each area of environmental disclosure included in the firm's website. If a firm does not disclose for a given item, then zero point is assigned. At the end, we employ content analysis to identify the extent of environmental disclosure.

Independent variable-stakeholders and corporate performance

Similarly to Cowen et al. (1987) and Patten (1991), we consider the cement, plastics, textiles, chemical, paper and pulp, iron and steel, and rubber industries to be more environmentally sensitive in Taiwan, other industries is regarded as less environmentally sensitive. Table 1 summarizes the definition and measurement of all the proxy variables for independent variables used in this study.

Table 1 Measurement for independent variables

Stakeholders	Proxy variables	References
External:		
Government (SI)	Environmental sensitivity of the industry (dummy variable 1=environmentally sensitive, 0=other).	Holland and Foo, 2003
Creditor (DR)	Liability ratio= Liabilities / Total assets	Liu and Anbumozhi (2009)
Customer (AR)	Customer intensity=advertizing expenses / Sales	Park (1999)
Supplier (ITR)	Inventory turnover=inventory turnover / industry average turnover	Huang and Kung (2010)
Competitor (MSR)	Market share=Sales / industry average sales	Huang and Kung (2010)
Auditing firm (Big4)	Type of auditing firm (dummy variable 1=Big 4, 0 = other).	Huang and Kung (2010)
Analyst (Analyst)	The frequency of forecasting by analyst (dummy variable1=above median of the frequency of forecasting; 0=other).	
Internal:		
Stockholder (StockHR)	Top 10 substantial stockholders holding ratio= Top 10 substantial shareholders' shares / firm's outstanding shares	Liu and Anbumozhi (2009)
Manager (MHR)	Manager's holding ratio = manager's shares/firm's outstanding shares	
Managing Supervisor (SuperHR)	Managing supervisor's holding ratio = Managing supervisor's shares/firm's outstanding shares	

Employee (NE)	The number of employees	Gray et al.（2001）, Gamerschlag et al.（2010）
Foreign institution (FCH)	Foreign institution holding ratio =foreign institution shares / firm's outstanding shares.	
Domestic institution (DCH)	Domestic institution holding ratio = local institution ownership / firm's outstanding shares	
Corporate performance:		
Accounting based performance	Return on Assets (ROA)= Net income after tax +interest expense (1-tax rate)/average assets	
	Return on Sales (ROS)＝Net income after tax/net sales	
Market based performance	Tobin' s Q	
	Market to net worth= price per share /book value per share	
Control Variable:		
Firm size (Size)	Firm's total assets (dummy variable1= above median of firm's total assets, 0=other)	Patten (2002)

Empirical model

We test the relationship between stakeholder expectations and environmental disclosure by estimating the following regression:

$$LEID_t = \alpha_0 + \alpha_1 SI_{t-1} + \alpha_2 DR_{t-1} + \alpha_3 AR_{t-1} + \alpha_4 ITR_{t-1} + \alpha_5 MSR_{t-1} + \alpha_6 Big4_{t-1} + \alpha_7 Analyst_{t-1} + \alpha_8 StockHR_{t-1} + \alpha_9 MHR_{t-1} + \alpha_{10} SuperHR_{t-1} + \alpha_{11} NE_{t-1} + \alpha_{12} FCH_{t-1} + \alpha_{13} DCH_{t-1} + \alpha_{14} \text{Corporate Performance}_{t-1} + \alpha_{15} Size_{t-1} + \varepsilon \quad \ldots\ldots (Eq.1)$$

Results

Descriptive statistics

Table 2 provides descriptive statistics for the study's dependent variables.

Table 2 Descriptive Statistics (N=292）

	Min.	Max.	Median	Mean	S. D.
SI	0	1	1	.829	.377
DR(%）	7.740%	81.820%	35.610%	35.892%	.148
AR (%）	0.000%	6.435%	0.000%	0.273%	.009
ITR (%）	19.773%	581.951%	86.160%	99.227%	.610
MSR (%）	0.003%	65.531%	0.277%	3.028%	.076

Big4	0	1	1	.904	.295
Analyst	0	1	1	.640	.481
StockHR (%)	7.370%	95.540%	33.410%	36.931%	.166
MHR (%)	0.000%	13.030%	0.280%	0.820%	.017
SuperHR (%)	0.000%	65.880%	1.200%	2.696%	.052
NE	23	29377	804	1668	2891.423
FCH (%)	0.000%	72.250%	6.215%	11.016%	.134
DCHR (%)	0.210%	88.660%	18.980%	24.739%	.187
Size	0	1	1	.521	.500
ROA (%)	-26.520%	39.450%	5.830%	5.481%	.082
ROS (%)	-231.464%	376.038%	6.147%	6.773%	.339
MBV	.560	12.540	173.000%	2.077	1.486
TOBIN Q	75.228	7889.395	1039.796	1250.240	921.392

Regression Analysis

The results of our regression model examining the relations among stakeholders, firm performance, and website environmental disclosure, as specified in Eq. 1, appear in Table 3.

External Stakeholders' expectations Vs. website environmental disclosure

The coefficients for the explanatory variables in Eq. 1 suggest that some external stakeholders have significant impacts on firm environmental disclosure.

As for external stakeholders, the coefficients for the explanatory variables suggest that environmentally sensitive industry (SI) has a significant positive relationship with environmental disclosure (p=0.009). Therefore $H1_a$ is supported. This is consistent with Neu et al. (1998) and Liu and Anbumozhi (2009). It might indicate that more environmental disclosure may be expected from the companies having higher environmental sensitivities. They tend to show environmental legitimacy to the government in order to prevent fines or penalties. Patten (1991) concludes that environmentally sensitive industries tend to voluntarily disclose more environmental information for the sake of earning positive social image. Further we find that competitors' power (MSR) is significantly positively associated with website environmental disclosure as predicted ($p<0.1$). Hence $H1_e$ is supported. This result is consistent with that of Huang and Kung (2010). It seems that competitor's behaviors may play an important role to stimulate more voluntarily environmental disclosure. As to the rest of external stakeholders: such as creditors (DR), customers (AR), suppliers (ITR), auditing firms (Big4), and analysts, no significant associations are found.

Table 3 Regression results (N=292)

	Independent variable	Predicted sign	Std. coefficient	p value
	constant			0.067
External stakeholders	SI	+	0.141	0.009 ***
	DR	+	0.078	0.168
	AR	+	0.036	0.488
	ITR	+	-0.045	0.392
	MSR	+	0.095	0.076 *
	Big4	+	-0.015	0.772
	Analyst	+	-0.019	0.751
Internal stakeholders'	StockHR	-	-0.167	0.040 **
	MHR	-	-0.005	0.923
	SuperHR	+	0.093	0.089 *
	NE	+	0.303	0.000 ***
	FCHR	+	0.190	0.005 ***
	DCHR	+	0.164	0.041 **
Financial performance	Accounting based financial performance：			
	ROA	+/-	0.028	0.701
	ROS	+/-	-0.126	0.039 **
	Market based financial performance：			
	MBV	+/-	-0.006	0.937
	TOBIN Q	+/-	0.022	0.764
Control var.	Firm Size		0.184	0.002 ***
N=292				
Durbin-Watson test			2.171	
R^2			0.344	
Adjusted R^2			0.300	
F statistic			7.936***	

a. ***p＜0.01；**p＜0.05；*＜0.10；

Internal stakeholders' expectations Vs. website environmental disclosure

We find some evidence that quite a few internal stakeholders are associated with website environmental disclosure. Except for managers (MHR), our results show that Top 10 stockholders are negatively associated with environmental disclosure ($p<0.05$). $H2_a$ is supported. This result is consistent with those of Elijido-Ten (2007) and Liu and Anbumozhi (2009). A positive relationship is evident between managing supervisors (Super HR) and environmental disclosure, implying that these supervisors represent a strong group having a power to determine the firm's business strategy. $H2_c$ is supported accordingly (0.093, p=0.089). Similarly, employees (NE) also show positive significant association with environmental disclosure ($p<0.01$). $H2_d$ is supported. This is consistent with those of Gray et al. (2001) and Gamerschlag et al. (2010). This may indicate that employees may play their influence on the transparency of environmental information in terms of concerning their own health and safety of their work environment. In addition, the coefficients for both foreign institutions (FCHR, 0.190; p=0.005) and domestic institutions (DCHR, 0.164, p=0.041) are as expected. Hence, $H2_e$ and $H2_f$ are strongly supported. These findings suggest that institutional shareholders, possessing more professional know ledges and being well-motivated by self-protection, may force a firm to do more environmental disclosure than ordinary shareholders do. Interestingly, the relationship between managers and website environment disclosure is not significant. This may be attributed to managers held major legal responsibility in a firm and directly get paid from their employers, so they might be able in a good position to demand their own firms.

Financial performance Vs. website environmental disclosure

Prior research on the environmental disclosure and financial performance relation has used both market-based and accounting-based measures of financial performance. For example, Shane and Spicer (1983) document a negative market reaction two days preceding the release of environmental reports. Richardson and Welker (2001) observe that there is positive relation between social disclosure (which subsumes environmental disclosure) and cost of capital, with more profitable firms being penalized more for their environmental disclosures. These researchers present a significantly negative relation between the level of environmental disclosure and the cost of capital. These findings may imply that increased environmental disclosure is associated with lower share prices.

Two measurements of financial performance, accounting base (ROA, ROS) and market base (MBV, TOBIN Q), are used in our study. The most striking observation to emerge from the result is that there is only one significant negative correlation between accounting based financial performance-Return on Sales (ROS) and environmental disclosure. Hence, only $H3_b$ is supported. This result is consistent with other researchers' findings (Alnajjar, 2000; Huang and Kung, 2010). This finding suggests that when the less profitable a firm is, the more willingness to disclose website environmental information (Cho and Roberts, 2010; Moneva and Cuellar, 2009). This evidence is not consistent with the notion that discretionary disclosure reduces asymmetrical information or that more environmental disclosure triggers favorable investor preference effect.

As to the rest of performance indices (ROA, MBV, and TOBIN Q), no evidence significantly support our Hypothesis of $H3_a$, $H3_c$, and $H3_d$. Although this finding may sound unusual, it is quite consistent with Freedman and Jaggi's (1992) results. They test the association of their measurements of environmental disclosure against several accounting ratios used to measure financial performance. They find no significant association either. One possible reason driving this insignificant result could be the fact that there are too many exogenous factors other than website environmental disclosure might affect financial performance. However, the adjusted R-square is 30% suggesting that stakeholders' expectation and firm performance are most likely a key determinant of a firm's website environmental disclosure.

Conclusions

Our study developed a stakeholder framework and analyzed the environmental disclosure behaviors of Taiwan listed manufacturing firms. The results also provide important insights into the determinants for the level of environmental disclosure in Taiwan.With 292 samples of Taiwanese listed firms in manufacturing industry, we investigate whether stakeholder powers influence the level of environment disclosure on corporate website. We also investigate the relationship between corporate performance and the level of environment disclosure as well. Our empirical results suggest that major key stakeholders such as government, competitors, employees and foreign institutional investors will positively affect the level of environmental information disclosure. Furthermore, poor performance of the corporations will focus on environmental information disclosure, in order to enhance the corporate image and reputation. In addition, firms with higher environmental sensitivity industry, higher market share ratio, more employees and higher foreign institutional investor holdings tend to reveal the opportunity of the environmental information in general.

The most striking observation to emerge from the result is that there is only one significant negative correlation between accounting based financial performance-Return on Sales (ROS) and environmental disclosure. This finding suggest that when the less profitable a firm is, the more willingness to disclose website environmental information (Cho and Roberts, 2010; Moneva and Cuellar, 2009). This evidence is not consistent with the notion that discretionary disclosure reduces asymmetrical information or that more environmental disclosure triggers favorable investor preference effect. One possible reason driving this insignificant result could be the fact that there are too many exogenous factors other than website environmental disclosure might affect financial performance.

This study is subject to several limitations. Just like all cross-sectional studies, limitations to interpreting our results apply regarding whether the time period examined is representative and the observed relations among the variables of interest are relatively stable over time. In the meantime, our method of scoring the level of environmental disclosure retains a subjective element. Most important is that we gather our environmental information directly from individual firm’s website. Some information reported is fragmented. Some local firms may have insufficient environmental awareness, coupled with low demands for detail information about stakeholders in general. This might cause low level of voluntary environmental disclosure as a result. Future research is suggested to do some parallel comparison between the environmental disclosure gather from corporate websites and annual reports along with stakeholders’ expectations.

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