

**A LONGITUDINAL ANALYSIS OF CORPORATE SOCIAL RESPONSIBILITY REPORTING (CSRR) IN MALAYSIA PUBLIC LISTED FIRMS: PRE- AND POST-MANDATORY CSRR REQUIREMENT**

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**ABSTRACT**

The importance of corporate social responsibility reporting (CSRR) has been evident in Malaysia, particularly after the Bursa Malaysia mandated its reporting in firms' annual reports from year 2007 onwards. Therefore, this study aims at examining the CSRR disclosed in the annual reports of Malaysia public listed firms over a five-year period, reflecting both voluntary and mandatory CSRR period. Sample of the study is drawn from firms that are listed in the main board of Bursa Malaysia and maintained their positions in top 300 firms over the five-year period. Results from the content analysis done reported an increase in both quantity and quality of CSRR by firms over the five-year period. The highest change in CSRR is found to be in year 2007, reflecting the first year when CSRR was made mandatory. More rigorous analysis is warranted to further investigate the effect of CSRR regulation on CSRR disclosed by firms.

**Keywords:** Corporate social responsibility reporting, longitudinal analysis, CSRR Regulation, Malaysia.

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**INTRODUCTION**

Corporate social responsibility (CSR) reporting has become a prominent topic in research as indicated by the growing number of literature produced in the field for the past few decades (Deegan & Soltys, 2007; Gray, 2002, 2010; Mathews, 1997; Owen, 2008; Parker, 2005). While most of the extant literature offers insights mainly from the developed markets perspective, contribution from the perspective of emerging markets remains limited (Belal & Momin, 2009; Islam, 2010). Being aware that the emerging markets are also confronted with the widespread social and environmental challenges<sup>i</sup> (Bendell, 2004, 2005; Rubenstein, 1992), more research efforts are warranted in these countries.

As one of the emerging markets, Malaysia has not without its share of social and environmental problems. Continuous rapid economic growth as well as globalisation and urbanisation process that occur in this country is often related to a number of environmental issues, for example, climate change, environmental degradation, disruption of ecological diversity, depletion of non-renewable natural resources and extinction of wildlife species (Abdullah, 1995; Hezri & Nordin Hasan, 2006; Jahi, Aiyub, Arifin, & Awang, 2009; Muyibi, Ambali, & Eissa, 2008). On the social side, there has been several corporate misconduct cases reported, for examples, Transmile Group Berhad and Megan Media Holdings Berhad (Zaimee, 2007), together with corruption issues (Siddiquee, 2010); all of which raised the importance of extending firms' accountability to all stakeholders<sup>ii</sup> and act in a socially responsible way in all areas of the business activity (Brennan & Solomon, 2008; Solomon, 2010). To demonstrate firms' commitments towards these broader responsibilities, there come the needs for establishing social and environmental reporting, which this paper terms as corporate social responsibility (CSR) reporting.

Generally, CSR reporting (CSRR) refers to the provision of information about a particular firm that may embrace any subject in any mediums to any parties with the aim of providing a solution for improved accountability to a wide array of stakeholders on environmental and societal issues (Gray, Kouhy, & Lavers, 1995a). Prior literature has demonstrated an upward trend of CSRR made by firms as a result of the growing public pressure and attention paid in mass media on various CSR issues (Brown & Deegan, 1998; Hooghiemstra, 2000; Kent & Monem, 2008; Patten, 1991). In Malaysia, even though a similar pattern of reporting is apparent (ACCA, 2004, 2010), a number of researchers argued on the low level of CSRR among Malaysian firms and claimed that Malaysia is still in its infancy stage of CSRR (Malaysia, 2007; Othman, Darus, & Arshad, 2011; Thompson & Zakaria, 2004).

To further enhance the development of CSRR in Malaysia, several initiatives have been taken by the government, for examples, Bursa Malaysia has provided a voluntary guidance on CSRR in year 2006, and later made CSRR mandatory to all public listed firms with effect from 31 December 2007. The mandatory CSRR requirement has been incorporated into the Listing Requirement of Bursa Malaysia (Appendix 9C, Part A,

Paragraph 29), which obligate all public listed firms to include a description of the CSR activities or practices undertaken by the listed firm and its subsidiaries or, if there are none, a statement to that effect. However, the lack of specific reporting requirement on the content and extent of CSRR may lead to greater variability in term of CSRR provided by firms. It may also give firms ample opportunity to report CSR information the way they want, and this in turns put the stakeholders at the disadvantage side. Instead of fulfilling the accountability and transparency function, current regulatory efforts is found to be a significant mechanism in promoting CSR reputation (Othman, et al., 2011) .

Despite the continuous arguments on CSRR, this study aims at examining the quantity and quality of CSRR disclosed in the annual reports of Malaysia public listed firms over a five-year period, reflecting both voluntary CSRR period (year 2005 to 2006) and mandatory CSRR period (year 2007 to 2009). While much of the contribution has been made from the cross sectional analysis and the developed countries perspective, this study adds to the current CSRR literature from the longitudinal analysis (Haniffa & Cooke, 2005) and the developing country perspective (Belal & Momin, 2009). Owing to the national differences in CSR system as a result of the differences in cultural, political and institutional background of a country (Matten & Moon, 2008), the study on CSRR in the national context of Malaysia is considered relevant, especially when the topic has received an increasing attention from various parties, particularly the Malaysian government (Othman, et al., 2011).

In the case of Malaysia itself, most of prior CSRR literature has focused on non-financial industry (Ghazali, 2007; Haniffa & Cooke, 2005) and sensitive industries only (Othman, et al., 2011). However, literature that discussed CSRR in financial industry is rather limited (Hamid, 2004). Therefore, this study includes the firms from both financial and non-financial industry, and also sensitive and non-sensitive industries as sample. This is based on the view that CSR is the agenda for all firms regardless of industries. The remaining of the paper is organized as follows: first, a review of related literature is provided. Next, the paper discusses on the methodology used in the study. Then, findings and analysis of study is explained, before a conclusion is made.

## **LITERATURE REVIEW**

The development of CSRR has been well-acknowledged in many literatures for more than two decades (Deegan & Soltys, 2007; Gray, 2002, 2010; Mathews, 1997; Owen, 2008; Parker, 2005). While social reporting has received so much attention in the 1970s and 1980s, it disappeared in the early 1990s due to change in direction of research to environmental reporting. However, there has been resurgence of interest in social reporting, in addition to environmental reporting, from mid-1990s onwards (Gray, et al., 1995a; Mathews, 1997), focusing on eco-justice and eco-efficiency (Bebbington, 1997). Driven by the concern of sustainability and the growth in popularity of ‘triple bottom line’ reporting that encompasses economic, social and environmental dimensions, CSRR has been further developed to include ‘sustainability reporting’ and ‘triple bottom line reporting’ in recent years (Bebbington, 1997; Gray, 2002; Owen, 2008).

Despite such development, researchers argued on the lack of agreed theoretical perspectives to drive systematic research (Ullmann, 1985; Gray et al., 1995; Mathews, 1997; Deegan, 2002). Gray et al. (1995a) classified CSRR research into three different perspectives: decision-usefulness theory, economic theory, and social and political theory. Studies that were based on the decision-usefulness theory tend to be inconclusive and inconsistent and the economic theory has little or nothing to offer as a basis for the development of CSRR (Gray et al., 1995a; Parker, 2005). While the contribution of these two theories was rather limited, social and political perspective continued to be employed in many CSRR research (Gray et al, 1995a; Deegan, 2002). Further theorisation of CSRR has been attempted by Parker (2005), who categorised CSRR theories into two groups: augmentation theories, whereby CSRR is seen as adding value to the existing conventional accounting (e.g. stakeholder, economic agency / decision-usefulness, legitimacy and accountability theories) and heartland theories, whereby CSRR is seen as explaining the organisation-society relationship (e.g. political economy accounting, deep green ecological, eco-feminist, accountability-fairness theories). Parker, who noted several arguments in prior CSRR literature, for examples, the absence of a dominant theory to explain CSRR (Ullmann, 1985; Gray et al., 1995a; Tilling, 2001; Gray, 2002), the overlapping of a number of CSRR theories (Deegan, 2002) and the limited contribution of these theories to explain the observed CSRR (Gray et al., 1995a; Wilmhurst & Frost, 2000; Adams, 2002; O’Dwyer, 2002), suggested for a multiple perspectives of CSRR, in contrast to the elusive all-embracing unitary CSRR theory (Gray et al., 1995a)<sup>iii</sup>. Notwithstanding the variety of perspectives used to explain CSRR, most of the prior CSRR research has adopted the social and political theory, which may be further divided into three groups: legitimacy theory, stakeholder theory and political economy theory (Gray et al., 1995a; Deegan, 2002).

Most of the prior CSRR research has focused on the developed countries<sup>iv</sup> with evidence from the developing countries remains limited, yet increasing over time<sup>v</sup>. According to Ghazali (2007), understanding CSR in a developing country is worthwhile to get some indication on the extent to which economic development and business environment affect CSR activities. In Malaysia, evidence from extant literature has generally documented a significant variation in the extent of CSRR in different firms (Teoh & Thong, 1984; Andrew et al., 1989; Muhammad Jamil et al., 2003; Nik Ahmad et al., 2003; Haron et al., 2004; Thompson & Zakaria, 2004; Yusoff et al., 2004; Abdul Rahman et al., 2007; Saleh et al., 2010). This study extends prior works by presenting a longitudinal analysis of CSRR from the voluntary CSRR period to the mandatory CSRR period. The study initiates the effort to further investigate on the effect of CSRR mandatory requirement on CSRR in firm's annual report.

## METHODOLOGY

### *Sampling:*

The population of interest in this study includes all firms listed on the Main board of Bursa Malaysia. The initial sample-firms are chosen based on the firms that maintained their positions in top 300 firms (by market capitalisation) for the five-year period (from 2005 to 2009). The rationale for choosing the larger firms is that these firms tend to have greater public visibility and impact on society (Belkaoui & Karpik, 1989; Branco & Rodrigues, 2008; Cowen, Ferreri, & Parker, 1987; Lepoutre & Heene, 2006; Teoh & Thong, 1984). Therefore, these firms are more likely to use CSRR to respond to the public pressures. The selection of sample, which is based on market capitalization, is consistent with prior CSRR research (Guthrie & Parker, 1990; Hackston & Milne, 1996; Thompson & Zakaria, 2004). The representation of sample for each year (from year 2005-2009) is more than 75% of market capitalisation of all firms listed in the Main Board of Bursa Malaysia, similar to the sample size used in prior CSRR research (Ghazali, 2007). Refer to Table 1 for the detailed sampling procedure.

**Table 1: Sampling procedure**

<b>Sampling procedures</b>	<b>No. of firm-year observation</b>
Firms that are positioned in Top 300 companies (by market capitalization) for the five-year period (from 2005 to 2009).	1500
Firms that have not maintained their position in top 300 companies (by market capitalization) for the five-year period (from 2005 to 2009).	600
<b>Final Sample</b>	<b>900</b>

Data set used for the study include a 5 year-period of data (from year 2005 to 2009), which is further divided into two periods: voluntary period, that is the period before the mandatory CSRR requirement take into effect (from year 2005 to 2006<sup>vi</sup>); and mandatory period, that is the period after the mandatory CSRR requirement take into effect (from year 2007 to 2009<sup>vii</sup>). By conducting a longitudinal study, the researcher is able to analyse the trend or change (if any) in CSRR disclosed by firms year by year, thus providing a more meaningful analysis of CSRR, especially when there is a change in regulation during the period of study.

### *Data collection: Content analysis*

In this study, content analysis is used to examine CSRR in the annual reports. This method has been used in many prior studies that examined CSRR (Gray, Kouhy, & Lavers, 1995b; Hackston & Milne, 1996; Haniffa & Cooke, 2005; Milne & Adler, 1999; Unerman, 2000; Zeghal & Ahmed, 1990). It is a method of codifying content of a piece of writing into various categories (Weber, 1988), which involved codifying qualitative information in anecdotal and literary form into categories, to derive quantitative scales of varying levels of complexity (Abbott & Monsen, 1979). It relies on assumption that the extent of disclosure provides some indication of the importance of an issue to the reporting entity, and to derive an indication of the meanings, motivations and intentions of the communicator (Gray, et al., 1995b). Gray, et al., (1995b) further highlighted that data collected using content analysis technique should be objective (the ability of independent parties to identify similarly what is and what is not a CSRR), systematic (a set of exhaustive rules which define CSR in a mutually exclusive and all-embracing manner) and reliable (the extent to which identical results would be obtained if the same process was undertaken either by the analyst on a different sample, or by a different analyst). It should also have a high level of external validity and permits analysis of large volumes of data, which can be coded by several individuals if necessary.

**Research instrument:**

Different categories of CSRR have been used in different studies. The variety of CSRR categories used reflects the different agendas set in different countries (Newell, 2005) and changes in CSR focus over time (Gray, et al., 1995a; Owen, 2008). Therefore, to measure the level of CSRR in the context of Malaysia, a preliminary research instrument that includes 5 categories of CSRR (environmental, community, workplace, marketplace and others) is developed.

The construction of the checklist, which consisted of 40 items, was based on the checklists employed by previous research on CSRR, taking into account both conventional and Islamic corporate reporting instruments (Hackston & Milne, 1996; Haniffa & Cooke, 2005; Kamla, 2007; Maali, Casson, & Napier, 2006; Othman, et al., 2011; Sulaiman, 2005). Reference was also made to the Global Reporting Initiatives (GRI) and recent CSR Framework for Malaysian firms (that was developed by the Bursa Malaysia following the continuous development of corporate governance and CSR in Malaysia). This is to capture the new CSR agendas that are considered important, particularly in the context of Malaysia.

The preliminary checklist is sent to several CSRR experts for face validation process. Further refinements were made to the preliminary checklist to incorporate experts' opinions and suggestions. The refined CSRR checklist was then being reviewed by two academics at the Department of Financial Accounting and Audit, University of Malaya, as they specialize in the area of financial reporting and disclosure. The refined checklist has also been checked to ensure that each component in the checklist is applicable to all firms, regardless of industry. This is important as to avoid researcher penalising the non-reporting firm.

The final CSRR checklist is then being pilot tested on a sample of 30 annual reports<sup>viii</sup> as to ensure that there is some variability in disclosure between different firms and to capture the items not yet included in the existing checklist, before being tested to the larger sample. Out of 30 annual reports, 10 of them were coded independently by two coders. Any discrepancies were reanalysed and resolved. In testing the larger sample, only one researcher coded all of the annual reports based on a set of basic coding rules that is constructed to ensure reliability and validity (Haniffa & Cooke, 2005). Manual search is conducted throughout all sections of the annual reports. Refer Appendix 1 for the final CSRR Checklist.

**Measurement of CSRR**

This study uses two types of measures to capture the level of CSRR made in the sample firms; the number of CSRR items expressed as an index (based on a weightage procedure) and the length of CSRR items expressed in terms of number of sentences. While the former captures the 'variety' and 'quality' of disclosure, the latter captures the 'extent' of disclosure (Haniffa & Cooke, 2005).

1. **CSRR Index (CSRRI):** Using the weightage procedure, the value of each item disclosed is measured by assigning a value of 3 (if there is quantitative disclosure – highest weightage); 2 (if there is qualitative specific information); and 1 (if there is general qualitative disclosure – lowest weightage). The procedure is considered appropriate; as it may overcome the problem of failing to reflect the emphasis attached (the level of importance) to each CSRR disclosed (Cooke, 1989; Hackston & Milne, 1996; Zeghal & Ahmed, 1990) if using the dichotomous procedure.

Accordingly, the CSRR index is derived by computing the ratio of actual scores awarded (based on weightage scoring approach) to the maximum score attainable by the company. Therefore, the final CSRRI (index):

$$CSRRI_j = \frac{\sum_{i=1}^n X_{ij}}{n_j}$$

where

- CSRRI<sub>j</sub> = corporate social responsibility reporting index for j<sup>th</sup> company,
- n<sub>j</sub> = total number of items expected for j<sup>th</sup> firm with the maximum score assigned,
- X<sub>ij</sub> = 3 if i<sup>th</sup> item is quantitative disclosed, 2 if i<sup>th</sup> item is qualitative specific information disclosed, 1 if i<sup>th</sup> item is general qualitative disclosed, and 0 if i<sup>th</sup> item does not disclosed any information.

2. **Number of sentences (CSRRL):** Using the same research instrument, the number of sentences<sup>ix</sup> related to each item in the checklist is counted. The number of sentences is chosen over the other

methods because it is easily identified and is less subject to inter-judge variation than other measures, such as themes, words and pages (Ingram & Frazier, 1980). It also overcome the problems related to; font, margin or page size; word standardisation; and reliability of inter-rater coding (Hackston & Milne, 1996); and more detailed analysis of specific issues and themes (Deegan, Rankin, & Tobin, 2002).

However, using the number of sentences as CSRR measure was also criticized for not capturing pictures and graphics (Al-Tuwaijri, 2004; Unerman, 2000), which are potentially powerful and highly effective methods of communication (Beattie & Jones, 1994; Beattie & Jones, 1992; Kuasirikun & Sherer, 2004) and to cause difficulties due to different styles of writing (Cowen, et al., 1987; Unerman, 2000). In order to overcome these weaknesses, the application of both measures (CSRRI and CSRRL) is considered appropriate. Items relating to graphical presentation in the checklist were excluded from the sentence count as this will be considered in the CSRR Index. The number of sentences related to each item under the five themes will be added together to compute the CSRRL (Haniffa & Cooke, 2005).

There has been a number of medium used to communicate CSRR, for examples, annual reports, stand-alone reports, web sites, newsletter and bulletins (Zeghal & Ahmed, 1990). Despite the variety of mediums used for reporting, annual reports have been recognized as the main avenue for CSRR (Belal & Momin, 2009; Brown & Deegan, 1998). While there have been claims on the failure of annual reports to capture all CSRR (Guthrie, Cuganesan, & Ward, 2008; Zeghal & Ahmed, 1990) and the increasing popularity of stand-alone and internet CSRR, Belal and Momin (2009) argued that such observation might be valid from the context of Western developed economies, and it may not hold in the context of emerging economies given the differences in the level of socio-economic (Xiao, Gao, Heravi, & Cheung, 2005) and technological development (Williams & Pei, 1999) between these two groups of countries. Therefore, this study focuses on corporate social responsibility reporting made in corporate annual reports only.

## **FINDING, DISCUSSION AND ANALYSIS**

Table 1 and Table 2 present the longitudinal analysis of CSRR quantity and quality disclosed by firms in their annual reports over a five-year period. From the analysis of CSRR shown in Table 1 and 2, there is an increment in both quantity and quality of CSRR disclosed by firms over the five-year period, with exception of the quality of CSRR (Component: Others) from year 2008 to 2009. While the quantity and quality of CSRR has been generally increased over the year, results of study indicated the highest mean difference of every component of CSRR was in year 2007 (with exception of marketplace, which produces the highest mean difference in year 2008), the first year when CSRR mandatory requirement was take into effect. This in turns triggers more questions on the role of CSRR regulation in shaping the CSRR made by firms.

Instead of reporting all components of CSRR, firms are seen to be selective in choosing the CSRR's components of interest. For example, there are firms who choose not to report their environment- and community-related activities or information to the stakeholders. This is in spite of the mandatory CSRR requirement. All sample-firms did provide minimum reporting for workplace-related and marketplace-related information over the five-year period. This may partly signify the greater importance paid on employee and the market players rather than the community and environment. Future research may explore more on this matter.

**Table 2: Descriptive Statistics of CSRR Quantity**

CSRR	Year	Mean	Mean Diff	Maximum	Minimum
Environment	2005	6.367		109.000	0.000
	2006	8.556	2.189	109.000	0.000
	2007	12.144	<b>3.588</b>	148.000	0.000
	2008	14.561	2.417	134.000	0.000
	2009	17.578	3.017	179.000	0.000
Community	2005	10.422		101.000	0.000
	2006	14.778	4.356	140.000	0.000
	2007	20.661	<b>5.883</b>	150.000	0.000
	2008	24.994	4.333	206.000	0.000
	2009	25.933	0.939	134.000	0.000
Workplace	2005	14.478		130.000	1.000
	2006	16.617	2.139	143.000	1.000
	2007	22.394	<b>5.777</b>	224.000	1.000
	2008	27.061	4.667	232.000	1.000
	2009	28.967	1.906	242.000	1.000
Marketplace	2005	23.283		246.000	4.000
	2006	25.761	2.478	226.000	5.000
	2007	29.639	3.878	286.000	5.000
	2008	34.528	4.889	287.000	5.000
	2009	35.867	1.339	302.000	5.000
Others	2005	2.061		32.000	0.000
	2006	3.922	1.861	55.000	0.000
	2007	7.278	<b>3.356</b>	115.000	0.000
	2008	7.806	0.528	136.000	0.000
	2009	7.956	0.150	133.000	0.000
Total CSRR	2005	56.611		396.000	5.000
	2006	69.633	13.022	562.000	6.000
	2007	92.117	<b>22.484</b>	716.000	6.000
	2008	108.950	16.833	714.000	9.000
	2009	116.300	7.350	758.000	9.000

**Table 3: Descriptive Statistics of CSRR Quality**

CSRR	Year	Mean	Mean Diff	Maximum	Minimum
Environment	2005	0.073		0.524	0.000
	2006	0.097	0.024	0.714	0.000
	2007	0.140	<b>0.043</b>	0.571	0.000
	2008	0.174	0.034	0.571	0.000
	2009	0.194	0.020	0.762	0.000
Community	2005	0.109		0.576	0.000
	2006	0.147	0.038	0.667	0.000
	2007	0.188	<b>0.041</b>	0.636	0.000
	2008	0.210	0.022	0.636	0.000
	2009	0.215	0.005	0.727	0.000
Workplace	2005	0.133		0.567	0.033
	2006	0.146	0.013	0.633	0.033
	2007	0.180	<b>0.034</b>	0.633	0.033
	2008	0.204	0.024	0.700	0.033
	2009	0.211	0.007	0.733	0.033
Marketplace	2005	0.145		0.519	0.037
	2006	0.156	0.011	0.667	0.074
	2007	0.166	0.010	0.481	0.074
	2008	0.181	0.015	0.481	0.074
	2009	0.187	0.006	0.815	0.074
Others	2005	0.066		0.444	0.000
	2006	0.081	0.015	0.444	0.000
	2007	0.130	<b>0.049</b>	0.556	0.000
	2008	0.149	0.019	0.556	0.000
	2009	0.148	-0.001	0.667	0.000
Total CSRR	2005	0.105		0.401	0.014
	2006	0.125	0.020	0.472	0.021
	2007	0.161	<b>0.036</b>	0.452	0.021
	2008	0.184	0.023	0.498	0.021
	2009	0.191	0.007	0.597	0.040

## CONCLUSIONS

This study examines the changes in the quantity and quality of CSRR disclosed in firms' annual reports from a longitudinal analysis perspective, reflecting both the voluntary and mandatory CSRR period. From the descriptive analysis, it is shown that both quantity and quality of CSRR has been improved over the five-year period (from year 2005 to 2009) with the highest mean difference occurred in year 2007, the first year when mandatory CSRR requirement was taken place. Overall, this study highlights the significant role of CSRR regulation in shaping the development of CSRR, particularly in one emerging market that is Malaysia. More rigorous analysis on this matter is warranted, in line with the continuous development of CSRR in the country.

<sup>i</sup> Social issues: corruption, poverty, human rights violations, inequalities and social exploitation; while environmental issues: climate change, natural disasters, ecological problem.

<sup>ii</sup> Stakeholders can be categorized into two main groups: internal (employees, managers and the board of directors) and external (customers, government and society / community) stakeholders.

<sup>iii</sup> Fiedler and Deegan (2007) have adopted a multiple perspective of CSRR.

<sup>iv</sup> For examples, Cowen et al. (1987), Belkaoui & Karpik (1989), Guthrie & Parker (1989), Patten (1991), Ness & Mirza (1991), Gray et al. (1995a), Hackston & Milne (1996), Deegan & Rankin (1997), Adams et al. (1998), Brown & Deegan (1998), Neu et al. (1998), Newson & Deegan (2002), Campbell et al. (2006).

<sup>v</sup> For examples, Singh & Ahuja (1983), Teoh & Thong (1984), Andrew et al. (1989), Hegde et al. (1997), Williams (1999), Imam (2000), Belal (2001), Kuasirikun & Sherer (2004), Haniffa & Cooke (2005), De Villiers et al. (2006), Barako (2007), Ghazali (2007).

<sup>vi</sup> In year 2005: voluntary CSRR practice. In year 2006: still voluntary, but with expectation that CSRR will become mandatory soon.

<sup>vii</sup> Year 2007: the first year when CSRR become mandatory; till the year 2009: when the most current data on CSRR is available at the time the research were taken.

<sup>viii</sup> This sample size is consistent with the one adopted by (Haniffa & Cooke, 2005) and (Ghazali, 2007), who used 20 companies and 25 companies respectively as sample in their pilot study.

<sup>ix</sup> Several different methods have been used in prior studies to measure the amount or volume of CSRD, for examples, number of pages (Gray, et al., 1995a; Guthrie & Parker, 1990; Kuasirikun & Sherer, 2004; Patten, 1992; Unerman, 2000); paragraph (Guthrie, Petty, Yongvanich, & Ricceri, 2004); sentences (Haniffa & Cooke, 2005; Williams & Pei, 1999); lines (Trotman & Bradley, 1981; Choi, 1999; Patten, 2002c; Garcia-Ayuso & Larrinaga, 2003); and words (Zeghal & Ahmed, 1990; Deegan & Rankin, 1996; Brown & Deegan, 1998; Wilmshurst & Frost, 2000; Campbell et al., 2003, 2006; Haniffa & Cooke, 2005). Each of these measurements has their own strengths and weaknesses, as evident in the extant literature.

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