QUANTITY VERSUS QUALITY: THE VALUE RELEVANCE OF CSR DISCLOSURE OF SAUDI COMPANIES

Khaleed Alotaibi*, Khaled Hussainey**

* Plymouth Business School, Plymouth University ** Plymouth Business School, Plymouth University

Abstract

We offer a novel contribution by examining the impact of Corporate Social Responsibility (CSR) disclosure quantity and quality on firm value. We use a sample of 171 non-financial firms listed in the Saudi stock market for the period 2013-2014. We complement and extend the work of Hasseldine, Salama and Toms (2005) by measuring the quantity and quality of CSR disclosure and examining their impact on firm value. To measure CSR disclosure quality, we following Beest el al (2009) and capture all qualitative attributes of information quality as defined in the conceptual framework of the IASB (2010 a). We use a CSR disclosure index to measure the quantity of disclosure.

Our analysis shows a positive association between CSR disclosure quality and quantity and market capitalisation. However, we did not find the same results when we use either Tobin's Q or Return on Assets (ROA) as proxies for firm value. This suggests that both CSR disclosure quantity and quality have the same impact on firm value. However, the significance of this impact depends on whether the authors use market capitalisation, Tobin's Q or ROA.

Keywords: Corporate Social Responsibility, Disclosure Quantity versus Quality, Firm Value, Saudi Arabia

1. INTRODUCTION

Corporate Social Responsibility (CSR) disclosure quantity and quality have attracted major interest in accounting literature since the publication of a remarkable paper by Hasseldine, Salama and Toms (2005). Using a subjective measure of environmental disclosure quality, Hasseldine et al (2005:231) offer the first empirical evidence that the "quality of environmental disclosure rather than mere quantity has a stronger effect on the creation of environmental reputation amongst executive and investor stakeholder groups. They suggest that further investigation on the impact of CSR disclosure strategy and stock market value could be extremely useful in understanding the relevance of CSR disclosure quantity and quality. Our study aims to examine this important research issue.

In a recent study, Zahller, Arnold and Roberts (2015:155) provide evidence that "when CSR disclosures are higher quality, investors perceive organizational legitimacy to be higher, inferring that organizations should emphasize quantifiable, consistent, and comparable reporting". This implies that "high-quality voluntary CSR disclosure can help protect organizational financial market performance following an exogenous shock through the disclosure's effect on perceived legitimacy" (Zahller et al, 2015:174). Therefore, we expect that CSR quality should have a positive impact on firm value.

Zahller, et al (2015:174) consider two characteristics of information quality (the accuracy and completeness of CSR information) when measuring the quality of CSR disclosure. They suggest further research to consider "the factors producing high-quality voluntary CSR disclosures to understand how information characteristics interact with cognitive, affective, and behavioral user affecting characteristics in organizational performance. Our study is a response to Hasseldine et al (2005:231) and Zahller, et al (2015). We following Beest el al (2009) and capture all qualitative characteristics of information quality as defined in the conceptual framework of the IASB (2010). We use a CSR disclosure index to measure the quantity of disclosure. We then examine the impact of CSR quantity and quality on firm value in Saudi Arabia. Saudi Arabia provides a unique country context in which to analyse the impact of CSR disclosure quantity and quality on firm value because of its emerging economy with different religious, social and political systems and traditions. Daily life, business, law, economics and political aspects of the Saudi society are affected by Islamic principles. In addition, the country improved its corporate governance (CG) code in 2010. This strengthened CG code requires companies to disclose their CSR activities in their annual reports. Moreover, the code is affected by Islamic principles that have paved the way for the introduction of Islamic governance characteristics (Albassam, 2014), and this is bound to affect the CSR disclosure of Saudi Arabian companies.

The impact of CSR disclosure on firm values of Saudi Arabian companies has not been thoroughly documented, although there are some studies that have investigated CSR in Saudi Arabia (e.g.Habbash and Ibrahim, 2015; Mandurah et al., 2012). Furthermore, Nalband et al. (2013) observed CSR perceptions, practices and performance of listed companies in Saudi Arabia. Our study offers two major contributions. First, we offer a new measure for CSR disclosure quality for one of the developing countries, Saudi Arabia. Second, we are the first to examine the impact of the quantity and quality of CSR disclosure on firm values in Saudi Arabia.

We find a positive relationship between CSR disclosure quality/ quantity and market capitalisation. However, we did not find the same observation when we use either Tobin's Q or Return on Assets (ROA) as proxies for firm value. This suggests that both CSR disclosure quantity and quality have the same impact on firm value. However, the significance of this impact depends on whether the authors use market capitalisation, Tobin's Q or ROA.

The remainder of the paper is organised as follows: Section 2 discusses theories, Section 3 reviews the literature, Section 4 explains the research design, Section 5 reports the results and Section 6 concludes the research.

2. THEORIES

There are many theories that explain the relationship between CSR disclosure and the value of a company. We use the signalling and agency theories and the efficient market hypotheses to explain the relationship between these variables.

2.1 Signalling and Agency theory

Prior research shows that a company's voluntary disclosure impacts its value based on signalling theory (Sheu et al., 2010). The use of signalling theory explains why companies disclose CSR information to their stakeholders (Uyar et al., 2012). It is argued that voluntary disclosures in the annual report send signals to the marketplace that are expected to increase a company's net present value and consequently its stock market value (Gordon et al., 2010). In addition, prior research (i.e. Sheu et al. 2010) shows that disclosure reduces the information asymmetry between insiders (managers) and outsiders (stakeholders) and hence reduced agency conflicts between both parties. This leads to an increase in firm value (Sheu et al. 2010).

2.2 Efficient market hypotheses (EMH)

According to the Efficient Market Hypothesis, CSR information is expected to be of increased benefit to investors as this information may lead to positive or negative adjustments in company security prices, thus affecting the value of a company (Jensen, 1978).

3. LITERATURE REVIEW

A limited number of studies examine the impact of disclosure on firm value (Uyar et al., 2012). However, the results are mixed. For example, Hassan et al. (2009) find that mandatory disclosure has a negative relationship with firm value while voluntary disclosure has no impact on firm value. Da-Silva and Alves (2004); Sheu et al. (2010), Gordon et al. (2010);; Curado et al. (2011) and Uyar and Kiliç (2012) find that voluntary disclosure impacts firm value. In a recent paper, Elzahar et al. (2015) find a weak positive relationship between KPIs disclosure and firm value. Uyar and Kiliç (2012) noted that the relationship between voluntary disclosure and a company's value depends on the measure of a

company's value (e.g., market to book value and market capitalisation).

Limited literature examines the value relevance of CSR disclosure. Cho, Lee, and Pfeiffer (2013) investigated relationship between CSR the performance and information asymmetry. They found that CSR performance is inversely related to information asymmetry. The association, however, can be found only in companies that have less institutional investors, implying that fully informed investors are bound to act upon information relating to CSR performance. Richardson et al. (2001) investigated the relationship between social disclosure and cost of equity capital. They found a positive association between social disclosure and cost of equity capital. Hussainey and Salama (2010) also provide evidence that higher levels of corporate environmental reporting scores improve investors' ability to anticipate future earnings. Ulmann (1985) argued that firms use social disclosures in order to manage relationships with their stakeholders. He suggested that social disclosure is a function of three dimensions: stakeholders' power, strategic posture and economic performance. Dhaliwal et al. (2011) found that firms that report non-financial social responsibility information are more likely to raise larger amounts of equity capital in the two years following the reporting, compared with nonreporting firms. From a signaling perspective, managers seeking finance assistance may wish to send good signals to the investors and debt holders. For investors, such communication is credible because managers making fraudulent signals will be penalized (Hughes, 1986). This suggests that firm value might be lowered due to investors' negative expectations with regard to the financial consequences of social and environmental aspects. Hasseldine et al.(2005) investigate the association between corporate environmental disclosure and corporate environmental performance measured by the environmental reputation. They find the quality of environmental disclosure more impact than the quantity of disclosure on the environmental reputation. Elliot et al. (2014) they find that association between CSR performance and investors' estimates of fundamental value that can be diminished by investors' explicit valuation of CSR performance.

To the best of our knowledge, there is no prior research on the impact of CSR disclosure quantity and quality on firm value (Habbash, and Ibrahim. 2015; Mondarah, et al. 2012), particularly in Saudi Arabia. Therefore, this study attempts to investigate this issue. Based on the above discussion and because of the mixed findings, we hypothesise that:

H1: There is an association between the quantity of CSR disclosure and firm value in Saudi Arabia.

Agency and signalling theories suggested that disclosure quality should help in correcting any firm mis-valuation. Both theories argued that disclosure quality should help in in reducing asymmetric information among the stock market participants, as well as between managers and investors. Therefore, firm value should be increasing as a result of disclosure quality through either reducing its cost of capital or increasing the cash flow to its shareholders or both (Elzahar et al, 2015). Prior research argues that there is little evidence on this research stream to deduct a cohesive conclusion on the relationship between disclosure quality and firm value (Hassan et al, 2009). In addition, Beattie et al. (2004: 233) argue that: "Researchers investigating

VIRTUS

the determinants and consequences of disclosure quality could be wasting their effort if the primary variable of interest Disclosure is not being measured with a sufficient degree of accuracy". Also, Beyer et al. (2010:311) review prior research different proxies for disclosure quality and conclude that: "a sensible economic definition of voluntary disclosure/ financial reporting quality and direct derivation of measures from that definition is missing from the literature. This lack of an underlying economic definition hinders our ability to draw inferences from this work, and we recommend that future research address this issue". In the CSR literature, Hasseldine et al (2005:231) showed that the quality (not the quantity) is more information for UK companies' reputation. Zahller, Arnold and Roberts (2015)showed that investors perceived organizational legitimacy higher to be for companies with higher levels of CSR disclosure quality. Hence, we expect that CSR disclosure quality should positively affect firm value. Therefore, we hypothesise that:

H2: There is a positive association between the quality of CSR disclosure and firm value in Saudi Arabia

4. RESEARCH DESIGN

4.1. Sample

The current study uses a sample of Annual Reports of Saudi Arabian non-financial companies listed on the Saudi Stock Exchange over the period of 2013-2014. The period chosen because it is close to the declaration of the Saudi governance code that included social contributions. In addition, the study is based on the most recent company Annual Reports that contain CSR disclosure. Moreover, non-financial companies are more likely to be utilised for their social and environmental impact, which can have a major influence on a company's reputation (Brammer and Pavelin, 2008).

The total number of non-financial companies listed in Saudi Stock Exchange for years 2013-2014 is 198. Following prior research (i.e. Hussainey and Salama, 2010), financial firms were excluded. In addition, companies with missing financial data and firms have been suspensions were excluded, this leaving a sample of 171 companies for both years. Table 1 shows the final sample sorted by industries.

Table 1. Sample classification among industries

Industry	Ν	%				
Basic Material	28	16.4%				
Consumer goods	27	15.8%				
Consumer services	35	20.5%				
Industrials	66	38.6%				
Real states	4	2.3%				
Telecommunication	7	4.1%				
Utilities	4	2.3%				
Total	171	100%				
This Table provides the distribution of the sample amongst industries. The definitions of the industries are based on the						

Industry Classification Benchmark (ICB).

Annual Reports were collected from the official websites of companies. Governance data was manually collected from the companies' Annual Reports. All financial data is collected from Datastream. The table 2 shows Datastream codes for the financial data.

Table 2. Datastream	Variables Definitions
---------------------	-----------------------

Variable	Measurement
Leverage	The ratio of total debt to total capital (WC 08221)
Liquidity	Current ratio (WC 08106)
Cash dividends paid	Total dividends paid to common shareholders (WC 04551)
Asset growth	Total assets growth (WC 08621)
Capital expenditure assets	Capital expenditures as percentage of total assets (WC 08416)

4.2. Measuring CSR disclosure quantity and quality

This study develops two disclosure indices: one to measure the level of CSR disclosure quantity, and the other to measure CSR disclosure quality. The index for CSR disclosure quantity is based on prior research (e.g., Ng, 1995; Hackston & Milne, 1996; Hall, 2002; Newson & Deegan, 2002). This index consists of seven disclosure categories: (1)employees, (2) communities, (3) environmental issues, (4) products and services, (5) energy, (6) customers and (7) other disclosure items which are consistent and compatible with the Saudi Arabia culture and its economic environment. Appendix 1 details the disclosure index for CSR disclosure quantity. In determining the CSR disclosure quantity, an unweighted disclosure is commonly utilised. This approach has been adopted by several researchers in which an item scores one if it is disclosed and zero if it is not disclosed (Abdurouf, 2011; Haji, 2013; Aribi and Gao, 2010; Anwar et al., 2010).

Following prior research (e.g., Botosan, 2004; Jonas and Blanchet, 2000; Beest et al., 2009; Chakroun et al. 2014), this study develops a disclosure index to measure the level of CSR quality the qualitative characteristics based on of accounting information suggested in the conceptual frameworks of the International Financial Reporting Standards (IFRS) (2010A). This allows for the evaluation of the qualitative characteristics of financial information by weighted measure as provided in earlier studies (Beest et al., 2009; Chakroun & Hussainey, 2014). The study adopted the four qualitative characteristics of CSR

information: "relevance," "faithful representation," "understandability" and "comparability" to assess the CSR disclosure quality in Annual Reports. The reliability and validity of our disclosure scores are checked by comparing the correlation between the scores produced by the first author with those produced by the second author for a sample of annual reports.

4.3. Measuring firm value

This study used three measurements of firm value. These are Tobin's Q ratio, market capitalization and return on assets (ROA). Although there is no agreement in the literature about an ideal measure for firm value (Mangena et al., 2012; Albassam, 2014), these measures are used extensively in prior studies. The standardization of this type of measure would be helpful to develop comparability with other studies (Munisi and Randoy, 2013).

Our first measure of firm value is the natural logarithm of a company's Tobin's Q ratio at the end of the fiscal year. Tobin's Q = [(total debt + market value of equity) / book value of total assets]. The

second measure is the market capitalization (Uyar and Kilic, 2012). Market capitalization is measured as the market value of common equity at the end of a company's year of operations. The third measure is the return on assets (ROA) that determines a company's net income in relation to its total assets.

5. REGRESSION MODEL

To test the hypotheses (H1, H2), we control for corporate governance variables and firm characteristics. In particular, we consider the variables: Board size, independent following directors, governmental ownership, managerial ownership, and CEO duality, frequency of Board meetings, audit committee size, remuneration committee size, liquidity, leverage, dividends, asset growth and capital expenditure. In addition, the year and industry fixed effects were also included to control for the year and industry effect. Equation 1 examines the value relevance of CSR disclosure quantity while equation 2 examines the value relevance of CSR disclosure quality.

Where

Firm value measured by TQ, ROA and MC; CSRQuan refers to the quantity of CSR disclosure; CSRQual is the quality of CSR disclosure; BSZE is the total number of directors on board; INDTO number of independent directors in the firm board of directors, GOVWN Percentage of shares owned by government, MANOW is the aggregate percentage of shares hold by major shareholders (with at least 3% ownership), CEOD A dummy variable equals 1 if the chairman is the same person as the CEO of the firm,0 otherwise BMET is the total number of board meetings during the year; ACSZE is the is the total number of directors in audit committee; , REMCOSZE Number of members of the firm remuneration committee, LIQ is firm liquidity, measured using the current ratio (current liabilities); LEV is firm leverage, measured using the ratio of total liabilities to total assets, measured by Capital expenditures as percentage of total assets.

5.1. Results

5.1.1 Descriptive statistics

Table 2 shows the descriptive statistics of CSR disclosure quantity and quality on firm value. The mean value of CSR disclosure quantity and quality is 9.433 and 0.334, respectively, which reveals that the value of CSR disclosure quantity in Saudi Arabian firms is higher than the value of CSR disclosure quality. In addition, the minimum and maximum values of CSR disclosure quantity range from 0.000 to 51.00. However, the minimum and maximum values of CSR disclosure quality range from 1.00 to 1.3.

Furthermore, this study uses three measurements (TQ, ROA and MC) to examine the impact of CSR disclosure on value in Saudi Arabia firms. As result, the mean value of LogTQ is 0.6647 and the minimum and maximum are 0.038 and 2.194, respectively. Moreover, the mean value of ROA is 8.976, the maximum is 36.530 and the minimum is -15.41. The mean value of MC is 15.040, whereas the minimum and maximum values are 12.88 and 19.628, respectively.

In terms of governance mechanisms, the mean value of Board size (BSZE) is 8.485 with a minimum value of 4.0 and maximum value of 12.0. This means that the Board size of Saudi Arabian firms ranges from 4-12 members. The mean value of the

percentage of independent directors (INDTOR) in the Board is 4.064 with a minimum value of 0.00 and a maximum value of 11.0. In terms of ownership structure, the mean value of governmental ownership (GOVWN) is 0.032 and minimum and maximum values are 0.000 and 0.743, respectively. In addition, the mean value of managerial ownership (MANOWR) is 0.055 and the minimum is 0.000 and the maximum is 0.700. The mean value of the role duality of CEO (CEOD) is 0.357 with a minimum value of 0.000 and a maximum value of 1.0. The mean value of Board meetings (BMET) is 5.292; whereas, the minimum value is 0.000, and the maximum value is 16.0. The audit committee size (ACSZE) of Saudi Arabian firms has a mean value of 3.316 and its minimum value is 0.000 and its maximum value is 6.0. Furthermore, the mean value of remuneration committee size (REMUCOSZE) is 3.368 and the minimum value is 0.000 and the maximum value is 7.0.

With regard to firm characteristics, the mean value of firm liquidity (LIQ) is 1.39 and the minimum and maximum values are 0.070 and 5.770, respectively. The mean value of firm leverage (LEV) is 57.96 with a minimum value of 0.000 and a maximum value of 354.910. Furthermore, the dividends paid (DIVI) have a mean value of 493,507 and the minimum and maximum of 0.000 and 18,502,401, respectively. In addition, asset growth (ASTGTH) has a mean value of 8.736 and the

minimum and maximum values of -28.730 and 75.120, respectively. Finally, the mean value of capital expenditure assets (CAPEXAST) is 7.558 and

the minimum value is 0.000 and the maximum value is 56.950.

	N	Mean	Std Dev.	Minimum	25%	Medium (50%)	75%	Maximum	
Log TQ	171	.6647	.4891	.038	.260	.582	.926	2.194	
Log Capitalization	171	15.040	1.3786	12.88	14.036	14.694	15.977	19.628	
Return assets	171	8.976	9.064	-15.41	3.480	7.810	12.580	36.530	
CSR quant	171	9.433	9.517	.000	2.000	6.000	15.000	51.0	
CSR qual	171	.334	.1417	.100	.2000	.325	.425	1.300	
BSZE	171	8.485	1.606	4.00	7.000	9.000	9.000	12.0	
INDTOR	171	4.064	1.587	.000	3.000	4.000	5.000	11.0	
GOVWN	171	.0325	.1347	.000	.000	.000	.000	.7431	
MANOWR	171	.0557	.1264	.000	.000	.000	.0450	.7000	
CEOD	171	.357	.4804	.000	.000	.000	1.000	1.0	
BMET	171	5.292	2.3230	.000	4.000	5.000	6.000	16.0	
ACSZE	171	3.316	.9297	.000	3.000	3.000	4.000	6.0	
REMUCOSZE	171	3.368	1.0677	0.000	3.000	3.000	4.000	7.0	
LIQ	171	1.393	1.275	.0700	.480	.960	1.770	5.770	
LEV	171	57.961	67.515	.000	8.200	32.760	87.490	354.910	
DIVI	171	493507	1858755	0.000	23.000	65000	306000	18502401	
ASTGTH	171	8.736	13.750	-28.730	.000	6.200	14.550	75.120	
CAPEXAST	171	7.558	8.760	.000	1.470	4.630	11.090	56.950	
Firm value measured by TQ , ROA and MC ; CSRQuan refers to the quantity of CSR disclosure; CSRQual is the quality of CSR disclosure; BSZE is the total number of directors on board; INDTO number of independent directors in the firm board of directors, GOVWN Percentage of shares owned by government, MANOW is the aggregate percentage of shares hold by major shareholders (with at least 3% ownership), CEOD A dummy variable equals 1 if the chairman is the same person as the CEO of the firm,0 otherwise BMET is the total number of board meetings during the year; ACSZE is the is the total number of directors in audit committee;, IREMCOSZE Number of members of the firm remuneration committee, LIQ is firm liquidity, measured using the current ratio (current assets / current liabilities); LEV is firm leverage, measured using the ratio of total liabilities to total assets, DIVI Total dividends paid to common shareholders. ASTGTH is firm Assets growth ratio, CAPEXAST									
is capital expenditures as	ssets, me	easured by C	apital expen	ditures as perc	entage of to	otal assets.			
***, **, * indicate signific	ance at .	001, .05 & .1	level.						
This table provides the descriptive statistics of CSR disclosure quantity and quality, in addition to explanatory variables.									

Table 3. Sample descriptive statistics

5.1.2 Correlation analysis

Gujarati and Porter (2009) show that variables have high correlation if the correlation is higher than 0.80, and thus conclude that multi-collinearity among variables is acceptable if the correlation coefficients are less than 0.80. Table 3 shows the Pearson correlation. It shows that correlations are relatively low (less than 0.80) among all variables which indicate that there is no multi-collinearity problem.

An additional check for multi-collinearity was performed by calculating the Variance Inflation Factor (VIF) after each regression model. Earlier research has stipulated that if the VIF value is more than 10, then there is certain to be a multicollinearity problem. The mean and maximum values of the VIF investigations were formulated with the regression results to show that there is no need to be concerned with this problem (Field, 2009).

Table 3 shows that CSR disclosure quantity is positively correlated with market capitalization at 0.371 (5% significance level). However, there is no correlation between CSR disclosure quantity and the other measurements. It provides evidence that CSR disclosure quantity is statistically correlated positively with some corporate governance variables such as BSZE at 0.182 (10% significance level), CEO duality at 0.191 (10% significance level), ACSZE at 0.173 (10% significance level), and correlated positively and negatively with firm characteristics, such as dividends paid at 0.287 (5% significance level) and CAPEXAST at -0.187 (10% significance level).

In addition, the CSR disclosure quality is associated positively with market capitalization at 0.305 (5% significance level). However, there is no correlation with the two other measurements. Table 3 shows that it is correlated with one variable of corporate governance, such as managerial ownership at 0.199 (5% significance level), and with firm characteristics, such as dividends paid at 0.338 (5% significance level).

Moreover, the Pearson correlation matrix indicates a significant association between CSR disclosure quantity and quality with some firm characteristic variables. This study finds that there is a positive relationship between CSR disclosure quantity and quality and both are significantly correlated with dividends paid at 0.287 and 0.338, respectively (5% significance level).

This result is consistent with prior research, such as Elliott, Jackson, Peecher and White (2014), who show that CSR disclosure is negatively associated with firm value. According to Klein et al. (2005), firm value rises with greater corporate governance disclosure, thus we suppose that voluntary disclosure has a positive impact on the firm value. Previous studies (Sheu et al., 2010; Gordon et al., 2010) pointed out that voluntary disclosure has an impact on firm value based on the signalling theory. Consequently, more disclosure signals give a better governance mechanism and reduce agency conflicts.



	CSR quant	CSR qual	LogTQ	og Capitalization	Return assets	BSZE	INDTO	GOVWN	MANOW	CEOD	BMET	ACSZE	REMCOSZE	ЦQ	LEV	DIVI	ASTGTH	CAPEXAST
CSR	1	.668**	.037	.371**	.118	.182*	.001	.079	.021	.191*	.063	.173*	.000	008	095	.287**	048	187*
quant		.000	.630	.000	.123	.017	.991	.301	.788	.012	.414	.024	.996	.914	.216	.000	.536	.014
CSR qual		1	.054	.305**	.024	.092	098	.096	.199**	.108	029	.142	.071	.036	080	.338**	.054	127
con quar			.486	.000	.756	.232	.203	.209	.009	.159	.704	.064	.357	.639	.296	.000	.481	.097
LogTQ			1	.009	.553**	148	065	105	.210**	.095	040	047	.031	.195**	522**	015	.145	.245**
Log				.910	.000	.053	.401	.172	.006	.214	.606	.540	.684	.011	.000	.851	.058	.001
LOg Canitaliza				1	.284^^	.371**	099	.426^^	.026	.110	.177^	.304**	.272**	.030	.183	.562	014	016
tion					.000	.000	.200	.000	.734	.131	.021	.000	.000	.094	.017	.000	.034	.031
Return					1	.157*	.060	165*	.130	.173*	.010	016	.089	.271**	362**	.114	.109	.197**
assets						.041	.438	.031	.089	.023	.897	.840	.248	.000	.000	.137	.157	.010
PS7F						1	.352**	.089	020	.049	.047	.165*	.286**	004	.081	.088	.004	129
BSZE							.000	.245	.798	.527	.543	.031	.000	.956	.291	.253	.960	.093
INDTO							1	099	.049	038	.011	.062	018	.046	074	087	054	164*
IIID I O								.200	.525	.622	.888	.421	.820	.546	.339	.257	.481	.032
GOVWN								1	107	022	.119	.278**	.254**	030	.226**	.495**	035	.012
									.163	.//1	.122	.000	.001	.701	.003	.000	.047	.873
MANOW							ł		1	050	155"	098	089	064	009	070	.245***	.142
										1	- 073	062	- 017	- 033	- 147	177*	044	- 135
CEOD							1			1	.343	.418	.826	.670	.055	.021	.563	.077
DIVET											1	.172*	.189*	113	073	.158*	203*	.033
BMEI												.024	.013	.143	.346	.040	.008	.669
ACS7F												1	.635**	.001	.121	.216**	236**	133
ACSEL													.000	.986	.116	.004	.002	.082
REMCOSZ													1	021	.090	.249**	166*	049
E							-			-				.786	.241	.001	.030	.526
LIQ														1	301*	.122	.009	143
															.000	.111	.906	.005
LEV										1					1	000	373	129
																1	- 114	- 042
DIVI																-	.138	.584
ASTCTU						1											1	.339**
ASIGIN																		.000
CAPEXAS							ļ											1
Firm value a board of din person as the committee, ASTGTH is This table p	T Firm value measured by TQ, ROA and MC; CSRQuan refers to the quantity of CSR disclosure; CSRQual is the quality of CSR disclosure; BSZE is the total number of directors on board; INDTO number of independent directors in the firm board of directors, GOVWN Percentage of shares owned by government, MANOW is the aggregate percentage of shares hold by major shareholders (with at least 3% ownership), CEOD A dummy variable equals 1 if the chairman is the same person as the CEO of the firm, 0 otherwise BMET is the total number of board meetings during the year; ACSZE is the total number of directors in audit committee; , REMCOSZE Number of members of the firm remuneration committee, LIQ is firm liquidity, measured using the current ratio (current lassets / current liabilities); LEV is firm leverage, measured using the ratio of total liabilities to total assets, DIVI Total dividends paid to common shareholders. ASTGTH is firm Assets growth ratio, CAPEXAST is capital expenditures assets, measured by Capital expenditures as percentage of total assets.																	

Table 4. Pearson correlation matrix

VIRTUS

5.3 Regression result

Tables 4 and 5 show the results of OLS regression analyses. Table 4 shows the results of the value relevance of CSR disclosure quantity (Model 1), while, Table 5 reports the results of the value relevance of CSR disclosure quality (Model 2).

The regression tables show that F-values of Model 1 are 5.997; 4.667 and 13.242 for Tobin's Q model (TQ), return on assets (ROA) model and the market capitalisation (MC) model, respectively. F-values of Model 2 are 5.982; 4.672, and 10.883 for TQ; ROA and MC models, respectively. These values indicate that both Models 1 and 2 are statistically significant. Moreover, the adjusted R-Squared of Model 1 for the three measurements (TQ, ROA, MC) are 0.382, 312 and 0.602, respectively. Adjusted R-Squared of Model 2 are 0.381, 0.312 and 550, respectively for TQ, ROA and MC models.

In terms of CSR disclosure, there is a significant positive association between CSR quantity and firm value proxied by market capitalization (MC) at a 1% level of significance. However, the CSR disclosure quantity is not statistically significant with Tobin's Q ratio or ROA at any level of significance. Regarding CSR disclosure quality, there is a significant positive relationship between CSR disclosure and firm value measured by market capitalization (MC) at a 5% level of significance. On the other hand, there is no statistical significance with Tobin's O or ROA at any level of significance. Our analysis shows a positive association between CSR disclosure quality and quantity and market capitalization. However, we did not find the same results when we use either Tobin's Q or Return on Assets (ROA) as proxies for firm value. This suggests that both CSR disclosure quantity and quality have the same impact on firm value. However, the significance of this impact depends on whether the authors use market capitalisation, Tobin's Q or ROA. Therefore, it is not safe to accept H1 and H2.

Prior research (e.g. Hassan et al. 2009) finds that voluntary disclosure has a positive but insignificant association with firm value. On the other hands, the result shows that the mandatory disclosure has a negative association with firm value and highly significant. Dybvig & Warachka (2015) argued that Tobin's Q does not measure firm performance and it provides the two new measures for the firm value which are efficiency measure and assesses cost discipline. Consequently, this shortage of statistical significance supports the view that there is a conflicts relationship of determining the relationship between CSR disclosure and firm value. In addition, there is no agreement in the literature about an ideal measure for firm value (Mangena et al., 2012; Albassam, 2014). The finance theory suggestion that more public information increases firm value by reducing the firm's cost of capital or increasing the cash follows that accrue to & Plumlee, shareholders ((Botosan 2002). Furthermore, firm value should be increasing as a result of disclosure quality through either reducing its cost of capital or increasing the cash flow to its shareholders or both (Elzahar et al, 2015). Dhaliwal et al. (2011) found that firms that report nonfinancial social responsibility information are more likely to raise larger amounts of equity capital in the two years following the reporting, compared with non-reporting firms. From a signaling perspective, managers seeking finance assistance may wish to send good signals to the investors and debt holders. Looking at the control variables, we noted that the impact of firm characteristics and corporate governance on firm value is not the same in our models. This is because of the definition of our dependent value (firm value) and our independent variable (CSR quantity versus quality).



	Tobin Q			Return on assets	(ROA)		Market capitalization (MC)			
	Coefficient	t- Statistics	Sign	Coefficient	t- Statistics	Sign	Coefficient	t- Statistics	Sign	
Constant	.745***	3.265	.001	-4.889	-1.096	.275	11.540***	22.361	.000	
CSR quan	.002	.416	.678	.022	.286	.775	.045***	4.942	.000	
BSZE	028	-1.237	.218	1.083**	2.449	.015	.202***	3.948	.000	
INDTOR	018	848	.398	075	179	.858	098**	-2.042	.043	
GOVWN	.199	.621	.535	-15.744**	-2.510	.013	1.999***	2.756	.007	
MANOWR	.467*	1.852	.066	6.038	1.224	.223	1.447**	2.536	.012	
CEOD	.110	1.604	.111	2.934**	2.196	.030	.081	.526	.600	
BMET	008	528	.599	.377	1.303	.194	.045	1.333	.184	
ACSZE	028	611	.542	729	820	.414	.145	1.407	.161	
REMUCOSZE	.075*	1.844	.067	1.071	1.351	.179	.048	.525	.601	
LIQ	.062**	2.231	.027	1.484***	2.751	.007	.041	.655	.513	
LEV	003***	-4.437	.000	028**	-2.370	.019	.001	.928	.355	
DIVI	008	764	.446	-007*	1.732	.085	007**	2.585	.011	
ASTGTH	001	366	.715	027	515	.607	.007	1.154	.250	
CAPEXAST	.006	1.437	.153	.262***	3.308	.001	.019**	2.020	.045	
Adjusted R-Squared		.382			.312			.602		
F -test		5.997***			4.667***		13.242***			
F Sig.	.000				.000		.000			
Durbin-Watson		1.335		1.255			1.294			
Observation		171			171			171		
Firm value measured independent directors	Firm value measured by TQ, ROA and MC; CSRQuan refers to the quantity of CSR disclosure; CSRQual is the quality of CSR disclosure; BSZE is the total number of directors on board; INDTO number of independent directors in the firm board of directors, GOVWN Percentage of shares owned by government, MANOW is the aggregate percentage of shares hold by major shareholders (with at least 3%)									

Table 5. Regression result of CSR quantity

Firm value measured by TQ, ROA and MC; CSRQuan refers to the quantity of CSR disclosure; CSRQual is the quality of CSR disclosure; BSZE is the total number of directors on board; INDTO number of independent directors in the firm board of directors, GOVWN Percentage of shares owned by government, MANOW is the aggregate percentage of shares hold by major shareholders (with at least 3% ownership), CEOD A dummy variable equals 1 if the chairman is the same person as the CEO of the firm,0 otherwise BMET is the total number of board meetings during the year; ACSZE is the is the total number of directors in audit committee; , REMCOSZE Number of members of the firm remuneration committee, LIQ is firm liquidity, measured using the current ratio (current assets / current liabilities); LEV is firm leverage, measured using the ratio of total liabilities to total assets, DIVI Total dividends paid to common shareholders. ASTGTH is firm Assets growth ratio, CAPEXAST is capital expenditures as percentage of total assets.

***, **, * indicate significance at .001, .05 & .1 level.

This table reports the Regression Results of the impact of CSR disclosure quantity of the firm value

		Tobin Q		R	eturn on assets (ROA)		Market capitalization (MC)			
	Coefficient	t- Statistics	Sign	Coefficient	t- Statistics	Sign	Coefficient	t- Statistics	Sign	
Constant	.759***	3.187	.002	-4.255	915	.362	11.404***	19.931	.000	
CSR qual	019	079	.937	-1.838	386	.700	1.214**	2.075	.040	
BSZE	025	-1.112	.268	1.161***	2.666	.009	.249***	4.657	.000	
INDTOR	020	920	.359	132	312	.755	112**	-2.155	.033	
GOVWN	.181	.568	.571	-16.127**	-2.586	.011	1.659**	2.162	.032	
MANOWR	.473*	1.824	.070	6.505	1.283	.201	1.182*	1.894	.060	
CEOD	.111	1.626	.106	2.929**	2.194	.030	.151	.918	.360	
BMET	007	482	.631	.384	1.337	.183	.067*	1.898	.060	
ACSZE	023	520	.604	633	724	.470	.228**	2.119	.036	
REMUCOSZE	.069*	1.768	.079	.959	1.252	.213	057	606	.545	
LIQ	.060**	2.185	.030	1.451***	2.700	.008	.015	.233	.816	
LEV	003***	-4.456	.000	028**	-2.417	.017	.001	.780	.436	
DIVI	008	609	.543	.007**	1.985	.049	007***	3.549	.001	
ASTGTH	001	353	.725	026	495	.621	.007	1.141	.256	
CAPEXAST	.005	1.332	.185	.251***	3.165	.002	.013	1.363	.175	
Adjusted R Square		.381			.312			.550		
F -test										
F Sig.		5.982***		4.672***			10.883***			
		.000			.000			.000		
Durbin-Watson		1.322			1.246		1.184			
Observation								171		
Firm value measured by	TQ, ROA and MC; C	SRQuan refers to the o	quantity of CSR di	sclosure; CSRQual is	the quality of CSR dis	closure; BSZE is th	e total number of di	rectors on board; IND	O number of	
independent directors i	n the firm board of o	directors, GOVWN Pere	centage of shares	owned by governme	nt, MANOW is the agg	gregate percentage	of shares hold by n	najor shareholders (wi	th at least 3%	
ownership), CEOD A du	ummy variable equal	s 1 if the chairman is t	the same person a	s the CEO of the firm	n,0 otherwise BMET i	s the total numbe	r of board meetings	during the year; ACSZ	E is the is the	
total number of directo	rs in audit committe	e;, , REMCOSZE Numb	er of members of	the firm remunera	tion committee, LIQ is	firm liquidity, me	easured using the cu	rrent ratio (current as	sets / current	
liabilities); LEV is firm l	liabilities); LEV is firm leverage, measured using the ratio of total liabilities to total assets, DIVI Total dividends paid to common shareholders. ASTGTH is firm Assets growth ratio, CAPEXAST is capital									

Table 6. Regression result of CSR quality

expenditures assets, measured by Capital expenditures as percentage of total assets. ***, **, * indicate significance at .001, .05 & .1 level. This table reports the Regression Results of the impact of CSR disclosure quantity of the firm value

6. CONCLUSION

This study aims to examine the impact of quantity and quality of CSR disclosure on the value of a firm. It uses a sample of Saudi Arabian, non-financial listed firms over the period of 2013-2014. It uses three measurements of firm value (Tobin's Q, ROA and MC). The study finds that both CSR disclosure quantity and quality are significantly associated with the firm value measured by MC. However, both CSR disclosure quantity and quality are not significantly associated with TQ and ROA as proxies of firm value.

This study offers important implications for the users of Annual Reports in Saudi Arabia and for companies as well. This study finds evidence that the disclosure of CSR could affect the value of firms. It is provides important implications for managers of Saudi firms by encourage and pay more attention to the CSR activities in the firm's operations and highlights the importance of this type of disclosure to their firms.

The study has some limitations that could be considered as avenues for future research. First, it focuses only on three measurements of firm value which are Tobin's Q, return on assets and market capitalisation. It would be interesting to use other measures for firm value, such as scale efficiency measures, as suggested by Dybvig & Warachka (2015). Second, this study focuses on the CSR disclosure of non-financial firms only. It would be interesting to examine the association between CSR disclosure and firm value for financial companies. We finally suggest that further research could examine the economic consequences of CSR disclosure quantity versus quality by looking at the impact of disclosure on analysts' forecasts; share price anticipation of earnings and the cost of capital.

REFERENCES

- 1. Abdur Rouf, M.D & Al Harun, M. (2011). Ownership structure and voluntary disclosure in annual reports of bangladesh. Pakistan Journal of Commerce and Social Sciences, 5(1), 129-139.
- 2. Ahmed Haji, A. (2013). Corporate social responsibility disclosures over time: evidence from Malaysia. Managerial auditing journal, 28(7), 647-676.
- 3. Albassam, W. (2014). Corporate governance, voluntary disclosure and financial performance: an empirical analysis of Saudi listed firms using mixed-methods of research design. PhD Thesis. University of Glasgow.
- 4. Anwar, S., Romansyah, D., Pramono, S. and Watanabe, K. (2010), "Treating return of mudharabah time deposit as investment instrument", Humanomics, Vol. 26 No. 4, pp. 296-309.
- 5. Aribi, Z. A., & Gao, S. (2010). Corporate social responsibility disclosure: A comparison between Islamic and conventional financial institutions. Journal of Financial Reporting and Accounting, 8(2), 72-91.
- 6. Beattie, V., McInnes, B., & Fearnley, S. (2004). A methodology for analysing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes. Accounting Forum 28, 205-236.
- 7. Beest, F. Braam, G. & Boelens, S. (2009). Quality of Financial Reporting: measuring qualitative

characteristics. Working paper, Radboud University Nijmegen.

- 8. Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics, 50(2), 296-343.
- 9. Botosan, Č. A., & Plumlee, M. A. (2002). A reexamination of disclosure level and the expected cost of equity capital. Journal of Accounting Research, 40(1), 21–40.
- Botosan, C.A. 2004. "Discussion of A Framework for the Analysis of Firm Risk Communication". The International Journal of Accounting 39 (3): 289 - 295.
- 11. Brammer, S., & Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. Business Strategy and the Environment, 17(2), 120-136.
- 12. Chakroun, R. and Hussainey, K. (2014). Disclosure quality in Tunisian annual reports, Corporate Ownership and Control, 11(4):58-80.
- 13. Cho, S. Y., Lee, C., & Pfeiffer, R. J. (2013). Corporate social responsibility performance and information asymmetry. Journal of Accounting and Public Policy, 32(1), 71-83.
- 14. Cleary, S. (1999). The Relationship between Firm Investment and Financial Status. Journal of Finance, 54(2), pp. 673-692.
- 15. Cohen, J., Krishnamoorthy, G., & Wright, A. (2004). The Corporate Governance Mosaic and Financial Reporting Quality. Journal of Accounting Literature. 23. 87-152.
- 16. Curado, C., Henriques, L., & Bontis, N. (2011). Intellectual capital disclosure payback. Management Decision, 49(7), 1080-1098.
- Dhaliwal, D., Hogan, C., Trezevant, R., & Wilkins, M. (2011). Internal control disclosures, monitoring, and the cost of debt. The Accounting Review, 86(4), 1131-1156.
- 18. Dybvigy, P., & Warachka, M. (2015). Tobin's Q does not measure firm performance: theory, empirics, and alternatives. Working paper, Available: http://papers.ssrn.com/sol3/papers.cfm?abstract _id=1562444.
- 19. Elliott, W., Jackson, K., Peecher, M., & White, B. (2014). The unintended effect of corporate social responsibility performance on investors' estimates of fundamental value. The Accounting Review, 89(1), 275–302.
- 20. Elzahar, H., Hussainey, K., Mazzi, F., & Tsalavoutas, I. (2015). Economic consequences of key performance indicators' disclosure quality. International Review of Financial Analysis, 39, 96-112.
- 21. Field, A., (2009). Discovering statistics using SPSS, London: Sage.
- 22. Gordon, L., Loeb, M., & Sohail, T. (2010). "Market value of voluntary disclosures concerning information security", MIS Quarterly, 34 (3), 567-94.
- 23. Gujarati D. N. and Porter D. C. (2009). Basic Econometrics (5th edition) New York. McGraw-Hill.
- 24. Habbash, M. & Ibrahim, A. (2015) determinants of CSR disclosure from Saudi non-financial listed firm. Journal of general administration, 75, (4). (Arabic).
- 25. Habbash, M. Hussainey, K., Alsayed, A., (2015). The determinants of voluntary disclosure in Saudi Arabia: an empirical study. Working paper.
- 26. Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. Accounting, Auditing & Accountability Journal, 9(1), 77-108.

VIRTUS

- 27. Hall, J. A. (2002). An exploratory investigation into the corporate social disclosure of selected New Zealand companies.
- Hassan, O. A., Romilly, P., Giorgioni, G., & Power, D. (2009). The value relevance of disclosure: Evidence from the emerging capital market of Egypt. The International Journal of Accounting, 44(1), 79-102.
- 29. Hasseldine, J., Salama, A., & Toms, J. (2005). Quantity versus quality: the impact of environmental disclosures on the reputations of UK Plcs. The British Accounting Review, 37(2), 231-248.
- 30. Hughes, P. J. (1986). Signalling by direct disclosure under asymmetric information. Journal of Accounting and Economics, 8(2), 119-142.
- 31. Hussainey, K, & Salama A. (2010). The importance of corporate environmental reputation to investors. Journal of Applied Accounting Research, 11(3), 229-241.
- 32. IASB (2008). Exposure Draft on an improved Conceptual Framework for Financial Reporting: The Objective of Financial Reporting and Qualitative Characteristics of Decision-useful Financial Reporting Information. London.
- 33. IASB (2010a). The conceptual framework for financial reporting.
- 34. IFRS (2010a). Practice statement, MC, A framework for presentation. International Financial Reporting Standard, London: UK.
- 35. Jensen, M. C. (1978). Some anomalous evidence regarding market efficiency. Journal of financial economics, 6(2), 95-101.
- 36. Jonas, G. J., & Blanchet, J. (2000). Assessing quality of financial reporting. Accounting Horizons, 14(3), 353-363.
- 37. Jonas, G., & Blanchet, J. (2000). Assessing Quality of Financial Reporting. Accounting Horizons, 14,(3), 353-363.
- 38. Klein S., Astrachan J., & Smyrnios K. (2005). scale of family influence: construction, validation, and further implication for theory. Entrep Theory Pract; 29, 38-321.
- Mandurah, S. Khatib, J., & Al-Sabaan, S. (2012) 'Corporate Social Responsibility among Saudi Arabian Firms: an Empirical Investigation', The Journal of Applied Business Research, 28 (5), 234-246.
- 40. Mangena, M., Tauringana, V., & Chamisa, E. (2012). Corporate boards, ownership structure and firm performance in an environment of severe political

and economic crisis. British Journal of Management, 23(S1), S23-S41.

- 41. McDaniel, L., Martin, R. & Maines, L. (2002). Evaluating Financial Reporting Quality: the Effects of Financial Expertise vs. Financial Literacy. The Accounting Review, 77, 139-167.
- 42. Mendes-Da-Silva, W., & Alves, L. (2004). Internet and Voluntary Disclosure: Firm Value Effect Evidence. Paper presented at the Annual Information Technology Congress.
- 43. Munisi, G., & Randøy, T. (2013). Corporate governance and company performance across Sub-Saharan African countries. Journal of Economics and Business, 70, 92-110.
- 44. Nalband, A, & Al-Amri, M. (2013). 'Corporate social responsibility perception, practices and performance of listed companies of Kingdom of Saudi Arabia', International Business Journal, 23 (3), 284-295.
- Newson, M., & Deegan, C. (2002). Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. The International Journal of Accounting, 37(2), 183-213.
 Ng, L.W. (1985), "Social responsibility disclosures
- 46. Ng, L.W. (1985), "Social responsibility disclosures of selected New Zealand companies for 1981, 1982 and 1983", Occasional Paper No 54, Massey University, Palmerston North.
- 47. Richardson, A. J., & Welker, M. (2001). Social disclosure, financial disclosure and the cost of equity capital. Accounting, Organizations and Society, 26(7), 597-616.
- 48. Sheu, H. J., Chung, H., & Liu, C. L. (2010). Comprehensive disclosure of compensation and firm value: The case of policy reforms in an emerging market. Journal of Business Finance & Accounting, 37(9-10), 1115-1144.
- 49. Ulmann, A. (1985). Data in search of a theory: a critical examination of the relationship among social performance, social disclosure and economic performance. Academy of management review, 10(3), 540-577.
- 50. Uyar, A., & Kiliç, M. (2012). Value relevance of voluntary disclosure: evidence from Turkish firms. Journal of Intellectual Capital, 13(3), 363-376.
- 51. Zahller, K., Arnold, V., & Roberts, R. W. (2015). Using CSR Disclosure Quality to Develop Social Resilience to Exogenous Shocks: A Test of Investor Perceptions. Behavioral Research in Accounting.



APPENDICES

Appendix1: CSR disclosure quantity index

1. Employee	5. Environmental Issues
Employee Data	Environmental policy statement
Training &Development	Designing facilities harmonious with environment
Employees Benefit	Using recycling material
Pension	Sponsoring environmental activities
Work place	pollution
2. Community	Waste management
Community investment	Conservation of natural resources
Contribution to national economy	6. Energy
Education	Disclosing the company energy policies
Health and safety	Conservation of energy
Social Loan	Disclosing increased energy efficiency of products
Social activities support	7. Other Disclosures regarding to Saudi environment
Funding scholarship programs	Charitable society for the holy Quran memorization holly
Human rights	Ongoing charity (WAGFF)
Charity & Donation	Hajj donations
volunteering	Others disclosure related to Sharia activities
Establish non-profit project	
3. Products and Services	
Developing & innovating new products	
Products & services quality	
ISO & other awards	
Guidance campaigns	
4. Customer	
Information of commercial and marketing	
Meeting customer needs	
customer feedback	
Customer service	
Customer satisfaction	
Existing of certificated systems of quality	

VIRTUS

Relevance			
Question no	Question	Likert's	Literature
R1	To what extent does the company disclosed the CSR in the annual report?	 1 = No disclose about CSR 2- Disclosed of CSR information limited (boilerplate paragraph). 3 = Disclosed for Forward-looking information. 4 = Apart subsection of CSR. 5 = Extensive information useful for making expectation. 	e.g. McDaniel et al., 2002; Jonas and Blanchet, 2000 Chakroun et al. 2013
R2	To what extent does the presence of non-financial company in terms of business opportunities and to what extent contribute to the society and environment?	 1 = No non-financial information 2 = Little non-financial information, no useful for forming expectations 3 = Useful non-financial information 4 = Useful financial information, helpful for developing expectations 5 = Non-financial information presents additional information which helps developing expectations 	e.g. Jonas and Blanchet, 2000 Chakroun et al. 2013
Faithful represent	tation		
F1	To what extent does the company, in the discussion of CSR in the annual report, highlight the positive events as well as the negative events?	 1 = No positive & negative events, are mentioned 2 = Negative events only mentioned in footnotes 3 = Emphasize on positive events 4 = Balance positive/negative events of CSR 5 = Impact of positive/negative events of CSR is also explained 	e.g. Razaee, 2003; Cohen et al., 2004 Chakroun et al. 2013
F2	To what extent does the company provide more explain of CSR information?	 1 = No description of CSR 2 = Information on CSR limited, 3 = Apart subsection of CSR 4 = Extra attention paid to information concerning CSR 5 = Comprehensive description of CSR 	e.g. Jonas and Blanchet, 2000
Understandability	7		-
U1	To what extent is the annual report presented of CSR in a well- organized manner?	 1 = Very bad presentation (no text of CSR) 2 = Bad presentation (text only) 3 = Poor presentation (text and graphs) 4 = Good presentation (text, graphs and ratio) 5 = Very good presentation (full paragraph with more descriptive) 	e.g. Jonas and Blanchet, 2000 Chakroun et al. 2013
U2	To what extent does the presence of graphs and tables clarifies the presented information of CSR?	1 = No graphs 2 = 1-5 graphs 3 = 6-10 graphs 4 = 11-15 graphs 5 = > 15	e.g. Jonas and Blanchet, 2000
Comparability			
Cl	To what extent is the information of CSR in the annual report comparable to information provided by other organizations?	 1 = No comparability (no paragraph) 2 = Limited comparability (one paragraph) 3 = Moderate comparability (two paragraph) 4 = Very much comparability (two paragraph with numbering) 5 = Very extensive comparability (more than above) 	e.g. IASB, 2008; Jonas and Blanchet, 2000. Chakroun et al. 2013
C2	To what extent does the company presents financial index numbers of CSR and ratios in the annual report?	1 = No ratios 2 = 1-2 ratios 3 = 3-5 ratios 4 = 6-10 ratios 5 = > 10 ratios	e.g. Cleary, 1999

Appendix 2: The index to measure of CSR disclosure quality adopted from Beest et al. (2009 and Chakroun et al. 2014)

VIRTUS