ความมีประโยชน์ต่อการตัดสินใจของการเปิดเผยข้อมูลความรับผิดชอบต่อสังคมขององค์กร: หลักฐานเชิงประจักษ์จากตลาดหลักทรัพย์ลอนดอน

Value-relevance of Corporate Social Responsibility Disclosure: Empirical Evidence from London Stock Exchange

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Received: 29 June 2018 Revised: 15 July 2018 Accepted: 23 July 2018

บทคัดย่อ

วัตถุประสงค์ของงานวิจัยนี้เพื่อศึกษาว่าการเปิดเผยข้อมูลความรับผิดชอบต่อสังคมขององค์กรมีประโยชน์ต่อการตัดสินใจของนักลงทุนหรือไม่ ตัวอย่างที่ใช้สำหรับงานวิจัยนี้ คือ บริษัทที่จดทะเบียนในตลาดหลักทรัพย์ลอนดอนในช่วงปี ค.ศ. 2011 ถึง 2015 ผลการวิจัยพบว่าการเปิดเผยข้อมูลความรับผิดชอบต่อสังคมซึ่งเป็นข้อมูลที่ไม่ใช่ข้อมูลทางการเงินมีความสัมพันธ์เชิงบวกกับมูลค่าตลาดของบริษัท สามารถอนุมานได้ว่านอกจากข้อมูลทางการเงินแล้ว นักลงทุนให้ความสำคัญกับข้อมูลที่ไม่ใช่ข้อมูลทางการเงิน อย่างเช่น ข้อมูลความรับผิดชอบต่อสังคมขององค์กรด้วย

คำสำคัญ: ความรับผิดชอบต่อสังคมขององค์กร รายงานความรับผิดชอบต่อสังคมขององค์กร การเปิดเผยข้อมูลโดยสมัครใจ ความมีประโยชน์ต่อการตัดสินใจ

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Abstract

This research objective is to investigate whether the disclosure of corporate social responsibility ("CSR") represents the value–relevant information for investors. The samples used in this research are the firms listed in the London Stock Exchange Market ("FTSE") from 2011 to 2015. The result reveals that the availability of CSR disclosure which is a type of non–financial information positively associated to a firm's market value. This implied that not only financial information, investors also value non–financial information such as the corporate social responsibility information.

Keywords: Corporate Social Responsibility, CSR Report, Voluntary Disclosure, Value–relevance

Introduction

This research is motivated by both the academic and practical need to fulfill the gap in empirical research that leaves several questions unanswered regarding the economic consequences of voluntary Corporate Social Responsibility ("CSR") reporting. The importance of environmental and social issues has significantly increased in the past decades, and companies are more concerned than ever before about the impact of their business operations on the environment and on society. The CSR concept has become widely adopted among organizations. Holder–Webb et al. (2009) argue that "it is not enough for corporations to simply engage in CSR activities but it is also important and desirable to make information about these activities available to stakeholders."

Moreover, stakeholders have become increasingly aware that annual financial reporting alone cannot provide all salient information about a firm. The primary purpose of financial reporting is to present a firm's financial information (i.e. financial performance, financial status, and cash flow), but in actuality, non–financial information (i.e. CSR activities and performance, governance policies, environmental policies and performance, business strategies, risk management policies) is also important and useful to stakeholders. Adrian King, Head of Sustainability Services at KPMG Global, declared in the KPMG 2015 Survey of Corporate Responsibilities Reporting that "non–financial reporting will become required

business practice. Companies now need to focus on what they will report and how best to integrate their financial and non–financial information." This statement solidifies the growth trend and the increasing demand for CSR disclosure. However, the disclosure of non–financial information, especially the separate CSR report, is not generally mandatory, and each firm may choose whether to voluntarily disclose such information.

Voluntary disclosure is necessary for firms to compete successfully in the risk capital market. Signaling theory explains the incentives of voluntarily reporting useful information to the capital market. The disclosure of non–financial information essentially reduces the information asymmetry that exists between stakeholders and management, and non–financial information can help investors to better determine how to invest in a firm. Holder–Webb et al. (2009) performed a survey of 750 retail investors. Their results show that investors pay attention to non–financial information (i.e. industry cohort, governance, and CSR information), and that investors use such information in their decision–making processes. This implies that non–financial information is useful, and that it provides value to a firm. Berthelot et al. (2012) reveals that investors positively value CSR reporting. Several existing studies have found that there is an association between CSR disclosure and firm value (Plumlee et al., 2015; Luo et al., 2006). Clarkson et al. (2013) have also shown that voluntary environmental disclosures can increase firm value. As a result, the study of CSR disclosure and its value–relevance is a relevant topic to current research trends.

Research Objective

This research aims to explore the research on CSR disclosure by investigating whether CSR disclosure is relevant to a firm's value. The research question is "Does corporate social responsibility information provide value relevance to the firm's value?"

Literature Review and Hypothesis Development

Definition and trend of Corporate Social Responsibility ("CSR")

Currently, the definitions of corporate social responsibility and corporate sustainability remain ambiguous. CSR reports, sometimes also called sustainability reports or sustainable development reports, often contain qualitative non–financial information. Recently, CSR

reports have widely replaced environmental reports, which present only information regarding the firm's environment policies and performance. Montiel (2008) reviewed the various definitions of corporate social responsibility and corporate sustainability used over time, compiling titles and abstracts published between 1970 and 2005. This study showed that CSR research has a longer history than does corporate sustainability research. It can be interpolated from Montiel (2008) that the concept of corporate sustainability marks the evolution of the original concept of corporate social responsibility.

CSR reporting currently appears in various names, formats, and contents because it is both voluntary and unregulated (Simnett et al., 2009; Zorio et al., 2013). According to Setthasakko (2016), the preparation and disclosure of CSR reports (also called sustainability reports, sustainability development reports, corporate responsibility reports, or environmental and social responsibility reports) is a tool by which companies communicate with their stakeholders regarding their environmental and social responsibility performance, which comprises both financial and non–financial data.

Over the past decade, stakeholders have demanded that companies provide true and fair reporting of triple bottom line information by issuing CSR reports (Tuybens, 2011). Previously, companies communicated this information to their stakeholders by disclosing CSR information on the company website. Later, most companies included CSR information and performance in their annual report. Recently, companies have presented CSR information in a separate CSR report. The publishing of a separate CSR report is currently voluntary, and there are no statutory or mandatory guidelines to govern the reporting process.

Theoretical Background

As CSR reporting is voluntarily disclosed, the key grounded theory for this research is signaling theory. Voluntary disclosure is necessary for firms to compete successfully in the risk capital market. Signaling theory explains the incentives of voluntarily reporting useful information to the capital market. Insiders know a company and its future prospects more intimately than do investors; therefore, investors will protect themselves by offering a lower price for their investments in a company (Omran, 2015). Connelly et al. (2011) suggest that

the value of a company can be increased if the firm voluntarily reports (signals) private information about itself (CSR) that is credible and that reduces outsider uncertainty.

Signaling theory suggests that, in situations of an asymmetric distribution of information, one party attempts to credibly convey information about itself to a second party. The CSR performance of a company can be regarded as such asymmetric information, since it is difficult for parties outside the company to gain credible information regarding these aspects of the company. Companies might attempt to reduce this information asymmetry by proactively reporting CSR activities to ensure the perceived legitimacy of the company.

Because of the information asymmetry issue, companies signal certain CSR information to investors to show that they are better than other companies in the market, to attract investments, and to enhance a favorable reputation (Verrecchia, 1983). CSR disclosure is one of these signaling means, by which companies disclose more CSR information than that required by law to signal that the company is better than its competitors (Mahoney, 2013).

Hypothesis Development

Value–relevance studies are designed to examine the relationship between accounting information and a firm's market value. The theoretical concept of value–relevance predicts how accounting information (e.g. earnings and the book value of equity) and other information relates to the market value of a firm. Evidence from previous studies demonstrates that CSR disclosure provides useful information to investors (Cahan et al., 2015; Clarkson et al., 2013). Dhaliwal et al.'s (2011) examination of American firms found that CSR reports can reduce the cost of capital to a firm.

Unlike previous studies, which primarily use the index (e.g. GRI index, DJSW index) as a proxy for CSR disclosure, or which focus only on one part of disclosure, such as environmental information, this research focuses on the disclosure of the separate CSR report. This research aims to examine whether the disclosure of CSR reports is value relevant to firm market value. In addition, since certain companies do not separately disclose this CSR report, but rather include the CSR information (i.e. policies, performance, and strategies) in their annual report (Setthasakko, 2016). Therefore, this

research also investigates whether the disclosure of CSR information by including in annual report provides any value relevance to firm market value.

The hypothesis is stated as follow:

H1: Among the firms listed in FTSE, CSR disclosure will relate to the firms' market value.

Research Design

Sample Selection

The sample used in this research consists of all firms listed in the London Stock Exchange ("FTSE") from 2011 to 2015. This research uses a sample from the FTSE market because the FTSE motivates the listed firms to prepare and disclose a separate CSR report. In addition, over half of firms listed in the FTSE are the firms incorporated in the United Kingdom which is a leader in CSR.

Data for dependent variables and control variables were obtained from DataStream. Independent variable (i.e. CSR disclosure) was hand-collected from information disclosed on company websites.

Table 1 presents the sample breakdown, of a total 1,963 firm-years for the period of 2011-2015, approximately 79% provided CSR disclosure for their CSR information, suggesting that firms prefer disclosing CSR information. Therefore, it's interesting point to examine whether CSR disclosure provides any value relevance to firm market value.

Table 1: Sample Selection of London Stock Exchange Market Firms from 2011 to 2015

Item	Description	2011	2012	2013	2014	2015	Total	%
CSR	Issuing CSR Report	88	113	118	127	126	572	29%
Disclosure	Including in Annual Report	138	205	213	203	223	982	50%
	Total disclosing firms	226	318	331	330	349	1,554	79%
	None	47	107	93	73	89	409	21%
	Total sample[(1)]	273	425	424	403	438	1,963	100%

[(1)] Samples consisted of the survival firms listed in London Stock Exchange Market from 2011 through 2015, excluded firms entered London Stock Exchange during 2011 to 2015 and firms with missing data or website unavailable

Value–relevance Model

Accounting information for both financial and non–financial information will be value–relevant if it captures information that affects the total value of a firm's stocks. Like several previous studies (Xu et al., 2007; Al Jifri and Citron, 2009; and Bose et al., 2015), this research uses the Ohlson (1995) model to examine the value–relevance of CSR disclosure.

Ohlson (1995) developed the residual income valuation model. Ohlson argues that market value is a function of accounting information from financial statements. His first assumption is that market value is the net present value of all future dividends. His second assumption is that all changes in book value are incorporated as either earnings or dividends. His last assumption relates to the behavior of abnormal earnings. This model assumes that abnormal earnings exist only temporarily, and will disappear over time. Earnings below normal earnings will dissolve when a firm leaves the market, and any above–normal earnings will reduce due to competition. In summary, this model demonstrates that market value (stock price) is determined by book value, current earnings, and other information that affects a firm's market value. Ohlson's model is generally applied to demonstrate the effects of other accounting information that also affects a firm's market value (stock price).

The theoretical model of Ohlson (1995) is as follow:

$$P_t = \alpha_0 + \beta_1 BV_t + \beta_2 e_t + \beta_3 (Other\ information) + \varepsilon_t$$

where

P_t = market value, or price, of equity at date *t*

BV_t = book value at date *t*

e_t = earnings (net income) for the period (*t*–1, *t*)

Other information = other information which affects the market value

ε_t = error term

Model for testing of hypothesis

To test the association between the CSR disclosure and a firm's market value, this research drew on an empirical version of Ohlson (1995) model. The model used in this research relates a firm's market value four months after the end of year to the book

value of equity and earnings of the year. The factor "CSR" (issuing separate CSR report) and "ANNU" (the disclosure of CSR information in annual report) are added to the model as other information which affect a firm's market value. The model for hypothesis testing is expressed as follow:

$$MV_{it+4} = \alpha_0 + \beta_1 BV_{it} + \beta_2 e_{it} + \beta_3 CSR_{it} + \beta_4 ANNU_{it} + \beta_5 (Control\ V) + \varepsilon_{it}$$

where

MV_{it+4} = the market value four months after the end of year t of firm i

BV_{it} = book value of firm i at the end of year t

e_{it} = net earnings of firm i for year t

CSR_{it} = scale as 1 if firm i issue CSR report in year t

$ANNU_{it}$ = scale as 1 if firm i include CSR information in annual report in year t

$Control\ V$ = set of control variables

ε_{it} = error term

The coefficient of CSR and ANNU is expected to be significant and positive.

Measurement of dependent variable

Dependent variable is log value of the firm's market value four months after the end of the fiscal year. According to the "Disclosure Guidance and Transparency Rules Sourcebook," also called the FCA handbook, the firms listed in the London Stock Exchange main market "must make public [the] annual financial report at the latest four months after the end of each financial year" (4.1.3). Therefore, using the market value four months after the end of the fiscal year ensures that CSR reports are available to investors, and that this information can be reflected in company valuation (Xu et al., 2007; Al Jifri and Citron, 2009; Berthelot et al., 2012). The market value of all firm–years can be collected from DataStream.

Measurement of independent variables

– Measurement of book value (BV) and earnings (e)

Book value and earnings (net income) are required to include in Ohlson's model. The term "BV" in this research is the log value of the firm's book value at the end of

the year and term "e" is log value of the firm's net earnings for the year, which can be collected from DataStream.

– Measurement of CSR disclosure in separate reports (CSR)

The separate CSR report is also variably called the sustainability report, the sustainability development report, the corporate responsibility report, and the environmental and social responsibility report (Setthasakko, 2016). Therefore, in this research, this variable is measured as a dummy variable in which the scale value is 1 if a firm issues a separate CSR report (e.g. a sustainability report or a corporate responsibility report) and the scale value is zero if otherwise. The collection of CSR is hand–collection method.

– Measurement of CSR disclosure included in annual report (ANNU)

Certain companies do not separately disclose CSR report, but rather include the CSR report or CSR information (i.e. policies, performance, and strategies) in their annual report (Setthasakko, 2016). Therefore, in order to investigate whether the disclosure of CSR information by including in annual report provides any value relevance to a firm's market value, this variable is included in the model and measured as a dummy variable in which the scale value is 1 if a firm includes CSR information in annual report, and the scale value is zero if otherwise. The collection of ANNU is hand–collection method.

Measurement of control variables

Following the previous literature on the value–relevance of financial and non–financial information, additional variables were used in this study as control variables, which can be collected from DataStream.

– Leverage (LEV)

Leverage is calculated from an organization's total debt divided by its total assets at the end of the fiscal year. This variable is one of the most common control variables used in finance research (Cahan et al., 2015; Guidry and Patten, 2012; Roll et al., 2009). Firms with higher leverage have increased cash flows and, as a result, increased firm value. Therefore, leverage is included as a control variable in this research.

– Dividend payment (DIV)

Roll et al. (2009) suggested that dividend payment is a proxy of capital constraint. Firms can use dividend payment as a signal of the firm's ability to generate cash flow and the firm's intention to distribute excess cash to shareholders. Therefore, this implies that dividend payment is relevant to a firm's market value. Thus, dividend payment is included as a control variable in this research, and is measured as a dummy variable in which the score is equal to 1 if a firm pays dividends and is equal to 0 if otherwise.

– Industry (INDUS)

Some industries (i.e. companies in the oil and energy or mining industries) are sensitive to environmental issues, which comprise a part of CSR activities. Firms in these industries trend to disclose more information regarding CSR, especially regarding environmental policies and performance. As a result, this variable is included in this research as a dummy variable for which a score of 1 represents that a firm operates in the oil and energy industry or the mining industry. This is consistent with prior studies (Lourenco, 2011; Cho and Patten, 2007). A score of zero indicates that a firm does not operate in the oil and energy or mining industries.

– Environmental, social and governance rating ("ESG")

The ESG rating is assessed by the FTSE Russell which is a unit of London Stock Exchange Group's (LSEG) information Services Division. The ESG score ranges from 0.1 to 100, which measures the overall quality of a company's management of environmental, social, and governance issues. Investors also value the quality of CSR activities, rather than only the disclosure of CSR reports, and CSR activities primarily consist of policies and performance related to the environment, social responsibilities, and governance. Therefore, this rating is included as a control variable.

Empirical Results

Descriptive Statistics

Table 2 presents the descriptive statistics of the study samples, consisted of the number of firm–years, minimum amount, maximum amount, mean, and standard

deviation of quantitative variables used in hypothesis testing. The number of firm–years equals to 1,963 samples which are the survival firms listed in London Stock Exchange from 2011 through 2015, excluded firms entered London Stock Exchange during 2011 to 2015 and firms with missing data or website unavailable.

Table 2 Descriptive statistics

Variable	N	Min	Max	Mean	SD
MV (Pound)	1,963	–0.82	7.09	3.03	0.99
BV (Pound)	1,963	0	9.93	5.80	1.03
e (Pound)	1,963	0	9.03	4.18	2.05
LEV (Times)	1,963	0	1.59	0.23	0.18
ESG (Scores)	1,963	0	96.64	49.01	37.57

Where:

MV = Log value of market value four months after the end of year t of firm i.

BV = Log value of book value of firm i at the end of year t.

e = Log value of net earnings of firm i for year t.

LEV = Leverage of firm i for year t measured by end–of–year total debt divided by end–of–year total assets.

ESG = ESG rating score of firm i for year t, which evaluated by FTSE Russell.

Pairwise correlation between variables

Table 3 presents the Pearson and Spearman correlation coefficients between variables which are respectively presented above and below the diagonal line. It could be observed that the market value and book value, and the market value and earnings are correlated by large magnitudes. The results are attributable to the fact that book value and earnings of a firm are relevant to its market value, implying that investors give value to a firm's book value and earnings which is consistent with the value relevance concept of Ohlson's model used in this research. Nonetheless, the correlations between independent variables are below 0.80 and thereby the correlation tests are satisfactory.

Table 3 Pearson and Spearman Correlation Coefficients between Variables

$$MV_{it+4} = \alpha_0 + \beta_1 BV_{it} + \beta_2 e_{it} + \beta_3 CSR_{it} + \beta_4 ANNU_{it} + \beta_5 (Control\ V) + \varepsilon_{it}$$

Pearson (Upper Triangle) and Spearman (Lower Triangle) Correlation

	MV	BV	e	CSR	ANNU	LEV	DIV	ESG	INDUS
N	1,963	1,963	1,963	1,963	1,963	1,963	1,963	1,963	1,963
MV		.864**	.609**	.377**	-.210**	.085**	.298**	.618**	.049*
BV	.859**		.500**	.373**	-.265**	.068**	.192**	.464**	.105**
e	.793**	.716**		.176**	-.123**	-0.042	.403**	.352**	-.071**
CSR	.381**	.390**	.275**		-.642**	.051*	.114**	.347**	.073**
ANNU	-.238**	-.282**	-.201**	-.642**		-0.034	-.084**	-.123**	-0.010
LEV	.161**	.202**	.098**	.093**	-.063**		-0.029	.057*	-.104**
DIV	.286**	.166**	.336**	.114**	-.084**	0.024		.200**	-.183**
ESG	.690**	.576**	.515**	.368**	-.163**	.118**	.203**		0.038
INDUS	0.038	.091**	-0.022	.073**	-0.010	-.113**	-.183**	0.024	

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

*. Correlation is significant at the 0.05 level (2-tailed)

It could be observed that most variables are correlated by low and medium magnitudes, except for the correlation between book value and earnings of 0.500–0.716 could contribute to the multicollinearity problem. However, both variables are not excluded from the models which have been derived from Ohlson's model. The significant positive correlation between disclosure of CSR disclosure (CSR) and firms' market value (MV) provides initial support for hypothesis testing. However, correlation between disclosure of CSR information in annual report (ANNU) and firms' market value (MV) is significant negative. This initially means that the disclosure of CSR information in annual report and firms' market value has association which needed further regression analysis to investigate the association.

Regression Analysis

This paper uses ordinary least squares (OLS) or linear regression to test hypotheses. The sample of this study includes 1,963 firm–year observations which provided enough samples and degree of freedom to perform cross–sectional multiple regression analysis for all models. The F–test ANOVA of regression result is significant at 1% level, confirming the validity of the models. The models used in the analysis is passed the goodness of fit test and is in line with the conditions of the ordinary least square estimators and best linear unbiased estimator assumption. This research uses Standardized Normal Probability Plot (P–P plot) and Normal Q–Q Plot of Unstandardized Residual to check indications of non–normality in order to assure that the p–values for t–test is valid for hypothesis testing. The scatterplot of residual shows no pattern of residuals plotted on the fitted values. This means that the model is well–fitted and has no heteroscedasticity problem. In this research, a variance inflation factor (VIF) is tested to detect multicollinearity. As a rule of thumb, a VIF greater than ten suggests that the regressor variables are highly correlated. The VIFs of the regressor variable in this testing model does not exceed the cut–off point (ten), suggesting that multicollinearity among the regressor variables is not strong in this data set. Thus, it can be confirmed that there is no econometric issue which can affect or deviate the result.

Table 4: Result from Ordinary Least Squares (OLS) Regression Examining the Value–Relevance of CSR Disclosure on Firms' Market Value

$$MV_{it+4} = \alpha_0 + \beta_1 BV_{it} + \beta_2 e_{it} + \beta_3 CSR_{it} + \beta_4 ANNU + \beta_5 (Control\ V) + \varepsilon_{it}$$

Variables	Coefficients		P–values
(Constant)	–1.524	***	.000
BV	0.629	***	.000
e	0.088	***	.000
CSR	0.096	***	.001
ANNU	0.095	***	.000
LEV	0.195	***	.000
DIV	0.141	***	.000
ESG	0.006	***	.000
INDUS	–0.022		.612
N	1,963		
Adjusted R^2	0.840		

Note: *** significant at the 1% level (2–tailed) ** significant at the 5% level (2–tailed) * significant at the 10% level (2–tailed)

Where:

MV = Log value of market value four months after the end of year t of firm i.

BV = Log value of book value of firm i at the end of year t.

e = Log value of net earnings of firm i for year t.

CSR = 1 if firm i issue CSR report in year t.

ANNU = 1 if firm i include CSR information in annual report in year t.

LEV = Leverage of firm i for year t measured by end–of–year total debt divided by end–of–year total assets.

DIV = 1 if firm i paid dividend for year t.

ESG = ESG rating score of firm i for year t, which evaluated by FTSE Russell.

INDUS = 1 if the firm is in the environmental concerned industries (i.e. oil and energy industry, mining industry).

Table 4 shows the regression which presents the effect of CSR disclosure (CSR, ANNU) on the firm's market value variable (MV). The analysis was performed on full samples (N = 1,963). The model yields a very high adjusted R^2 of 0.840 which indicates that 84% of market value (MV) variation can be explained by the model. CSR is a dummy variable, where a score of one indicates that a firm issues CSR report in year t and a score of 0 indicates otherwise. Result shows that coefficient of CSR equals to 0.096 which is positive and significant ($p < .01$). This implies that investors positively value CSR report. In addition, the coefficient of ANNU equals to 0.095 which is also positive and significant ($p < .01$). This reveals that the disclosure of CSR information by including in annual report also provides value–relevance to firm's market value. Therefore, the hypothesis is supported. Moreover, coefficients of other variables (i.e. book value, earnings, leverage ratio, dividend payment and ESG rating) are also positive and significant ($p < .01$).

Conclusion and Discussion

This research objective is to investigate whether CSR disclosure is relevant to a firm's market value. The samples used for this research are firms listed in the London Stock Exchange from 2011 to 2015, totaling 1,963 firm–years. Unlike previous studies, which mostly focus on some part of disclosure (e.g. environmental information disclosure) or primarily use the index as a proxy for CSR disclosure, this research focuses on the disclosure of CSR information as a whole. The result reveals that the disclosure of CSR information by issuing the separate CSR report or including in annual report provides value–relevance to firm's market value. It means that CSR disclosure provides useful information to investors. This is to confirm and add on the results from prior studies of value–relevance of CSR disclosure. This research contributes to literature of non–financial information disclosure by extending and filling the gap in the existing literature regarding the economic consequences of voluntary CSR reporting. Evidence from previous studies demonstrated that CSR disclosure provides useful information to investors (Berthelot et al., 2012; Cahan et al., 2015; Clarkson et al., 2013). Prior studies primarily investigated the association between CSR disclosure and firm performance, while this research demonstrates the value–relevance of CSR disclosure to a firm's market value. Moreover, the result also provides implication for regulators

(i.e. standard-setters) in countries without mandatory CSR reporting to consider choices regarding which regulatory approach might be best applied to nonfinancial reporting. Currently, there is no mandatory requirement in most of countries around the world for the disclosure of CSR information. The CSR disclosure is mostly voluntary.

Although this research provides several contributions, there are also some limitations. The data set of CSR reports was hand-collected from the websites of companies listed on the London Stock Exchange between 2011 and 2015. Certain samples were omitted because some companies disclosed their website or prepared their CSR report in other languages (e.g. in Chinese), therefore; these samples are omitted.

Recommendation for Future Studies

There are several possible future studies extending from this research. Assurance for voluntary disclosure is currently an under-researched area. Thus, it's interesting to determine the role of CSR assurance and to demonstrate its enhancement of the value-relevance of CSR reporting. Trotman A.J. and Trotman K.T. (2015) find that there is little evidence to ensure high quality CSR disclosures. Therefore, assurance mechanisms are necessary. Future research may investigate whether CSR assurance enhances value-relevance of CSR disclosure to a firm's market value. In addition, future research may explore in depth to investigate and have analysis about the investors' perception of CSR disclosure or the companies' management perspective in CSR reporting. Since the study of perception is behavioral research so it should be rather qualitative research (e.g. interviewing or surveying).

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