International Journal of Economics, Management and Accounting 27, no. 1 (2019): 167-186

CSR DISCLOSURE AND FINANCIAL ACCESS: A CASE STUDY OF PAKISTAN

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ABSTRACT

This study aimed at examining the association of Corporate Social Responsibility (CSR) disclosure with access to finance by estimating the level of financial constraints faced by listed firms of the Pakistan Stock Exchange. CSR disclosure (CSRD) is attracting the attention of researchers and stakeholders and also becoming a vital source of competitiveness and information dissemination. Many businesses in Pakistan have developed the structure for CSR activities but the awareness of CSR concept and its disclosure is still limited in Pakistan. Panel data set has been used from annual reports of 55 non-financial companies listed on the Pakistan Stock Exchange during the period 2013 to 2017 to investigate the impact of CSRD on financial access of firms by estimating the level of capital constraints they faced. The results reveal a significant positive impact of CSRD on firm financial access; the firms with higher CSRD face fewer capital constraints, resulting in better financial access. This study contributes to existing CSR literature which highlights the vital role that capital markets play in assessing the potential for long-run value creation by firms adopting CSR strategies. This study further highlights the relationship between capital markets and socially responsible firms by focusing on the critical impact of CSRD on the firm's capital constraints. It contributes to an emerging literature inside CSRD which highlights the vital role played by capital markets in assessing the potential for long-run value creation by firms adopting CSR strategies. This study further highlights the relationship between capital markets and socially responsible firms by focusing on the critical impact of CSRD on the firm's capital constraints. It provides a better understanding of legitimacy and stakeholder theory which motivates firms for CSRD and also makes a significant methodological contribution to CSRD literature by developing the CSRD index.

JEL Classification: M10, M14, M41

Keywords: Corporate Social Responsibility Disclosure, Capital constraints, Informational asymmetry.

1. INTRODUCTION

Corporate Social Responsibility (CSR) has received considerable attention from academics and top executives in recent decades and has captured significant time and resources through incorporation of environmental and social concerns in organizational operations and also in interaction with stakeholders (European Commission 2001). In many countries, CSR has become part of organizational strategic plans and motivated companies to disclose their community involvement, employee development and most importantly environmental and other CSR related information in their annual reports. The number of organizations disclosing their socially responsible actions has grown considerably (Gray, Kouhy, and Lavers, 1995; Guthrie and Parker, 1989). During past years, an increasing ratio of investors have considered environmental and social activities of organizations before making investment related decisions (El Ghoul et al., 2011). Different studies exist on CSR in different dimensions, markets and countries as well (Clarkson et al., 2011; Deegan and Gordon, 1996; Deegan, 2002; Mathews, 1997; Murthy and Abeysekera, 2008; O'Dwyer, 2003). The empirical relationship between firm financial performance and CSRD has been investigated in some studies (Chen and Wang, 2011; Griffin and Mahon, 1997; McWilliams and Siegel, 2000) although these studies often show mixed and contradictory results.

Despite this extensive level of consideration, the empirical research failed in providing ultimate answer to the fundamental question whether CSRD results in value creation or not and if so, in what ways (Margolis, Elfenbein and Walsh, 2007). The understanding and practices of CSRD are not high in Pakistan. Companies in Pakistan voluntarily report CSR activities and very few analyses have been performed on CSRD in Pakistan. Further analyses need to be conducted to investigate the extent of CSRD and its effect on firm's financial aspects in Pakistan particularly its effect on firm's financial access instead of just emphasizing financial performance. This will also certainly reveal the effect of CSRD on firm's stakeholders specifically investors (Capital Market) decision making for investment in Pakistan. The objective of this study is to investigate whether CSRD leads to better financial access for firms in Pakistan.

2. LITERATURE REVIEW

Several studies have highlighted various theories to explain CSRD in the literature such as stakeholder; legitimacy; agency; stewardship; political economy and institutional theories. Nearly every CSRD theory, however, presents a solitary point of view which may have restrictions in unfolding the scope of CSR issues.

Specifically two theories have been employed to explain CSRD namely Stakeholder's theory (Clarkson, 1995; Cowan and Gadenne, 2005; Elijido-Ten, 2004, 2007; Islam and Deegan, 2010; Roberts, 1992; Van der Laan Smith, Adhikari, and Tondkar, 2005) and Legitimacy theory (Campbell, 2004; Deegan, 2002; Gray et al., 1995; Islam, 2009). These theories explained CSR from the perspective of developed countries such as the UK, Australia and USA. The contextual and conceptual situation of CSRD in Pakistan is different from these developed countries as the disclosure of CSR practices in Pakistan is not compulsory. This study presents an examination of legitimacy and stakeholder theories for examining their appropriateness to CSRD in the context of Pakistan and to comprehend the doctrine and significance of these theories in analyzing CSR issues.

First of all the legitimacy theory is being considered here. Guthrie and Parker (1989) described the base of legitimacy theory and stated that businesses are carried out in the social order by some social contracts by the administration which shows their willingness to fulfill those contracts. The authors expressed that this theory is connected to supremacy of society and put emphasis on relations among businesses and social agreements. The legitimacy theory directed administration in order to manage their businesses in diverse ways and most significantly they should pursue the law to achieve legitimate status in society.

This theory is usually used in scholarly literature to explain connection among company financial performance and CSR disclosure. Various studies have considered legitimacy theory to describe the reason for company participation in CSR activities and how organizations gain and uphold their legitimacy. Legitimacy theory can motivate corporations to unveil their environmental and social deeds. It is debated that administration will account or disclose additional CSR activities when they are enforced by society or the community. Legitimacy theory is a key theory for defining public as well as environmental disclosure (Deegan, 2002; Deegan and Gordon, 1996; O'Donovan, 2002).

The second theory is Stakeholder theory for describing or enlightening the reason and enthusiasm of companies to reveal their social and environmental activities. As described by Freeman (2010), a Stakeholder is an individual or group who may affect or be affected by the achievements of a business's purpose. Stakeholders involve a broad variety of interest groups who are engaged with the organization.

Stakeholder theory is employed for describing the organization's motivation for CSRD. The assumption of several debates and arguments of stakeholder theory is that it can describe the degree and magnitude of CSRD of organizations. Various studies used this theory to describe why organizations reveal environmental as well as social reports. Roberts (1992) employed the stakeholder theory to describe the CSRD to different stakeholder groups. The outcomes of this research reveal that magnitude of CSR disclosure is much associated with stakeholder influence, financial performance and decision-making attitude of the organization. Epstein and Freedman (1994) described that more stakeholders demand organizations submit social and environment reporting rather than other areas of CSR. Ruf et al. (2001) studied the relationship among organizations' social and financial performance (FP) by applying this theory to describe effects of fluctuations in social performance on FP.

Mostly CSR research is performed in contexts of developed economies and very little research is conducted in developing countries. Most of the international businesses made up partnerships with nongovernmental organizations (NGOs) intended for planning sustainable strategic agendas known as "Green Alliances" (Cunningham, 2002). Unfortunately the companies in Pakistan have limited information regarding responsive and ethical behavior and weaker collaboration among ecological groups to form such alliances. CSR is actually at initial phase of progress in Pakistan for the majority of local firms and MNCs.

In Pakistan, CSR is in the evolutionary phase and numerous firms are emphasizing and turning out to be responsive to this belief. In Pakistan more than 60% of firms have contributed to communal progress, charity and donations for religious and welfare purposes (Yawar, 2009). For several firms operating in Pakistan, however, CSR is not prioritized and has diverse frameworks. Most of the companies have diverse views regarding CSR; according to 40% of domestic firms paying taxes is considered as CSR, 30% have views that CSR is communal welfare while for 15% CSR is employee wellbeing, 10% believe that CSR means working in areas of company's interests and only 5% identify social development activities as CSR (CSR, Pakistan, 15/2-2010). According to results of these observations, firms in Pakistan comprehend CSR differently and have different definitions. Yet the consciousness about CSR and its disclosure is extremely low in Pakistan hence affecting the reputation of Pakistani products in international markets.

Literature review depicts that mostly the empirical studies related to CSRD have been performed within developed economies; rarely do analyses focus on developing markets. Specifically, very few studies focused on Pakistan and those studied mostly examined the influence of CSR on business financial performance. This study will attempt to observe the CSRD effect on firm's financial access particularly in the context of Pakistan.

3. METHODOLOGY

The nature of this study is quantitative research for which panel data are utilized to investigate the association between financial access and CSRD. For analyzing panel data, the pooled regression has been applied and after that the selection between Fixed and Random effect models has been made based on results of Hausman Test. In the second stage, regression diagnostics have been performed by checking the existence of serial correlation and heteroscedasticity. In the final stage of analysis for checking the Endogeneity issue, the Two-stage Least Squares (2SLS) regression model has been applied

A sample of 55 listed companies was identified and finalized for the study according to the study requirements. The sources for data collection were mainly annual reports and CSR reports (if published separately) and also websites of the firms for the period 2013 to 2017.

3.1 HYPOTHESES DEVELOPMENT

Hypotheses of this research are based on four dimensions of CSRD and financial access as well as the composite score of CSRD and financial access, which defines each CSRD dimension and composite score of CSRD as an independent variable. The hypotheses for this research are as follows:

H1: There is positive impact of CSRD on financial access.
H2: There is positive impact of Environmental disclosure on financial access.
H3: There is positive impact of Human resource disclosure on financial access.
H4: There is positive impact of Product related disclosure on financial access.
H5: There is positive impact of Community disclosure on financial access.

3.2 MEASUREMENT OF VARIABLES

Capital constraints has been taken as the dependent variable to determine association of financial access and CSRD. The level of financial access is being measured by estimating level of capital constraints faced by companies (Cheng, Ioannou and Serafeim, 2014). The empirical literature has employed the KZ index to measure capital constraints level faced by firms (Almeida, Campello, and Weisbach, 2004; Bakke and Whited, 2010; Lamont, Polk, and Saaá-Requejo, 2001) and it has been constructed by utilizing the Kaplan and Zingales (1997) methodology (Appendix 1).

The variable of CSRD for companies is considered as the independent variable in this study. By considering CSRD as the independent variable, the study is aimed at estimating the impact of CSRD on firm financial access.

Different measures have been suggested by prior studies to measure CSRD: "The Fortune Reputational and Social Responsibility Index or Markowitz's Reputational Scales (Bowman and Haire, 1975; McGuire, Sundgren, and Schneeweis, 1988; Preston and O'Bannon, 1997); Forced-choice survey instruments (Aupperle, 1991; Aupperle, Carroll, and Hatfield, 1985); Content analysis of corporate documents (Wolfe, 1991); Case study methodologies (Clarkson, 1995) and Behavioral and perceptional measure (Wokutch and McKinney, 1991)". This study uses the measure of content analysis to examine CSRD which is one of the most appropriate research methods (Guthrie and Abeysekera, 2006; Hackston and Milne, 1996).

The annual reports sections where CSRD information is presented were analyzed, such as chairman's report, management report or shareholders' letters and also separate heads of CSR information. Firms' websites were also accessed and analyzed to get information related to social responsibility activity disclosure. Additionally, an electronic search has been performed of the entire text of annual reports to spot all segments of text consisting of information related to Corporate Social Responsibility activities or any related categories such as Environment, Community, Product and Human Resource. By using an equal weighted index, the CSRD index is made which is a scoring method that allocates a point for every theme of CSR related to all considered categories. The score of disclosure for every company was then added based on the assumption that all disclosure items are evenly important and have the same value. Several empirical studies have been considered to develop the Social Responsibility Index (Adams, Hill, and Roberts, 1998; Archel, 2003; Gray et al., 1995; Hackston and Milne, 1996; Patten, 1991; Purushothaman et al., 2000; Williams and Pei, 1999). In this study, CSRD refers to the disclosure of the following 4 categories Saleh (2009):

a. Environment Related
b. Community Involvement
c. Human Resources
d. Products and Consumers

The maximum scores for these categories are different; for example, the maximum score for environmental disclosure is 8; maximum score for product and consumers, human resources and community involvement disclosures is four (Appendix 2).

This study has also used some control variables in the regression model which include variable of leverage (LEV) as proxy of investor's risk level (Baker, Jensen and Murphy,1988; McGuire et al.,1988; Stulz, 1990) measured as total debt divided by total asset; and variable of firm size (SIZE) as proxy of firm size measured as log of total assets (Brammer and Pavelin, 2004; Haniffa and Cooke, 2005; Tsoutsoura, 2004).

3.3 MODEL SPECIFICATION

The regression model which examines association of Financial Access (capital constraints) and CSRD is as follows:

(1) $$KZ = \beta_0 + \beta_1 CSRD_{it} + \beta_2 LEV_{it} + \beta_3 SIZE_{it} + \varepsilon_{it}$$

where

$CSRD$ = f (Environment, Community, Product and HR)
ENV_{it} = Environmental disclosure includes disclosure related to eight environmental sub-items and measured by considering score of individual firm.
Com_{it} = Community involvement disclosure is being measured by considering score for four sub-items related to this category on individual basis.
$Prod_{it}$ = Product disclosure has been measured by considering score of "four" sub-items of product related disclosure.
HR_{it} = Human Resource disclosure has been measured by firm score obtained from "four" sub-items of human resource disclosure.
LEV_{it} = Leverage computed as total debt divided by total assets of firm.
$SIZE_{it}$ = Company size computed by taking log of total assets.

Figure 1 depicts the possible relationship between financial access of firms and CSRD along with control variables of leverage and firm size. The dependent variable of financial access has been depicted on right hand side, whereas, the independent variables of CSRD, leverage and firm size have been depicted on left hand side.

FIGURE 1
Possible Relationship Between CSRD and Financial Access

4. DATA ANALYSIS AND RESULTS

This section presents results by considering the KZ index as dependent variable to measure level of capital constraints for examining association of CSRD and Financial access of firms. At the first stage, the Hausman test has been used for selecting the most appropriate model between fixed effects and random effects models. The probability values for Hausman test are greater than 0.05 which means that the suitable method for the analyses is the Random Effects model. At the second stage, the literature depicts that most of the time panel data suffers from problems of autocorrelation and heteroskedasticity and this affects the validity of regression analyses. Therefore, Wooldridge Test for Autocorrelation has been employed for checking the existence of autocorrelation issue and based on probability values of this test, it is found that the data suffers from autocorrelation issues. Then, Modified Wald Test for Group Wise Heteroskedasticity has been employed for checking the existence of heteroskedasticity issue and based on probability value of this test, it is concluded that the data suffers from heteroskedasticity problems. It presents a problem as majority of general estimators for panel dataset are unable to control both of these problems simultaneously.

Beck and Katz (1995) reported that the two-step, revised form of inefficient OLS called the Panel Corrected Standard Error (PCSE) estimation operates extensively better as compared to the FGLS (Parks) technique in numerous conditions. So, based on the literature, the PCSE regression model has been also employed and findings have been presented in Table 1. The panel I of results depict that the variable CSRD has significant and negative impact on capital constraints which means that higher value of CSRD results in lesser financial constraints for Pakistani firms and hence better financial access. The control variables of SIZE and LEV have significant and positive association with capital constraints which means that firms with larger size and higher leverage in Pakistan face more financial constraints and hence lesser financial access.

The robustness of regression results regarding association of CSRD and capital constraints has been examined by considering the association of capital constraints variable against individual CSRD variables namely HR, ENV, PROD and COMM along with control variables of SIZE and LEV and results have been reported in panel II of Table 1. The results depict that the variables of ENV and COMM significantly and negatively affect capital constraints in Pakistan which means that the firms having higher environmental and community related disclosure face fewer capital constraints and hence enjoy better financial access. The variable of PROD has significant and positive association with capital constraints which means that Pakistani firms with higher product related disclosure face higher capital constraints and hence have lower financial access. The variables of Size and Leverage also significantly and positively affect the dependent variable of KZ index. These results indicated that firms with better CSRD face fewer financial constraints and enjoy better access to finance These results are consistent with previous studies (Hadlock and Pierce, 2010; Eccles, Ioannou and Serafeim, 2012). The above mentioned results also show that firms with better environmental and community disclosure face fewer constraints in getting finance and access finance more easily as compared to other firms.

TABLE 1
Regression with Panel – Corrected Standard Errors (PCSE)

PCSE Regression Model						
KZ	Coef.	Std. Err	Z	*p* >|t|	[95% Conf. Interval]	
PANEL I						
CSRD	-0.255**	0.107	-2.38	0.017	-0.466	-0.045
Size	0.394*	0.113	3.49	0.000	0.172	0.617
Lev	0.794*	0.205	3.87	0.000	0.392	1.197
CONS	-1.508	1.064	-1.42	0.157	-3.595	0.578
PANEL II						
HR	-0.042	0.084	-0.50	0.616	-.206	0.122
ENV	-0.155*	0.051	-3.02	0.003	-.256	-0.054
PROD	0.219***	0.119	1.83	0.067	-.015	0.454
COMM	-0.350*	0.083	-4.17	0.000	-.514	-0.185
SIZE	0.394*	0.113	3.49	0.000	.172	0.617
LEV	0.794*	0.205	3.87	0.000	.392	1.197
CONS	-1.508	1.064	-1.42	0.157	-3.595	0.578

Notes: *, **, *** indicate level of significance at *p*-value < 1%, < 5% and <10% respectively.

The endogeneity issue of regression model has been examined by applying the 2SLS regression model by considering the community disclosure as instrumented variable. The *p*-values for endogeneity tests of Durbin and Wu-Hausman are insignificant as they are greater than 0.05, so we accept the null hypothesis that there is no existence of endogeneity issue. Finally, this study concludes that the problem of endogeneity does not exist in the regression model and results of PCSE model are more appropriate in this scenario. Therefore, the results of PCSE have been considered to examine the relationship between variables of Capital Constraints (KZ index) and Corporate Social Responsibility Disclosure.

5. CONCLUSION

This study investigates whether superior performance on CSRD leads to better financial access of firms. This study provides evidence that businesses having higher CSRD have lower level of capital constraints and better financial access. Those firms which have superior corporate social responsibility performance are additionally probable to openly disclose their activities related to CSR and consequently become more transparent (Dhaliwal et al. 2011) and stand legitimate by justifying their business deeds according to the Legitimacy theory. For reducing informational asymmetries between investors and firms, the most significant factor is higher level of transparency which mitigates perceived risk for investments. The empirical literature argues that firms in capital markets face upward sloping supply curves of finance due to lesser market frictions such as informational asymmetries and agency costs (Berger and Udell, 1998, Hubbard, 1998 and Stein 2003).

Results of this study showed that firms with superior CSRD face efficiently lesser steep capital supply curve. This study documented that firms with superior CSRD are placed better for obtaining finance from capital markets and face significantly fewer capital constraints. Consequently, relaxation of capital constraints positively affects the firm’s capability to accept valuable strategic business investments which may not be considered otherwise. This also positively impacts stock performance (Lamont et al., 2001). By taking Stakeholder theory into account this research contributes to the empirical literature which draws attention to the significant part which the capital market plays in evaluating business’s potential for longer run value creation by adopting policies related to superior CSRD (El Ghoul et al., 2011; Goss and Roberts, 2011; Lee and Faff, 2009). The elementary function that markets perform is in allocating limited capital resources for more dynamic and lucrative purposes; this study shows that better disclosure of CSR significantly affects capital allocation. Market participants are keen in allocating limited capital sources to businesses with superior CSRD. So, if a firm does have better CSRD then it can achieve better access to finance and suffer fewer capital constraints. Furthermore, this study also shows that environment and community aspects of CSRD significantly reduce capital constraints level faced by firms which consequently results in better financial access.

5.1 LIMITATIONS AND IMPLICATIONS

This study also has some limitations. Where it shows that superior CSRD may relax the firm's idiosyncratic capital constraints level, still numerous issues remain open for further research. First, it will be interesting to explore whether increased capital access affects strategic investment types and choices of firms. For example do firms with superior CSRD practice long term oriented strategic projects and consider environmental and social concerns in their goals. Second, one significant aspect of capital market is capital constraints; in this domain further research should be undertaken to enhance understanding of how voluntary engagement in CSR activities and disclosure by firms are recognized, assessed, and rewarded or punished by capital markets. Third, this study focuses only on Pakistani non-financial companies. Further research may include cross country comparisons by taking larger sample size and for extended time period to understand the nature of CSRD and its impact on financial access in other countries.

Finally, these results have significant managerial implications in such business environment where the general public demands and appreciates honest, transparent and ethical business practices and a growing number of CEOs consider CSRD to be strategically critical.

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APPENDIX 1
Measurement of the KZ index

To be consistent with prior literature, the regression coefficients are used to construct KZ index for each firm on yearly basis consisting of linear combination of these five accounting variables:

(i) Cash flow to total capital
(ii) Debt to total capital
(iii) Market to book ratio
(iv) Dividend to total capital
(v) Cash holdings to capital. The KZ index's higher value implies that firm is highly capital constrained. To avoid the extreme ratios, each of the five elements of KZ index was winsorized at the 99 percentile and the same procedure was followed while constructing SA index of capital constraints.

Baker, Stein and Wurgler (2003) calculated KZ index as follows:

$$KZ\ Index = -1.002\ CF_{it} / A_{it-1} - 39.368\ DIV_{it} / A_{it-1} - 1.315\ C_{it} / A_{it-1} + 3.139 LEV_{it} + 0.283 Q_{it} \quad \ldots\ldots\ldots (1)$$

where

CF_{it} / A_{it-1}	=	cash flow over lagged assets
DIV_{it} / A_{it-1}	=	cash dividend over lagged assets
C_{it} / A_{it-1}	=	cash balances over lagged assets
LEV_{it}	=	leverage
Q_{it}	=	book value

The KZ index's higher value imply that the firm is more or highly capital constrained and behind these variables the intuition is that the firm with high cash balances and cash flows have more internal funds for the deployment of new projects and in result of that they are less capital constrained (Baker et al., 2003). Firms with low market-to-book and high dividend payments have fewer growth opportunity and lesser investment prospects and as result they do not need as much new financing (Lamont et al., 2001). As a final point, firms with high leverage are less able to obtain new debt financing because the possibility of default is already elevated and consequently the cost of financing become high as well (Baker et al., 2003).

APPENDIX 2

Measurement of CSRD

Categories and items of disclosure
Environmental disclosure
V1=Environmental policies or company concern for the environment
V2=Environmental management, systems and audit
V3=Pollution from business operations
V4=Discussion of specific environmental laws and regulations
V5=Prevention or repair of damage to the environment
V6=Conservation of natural resources and recycling activities
V7=Sustainability
V8=Conservation of energy in the conduct of business operations
Human resources disclosure
V9=Employee Health and Safety
V10=Employment of minorities or women
V11=Employee training
V12=Employee assistance/benefits
Products and consumers disclosure
V13=Product safety
V14=Product quality
V15=Disclosing of consumer safety practices
V16=Consumer complaints/satisfaction
Community involvement disclosure
V17=Charitable donations and activities
V18=Support for education
V19=Support for public health
V20=Sponsoring sporting or recreational projects

Few items were excluded just to avoid penalizing firms for non disclosure of some irrelevant items like in the case of media and computer services sectors, environmental items are irrelevant such as (pollution arising from use of products, prevention and repair of damage for environment, energy efficiency of products and discussion of specific environmental laws and regulations). Some items from products and consumers category disclosure are also irrelevant to these sectors like (safety and consumer safety practices) and same notion is for entertainment industry as well, where only items of environmental category are irrelevant. Accordingly, the indexes of disclosure score are constructed by taking consideration of these concerns. In this index the disclosure's level of company j expressed

$$\sum_{i=1}^{m_j} \frac{d_i}{N}$$

where

N = maximum number of relevant items, which a company may disclose;
d_i = indicator i disclosed (d_i is equal to 1 and 0 otherwise)

The “0” score of disclosure index indicates that company i does not disclose any item and when the value of index is equal to i =1,……,mj means that a level of disclosure is provided by company j and mj is maximum number of indicators di disclosed. In case of entertainment sector, total score of environmental sector is 4 and total score for product and consumers sector is 2, so the SRD total score for this sector is 14. Some concerns like energy efficiency of the product and pollution arising from the use of product are not related to the sector of entertainment and there are also no specific relevant environmental regulations or laws related to this sector.