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Md. Tofael Hossain Majumder, Aklima Akter, Xiaojing Li,

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Corporate Governance and Corporate Social Disclosures: A Meta-Analytical Review

Abstract

Purpose – This study investigates the association between corporate governance and corporate social disclosures.

Design/methodology/approach – Data Analysis has been conducted on 29 prior studies published between 2004 and 2016 for the purpose of integrating the findings across studies. The study uses the meta-analysis instrument developed by Hunter et al. (1982).

Findings – The investigation finds a significant positive association between board Size, the frequency of board meetings, and auditors' credibility with Corporate Social Disclosures (CSD). Both the managerial and concentrated ownership are also a significant but negative association with CSD. In contrast, board independence, board gender diversity, the composition of non-executive directors, government ownership, foreign ownership, and institutional ownership are insignificantly and positively associated with CSD. CEO duality is also insignificant with CSD but indicates a negative association. The study further investigates that the association between board gender diversity and CSD affected by the differences of the country of study.

Originality/value – This paper adds significance to the extant academic literature as well as assisting the appropriate policy maker in assessing the determinants of corporate social disclosures from the viewpoints of corporate governance. It further aims to reconcile the findings of the previous studies around the world, and also for the developed and developing countries separately.

Keywords: Corporate social responsibility, Disclosures, Corporate governance, Meta-analysis.

Paper type: Research paper

1. Introduction

Due to several corporate scandals (for example, Enron, Ahold, WorldCom, Lehman Brothers and Parmalat), recent financial crisis, and changing the mix of the business environment with the rising demand from various stakeholders have brought more devotion to the corporate governance (CG) and corporate social disclosures (CSD). Corporate governance and social disclosures are related to each other (Haniffa and Cooke, 2005, Said et al., 2009, Kathy Rao et al., 2012). CG ensures the interest of the shareholders, and it plays a vital role to the corporate accountability by disclosing social issues (Hossain and Alam, 2016). Dellaportas et al. (2012) find if the disclosure level of the organization increases, it will create advantages for that organization. As a result, every company should disclose their economic, social and environmental activities to their valuable stakeholders (Said et al., 2009). The meaning of corporate social responsibility (CSR) and CSD differ in the context of various stakeholder groups and companies around the world (Dawkins and Lewis, 2003, Igalens and Gond, 2005, Welford et al., 2008). As a country, USA is the pioneer in the arena of CSR and CSD (Giannarakis, 2014b) and companies in that country still meets the desire of their shareholders by providing CSD as a voluntary disclosure (Tschopp, 2005, Rodríguez and LeMaster, 2007). The evidence shows that a number of research connected to CSD have investigated in the developed and developing countries. But, much of the evidence of previous literature provides qualitative descriptions regarding the nature, contents and motivational factors of CSD (McWilliams and Siegel, 2001, Newson and Deegan, 2002, Campbell, 2007, Van Beurden and Gössling, 2008, Uzma, 2016, Neu et al., 1998, Dowling and Pfeffer, 1975, Teoh and Thong, 1984, Guthrie and Parker, 1989, Andrew et al., 1989, Guthrie and Parker, 1990, Roberts, 1992, Patten, 1992, Clarkson, 1995, Donaldson and Preston, 1995, Deegan and Gordon, 1996, Adams et al., 1998, Adams et al., 1995, Deegan and Rankin, 1997). In the existing literature, a microscopic research has been investigated on the determinants of CSD as well, e.g., (Hackston and Milne, 1996, Alnajjar, 2000, Naser et al., 2006, Hawani Wan Abd Rahman et al., 2011, Giannarakis, 2013, Muttakin and Khan, 2014, Giannarakis, 2014b, Barakat et al., 2015, Alotaibi and Hussainey, 2016, Nurhayati et al., 2016).

Moreover, there is relatively less devotion has been given to set up a direct link between CG and CSD (Khan et al., 2013, Razak and Mustapha, 2013, Sufian and Zahan, 2013, Giannarakis, 2014a, Kiliç et al., 2015, Deschênes et al., 2015, Majeed et al., 2015, D.Sundarasan et al., 2016, Dunn and Sainty, 2009, Ibrahim and Hanefah, 2016, Rashid and Lodh, 2008, Mohd Ghazali, 2007).

The empirical findings of the previous literature in connection to CG and CSD provide inconclusive results. For example, Dunn and Sainty (2009) and Ibrahim and Hanefah (2016) provide evidence that board independence has a significant impact on CSD. In contrast, Lim et al. (2008) and Razak and Mustapha (2013) suggests that no significant impact of board independence on CSD. Besides that, Javaid Lone et al. (2016) documented that there is a significant link between board size and CSD. However, Razak and Mustapha (2013) show the insignificant relationship between board size and CSD. In addition, Majeed et al. (2015) find that board gender diversity has a significant impact on CSD. On the other

side, D.Sundarasan et al. (2016) provide evidence that no significant impact exists between board gender diversity and CSD.

Contrary to previous findings above, our study aims to address the meta-analysis technique for finding out the links on the corporate governance and corporate social disclosures. In this context, this paper synthesizes 29 previous studies by conducting the meta-analysis technique developed by Hunter et al. (1982) to give a fruitful result on the CG and CSD relationship.

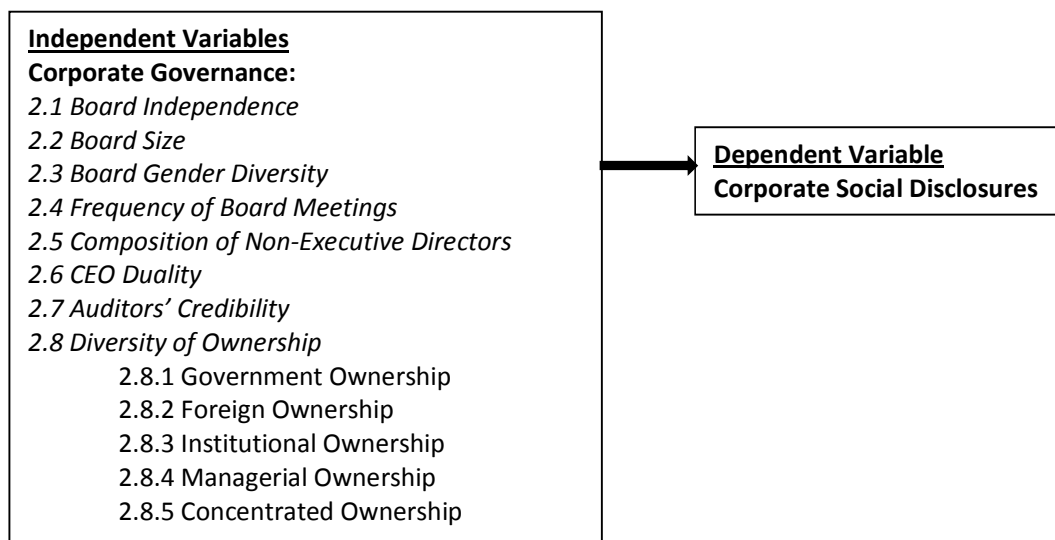
The social science researcher is more devoting on the use of meta-analysis technique but limited applications by the researcher of accounting (Eddine et al., 2015, Khlif and Souissi, 2010, Ahmed and Courtis, 1999). To the best of our awareness, no prior studies examined the association between corporate governance and corporate social disclosures by using the meta-analysis technique. Hence, this study contributes to the contemporary literature to fill up this research gap. Furthermore, the findings of the investigation present a combined result of the prior studies based on different countries which are ultimately providing a better understanding to assess the determinants of corporate social disclosures. Moreover, this meta-analysis technique adds contributions not only in the accounting research arena but also other areas of research.

In the present study, the meta-analysis incorporates twelve corporate governance variables as explanatory variables. These variables are board independence, board Size, board gender diversity, the frequency of board meetings, the composition of non-executive directors, CEO duality, auditors' credibility, government ownership, foreign ownership, institutional ownership, managerial ownership, and concentrated ownership. The study results imply that there is a significant positive relationship exists between board Size, the frequency of board meetings, and auditors' credibility with Corporate Social Disclosures (CSD). Both the managerial and concentrated ownership are also a significant but negative association with CSD. In contrast, there is an insignificant positive association finds between board independence, board gender diversity, the composition of non-executive directors, government ownership, foreign ownership, and institutional ownership. CEO duality is also insignificant with CSD but indicates a negative association. The study further investigates that the association between board gender diversity and CSD affected by the differences of the country of study. The association reveals significant positive for the developed countries but insignificant positive for the developing countries.

The rest parts of the article proceed as follows. The next section reviews the related previous literature. Section 3 includes the research methodology. Section 4 provides empirical results of the study. The last part highlights the concluding remarks and indicates future research directions.

2. Prior Literature

Based on the existing literature on the association between corporate governance and corporate social disclosures, the study considers a total of 12 independent variables for the meta-analysis as follows:



2.1 Board Independence

Board independence indicates the percentage of independent directors on the board. Agency theory suggests that independent directors pay more attention to the interests of the shareholders at the time of board decision-making process (Fama and Jensen, 1983). Independent directors play a decisive role to dominate over the actions of the board of directors on corporate social responsibility matters (Abdullah et al., 2011). Therefore, independent directors ensure the efficient management of the companies as well as protect the interests of the shareholders (De Andres et al., 2005). Some empirical examinations investigated the link between the board independence and CSD (D.Sundarasan et al., 2016, Dunn and Sainty, 2009, Ibrahim and Hanefah, 2016, Razak and Mustapha, 2013, Javaid Lone et al., 2016, Giannarakis, 2014a, Lim et al., 2008, Majeed et al., 2015, Kiliç et al., 2015, Rashid and Lodh, 2008, Deschênes et al., 2015, Supriyono et al., 2015, Alotaibi and Hussainey, 2016, Ahmed Haji, 2013). Prior literature finds mixed results. For example, Rashid and Lodh (2008), Dunn and Sainty (2009), Ibrahim and Hanefah (2016), Javaid Lone et al. (2016), Rashid and Lodh (2008), Deschênes et al. (2015), and Supriyono et al. (2015) find a significant positive relation between the board independence and CSD. In contrary, the studies of Razak and Mustapha (2013), Lim et al. (2008), and Nurhayati et al. (2016) show the insignificant positive relation between the board independence and CSD. In addition, some studies find an insignificant negative association between the board independence and CSD (D.Sundarasan et al., 2016, Giannarakis, 2014a, Majeed et al., 2015, Kiliç et al., 2015, Alotaibi and Hussainey, 2016, Ahmed Haji, 2013, Barakat et al., 2015).

2.2 Board Size

Board size refers to the total number of directors on the company's board. It considers as an effective monitoring tool of corporate governances (Lee and Chen, 2011). The inter-correlation between board size and reporting is complementary. The larger board size of a company tends to disclose more reporting activities (Samaha et al., 2012). However, a larger board is more efficient than the smaller ones but too larger board is ineffective for monitoring the business operations (Giannarakis, 2014a). It is expected that size of the board shows the management ability and reduce the information lopsidedness of the managers and stakeholders (Chen and Jaggi, 2001, Akhtaruddin et al., 2009). Akhtaruddin et al. (2009) also argue that the greater size of Directors indicates a diversification of expertise on the board because of their collective experience and therefore the disclosures quantity and quality will be higher. The existing literature provides a controversial association between board size and CSD. For example, some academicians find a significant positive relationship between board size and CSD (Javaid Lone et al., 2016, Majeed et al., 2015, Giannarakis, 2013, Supriyono et al., 2015, Alotaibi and Hussainey, 2016, Veronica Siregar and Bachtiar, 2010, Ahmed Haji, 2013, Barakat et al., 2015, Giannarakis, 2014b). In contrast, the studies of Razak and Mustapha (2013), Kiliç et al. (2015), Deschênes et al. (2015), and Ling and Sultana (2015) show insignificant and positive impacts of board size on CSD. In addition, Dunn and Sainty (2009), Sufian and Zahan (2013), and Giannarakis (2013) find an insignificant negative relationship.

2.3 Board Gender Diversity

It indicates the percentage of women directors on the board. The presence of female directors besides male directors on the board plays a vital role to increase the reputation of the company by engaging with social issues (Bear et al., 2010). Prior literature suggests that women are more sensitive to the society (Burgess and Tharenou, 2002). As a result, they increase board's focus on CSR related issues (Ayuso and Argandoña, 2009) and charitable giving (Williams, 2003). Hence, it is predicted that there is a positive association between board gender diversity and CSD. But, the prior literature shows inconclusive results. For example, Giannarakis (2014a), Ibrahim and Hanefah (2016), and Javaid Lone et al. (2016) find a significant positive relation between women directors on the board and CSD whereas Majeed et al. (2015) finds a negative and significant association between female directors and CSD. In addition, some authors report that there is an insignificant positive impact of female directors on the CSD (D.Sundarassen et al., 2016, Giannarakis, 2014a, Khan, 2010, Giannarakis, 2014b), while Kiliç et al. (2015) finds an insignificant negative relationship.

2.4 Frequency of Board Meetings

The frequency of board meetings indicates the total number of board meetings which is a proxy of the board activeness to handle organizational issues (Khanchel, 2007). Nowadays, corporate social problems are a crucial matter for the stakeholders. Hence, it is expected that CSR-related topics are discussed at each meeting of the board to protect the interests of the

stakeholders. There is a positive association between frequency of board meetings and disclosure quality (Anis et al., 2012). The numerous board meeting enables to give more attention on social related matters (Giannarakis, 2014a). But, there is no evidence shows the significant relationship between the frequency of board meetings and CSD in the prior academic literature. For example, some authors find an insignificant positive association between frequency of board meetings and CSD (Giannarakis, 2014a, Giannarakis, 2014b, Alotaibi and Hussainey, 2016, Giannarakis, 2013), whereas Ahmed Haji (2013) finds an insignificant negative relationship.

2.5 Composition of Non-Executive Directors (NEDs)

It refers to the percentage of non-executive directors (NEDs) to total directors on the board. The existence of NEDs on the board is crucial because they have the proficiencies and knowledge to judge the issues arise in the meetings (D.Sundarasan et al., 2016). The ability of the NEDs is uncertain regarding governance issues (Myllys, 1999). But, NEDs can supervise to the board of directors when they observe that the act of the executive directors' against the shareholder's interest (Jensen and Meckling, 1976, Forker, 1992). The empirical literature provides evidence that the diversity of the board of directors enhance corporate social disclosures (Siciliano, 1996). Some studies find a significant positive relationship between NEDs and CSD (D.Sundarasan et al., 2016, Khan, 2010, Lim et al., 2008), whereas Haniffa and Cooke (2005) finds a negative and significant association. In contrast, few studies provide no connection between NEDs and CSD (Haniffa and Cooke, 2002, Cullen and Christopher, 2002).

2.6 CEO Duality

CEO duality means the person who serves as a CEO of the company as well as the chairman of the company's board. Prior literature measures CEO duality by taking a dummy variable equal to one when the same person serves as a CEO as well as the chairman and zero otherwise. CEO duality provides a person strong power in the decision-making process. As a result, the person does not consider the interests of the shareholders so much, and firm social activities including disclosures may be lowered (Haniffa and Cooke, 2002). Therefore, the position of CEO and chairman should be separated as it increases the monitoring quality of the issues relating to stakeholders (Li et al., 2008). However, the previous literature finds inconclusive results on the link between CEO duality and CSD. For example, some studies find a significant negative association between CEO duality and CSD (D.Sundarasan et al., 2016, Giannarakis, 2014b, Ling and Sultana, 2015). In contrary, Razak and Mustapha (2013) and Lim et al. (2008) find an insignificant negative relationship between CEO duality and CSD. In addition, the study of Giannarakis (2014a) provides an evidence of insignificant positive impact of CEO duality on CSD.

2.7 Auditors' Credibility

Auditors' credibility of any firm indicates its audit quality that is the firm audited by the big audit firm (Big-four). It is predicted that Big-four audit firm conduct their audit activities

sincerely (Owusu-Ansah, 1998) and Big-audit firms increase the credibility of their audited work on the annual reports (Patton and Zelenka, 1997). According to agency theory, auditor plays an effective monitoring tool on the conflict of agent-principal relationship (Lim et al., 2008). Auditors' credibility such as their suggestions, approval of choosing accounting policies and explanations of vital issues influences on the company's attitude regarding reporting and disclosure practices (Khan et al., 2013). However, the existing literature shows mixed results on the relationship between auditor's credibility and CSD. For example, D.Sundarasan et al. (2016) find a significant positive association between auditor's credibility and CSD. In contrast, Lim et al. (2008) and Lu and Abeysekera (2014) provide evidence of an insignificant positive relationship between auditor's credibility and CSD. Furthermore, Ling and Sultana (2015), and Alotaibi and Hussainey (2016) find insignificant negative impact of auditors' credibility on CSD. Prior researchers measure this variable by considering a dummy variable equal to one if a company is audited by one of the Big-four audit firms and zero otherwise.

2.8 Diversity of Ownership

2.8.1 Government Ownership

Prior literature measures government ownership in different ways. It means the percentage of shares owned by the government (Alotaibi and Hussainey, 2016, Ahmed Haji, 2013, Naser et al., 2006, Suwaidan et al., 2004, Khasharmeh and Suwaidan, 2010). Some of the researchers measure it by taking a dummy variable equal to one if the company is a government company and zero otherwise (Lim et al., 2008, Mohd Ghazali, 2007, Lu and Abeysekera, 2014). As a government-owned company, it has to aware of the interests of the public and so should disclose more social related activities because government operations are always monitored by the public (Mohd Ghazali, 2007). As government body is politically sensitive and trusted by the people, it has to create more pressure on the companies for disclosing information related to stakeholders (Muttakin and Subramaniam, 2015). Hence, it is predicted that government ownership affects significantly and positively on CSD. But, the previous empirical literature provides mixed results. For example, Suwaidan et al. (2004), Mohd Ghazali (2007), and (Lim et al. (2008), Mohd Ghazali (2007)) find a significant positive association between government ownership and CSD. Alotaibi and Hussainey (2016) find a significant negative relationship between government ownership and CSD. In contrast, some academicians find that there is a positive and insignificant relationship exists between government ownership and CSD (Ahmed Haji, 2013, Lu and Abeysekera, 2014, Naser et al., 2006, Khasharmeh and Suwaidan, 2010).

2.8.2 Foreign Ownership

The greater percentage of foreign ownership of a company indicates more intention to practice foreign rules and regulations (Jeon et al., 2011). Bradbury (1991), and Haniffa and Cooke (2005) argue that stronger foreign ownership creates geographic distance among the owners and so higher level of disclosure expected from the shareholders of the foreign countries. Prior literature measures this variable in two different ways. Some researchers consider the percentage of shares owned by the foreign shareholders for measuring foreign

ownership (Haniffa and Cooke, 2005, Khan, 2010, Veronica Siregar and Bachtiar, 2010). Sufian and Zahan (2013) measure foreign ownership by considering a dummy variable equal to one for firms with foreign ownership and zero otherwise. Existing researcher finds mixed results on the relationship between foreign ownership and CSD. For example, Haniffa and Cooke (2005) and Khan (2010) find a significant and positive relationship between foreign ownership and CSD. In contrast, Sufian and Zahan (2013) provides evidence of an insignificant positive association between foreign ownership and CSD, whereas Veronica Siregar and Bachtiar (2010) finds an insignificant negative relationship.

2.8.3 Institutional Ownership

It indicates the percentage of shares owned by the institutional investors. Institutional owners play a fundamental role in changing corporate management behavior (Jensen and Meckling, 1976). Institutional investors treated as majority shareholders and they influence to the management for disclosing more information (Naser et al., 2006). Prior literature shows mixed results. For example, Majeed et al. (2015) find a significant positive relation between institutional ownership and CSD. On the other hand, Li and Zhang (2010) and Nurhayati et al. (2016) find an insignificant positive association between institutional owners and CSD. In addition, Naser et al. (2006), and Rashid and Lodh (2008) provide evidence of an insignificant negative relationship between institutional ownership and CSD.

2.8.4 Managerial Ownership

Managerial ownership indicates the percentage of shares owned by the directors. In an owner-managed company, the interests of the outsiders are relatively small, and the disclosures of CSR information may be less (Mohd Ghazali, 2007). Eng and Mak (2003) find that the lower percentage of managerial ownership increases disclosures information. Hence, it is expected that there is a negative relationship between managerial ownership and CSD. Prior literature supports the negative association between managerial ownership and CSD. But, some studies find a significant impact of managerial ownership on CSD (Razak and Mustapha, 2013, Rashid and Lodh, 2008, Mohd Ghazali, 2007), whereas Ahmed Haji (2013), Deschênes et al. (2015), and Supriyono et al. (2015) find an insignificant relationship between managerial ownership and CSD.

2.8.5 Concentrated Ownership

Concentrated ownership indicates the possession which occupied by few shareholders or family members (Mohd Ghazali and Weetman, 2006). It is a necessary component of effective corporate governance (Shleifer and Vishny, 1997). According to agency theory, the widely dispersed ownership company faces more agency-principal conflicts (Fama and Jensen, 1983). Accordingly, public accountability becomes vital for the widely held companies because these enterprises have a greater chance of being detained by the public as a whole (Mohd Ghazali, 2007) and such companies have to provide substantial social information (Ahmed Haji, 2013). Hence, it is our expectation that concentrated ownership and corporate social disclosures (CSD) express the significant negative relationship. Prior academic literature has scrutinized on the relationship between concentrated ownership and CSD, and the previous results provide controversial findings. For example, Lu and

Abeysekera (2014) finds a significant negative relationship between concentrated ownership and CSD. In Contrary, Sufian and Zahan (2013), and Majeed et al. (2015) find an insignificant and positive association between concentrated ownership and CSD. In addition, some studies found insignificant and negative impact of concentrated ownership on CSD (Rashid and Lodh, 2008, Mohd Ghazali, 2007, Li and Zhang, 2010, Naser et al., 2006).

3. Research Methodology

3.1 Sample

For the meta-analysis, the previous 29 studies published ranging from 2004 to 2016 yielding 5437 sample size has considered. All of the articles in the meta-analysis has been collected from the top journal publishers around the world to select the studies which examine the determinants of corporate social disclosures in the context of corporate governance. The study gives importance on the good impact factor journals or books abstracted and indexed by the Thomson Reuters, The Association of Business Schools (ABS), Scopus, and Australian Business Deans Council (ABDC) databases. The characteristics of the selected sample studies have shown in Tables 1 & 2.

[Insert Table 1]

[Insert Table 2]

3.2 Research Instrument

This study attempts to conduct the meta-analysis technique of Hunter et al. (1982) to reconcile the mixed results of conflicting views of the prior studies. In the current study, the meta-analysis methodology is also a similar nature of other researchers (Hunter and Schmidt, 1990, Rosenthal, 1991, Ahmed and Courtis, 1999, Khlif and Souissi, 2010, Souissi and Khlif, 2012, Eddine et al., 2015, Siddiqui, 2015).

The narrative analysis of the previous literature is not appropriate because the nature of the previous studies vary due to variations of sample size, time, country and other characteristics. Moreover, researchers found different results from various studies (Hunter and Schmidt, 1990). According to Ahmed and Courtis (1999), “Meta-analysis enables to give consistent results and overcome the problems of narrative findings.” Meta-analysis is a statistical technique to reconcile the mixed results of the prior studies (Souissi and Khlif, 2012) and it evaluates the different consequences of the results from the previous studies (García-Meca and Sánchez-Ballesta, 2009). The best definition provided by Glass (1976) as of meta-analysis is a technique by which the findings of the extensive collection of studies accumulated.

In the existing literature of meta-analysis technique, the degree of association between dependent and independent variables are measured using the effect size which is called the coefficient of correlation (r). In this paper, the value of r is calculated for each study sample to measure effect size of each explanatory variable. The value of r is computed based on t -

statistic by following the prior studies (Hunter et al., 1982, Ahmed and Courtis, 1999, Khelif and Souissi, 2010, Souissi and Khelif, 2012, Siddiqui, 2015, Eddine et al., 2015) as follows:

$r = \sqrt{t^2 / (t^2 + df)}$, where df means degrees of freedom. The limitation of this formula, it generates only absolute numbers. Hence, by following khelif et al. (2015), we convert the sign of the effect size (r) based on the regression coefficient.

The following five steps to be followed step-by-step to reach a conclusion by using the meta-analysis technique of Hunter et al. (1982):

Step-1: First, we have to determine the mean correlation (\bar{r}) which is computed as follows:

$$\bar{r} = \frac{\sum(Ni r_i)}{\sum Ni}$$

Where, Ni = Sample size for study i and ri = effect size or Pearson correlation coefficient for study i.

Step-2: Once the \bar{r} is calculated, the next step is to compute the unbiased estimate of the population variance (S_p^2) which is as: $S_p^2 = S_r^2 - S_e^2$, Where S_r^2 means the observed variance which is computed as follows:

$$S_r^2 = \frac{\sum Ni (r_i - \bar{r})^2}{\sum Ni}$$

And S_e^2 means the estimate of sampling error variance which is computed as follows:

$$S_e^2 = \frac{K (1 - \bar{r}^2)^2}{\sum Ni}, \text{ Where } K = \text{The number of individual}$$

studies for the meta-analysis.

Step-3: In this step, we have to compute the unbiased estimate of population standard deviation (S_p) which has calculated as follows:

$$S_p = \sqrt{S_p^2}$$

Step-4: Here, 95% confidence interval is to be calculated based on the unbiased estimate of the population standard deviation S_p and the mean correlation \bar{r} as follows:

$$[\bar{r} - S_p (1.96), \bar{r} + S_p (1.96)]$$

Step-5: This is the final step where a Chi-square (χ^2) statistic test is proposed to test the heterogeneity issues and make a decision about further analysis on the study variables as follows:

$$\chi^2 = K \frac{S_r^2}{S_e^2}$$

4. Empirical Results

Table 3 summarizes the meta-analysis results of all the explanatory variables. The table shows whether there is any significant or insignificant impact of CG on CSD. In addition, Table 4 to Table 6 explains the subgroups analysis of the studies on the basis of the developed and developing countries (where applicable). The subgrouping analysis assists in removing heterogeneity (Eddine et al., 2015).

[Insert Table 3]

The empirical results have analyzed separately for each variable as follows:

4.1 Board Independence

The general meta-analysis results of Table 3 provides an insignificant positive association ($\bar{r} = 0.086$, 95% confidence interval -0.1863; 0.3583) between board independence and CSD using 3620 sample sizes of 17 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. The results is similar with Razak and Mustapha (2013), Lim et al. (2008), and Nurhayati et al. (2016). To test the heterogeneity, the chi-square statistic applies here. The chi-square statistic value ($\chi^2_{k-1} = 88.33$) is significant ($p < 0.01$) which means homogeneity test is rejected. At the same time, the sampling error variance accounts for 19.25% of the observed variance. Therefore, further analysis needed to remove heterogeneity and in Table 4, we split the total studies into developed and developing countries. Both the studies of developed ($\bar{r} = 0.1737$, 95% confidence interval -0.0675; 0.4145) and developing ($\bar{r} = 0.0698$, 95% confidence interval -0.1968; 0.3364) countries indicates an insignificant positive association. The sub-group analysis indicates no effect on the association between board independence and CSD due to the differences of country of study.

[Insert Table 4]

4.2 Board Size

Table 3 shows a significant positive association between ($\bar{r} = 0.1209$, 95% confidence interval 0.0425; 0.1993) board size and CSD using 2228 sample sizes of 15 studies. This result is consistent with other researchers, e.g., (Javaid Lone et al., 2016, Majeed et al., 2015, Giannarakis, 2014b, Supriyono et al., 2015, Alotaibi and Hussainey, 2016, Veronica Siregar and Bachtiar, 2010, Barakat et al., 2015). In addition, the chi-square statistic value ($\chi^2_{k-1} = 18.69$) indicates acceptance of homogeneity test. At the same time, the sampling error variance accounts for 80.25% of the observed variance. As there is no heterogeneity problems, no further analysis needed.

4.3 Board Gender Diversity

The overall meta-analysis results on the association between board gender diversity and CSD are presented in Table 3. Using 2081 sample size of 9 studies provide an evidence of an insignificant positive association ($\bar{r} = 0.1039$, 95% confidence interval -0.0820; 0.2898). Similar results find by D.Sundarasan et al. (2016), Giannarakis (2014a), Khan (2010), and Giannarakis (2014b). The chi-square statistic applies here to check the heterogeneity. The chi-square statistic value ($\chi^2_{k-1} = 28.29$) is significant ($p < 0.01$) which means homogeneity test is rejected. At the same time, the sampling error variance accounts for 31.82% of the observed variance. Therefore, we split the total studies into developed and developing countries to remove heterogeneity in Table 5. The studies of developed countries provide significant positive association ($\bar{r} = 0.0695$, 95% confidence interval 0.0107; 0.1283) consistent with Deschênes et al. (2015). In contrast, the studies of developing countries indicate an insignificant positive association ($\bar{r} = 0.1198$, 95% confidence interval -0.0940;

0.3336) consistent with D.Sundarassen et al. (2016) and (Khan, 2010). Thus, the relationship between board gender diversity and CSD affected by the differences of country of study.

[Insert Table 5]

4.4 Frequency of Board Meetings

The overall meta-analysis results for the frequency of board meetings of Table 3 show a mean correlation (\bar{r}) of 0.0399 with the 95% confidence interval between 0.0399 and 0.0399 indicates a significant positive association with CSD. The result is inconsistent with other studies. The chi-square statistic ($\chi^2_{k-1} = 2.05$) of Table 3 indicates acceptance of homogeneity test. At the same time, the sampling error variance accounts for 100% of the observed variance. As there is no heterogeneity problem, no further analysis needed.

4.5 Composition of Non-Executive Directors

The general meta-analysis results of Table 3 provides an insignificant positive association ($\bar{r} = 0.0575$, 95% confidence interval -0.1865; 0.3015) between composition of non-executive directors and CSD using 1362 sample sizes of 4 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. The result is inconsistent with other studies. The subgroup meta-analysis technique is not applied here because all of the studies relating to this variable are the case of developing countries.

4.6 CEO Duality

The general meta-analysis results of Table 3 provides an insignificant negative association ($\bar{r} = -0.077$, 95% confidence interval -0.1994; 0.0454) between CEO duality and CSD using 2130 sample sizes of 7 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. Similar result find by Razak and Mustapha (2013) and Lim et al. (2008). In addition, the chi-square statistic ($\chi^2_{k-1} = 15.53$) of Table 3 indicates the existence of heterogeneity. Therefore, the sub-group analysis (Table-6) has divided the studies into developed and developing countries. Both the studies of developed ($\bar{r} = -0.1092$, 95% confidence interval -0.2532; 0.0348) and developing ($\bar{r} = -0.0654$, 95% confidence interval -0.1691; 0.0383) countries indicates an insignificant negative association. The sub-group analysis indicates no effect on the association between CEO duality and CSD due to the differences of country of study.

[Insert Table 6]

4.7 Auditors' Credibility

Table 3 shows a significant positive association between ($\bar{r} = 0.059$, 95% confidence interval 0.059; 0.059) auditors' credibility and CSD using 1564 sample sizes of 5 studies. This result is consistent with D.Sundarassen et al. (2016). In addition, the chi-square statistic value ($\chi^2_{k-1} = 3.75$) indicates acceptance of homogeneity test. At the same time, the sampling error

variance accounts for 100% of the observed variance. As there is no heterogeneity problem, no further analysis needed.

4.8 Diversity of Ownership

4.8.1 Government Ownership

Table 3 provides an insignificant positive association ($\bar{r} = 0.1724$, 95% confidence interval -- 0.0920; 0.4368) between government ownership and CSD using 1332 sample sizes of 8 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. The result is consistent with other studies (Ahmed Haji, 2013, Lu and Abeysekera, 2014, Naser et al., 2006, Khasharmeh and Suwaidan, 2010). The subgroup meta-analysis technique is not applied here because all of the studies relating to this variable are the case of developing countries.

4.8.2 Foreign Ownership

The meta-analysis results of Table 3 shows an insignificant positive association ($\bar{r} = 0.1735$, 95% confidence interval -0.0439; 0.3909) between foreign ownership and CSD using 326 sample sizes of 4 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. The result is consistent with Sufian and Zahan (2013). The subgroup meta-analysis technique is not applied here because all of the studies relating to this variable are the case of developing countries.

4.8.3 Institutional Ownership

The general meta-analysis results of Table 3 presents an insignificant positive association ($\bar{r} = 0.0261$, 95% confidence interval -0.0472; 0.0994) between institutional ownership and CSD using 993 sample sizes of 5 studies. The inclusion of zero within the confidence intervals indicates no true correlation, thus, the association shows insignificant. The result is consistent with Li and Zhang (2010) and (Nurhayati et al., 2016). The subgroup meta-analysis technique is not applied here because all of the studies relating to this variable are the case of developing countries.

4.8.4 Managerial Ownership

The overall meta-analysis results for the managerial ownership of Table 3 show a mean correlation (\bar{r}) of -0.1289 with the 95% confidence interval between -0.1289 and -0.1289 indicates a significant negative association with CSD. Similar findings find by Razak and Mustapha (2013), Rashid and Lodh (2008), and Mohd Ghazali (2007). The chi-square statistic ($\chi^2_{k-1} = 4.89$) of Table 3 indicates acceptance of homogeneity test. At the same time, the sampling error variance accounts for 100% of the observed variance. As there is no heterogeneity problem, no further analysis needed.

4.8.5 Concentrated Ownership

The general meta-analysis results of Table 3 identifies a significant negative association ($\bar{r} = -0.022$, 95% confidence interval $-0.022; -0.022$) between concentrated ownership and CSD using 1165 sample sizes of 7 studies. The result is consistent with Lu and Abeysekera (2014). The subgroup meta-analysis technique is not applied here because all of the studies relating to this variable are the case of developing countries.

5. Concluding Remarks and Future Research Directions

The study investigates the impacts of corporate governance (CG) variables on the corporate social disclosures (CSD). Prior studies used meta-analysis technique to determine the determinants of CSD but in different ways. Also, this is the first meta-analytical review on the relationship between CG and CSD. Hence, the study incorporates the result of 29 previous studies on the link between CG and CSD. In the present paper, we include 12 explanatory variables of corporate governance such as board independence, board Size, board gender diversity, the frequency of board meetings, the composition of non-executive directors, CEO duality, auditors' credibility, government ownership, foreign ownership, institutional ownership, managerial ownership, and concentrated ownership.

The results of the comprehensive meta-analysis found that board Size, the frequency of board meetings, and auditors' credibility are significantly and positively associated with CSD. Both the managerial and concentrated ownership are also a significant but negative association with CSD. In contrast, board independence, board gender diversity, the composition of non-executive directors, government ownership, foreign ownership, and institutional ownership are insignificantly and positively associated with CSD. CEO duality also insignificant with CSD but indicates a negative association. The study also uses the sub-grouping analysis based on country differences. The findings indicate that only the association between board gender diversity and CSD affected by the differences of the country of study. The association reveals significant positive for the developed countries but insignificant positive for the developing countries.

Although this study is the first meta-analytical review for examining the impact of CG on CSD, the study faces limitations as well. It excludes the various corporate characteristics as determinants of CSD. Therefore, further study should investigate by considering all of the variables besides CG like firm size, leverage, profitability, firm age, industry type, etc. Regardless of these limitations, we predict that the empirical findings of this study will be beneficial for the future researcher to develop the theory on the link between CG and CSD.

References

- Abdullah, S. N., Mohamed, N. R. and Mokhtar, M. Z. (2011), "Board independence, ownership and CSR of Malaysian large firms", *Corporate Ownership & Control*, Vol. 8 No. 3, pp. 417-431.
- Adams, C. A., Coutis, A. and Harte, G. (1995), "Corporate equal opportunities (non-) disclosure", *The British Accounting Review*, Vol. 27 No. 2, pp. 87-108.
- Adams, C. A., Hill, W.Y. and Roberts, C. B. (1998), "Corporate social reporting practices in Western Europe: legitimating corporate behaviour?", *The British Accounting Review*, Vol. 30 No. 1, pp. 1-21.
- Ahmed Haji, A. (2013), "Corporate social responsibility disclosures over time: evidence from Malaysia", *Managerial Auditing Journal*, Vol. 28 No. 7, pp. 647-676.
- Ahmed, K. and Courtis, J. K. (1999), "Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis", *The British Accounting Review*, Vol. 31 No. 1, pp. 35-61.
- Akhtaruddin, M., Hossain, M. A., Hossain, M. and Yao, L. (2009), "Corporate governance and voluntary disclosure in corporate annual reports of Malaysian listed firms", *Journal of Applied Management Accounting Research*, Vol. 7 No. 1, pp. 1.
- Alnajjar, F. K. (2000), "Determinants of social responsibility disclosures of US Fortune 500 firms: an application of content analysis", Jaggi, B., and Freedman, M., *Advances in environmental accounting & management*, Emerald Group Publishing Limited, UK, pp. 163 -200.
- Alotaibi, K. O. and Hussainey, K. (2016), "Determinants of CSR disclosure quantity and quality: Evidence from non-financial listed firms in Saudi Arabia", *International Journal of Disclosure and Governance*, Vol. 13 No. 4, pp. 364-393.
- Andrew, B. H., Gul, F. A., Guthrie, J. E. and Teoh, H. Y. (1989), "A note on corporate social disclosure practices in developing countries: The case of Malaysia and Singapore", *The British Accounting Review*, Vol. 21 No. 4, pp. 371-376.
- Anis, R., Fraser, I. and Hussainey, K. (2012), "A new measure for disclosure quality", Working paper, Stirling University.
- Ayuso, S. and Argandoña, A (2009), "Responsible corporate governance: Towards a stakeholder board of directors?", Working Paper No. 701, IESE Business School, University of Navarra, Spain, 25 February.
- Barakat, F.S., Pérez, M.V.L. and Ariza, L.R. (2015), "Corporate social responsibility disclosure (CSR) determinants of listed companies in Palestine (PXE) and Jordan (ASE)", *Review of Managerial Science*, Vol. 9 No. 4, pp. 681-702.
- Bear, S., Rahman, N. and Post, C. (2010), "The impact of board diversity and gender composition on corporate social responsibility and firm reputation", *Journal of Business Ethics*, Vol. 97 No. 2, pp. 207-221.
- Bradbury, M. (1991), "Characteristics of firms and voluntary interim earnings disclosure: New Zealand evidence", *Pacific Accounting Review*, Vol. 3 No. 1, pp. 37-62.
- Burgess, Z. and Tharenou, P. (2002), "Women board directors: Characteristics of the few", *Journal of Business Ethics*, Vol. 37 No. 1, pp. 39-49.
- Campbell, J.L. (2007), "Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility", *Academy of management Review*, Vol. 32 No. 3, pp. 946-967.
- Chen, C.J. and Jaggi, B. (2001), "Association between independent non-executive directors, family control and financial disclosures in Hong Kong", *Journal of Accounting and Public policy*, Vol. 19 No. 4, pp. 285-310.

- Clarkson, M.E. (1995), "A stakeholder framework for analyzing and evaluating corporate social performance", *Academy of management review*, Vol. 20 No. 1, pp. 92-117.
- Cullen, L. and Christopher, T. (2002), "Governance disclosures and firm characteristics of listed Australian mining companies", *International Journal of Business Studies*, Vol. 10 No. 1, pp. 37-58.
- D. Sundarasan, S.D., Je-Yen, T. and Rajangam, N. (2016), "Board composition and corporate social responsibility in an emerging market", *Corporate Governance: The international journal of business in society*, Vol. 16 No. 1, pp. 35-53.
- Dawkins, J. and Lewis, S. (2003), "CSR in stakeholder expectations: and their implication for company strategy", *Journal of Business Ethics*, Vol. 44 No. 2, pp. 185-193.
- De Andres, P., Azofra, V. and Lopez, F. (2005), "Corporate Boards in OECD Countries: size, composition, functioning and effectiveness", *Corporate Governance: An International Review*, Vol. 13 No. 2, pp. 197-210.
- Deegan, C. and Gordon, B. (1996), "A Study of the Environmental Disclosure Practices of Australian Corporations", *Accounting and Business Research*, Vol. 26 No. 3, pp. 187-199.
- Deegan, C. and Rankin, M. (1997), "The materiality of environmental information to users of annual reports", *Accounting, Auditing & Accountability Journal*, Vol. 10 No. 4, pp. 562-583.
- Dellaportas, S., Langton, J. & West, B. (2012), "Governance and accountability in Australian charitable organisations: Perceptions from CFOs", *International Journal of Accounting & Information Management*, Vol. 20 No. 3, pp. 238-254.
- Deschênes, S., Rojas, M., Boubacar, H., Prud'homme, B. and Ouedraogo, A. (2015), "The impact of board traits on the social performance of Canadian firms", *Corporate Governance: The international journal of business in society*, Vol. 15 No. 3, pp. 293-305.
- Donaldson, T. and Preston, L.E. (1995), "The stakeholder theory of the corporation: Concepts, evidence, and implications", *Academy of management Review*, Vol. 20 No. 1, pp. 65-91.
- Dowling, J. and Pfeffer, J. (1975), "Organizational legitimacy: Social values and organizational behavior", *Pacific sociological review*, Vol. 18 No. 1, pp. 122-136.
- Dunn, P. and Sainty, B. (2009), "The relationship among board of director characteristics, corporate social performance and corporate financial performance", *International Journal of Managerial Finance*, Vol. 5 No. 4, pp. 407-423.
- Eddine, C.O.H., Abdullah, S.N., Hamid, F.A. and Hossain, D.M. (2015), "The determinants of intellectual capital disclosure: a meta-analysis review", *Journal of Asia Business Studies*, Vol. 9 No. 3, pp. 232-250.
- Eng, L.L. and Mak, Y.T. (2003), "Corporate governance and voluntary disclosure", *Journal of accounting and public policy*, Vol. 22 No. 4, pp. 325-345.
- Fama, E.F. and Jensen, M.C. (1983), "Separation of Ownership and Control", *The Journal of Law and Economics*, Vol. 26 No. 2, pp. 301-325.
- Forker, J.J. (1992), "Corporate Governance and Disclosure Quality", *Accounting and Business Research*, Vol. 22 No. 86, pp. 111-124.
- García-Meca, E. and Sánchez-Ballesta, J.P. (2009), "Corporate Governance and Earnings Management: A Meta-Analysis", *Corporate Governance: An International Review*, Vol. 17 No. 5, pp. 594-610.
- Giannarakis, G. (2013), "Determinants of corporate social responsibility disclosures: the case of the US companies", *International Journal of Information Systems and Change Management*, Vol. 6 No. 3, pp. 205-221.

- Giannarakis, G. (2014a), "Corporate governance and financial characteristic effects on the extent of corporate social responsibility disclosure", *Social Responsibility Journal*, Vol. 10 No. 4, pp. 569-590.
- Giannarakis, G. (2014b), "The determinants influencing the extent of CSR disclosure", *International Journal of Law and Management*, Vol. 56 No. 5, pp. 393-416.
- Glass, G. V. (1976), "Primary, Secondary, and Meta-Analysis of Research", *Educational Researcher*, Vol. 5 No. 10, pp. 3-8.
- Guthrie, J. and Parker, L.D. (1989), "Corporate Social Reporting: A Rebuttal of Legitimacy Theory", *Accounting and Business Research*, Vol. 19 No. 76, pp. 343-352.
- Guthrie, J. and Parker, L.D. (1990), "Corporate social disclosure practice: a comparative international analysis", *Advances in public interest accounting*, Vol. 3, pp. 159-175.
- UTHRIE, J. & PARKER, L. D. 1990. Corporate social disclosure practice: a comparative international analysis. *Advances in public interest accounting*, 3, 159-175.
- Hackston, D. and Milne, M.J. (1996), "Some determinants of social and environmental disclosures in New Zealand companies", *Accounting, Auditing & Accountability Journal*, Vol. 9 No. 1, pp. 77-108.
- Haniffa, R.M. and Cooke, T.E. (2002), "Culture, Corporate Governance and Disclosure in Malaysian Corporations", *Abacus*, Vol. 38 No. 3, pp. 317-349.
- Haniffa, R.M. and Cooke, T.E. (2005), "The impact of culture and governance on corporate social reporting", *Journal of Accounting and Public Policy*, Vol. 24 No. 5, pp. 391-430.
- Hawani Wan Abd Rahman, N., Mohamed Zain, M. and Hanim Yaakop Yahaya Al-Haj, N. (2011), "CSR disclosures and its determinants: evidence from Malaysian government link companies", *Social Responsibility Journal*, Vol. 7 No. 2, pp. 181-201.
- Hossain, M.M. & Alam, M. (2016), "Corporate social reporting (CSR) and stakeholder accountability in Bangladesh: Perceptions of less economically powerful stakeholders", *International Journal of Accounting & Information Management*, Vol. 24 No. 4, pp. 415-442.
- Hunter, J.E., Schmidt, F.L. and Jackson, G.B. (1982), "Cumulating Research Findings across Studies", Sage, Beverly Hill, CA.
- Hunter, J. E. & Schmidt, F. L. (1990), "Dichotomization of continuous variables: The implications for meta-analysis". American Psychological Association.
- Ibrahim, A.H. and Hanefah, M.M. (2016), "Board diversity and corporate social responsibility in Jordan", *Journal of Financial Reporting and Accounting*, Vol. 14 No. 2, pp. 279-298.
- Igalens, J. and Gond, J.P. (2005), "Measuring Corporate Social Performance in France: A Critical and Empirical Analysis of ARESE Data", *Journal of Business Ethics*, Vol. 56 No. 2, pp. 131-148.
- Javaid Lone, E., Ali, A. and Khan, I. (2016), "Corporate governance and corporate social responsibility disclosure: evidence from Pakistan", *Corporate Governance: The international journal of business in society*, Vol. 16 No. 5, pp. 785-797.
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360.
- Jeon, J.Q., Lee, C. and Moffett, C.M. (2011), "Effects of foreign ownership on payout policy: Evidence from the Korean market", *Journal of Financial Markets*, Vol. 14 No. 2, pp. 344-375.

- Kathy Rao, K., Tilt, C.A. and Lester, L.H. (2012), "Corporate governance and environmental reporting: an Australian study", *Corporate Governance: The international journal of business in society*, Vol. 12 No. 2, pp. 143-163.
- Khan, A., Muttakin, M.B. and Siddiqui, J. (2013), "Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy", *Journal of business ethics*, Vol. 114 No. 2, pp. 207-223.
- Khan, H.U.Z. (2010), "The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh", *International Journal of Law and Management*, Vol. 52 No. 2, pp. 82-109.
- Khanchel, I. (2007), "Corporate governance: measurement and determinant analysis", *Managerial Auditing Journal*, Vol. 22 No. 8, pp. 740-760.
- Khasharmeh, H. and Suwaidan, M.S. (2010), "Social responsibility disclosure in corporate annual reports: evidence from the Gulf Cooperation Council countries", *International Journal of Accounting, Auditing and Performance Evaluation*, Vol. 6 No. 4, pp. 327-345.
- Khelif, H., Hussainey, K. & Achek, I. (2015), "The effect of national culture on the association between profitability and corporate social and environmental disclosure: A meta-analysis", *Meditari Accountancy Research*, Vol. 23 No. 3, pp. 296-321.
- Khelif, H. and Souissi, M. (2010), "The determinants of corporate disclosure: a meta-analysis", *International Journal of Accounting & Information Management*, Vol. 18 No. 3, pp. 198-219.
- Kiliç, M., Kuzey, C. and Uyar, A. (2015), "The impact of ownership and board structure on Corporate Social Responsibility (CSR) reporting in the Turkish banking industry", *Corporate Governance: The international journal of business in society*, Vol. 15 No. 3, pp. 357-374.
- Lee, S.P. and Chen, H.J. (2011), "Corporate governance and firm value as determinants of CEO compensation in Taiwan: 2SLS for panel data model", *Management Research Review*, Vol. 34 No. 3, pp. 252-265.
- Li, J., Pike, R. and Haniffa, R. (2008), "Intellectual capital disclosure and corporate governance structure in UK firms", *Accounting and Business Research*, Vol. 38 No. 2, pp. 137-159.
- Li, W. and Zhang, R. (2010), "Corporate social responsibility, ownership structure, and political interference: Evidence from China", *Journal of business ethics*, Vol. 96 No. 4, pp. 631-645.
- Lim, Y.Z., Talha, M., Mohamed, J. and Sallehuddin, A. (2008), "Corporate social responsibility disclosure and corporate governance in Malaysia", *International Journal of Behavioural Accounting and Finance*, Vol. 1 No. 1, pp. 67-89.
- Ling, T.C. and Sultana, N. (2015), "Corporate social responsibility: what motivates management to disclose?", *Social Responsibility Journal*, Vol. 11 No. 3, pp. 513-534.
- Lu, Y. and Abeysekera, I. (2014), "Stakeholders' power, corporate characteristics, and social and environmental disclosure: evidence from China", *Journal of Cleaner Production*, Vol. 64, pp. 426-436.
- Majeed, S., Aziz, T. and Saleem, S. (2015), "The Effect of Corporate Governance Elements on Corporate Social Responsibility (CSR) Disclosure: An Empirical Evidence from Listed Companies at KSE Pakistan", *International Journal of Financial Studies*, Vol. 3 No. 4, pp. 530-556.
- McWilliams, A. and Siegel, D. (2001), "Corporate Social Responsibility: A Theory of the Firm Perspective", *The Academy of Management Review*, Vol. 26 No. 1, pp. 117-127.

- Mohd Ghazali, N.A. (2007), "Ownership structure and corporate social responsibility disclosure: some Malaysian evidence", *Corporate Governance: The international journal of business in society*, Vol. 7 No. 3, pp. 251-266.
- Mohd Ghazali, N.A. and Weetman, P. (2006), "Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis", *Journal of International Accounting, Auditing and Taxation*, Vol. 15 No. 2, pp. 226-248.
- Muttakin, M.B. and Khan, A. (2014), "Determinants of corporate social disclosure: Empirical evidence from Bangladesh", *Advances in Accounting*, Vol. 30 No. 1, pp. 168-175.
- Muttakin, M.B. and Subramaniam, N. (2015), "Firm ownership and board characteristics: Do they matter for corporate social responsibility disclosure of Indian companies?", *Sustainability Accounting, Management and Policy Journal*, Vol. 6 No. 2, pp. 138-165.
- Myllys, K. (1999), "The Role of the Non-Executive Board and the CEO in Managing the Change: a survival battle in Finnish Banking", *Corporate Governance: An International Review*, Vol. 7 No. 4, pp. 311-323.
- Naser, K., Al-Hussaini, A., Al-Kwari, D. and Nuseibeh, R. (2006), "Determinants of corporate social disclosure in developing countries: The case of Qatar", *Advances in International Accounting*, Vol. 19, pp. 1-23.
- Neu, D., Warsame, H. and Pedwell, K. (1998), "Managing Public Impressions: Environmental Disclosures in Annual Reports", *Accounting, Organizations and Society*, Vol. 23 No. 3, pp. 265-282.
- Newson, M. and Deegan, C. (2002), "Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea", *The International Journal of Accounting*, Vol. 37 No. 2, pp. 183-213.
- Nurhayati, R., Taylor, G., Rusmin, R., Tower, G. and Chatterjee, B. (2016), "Factors determining social and environmental reporting by Indian textile and apparel firms: a test of legitimacy theory", *Social Responsibility Journal*, Vol. 12 No. 1, pp. 167-189.
- Owusu-Ansah, S. (1998), "The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe", *The International Journal of Accounting*, Vol. 33 No. 5, pp. 605-631.
- Patten, D.M. (1992), "Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory", *Accounting, Organizations and Society*, Vol. 17 No. 5, pp. 471-475.
- Patton, J. and Zelenka, I. (1997), "An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic", *European Accounting Review*, Vol. 6 No. 4, pp. 605-626.
- Rashid, A. and Lodh, S.C. (2008), "The influence of ownership structures and board practices on corporate social disclosures in Bangladesh", Tsamenyi, M. and Uddin, S., *Research in Accounting in Emerging Economies*, Emerald Group Publishing Limited, UK, pp. 211-237.
- Razak, S.E.A. and Mustapha, M. (2013), "Corporate social responsibility disclosures and board structure: Evidence from Malaysia", *Jurnal Teknologi*, Vol. 64 No. 3, pp. 73-80.
- Roberts, R.W. (1992), "Determinants of corporate social responsibility disclosure: An application of stakeholder theory", *Accounting, Organizations and Society*, Vol. 17 No. 6, pp. 595-612.
- Rodríguez, L.C. and LeMaster, J. (2007), "Voluntary corporate social responsibility disclosure SEC "CSR Seal of Approval"", *Business & Society*, Vol. 46 No. 3, pp. 370-384.
- Rosenthal, R. (1991), *Meta-analytic procedures for social research*, Sage.

- Said, R., Hj Zainuddin, Y. and Haron, H. (2009), "The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies", *Social Responsibility Journal*, Vol. 5 No. 2, pp. 212-226.
- Samaha, K., Dahawy, K., Abdel-Meguid, A. & Abdallah, S. (2012), "Propensity and comprehensiveness of corporate internet reporting in Egypt: Do board composition and ownership structure matter? ", *International Journal of Accounting & Information Management*, Vol. 20 No. 2, pp. 142-170.
- Shleifer, A. and Vishny, R.W. (1997), "A Survey of Corporate Governance", *The Journal of Finance*, Vol. 52 No. 2, pp. 737-783.
- Siciliano, J.I. (1996), "The relationship of board member diversity to organizational performance", *Journal of Business Ethics*, Vol. 15 No. 12, pp. 1313-1320.
- Siddiqui, S.S. (2015), "The association between corporate governance and firm performance – a meta-analysis", *International Journal of Accounting & Information Management*, Vol. 23 No. 3, pp. 218-237.
- Souissi, M. and Khlif, H. (2012), "Meta-analytic review of disclosure level and cost of equity capital", *International Journal of Accounting & Information Management*, Vol. 20 No. 1, pp. 49-62.
- Sufian, M.A. and Zahan, M. (2013), "Ownership structure and corporate social responsibility disclosure in Bangladesh", *International Journal of Economics and Financial Issues*, Vol. 3 No. 4, pp. 901-909.
- Supriyono, E., Almasyhari, A.K., Suhardjanto, D. and Rahmawati, S. (2015), "The impact of corporate governance on corporate social disclosure: comparative study in South East Asia", *International Journal of Monetary Economics and Finance*, Vol. 8 No. 2, pp. 143-161.
- Suwaidean, M.S., Al-Omari, A.M.D. and Haddad, R.H. (2004), "Social responsibility disclosure and corporate characteristics: the case of Jordanian industrial companies", *International Journal of Accounting, Auditing and Performance Evaluation*, Vol. 1 No. 4, pp. 432-447.
- Teoh, H.Y. and Thong, G. (1984), "Another look at corporate social responsibility and reporting: An empirical study in a developing country", *Accounting, Organizations and Society*, Vol. 9 No. 2, pp. 189-206.
- Tschopp, D.J. (2005), "Corporate social responsibility: a comparison between the United States and the European Union", *Corporate Social Responsibility and Environmental Management*, Vol. 12 No. 1, pp. 55-59.
- Uzma, S.H. (2016), "Embedding corporate governance and corporate social responsibility in emerging countries", *International Journal of Law and Management*, Vol. 58 No. 3, pp. 299-316.
- Van Beurden, P. and Gössling, T. (2008), "The worth of values—a literature review on the relation between corporate social and financial performance", *Journal of business ethics*, Vol. 82 No. 2, pp. 407-424.
- Veronica Siregar, S. and Bachtiar, Y. (2010), "Corporate social reporting: empirical evidence from Indonesia Stock Exchange", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 3 No. 3, pp. 241-252.
- Welford, R., Chan, C. and Man, M. (2008), "Priorities for corporate social responsibility: a survey of businesses and their stakeholders", *Corporate Social Responsibility and Environmental Management*, Vol. 15 No. 1, pp. 52-62.
- Williams, R.J. (2003), "Women on corporate boards of directors and their influence on corporate philanthropy", *Journal of Business Ethics*, Vol. 42 No. 1, pp. 1-10.

Table 1: Selected sample studies for the meta-analysis

No.	Study	Journal	Country	Sample size	Sample year	Abstracted and indexed by			
						Thomson Reuters	ABS	Scopus	ABDC
1	(D.Sundarasan et al., 2016)	Corporate Governance: The International Journal of Business in Society	Malaysia	450	2011 & 2012	✓	✓	✓	✓
2	(Dunn and Sainty, 2009)	International Journal of Managerial Finance	Canada	174	2002-2006	✓	✓	✓	✓
3	Ibrahim and Hanefah (2016)	Journal of Financial Reporting and Accounting	Jordan	468	Between 2007 & 2011	✓	×	×	✓
4	Razak and Mustapha (2013)	Jurnal Teknologi	Malaysia	200	2010	✓	×	✓	×
5	Javaid Lone et al. (2016)	Corporate Governance: The International Journal of Business in Society	Pakistan	250	2010-2014	✓	✓	✓	✓
6	Giannarakis (2014a)	Social Responsibility Journal	USA	100	2011	✓	×	✓	✓
7	Haniffa and Cooke (2005)	Journal of Accounting and Public Policy	Malaysia	139	1996 & 2002	✓	✓	✓	✓
8	Khan (2010)	International Journal of Law and Management	Bangladesh	30	2007-2008	✓	×	✓	✓
9	Lim et al. (2008)	International Journal of Behavioural Accounting and Finance	Malaysia	743	2003	×	×	×	✓
10	Majeed et al. (2015)	International Journal of Financial Studies	Pakistan	100	2007-2011	✓	×	×	×
11	Kiliç et al. (2015)	Corporate Governance: The International Journal of Business in Society	Turkey	125	2008-2012	✓	✓	✓	✓
12	Rashid and Lodh (2008)	Research in Accounting in Emerging Economies	Bangladesh	80	2003-04 to 2006-07	✓	×	✓	✓
13	Sufian and Zahan (2013)	International Journal of Economics and Financial Issues	Bangladesh	70	2010	×	×	✓	✓
14	Mohd Ghazali (2007)	Corporate Governance: The International Journal of Business in Society	Malaysia	87	2001	✓	✓	✓	✓
15		Journal of Business Ethics	China	692	2007	✓	✓	✓	✓

16	Deschênes et al. (2015)	Corporate Governance: The International Journal of Business in Society	Canada	192	2004-2008	V	V	V	V
17	Giannarakis (2014b)	International Journal of Law and Management	USA	366	2011	V	×	V	V
18	Supriyono et al. (2015)	International Journal of Monetary Economics and Finance	Indonesia, Malaysia, Thailand	181	2009	×	×	V	V
19	Alotaibi and Hussainey (2016)	International Journal of Disclosure and Governance	Saudi Arabia	171	2013-14	V	V	V	V
20	Veronica Siregar and Bachtiar (2010)	International Journal of Islamic and Middle Eastern Finance and Management	Indonesia	87	2003	V	V	V	V
21	Ahmed Haji (2013)	Managerial Auditing Journal	Malaysia	85	2006 & 2009	V	V	V	V
22	Barakat et al. (2015)	Review of Managerial Science	Palestine & Jordan	101	2011	V	×	V	×
23	Giannarakis (2013)	International Journal of Information Systems and Change Management	US	100	2011	×	×	V	V
24	Ling and Sultana (2015)	Social Responsibility Journal	Singapore	100	2011	V	×	V	V
25	Lu and Abeysekera (2014)	Journal of Cleaner Production	China	100	2008	V	×	V	×
26	Naser et al. (2006)	Advances in International Accounting	Qatar	21	1999-00	×	V	V	×
27	Nurhayati et al. (2016)	Social Responsibility Journal	India	100	2010	V	×	V	V
28	Suwaidean et al. (2004)	International Journal of Accounting, Auditing and Performance Evaluation	Jordan	65	2001	×	V	V	V
29	(Khasharmeh and Suwaidean (2010))	International Journal of Accounting, Auditing and Performance Evaluation	GCC	60	2006	×	V	V	V

Table 2: Results of Pearson's Correlation Coefficient (r) or Effect Size

S. N.	Study	Explanatory variables with Pearson's correlation coefficient (r)												Source of Information
		BIND	BSZ	BGD	FBM	CNED	CEOD	AUDC	GOWN	FOWN	IOWN	MOWN	COWN	
1	D.Sundarasan et al. (2016)	-0.116		0.106		0.036	-0.148	0.114						Table V, p. 44
2	Dunn and Sainty (2009)	0.175												Table V, p. 417
3	Ibrahim and Hanefah (2016)	0.286		0.186										Table VII
4	Razak and Mustapha (2013)	0.058	0.065				-0.056					-0.124		Table 4, p. 78
5	Javaid Lone et al. (2016)	0.283	0.157	0.128										Table 5
6	Giannarakis (2014a)	-0.121	-0.115	0.068	0.092		0.110							Table IV, p. 581
7	Haniffa and Cooke (2005)					-0.254				0.183				Table 6, p. 415
8	Khan (2010)			0.704		0.623				0.585				Table VIII, p. 100
9	Lim et al. (2008)	0.028				0.106	-0.058	0.058	0.267					Table 4, p. 81
10	Majeed et al. (2015)	-0.073	0.187	-0.172							0.211		0.059	Table 5, p. 543
11	Kiliç et al. (2015)	-0.007	0.087	-0.001										Table 3
12	Rashid and Lodh (2008)	0.365									-0.138	-0.246	-0.135	Table 8, p. 228
13	Sufian and Zahan (2013)		-0.081							0.194				Table 3, p. 906
14	Mohd Ghazali (2007)								0.233			-0.296	-0.105	Table 5, p. 260
15	Li and Zhang (2010)										0.022		-0.0003	Table V, p. 639
16	Deschênes et al. (2015)	0.308	0.095	0.180								-0.083		Table II, p. 302
17	Giannarakis (2014b)		0.177	0.012	0.001		-0.147							Table VI, p. 408
18	Supriyono et al. (2015)	0.162	0.153									-0.071		Table 5, p. 156
19	Alotaibi and Hussainey (2016)	-0.067	0.131		0.078		0.109	-0.028	-0.190					Table 4, p. 18
20	Veronica Siregar and Bachtiar (2010)		0.187							-0.0001				Table II, p. 248
21	Ahmed Haji (2013)	-0.080	0.217		-0.024				0.124			-0.086	0.088	Table VII, p. 668
22	Barakat et al. (2015)	-0.094	0.284											Table 6
23	Giannarakis (2013)		-0.048		0.119									Table 4, p. 215
24	Ling and Sultana (2015)	0.208	0.130				-0.190	-0.047						Table IV, p. 524
25	Lu and Abeyssekera (2014)							0.073	0.038				-0.172	Table 5, p. 434
26	Naser et al. (2006)								0.098		-0.161		-0.079	Table 5, p. 15
27	Nurhayati et al. (2016)	0.057									0.040			Table 4
28	Suwaidan et al. (2004)								0.230					Table 6, p. 443
29	(Khasharmeh and Suwaidan (2010))								0.203					Table 8, p. 339

Notes: BIND = Board Independence; BSZ = Board Size; BGD = Board Gender Diversity; FBM = Frequency of Board Meetings; CNED = Composition of Non-Executive Directors; CEOD = CEO Duality; AUDC = Auditors' Credibility; GOWN = Government Ownership; FOWN = Foreign Ownership; IOWN = Managerial Ownership; MOWN = Managerial Ownership; COWN = Concentrated Ownership

Notes: BIND = Board Independence; BSZ = Board Size; BGD = Board Gender Diversity; FBM = Frequency of Board Meetings; CNED = Composition of Non-Executive Directors; CEOD = CEO Duality; AUDC = Auditors' Credibility; GOWN = Government Ownership; FOWN = Foreign Ownership; IOWN = Institutional Ownership; MOWN = Managerial Ownership; COWN = Concentrated Ownership.

Table 3: Meta-Analysis Results for all of the Explanatory Variables

Explanatory Variables	Sample Size (N)	Study (K)	Mean Correlation (\bar{r})	Observed Variance (S_r^2)	Estimated Error Variance (S_e^2)	Residual Variance ($S_p^2 = (S_r^2 - S_e^2)$)	% Explained (S_e^2 / S_r^2)	Confidence Interval (95%)	Chi-Square (χ^2_{k-1})
BIND	3620	17	0.086	0.0239	0.0046	0.0193	19.25	-0.1863; 0.3583	88.33**
BSZ	2228	15	0.1209	0.0081	0.0065	0.0016	80.25	0.0425; 0.1993	18.69 ^a
BGD	2081	9	0.1039	0.0132	0.0042	0.009	31.82	-0.0820; 0.2898	28.29**
FMB	822	5	0.0399	0.0025	0.0061	-0.0036	100	0.0399; 0.0399***	2.05 ^a
CNED	1362	4	0.0575	0.0184	0.0029	0.0155	15.76	-0.1865; 0.3015	25.38**
CEOD	2130	7	-0.077	0.0071	0.0032	0.0039	45.07	-0.1994; 0.0454	15.53*
AUDC	1564	5	0.059	0.0024	0.0032	-0.0008	100	0.059; 0.059***	3.75 ^a
GOWN	1332	8	0.1724	0.0239	0.0057	0.0182	23.85	-0.0920; 0.4368	33.54**
FOWN	326	4	0.1735	0.0238	0.0115	0.0123	48.32	-0.0439; 0.3909	8.28*
IOWN	993	5	0.0261	0.0064	0.005	0.0014	78.13	-0.0472; 0.0994	6.4 ^a
MOWN	825	6	-0.1289	0.0057	0.007	-0.0013	100	-0.1289; -0.1289***	4.89 ^a
COWN	1165	7	-0.022	0.0051	0.006	-0.0009	100	-0.022; -0.022***	5.95 ^a

Notes: BIND = Board Independence; BSZ = Board Size; BGD = Board Gender Diversity; FBM = Frequency of Board Meetings; CNED = Composition of Non-Executive Directors; CEOD = CEO Duality; AUDC = Auditors' Credibility; GOWN = Government Ownership; FOWN = Foreign Ownership; IOWN = Institutional Ownership; MOWN = Managerial Ownership; COWN = Concentrated Ownership.

*** A zero value of residual variance (S_p^2) uses for the computation of 95% confidence interval in case of estimated error variance (S_e^2) is greater than observed variance (S_r^2) (Eddine et al., 2015, Khelif and Souissi, 2010, Ahmed and Courtis, 1999). **Significant at 1%; *Significant at 5%; Insignificant^a. Dependent Variable: Corporate Social Disclosures (CSD).

Table 4: Meta-Analysis Results for the Explanatory Variable Board Independence

Type of Analysis	Sample Size (N)	Study (K)	Mean Correlation (\bar{r})	Observed Variance (S^2_o)	Estimated Error Variance (S^2_e)	Residual Variance ($S^2_p = (S^2_r - S^2_e)$)	% Explained (S^2_e / S^2_r)	Confidence Interval (95%)	Chi-Square (χ^2_{k-1})
General meta-analysis	3620	17	0.086	0.0239	0.0046	0.0193	19.25	-0.1863; 0.3583	88.33*
Developed & Developing Countries									
Developed Countries	566	4	0.1737	0.0217	0.0066	0.0151	30.41	-0.0675; 0.4145	13.15*
Developing Countries	3054	13	0.0698	0.0227	0.0042	0.0185	18.50	-0.1968; 0.3364	70.26*
Notes: *Significant at 1%, Dependent Variable: Corporate Social Disclosures (CSD).									

Table 5: Meta-Analysis Results for the Explanatory Variable Board Gender Diversity

Type of Analysis	Sample Size (N)	Study (K)	Mean Correlation (\bar{r})	Observed Variance (S^2_o)	Estimated Error Variance (S^2_e)	Residual Variance ($S^2_p = (S^2_r - S^2_e)$)	% Explained (S^2_e / S^2_r)	Confidence Interval (95%)	Chi-Square (χ^2_{k-1})
General meta-analysis	2081	9	0.1039	0.0132	0.0042	0.009	31.82	-0.0820; 0.2898	28.29*
Developed & Developing Countries									
Developed Countries	658	3	0.0695	0.0054	0.0045	0.0009	83.33	0.0107; 0.1283	3.60 ^a
Developing Countries	1423	6	0.1198	0.016	0.0041	0.0119	25.63	-0.0940; 0.3336	23.41*
Notes: *Significant at 1%; Insignificant ^a ; Dependent Variable: Corporate Social Disclosures (CSD).									

Table 6: Meta-Analysis Results for the Explanatory Variable CEO Duality

Type of Analysis	Sample Size (N)	Study (K)	Mean Correlation (\bar{r})	Observed Variance (S_r^2)	Estimated Error Variance (S_e^2)	Residual Variance ($S_p^2 = (S_r^2 - S_e^2)$)	% Explained (S_e^2 / S_r^2)	Confidence Interval (95%)	Chi-Square (χ^2_{k-1})
General meta-analysis	2130	7	-0.077	0.0071	0.0032	0.0039	45.07	-0.1994; 0.0454	15.53*
Developed & Developing Countries									
Developed Countries	566	3	-0.1092	0.0106	0.0052	0.0054	49.06	-0.2532; 0.0348	6.12*
Developing Countries	1564	4	-0.0654	0.0053	0.0025	0.0028	47.17	-0.1691; 0.0383	8.48*
Notes: * Significant at 5%; Dependent Variable: Corporate Social Disclosures (CSD).									