

Corporate social responsibility disclosure and financial information environment

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ABSTRACT

This study aims to explore whether or not social responsibility disclosure contributes to improve the financial information environment, through examining the impact of quantity and quality of corporate social responsibility (CSR) disclosure on the accuracy of analysts' forecasts and audit fees. Content analysis technique has been used to measure quantity and quality of CSR disclosure in annual reports of Saudi registered companies. OLS regression model is used to examine the relationship between the quantity and quality of CSR disclosure in the annual reports and the quality of the analysts' forecasts, and the audit fees. The results indicated that CSR disclosure provides useful information for outsiders, where it is associated with more accurate analysts' expectations and reduced audit fees. These results suggest that CSR disclosure is associated with high quality financial information environment. This paper provides comprehensive analysis for financial information environment in Saudi companies. The findings of paper provide useful insights concerning the importance of social responsibility disclosure in Saudi business environment.

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1. Introduction

The current study addresses the association between voluntary corporate social responsibility (CSR) disclosure and the financial information environment to explore whether CSR information can improve information environment and consequently help outsiders in making their decisions related to the company. CSR disclosure can be associated with financial disclosure, where in current business environment; companies must reconcile the requirements of financial markets with the need to obtain legitimacy from different parties of society (Cormier et al., 2014). Corporate legitimacy relies on both its financial reputation and its social responsibility reputation, and the mechanisms for forming that reputation are the financial reporting and the social responsibility reporting (Bebbington et al., 2008). Bushman et al. (2004) indicated that the company's information environment not only includes the company's financial reporting but also includes market intermediaries such as analysts, and Baik et al. (2018) stated that the analysts and other market intermediaries reflect the multiple dimensions of corporate disclosure. Therefore, the current study is concerned with using information by outsiders where analysts and auditors are the closest parties to the company's financial information. Accordingly, the study examines the relationship between the quantity and quality of CSR disclosure and the quality of the analysts' forecasts and the audit fees.

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There are two perspectives concerning corporate social responsibility, where, on one hand, Proponents of CSR believe that CSR activities have a positive impact, while, on the other side, opponents argue that managers may use CSR opportunistically to improve their reputation among stakeholders and covering unwanted behavior. Therefore, the CSR activities may reflect either the positive or opportunistic behavior of the management. This conflict represents a motivation to examine the association between CSR disclosure and financial reporting, which may take one of two directions. On the one hand, from a moral perspective, an ethical management is more likely to avoid misreporting which negatively affects the corporate value, and CSR companies should improve their financial and social disclosure by hiring an industry-specialized auditor (Sun et al., 2017). Also, from the company's reputation perspective, socially responsibility firms usually follow a strategy of excellence to differentiate themselves from their competitors in the minds of users of accounting information and market investors (Hay & Jeter, 2011). In addition, the company can signal the credibility of its voluntary disclosure of social responsibility information through its commitment to provide high-quality financial disclosure (Chen et al., 2016). Accordingly, firms that provide more and high-quality CSR disclosure are more likely to provide high-quality financial information, which improve the information environment for outsiders. On the other hand, companies can use CSR disclosure to hide their opportunistic behavior such as earnings management by appearance the transparency of disclosure (Prior et al., 2008). Accordingly, firms that provide more and high-quality CSR disclosure are more likely to provide low-quality financial information, which complicated the information environment for outsiders.

According to our discussion, the current study uses data from Saudi listed companies to answer the following general research question:

Is there any association between CSR disclosure and financial information environment?

To answer this general question, the study addresses the following two research questions:

- What is the impact of CSR disclosure on the analysts' forecasts accuracy?
- What is the impact of CSR disclosure on the audit fees?

The Saudi business environment has witnessed a fundamental change representing in the mandatory adoption of the International Financial Reporting Standards (IFRS) in 2017, as well as the economic transformation strategy called 2030 Vision, which includes special consideration of social and environmental dimensions and sustainable development. In this context, the results of the current study can provide some implications for policy makers and investors, where the results provide empirical evidences about the incentives of management to voluntarily provide CSR information. At the academic level, the study shows the integration between financial and non-financial information, and provides a theoretical framework to explain the relationship between the incentives of management and the disclosure strategy from the perspective of the stewardship theory. In addition, the study provides empirical evidence about how the analysts respond to the CSR disclosure and the impact of this disclosure on audit process.

The research will be continued as follow, second section addresses previous literature and development of research hypotheses, third section presents the study organization and method, and fourth section is dedicated for the results of empirical study.

2. Literature and hypotheses development

The growing importance of the CSR disclosure has motivated studies to examine the value relevance of such disclosure. Generally, the results of previous studies provide signals about the importance of CSR disclosure in the context of business environment. Dhaliwal et al. (2011) found that CSR disclosure is associated with a subsequent reduction in the cost of equity capital, and attract the institutional investor and analysts' coverage. Clarkson et al. (2013) found that investors take CSR disclosure into consideration when making their investment decisions. Khaveh et al. (2012) found that sustainability reporting is positively related to the company's revenues. Chengyong et al. (2018) concluded that corporate sustainability disclosure can provide a competitive advantage for the company, and Gitahi et al. (2018) found a positive association between CSR disclosure and the average market price per share.

2.1 Theoretical background

There are two opposing perspectives can be used to explain the association between CSR disclosure and financial information environment: the agency theory and the stewardship theory. The agency theory addresses the agency problem and focuses on managers' tendency to achieve their personal benefits. According to this perspective, managers will use CSR disclosure for their personal interests to cover the financial statements manipulation, thus CSR disclosure could be negatively associated with the financial reporting quality. In this context, Martinez-Ferrero et al. (2015) argued that companies with weak financial reporting may use social and environmental information as a legitimacy tool to offset the weakness of the financial reporting. Chih et al.

(2008) provided some examples of large international corporations, such as Shell, Coca Cola and British American Tobacco, that are strongly committed to disclosing CSR information and at the same time their behaviour is not socially responsible. Enron is the world's most famous example, where it has been very interested in publishing social and environmental reports on its social activity while practicing circumvention in its financial information (Gavana et al., 2017).

In contrast, stewardship theory which was developed by Davis et al. (1997), assumed that two types of individuals exist, one of which has self-motivation for negative behavior and the other has self-motivation for positive behavior. Therefore, managers, according to their self-motivation, tend to adopt either transparent disclosure strategy or poor disclosure strategy. Consequently, CSR disclosure is positively associated with financial information quality.

In the context of the current study, according to the perspective of stewardship theory, it can be argued that managers' behavior is influenced by their self-motivation. Managers with negative behavior self-motivation, focuses on their personal interests regardless of the other considerations. Thus, they tend to adopt poor disclosure strategy which leads to poor social and financial disclosure. On the other side, Managers with positive behavior self-motivation realize that their interests can be achieved within the interests of a company and stakeholders. Thus, they tend to adopt transparent disclosure strategy which leads to provide both transparent financial disclosure and high level of CSR disclosure. Therefore, it can be expected that the increase in the quantity and quality of CSR disclosure is associated with the increase in the quality of the financial information provided by a company, which improve financial information environment and support outside parties.

2.2 CSR Disclosure and outsiders

Analysts are the most important information intermediaries in the financial market, and their forecasts are influenced by the corporate disclosure policy. Although the analysts are mainly concerned with financial information, CSR activities can be considered as a strategy to improve value, thus it attracts the attention of analysts who consider the information of those activities when preparing their reports (Dong et al., 2015). There are some studies indicating the importance of non-financial information for analysts. Nichols & Wieland (2009) found that analysts' adjusted forecasts based on nonfinancial information become more accurate and forecast errors declined when companies issued nonfinancial information. Ioannou and Serafeim (2010, 2015) provide evidences that analysts are concerned about CSR activities, where they find that CSR companies receive more favorable analysts' investment recommendations. Also, Jo and Harjoto (2014) suggest that analysts are providing indirect social pressure to the companies to reduce their irresponsible activities. Dhaliwal et al. (2012) found that the issuance of stand-alone CSR reports is positively associated with earnings forecasts accuracy and negatively with forecast errors, particularly in stakeholder-oriented countries. Bhandari and Kohlbeck (2016) provided evidence of analysts' interest in CSR information and it may affect their behavior. Jiao and Nam (2017) found that the quality of CSR disclosure contributes to the reduction of analysts' forecasts errors.

In the context of current study, it can be argued that, on one hand, CSR disclosure is associated with high-quality financial information, which helps analysts to issue more accurate forecasts. On the other hand, CSR disclosure can provide analysts with better understanding of corporate strategy and help them to prepare better forecasts. Therefore, it can be expected that CSR disclosure reduces analysts' forecasting errors and the following hypothesis can be examined:

H1a: *The quantity of CSR disclosure is positively associated with the accuracy of analysts' forecasts.*

H1b: *The quality of CSR disclosure is positively associated with the accuracy of analysts' forecasts.*

On the other side, audit fees are a function of both the cost of audit process and expected business risk, where high level of business risk require more efforts from auditors to implement audit process (Chen et al., 2012). In this context, auditors need to collect information to assess client's risk, and CSR information is one type of information need to pay attention to, where poor CSR performance increases the level of client's litigation and reputation risks (Kim et al., 2012; Kim et al., 2014). In addition, Chen et al. (2016) argued that companies with high level of CSR disclosure also demand a higher level of audit assurance and consequently pay higher audit fees.

There are two perspectives concerning the relation between CSR disclosure and audit fees; ethical and opportunistic perspective (Brooks, 2013). From ethical perspective, CSR disclosure exhibits management's ethical commitment in their strategic decisions, which reduce the client's risks and consequently audit efforts and audit fees. Thus, CSR disclosure is negatively associated with audit fees. In contrast, from opportunistic perspective, CSR disclosure reflects management's opportunistic behaviour to cover manipulation in financial statements, which increase the probability of material misstatement and consequently increase audit efforts and audit fees. Thus, CSR disclosure is positively associated with audit fees.

In the context of current study, according to ethical perspective which consistent with stewardship theory, it can be argued that companies that provide high level of CSR information face lower level of risk. Also, CSR disclosure can provide auditors with better understanding of client's strategy and help them to assess client's risks. In addition, CSR disclosure is associated with

high-quality financial information, which helps auditors to reduce their efforts. Therefore, it can be expected that CSR disclosure reduces audit efforts and audit fees, and this argument can be examined through the following hypothesis:

H2a: *The quantity of CSR disclosure is negatively associated with the audit fees.*

H2b: *The quality of CSR disclosure is negatively associated with the audit fees.*

3. Method

To examine the hypotheses of study, OLS regression model has used. The model includes several variables which are measured through annual report and web site of the company.

3.1 Sample

The study used data from the non-financial Saudi listed companies, during the year of 2018. The initial sample is 125 companies and due to lack of required data, the final sample includes 98 companies working in 16 sectors. The data was mainly collected from annual reports, and they were processed using Stata program.

3.2 Variables measurement

CSR disclosure

The focal point of this study is CSR disclosure, in particular in annual reports, and the study addresses both quantity and quality of such disclosure. Content analysis technique will be used to measure CSR disclosure in annual reports. The content analysis technique requires defining CSR disclosure and its categories, the unit of analysis, and the reliability of the content analysis technique. Therefore, CSR disclosure index should be constructed based on the previous literature. Then CSR disclosure quantity in annual report will be measured by the count of sentences. Concerning quality of disclosure in annual report, a 2-point scale system can be used to assess the quality of CSR disclosure in annual reports as follows (Hassan, 2010):

1, if disclosure is quantitative disclosure, graphs or narrative disclosure reports the actual policies and activities of a company concerning its social responsibility.

0, otherwise

The quality score will be measured by evaluating each sentence in social disclosure according to previous rating, then we will calculate the average score (total score / number of sentences).

Analyst' forecasts accuracy

The analyst forecast error is used as an indicator for forecast accuracy. Forecast error is measured as the following,

Forecast error = (Analyst earnings forecast - Actual earnings per share) / Stock price at the beginning of the year.

3.3 Empirical model

The following regression model will be used to examine the hypotheses:

Dependent variables = $a + \beta_1 \text{CSR DQA} + \beta_2 \text{CSR DQU} + \beta_{3-11} \text{CONTROL VARIABLES} + e$,

where dependent variable will be analyst' forecasts error as indicator to forecast accuracy FOREERR, and audit fees FEES. Independent variables are the quantity of CSR disclosure in annual report CSR DQA, and the quality of CSR disclosure in annual report CSR DQU. Control variables include: corporate size CS, type of activity TA, growth rate measured by the change in sales GROWTH, type of auditor BIG4, leverage LEV, operating activities cash flow CF, the change in properties, plant and equipment Δ PEPE, loss LOSS and the quality of corporate governance system CG.

4. Results

4.1 Descriptive Statistics

Table 1 presents the results of the descriptive statistics to describe the sample. Concerning CSR disclosure; the results show that Saudi companies provide a few high-quality CSR disclosures. The average amount of disclosure in the annual report is approximately 7 sentences, indicating lack of interest in CSR disclosure among Saudi companies. The results (are not tabulated)

also show that 27 companies (27.5%) do not provide CSR disclosure in their annual reports. In contrast, the results show a high quality of CSR disclosure, with an average quality index of 0.699, reflecting that approximately 70% of the disclosure represents a description of the real activities and clear policies in the area of social responsibility. With regard to the dependent variables, the results show that the average rate of analysts' forecast error is (0.2114), which reflects the accuracy of the analysts' expectations is acceptable compared to the rate of forecast error (0.406) in Jiao & Nam (2017). The average logarithm of the audit fees is 6.45, and the average value of the fees (not tabulated) reflects the high level of audit fees in Saudi companies.

Table 1
Descriptive statistics

	Panel 1: Continuous variables				
	N	Minimum	Maximum	Mean	Std. Deviation
CSDQUANTITY	98	0.00	33.00	6.7000	10.08977
CSDQUALITY	98	0.00	1.00	0.6994	1.80939
FOREERR	98	-0.51	0.68	0.2114	0.25113
FEES	98	5.77	7.34	6.4524	0.38428
CS	98	9.44	12.39	10.8312	0.62803
ROA	98	-0.1896	0.514	0.3549	1.88003
LEV	98	2.14	6.41	4.3877	0.74723
CG	98	4.00	6.00	5.2245	0.52819
GROWTH	98	-0.10	0.38	0.1640	0.11014
CF	98	-0.17	48.64	25.7759	16.04860
PPE	98	7.48	8.75	8.1198	0.47857
panel 2: Dummy variables					
		0		1	
TA		44 (44.9%)		54 (55.1%)	
LOSS		66 (67.3%)		32 (32.7%)	
BIG4		53 (54%)		45 (46%)	

4.2 Correlation analysis

Table 2 presents the results of pairwise correlation between dependent and independent variables, where the results show that, in a general, CSR disclosure affects the financial information environment. Regarding the amount of CSR disclosure (CSR DQA), it appears that CSR disclosure quantity is negatively related to the rate of expectations' error (-0.245**), indicating that the increase in the amount of the CSR information in the annual reports is positively associated with the quality of analysts' expectations. The results show that the quantity of CSR disclosure is not related to the value of audit fees. Concerning the quality of social disclosure (CSR DQU), it appears that the quality of CSR disclosure provided in annual reports is negatively associated with both expectations' error (-0.170*) and audit fees (-0.480*). Therefore, the increase in the quality of CSR disclosure leads to higher quality analyst expectations and lower audit fees. The previous correlation results could also indicate that auditors may more concerned about the quality of CSR disclosure, while analysts appear to be more concerned about the quantity of CSR disclosure. Therefore, it can be argued that, according to previous results, CSR disclosure provides analysts and, to less extent, auditors with useful information about the company's activities and risks to help them in their decisions related to the company. In addition, the results show a positive association between the quantity and quality of CSR disclosure, reflecting the integrated corporate behaviour in the context of CSR disclosure as the company is concerned with both the quantity and quality of disclosure. Finally, although it is expected that audit fees as an indicator for audit quality associated with high quality financial information which lead to accurate analysts' expectations, the results show that there is no association between audit fees and the quality of analysts' expectations.

Table 2
Correlation results

	CSR DQA	CSR DQU	FOREERR	FEES
CSR DQA	1			
CSR DQU	0.435*	1		
FOREERR	-0.245**	-0.170*	1	
FEES	-0.065	-0.480*	0.041	1

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

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

4.3 Hypotheses test

To test the study hypotheses, Table 3 presents the results of the OLS regression model for the two dependent variables. The results show the significance of the models, and the accepted R² value which increase the reliability and confidence in the results of the model. To test the first hypothesis which addresses the impact of CSR disclosure on the analysts' expectations accuracy, panel (1) presents the regression results of dependent variable the analysts' expectations accuracy. The results show a significant

negative association between the quantity and quality of CSR disclosure and the expectations' error rate, indicating that the increasing quantity and high quality of CSR information is associated with increasing the quality of analysts' expectations leading to acceptance of the hypotheses H1a and H1b. This result provides clues to the association between CSR disclosure and financial information, which is consistent with the perspective of stewardship theory. According to this result, and based on stewardship theory, it appears that managers who provide rich CSR disclosure, provide also high-quality financial information which supports analysts in their expectations. In this context, Luo et al. (2014) provided evidence that analysts are monitoring the CSR performance of their companies.

Also, this result supports the perspective that CSR disclosure provides analysts with useful information helping them to make more accurate forecasts, which is consistent with some other studies such as; Aerts et al. (2008) which found that environmental disclosure is associated with low analysts' expectations dispersion, and Muslu, et al. (2019) which found a positive association between quality of CSR report and analysts' expectations. Cormier & Magnan, (2014) indicated that some studies have provided empirical evidence that both voluntary disclosure and effective governance mechanisms attract financial analysts and lead to more accurate and less dispersion forecasts. Bhandari and Kohlbeck, (2016) argued that socially responsible companies provide more voluntary non-financial information, which leads to clearer communication with stakeholders, and analysts can issue more accurate forecasts. In addition, this result is consistent with the perspective that there is a relationship between the social performance and financial performance of the company, where investors and analysts consider the social responsibility information useful to them and they include that information in their expectations.

To test the second hypothesis, panel (2) presents the regression results for dependent variable the audit fees. The results show that there is no significant association between the quantity of CSR disclosure and the value of audit fees, which leads to the rejection of H2a. Although the relationship is not significant, the negative coefficient indicates that increased CSR disclosure can lead to a decrease in the value of audit fees. On the other hand, the results show a significant negative association between the quality of CSR disclosure and the value of audit fees, reflecting that increasing the quality of the CSR information in the annual report could lead to a reduction in audit fees leading to acceptance of H2b. These results indicate, to a large extent, the negative impact of social disclosure on audit fees, which can be considered as clues to positive association between CSR disclosure and financial information environment. Also, the results reflect that CSR disclosure may provide valuable information to auditors concerning the nature of the risks facing the company to enable them to effectively plan the audit process leading to lower fees.

Table 3
Regression results

	Panel 1: FOREERR				Panel 2: FEES			
	Coef.	Std. Err.	t	P> t	Coef.	Std. Err.	t	P> t
CSDRQA	-0.010145	0.0085031	-5.19	0.024	-0.4013.54	0.1280481	-1.03	0.175
CSDRQU	-0.2396218	0.0454778	-1.21	0.083	-0.499822	0.6760167	-3.74	0.046
CS	0.0702586	0.1234944	0.57	0.576	0.2757981	0.1829842	0.02	0.988
TA	-1.31706	1.187067	-1.11	0.028	0.6645908	2.050007	0.32	0.749
GROWTH	-0.0519841	0.1142367	-0.46	0.065	-0.1459194	0.1689105	-2.86	0.039
BIG4	-0.0682537	0.1350024	-0.51	0.619	-0.2932063	0.2035335	-3.44	0.016
LEV	-0.749046	1.669099	-0.45	0.658	-0.8755502	2.4802107	-0.43	0.950
CF	0.0075764	0.014227	1.70	0.088	-0.3431933	0.2104323	-0.87	0.659
ΔPPE	0.0674468	0.9931657	-0.60	0.604	0.2205442	0.0116903	1.08	0.091
LOSS	-1.66729	0.5552689	-6.14	0.020	0.5248632	2.6120107	0.86	0.822
ROA	0.018972	0.1423173	0.70	0.889	-0.1706631	0.0249197	-0.91	0.041
Prob > F		0.0086				0.0069		
Adj R-squared		0.1787				0.2500		

The results of current study are consistent with the theoretical framework of the stewardship theory, where managers tend to provide transparent and high-quality disclosure whether financial or nonfinancial. The current results suggest that CSR disclosure appears to improve the external environment of the financial reporting, as it improves analysts' expectations and reduces audit fees. This finding is consistent with the argument of Kim and Venkatachalam, (2011) that socially responsible companies are likely to provide a positive impression to stakeholders about the transparency of their disclosure, where they drive managers to provide high-quality financial reporting to investors, and they should be accountable for the development of appropriate measures and reporting techniques. Also, some studies support the perspective that companies with a better CSR reputation tend to provide high-quality earnings information (Labelle et al., 2010; Kim et al., 2012).

The current study provides evidence that CSR disclosure could provide outsiders with valuable information concerning the company to help them in properly implement their duties, where CSR disclosure can be considered as an accountability tool that provides relevant and transparent information to all stakeholders (Kim et al., 2012). The evidence of current study is consistent with the evidence provided by some studies that social disclosure provides information that is considered: useful for

financial markets (Dhaliwal et al. 2011), related to economic performance (Clarkson et al. 2011; Al-Tuwaijri et al. 2004) and an important factor to Social Legitimacy (Cormier & Magnan, 2015).

On the other hand, the results contradict the opportunistic explanation of CSR disclosure, where managers provide social disclosure due to opportunistic motives and they may mislead other parties about the company's value and financial performance (Kim et al., 2012). In this context, the results are not consistent with some studies which indicated that companies have opportunistic motives for CSR disclosure (McWilliams & Siegel, 2000; Pyo & Le, 2013).

5. Conclusion

The current study aimed at exploring the impact of CSR disclosure on the financial reporting environment based on a theoretical framework used the perspective of stewardship theory, where managers have a personal motivation to adopt either a high quality or poor-quality disclosure strategy. The results showed that the increase in CSR disclosure is associated with increased analysts' expectations accuracy and lower audit fees reflecting the positive impact of that disclosure on the external parties of the financial reporting environment. These findings indicate that CSR information can be useful to different parties that are interested in the performance of the company, which is consistent with the argument that CSR disclosure influence financial information environment.

In conclusion, the current research shed the light on two basic points: First, is the company adopt a disclosure strategy that can be reflected on all types of information, financial or non-financial? The results of study suggest that there is such strategy, where the company provides enough and High quality financial or non-financial information. Second, does the non-financial information of the company help outsiders in making decisions related to the company? The results of study indicate that the non-financial information of the company seems to be of great importance to external parties.

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