

CORPORATE SOCIAL RESPONSIBILITY POLICIES, STAKEHOLDER ENGAGEMENT AND OWNERSHIP STRUCTURE: THE MODERATING EFFECT OF BOARD INDEPENDENCE

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Abstract

This study primarily purposes to empirically examine the impact of stakeholder engagement mechanism in the form of professional shareholders on the corporate social responsibility (hereafter CSR) disclosure and how the previous nexus is shaped and moderated by the level of board independence within a dynamic framework. An agency theory framework is adopted to understand the extent to which professional shareholders, such as government, institutional, and foreign influence the firm's CSR reporting. To the best of our knowledge, most of the prior empirical studies in CSR field have not yet provided a profound analysis of the moderating effect of board independence on the relationship between ownership structure and CSR disclosure. Hence, working on this sensitive issue merits our attention and deserves our recognition. Due to endogeneity bias, our reported results vary in their significance level across the three econometrics models; pooled OLS, fixed-effects, and system GMM. The findings unveiled that the effect of government, institutional, and foreign investors on CSR disclosure is more positive under conditions of the high level of board independence. The study sheds new light onto the paradoxical empirical findings of the prior research that has tried to link ownership structure to CSR disclosure directly by analyzing the significant role of independent directors on the aforementioned nexus. Further, the study pays rigorous attention to provide multidimensional insights for responsible parties to support the notion of stakeholder engagement mechanism beyond the current boundaries.

Keywords: Corporate social responsibility disclosure, ownership structure, stakeholder engagement, corporate governance, agency theory

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1. INTRODUCTION

In the contemporary business environment, there is a controversial growing concern on the crucial role of ownership structure on corporate social responsibility (CSR) disclosure. The great breadth and depth of corporate governance (GC)-CSR literature is indicative of the important role that corporate governance mechanisms play in shaping CSR-related activities. In this vein, the diversity in ownership structure as an ingrained idea from corporate governance may affect the sensitive nexus between a company and its stakeholders and, therefore, influence the extent and the quality of CSR reporting (Van der Laan Smith, Adhikari, & Tondkar, 2005). Previous studies have found that different types of shareholders have divergent preferences regarding various strategic decisions and investments (Hoskisson, Hitt, Johnson, & Grossman, 2002; Zahra, 1996). In the strict sense of the words, it seems arguably reasonable to hypothesize that diverse groups of shareholders have different impacts on the firm's CSR involvement (Oh, Chang, & Martynov, 2011).

Investors and other parties of stakeholders are increasingly urging companies to be more responsible for the impact of their operations on society and environment (Manning, Braam, & Reimsbach, 2019). Ownership structure can explain observable differences in the level of the firm's disclosure (Elmagrhi, Ntim, & Wang, 2016). According to Simerly and Bass (1998), ownership structure is deemed as an important factor in driving social and environmental perspective of corporate governance, since different types of shareholders have a different social and environmental orientation. In particular, professional owners (e.g., government, institutional, and foreign, among others) can go beyond the firm's investment decisions by proposing and voting on firm's strategic decisions (McWilliams & Siegel, 2000). Hence, it is not surprising that professional shareholders are more likely to be involved in the firm's strategic decisions about social and environmental investments (Oh et al., 2011). Consequently, we build our first argument that ownership structure may play a strikingly conspicuous role in shaping companies' CSR attitudes and behaviour.

Considering the above argument, Lopatta, Jaeschke, and Chen (2017) articulated that government, as the controlling shareholder of the company, always has incentives to systematically pursue social and environmental stability. Li and Zhang (2010) denoted that it is important to consider the type of ownership in analyzing CSR in an emerging economy, where state ownership is still predominant such as China. Further, the number of shares held by governments in companies will give them the power to intervene in such entities to report additional information in order to satisfy public expectation (Amran & Susela Devi, 2008). Institutional owners are said to be risk-averse (Chaganti & Damanpour, 1991). Thereby, institutional investors would invest more in companies actively involved in CSR-related activities, if they believe it would positively affect firm performance and lower the risk of their investments in the foreseeable future (Mahoney & Roberts, 2007). Foreign investors have the ability to monitor managers' action (Randøy & Goel, 2003) and, thus, foreign-owned firms will tend to disclose more CSR information to mitigate the agency conflict between executives and their foreign owners (Wang, Sewon, & Claiborne, 2008).

Over the last few decades, prior research (De Miguel, Pindado, & De La Torre, 2004; Gedajlovic & Shapiro, 2002) has investigated the relationship between firm performance, strategic decision making, and ownership structure. In this regard, Darko, Aribi, and Uzonwanne (2016) reported that ownership concentration has a positive impact on firm performance. Baysinger, Kosnik, and Turk (1991) and Boyd (1994) found that ownership structure and organizational decision-making are intrinsically linked. Furthermore, numerous scholarly articles have examined different factors leading to CSR reporting, their patterns, and trends. However, the majority of research efforts have been devoted to examine the influence of firm-specific characteristics (Aupperle, Carroll, & Hatfield, 1985; Gamerschlag, Möller, & Verbeeten, 2011; Reverte, 2009), board structure (Chang, Oh, Park, & Jang, 2017; Cuadrado-Ballesteros, Martínez-Ferrero, & García-Sánchez, 2017) or audit committee attributes (Appuhami & Tashakor, 2017; Buallay & Al-Ajmi, 2019) on the extent of CSR reporting. In contrast, a limited number of previous papers, mostly in developed countries, have examined the power of ownership structure on CSR reporting (Johnson & Greening, 1999; Kiliç, Kuzey, & Uyar, 2015; Prado-Lorenzo, Gallego-Alvarez, & Garcia-Sanchez, 2009).

Moreover, most of the contemporary prior studies investigating the impact of ownership structure on the CSR disclosure have restricted to analyze the direct relationship and have not

considered the indirect analysis “moderating effect” of other dimensions. Hence, it is worthwhile to study what was heretofore neglected by previous scholars and extract new insights into CSR beyond the narrow and traditional perspective. Many researchers have argued that outsiders’ directors play a sensitive role in monitoring top management by joining with them to enhance the quality of strategic decision and implementing those strategies (Fama & Jensen, 1983; Williamson, 1984). In this vein, correspondingly, firms without independent directors will be far from the desired level of good governance and, therefore, it will restrict the effect of other dimensions of corporate governance such as ownership structure on CSR disclosure. For instance, Duru, Iyengar, and Zampelli (2016) proved that the effect of CEO duality on firm performance is positively moderated by board independence. Accordingly, we build our second argument that professional shareholders are more likely to support the investment in CSR activities under good governance practices of “high-level of board independence”, which, in turn, implies that the impact of ownership structure on CSR disclosure is contingent on board independence.

This study makes remarkable contributions in two aspects. First, to the best of our knowledge, this is the first empirical study to examine the effect of board independence on the nexus between ownership structure and CSR reporting. More plainly, investigating the moderating role of independent directors on the effect of professional shareholders on the firm’s CSR reporting was predominantly neglected by the earlier studies and has not yet examined by other researchers. Hence, it seems plausible to assume that examining the moderating role of independent directors will enrich the literature beyond pre-conceived ideas and create a fertile ground for further investigation. Moreover, in order to resolve the contradictory and inconclusive findings proffered in prior research (Habbash, 2016; Kathy Rao, Tilt, & Lester, 2012; Khan, Muttakin, & Siddiqui, 2013; Muttakin & Subramaniam, 2015; Oh et al., 2011), indirect methods such as modeling moderating variables should be adopted to gain in-depth knowledge and open the black box between diversity in ownership structure and firms’ CSR reporting. Second, several papers have examined corporate governance dimensions within a dynamic framework. Nevertheless, so far, the overwhelming majority of research efforts have been devoted to investigate the dynamic relationship between ownership structure and firm performance (Hu & Izumida, 2008; Nguyen, Locke, & Reddy, 2015). From this scenery, this study well-responds to the more recent calls presented by ancestors Zhou, Faff, and Alpert (2014) and Wintoki, Linck, and Netter (2012) for using dynamic panel data specification in corporate governance studies. Further, Jain and Jamali

(2016) articulated that research into CG-CSR disclosure relationship rarely removes or alleviates the endogeneity bias in a comprehensive manner. Given the aforementioned point, the time is right to provide an overarching view, which helps to bridge the void in existing ownership structure-CSR literature by providing a detailed case of how the endogeneity affects the study results and how we can remove it.

The remainder of this paper is organized as follows. The next section displays the theoretical framework and hypotheses development. Afterward, we discuss the methodological approach employed, in terms of sample and data collection, variables definitions and measurement and empirical model. The subsequent section shows our empirical findings with robustness checks and discussion. The conclusions, limitations, and recommendations are given in the final section.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

From a theoretical standpoint, Jensen and Meckling (1976) articulated that agency theory has been described as “ a theory of ownership structure of the firm.” Eisenhardt (1989) indicated that agency theory, in a formal sense, is concerned with solving two problems that can appear in an agency relationship. The first agency problem may arise when the agent’s (managers) goals and desires conflict with those of the principal (shareholders). The second problem is called risk sharing, which might arise when the agent and principal have different attitudes toward risk. In this light, Fama and Jensen (1983) indicated that the agency conflict is more likely to be greater where shares are widely held than when they are in few hands. As a consequence, managers may voluntarily tend to disclose information as a means to mitigate agency problems with the owners and to display that they act in the best interests of the shareholders (Barako, Hancock, & Izan, 2006). In the same context, Desender (2009) argued that agency theory elaborates how agency problems heavily depend on the ownership structure. On the one hand, companies with dispersed ownership encounter agency problems between top management and dispersed shareholders. On the flip side, firms with larger shareholders can solve the top management-owners agency problems effectively since they have a strong incentive to engage in monitoring managers along with independent directors. Briefly, the level of ownership dispersion is considered as one of the stakeholder power aspects, which may affect the extent of CSR reporting (Ullmann, 1985).

Apart from ownership concentration, professional owners believe that investment in CSR activities will lead to increased opportunities for long-term survival of the company. Accordingly,

Haniffa and Cooke (2002) argued that there is a greater need for disclosure when a high proportion of shares are held by foreigners. In this regard, foreign-owned firms are more likely to disclose their CSR information to reduce the agency conflict between executive managers and their foreign owners (Wang et al., 2008). In addition, high levels of government ownership create incentives for CEOs to achieve non-financial objectives related to government policy and, therefore, create pressure on the company to pursue CSR (See, 2009). By doing so, the needs of a wide range of stakeholders will be satisfied and, consequently, alleviate the agency cost which arises from conflict between the firm's management and different stakeholders. Similarly, institutional investors have a formidable force to influence the company's social and environmental behavior by encouraging managers to disclose more CSR to meet their non-profit goals and, thus, improve a firm's reputation, which, in turn, boosts their own reputation.

Since there is a potential conflict, known as "agency conflict" between managers and shareholders (Zaid, Wang, & Abuhijleh, 2019), the presence of independent directors on boards may help to mitigate this conflict of interest and also help to maximize the guarantee that firm's management acts in the best interest of its shareholders (De Andres & Vallelado, 2008). Having a strong structure of corporate governance makes the professional shareholders assure that the managers are doing their best to meet their expectations. The high level of board independence is the more controlling role on managers and, therefore, reduce the agency conflict. As a result, a boardroom with more independent directors will stimulate companies to engage in CSR-related activities (Kathy Rao et al., 2012; Khan, 2010). Under such circumstances, firms are expected to attract professional investors. This causal relationship predicted by the agency framework implies clearly that the causality should run from ownership to CSR reporting. However, we can argue that ownership structure could be determined by CSR disclosure, particularly in the case that the companies should not be evaluated just based on their financial performance, but also in their social and environmental performance.

2.1 Government ownership

State-owned companies are expected to be more sensitive because their activities are under public monitoring. Therefore, they have to be more conscious of the interests of the public (Mohd Ghazali, 2007). In this context, Khan et al. (2013) argued that government-owned companies are more likely to have pressures to report additional information due to visibility, transparency, and

accountability issues resulting from a wide range of stakeholders. This may require additional engagement in CSR initiatives. Li and Zhang (2010) articulated that a high proportion of government shareholders creates incentives for CEOs to balance between financial and non-financial objectives. By doing so, more attention will be paid for non-financial related government policies such as infrastructure and social development. Since a government is a political body and trusted by people, this may necessitate more social-related activities (Muttakin & Subramaniam, 2015; Said, Hj Zainuddin, & Haron, 2009). Hence, the government may emphasize social and environmental objectives more than shareholders value (Li & Zhang, 2010). Moreover, the government as a protector has a responsibility for protecting the environmental and social rights by passing and implementing a set of legislation and policies. Thus, it may be expected that government shareholdings will significantly lead to extend the level of CSR disclosure. Drawing from the agency theory, Said et al. (2009) revealed that state-owned corporations are more susceptible to comply with government pressure and, therefore, they will tend to have more motivation to reduce agency problems between firms and shareholders, society and different stakeholders by solving society's social problems through spending on CSR policies. Based on agency theory perspectives, the first hypothesis can be formulated as follows:

Hypothesis 1. *There is a positive relationship between government ownership and CSR disclosure*

2.2 Institutional ownership

It is argued that institutional investors constitute the majority of shareholders, and they have an influence on the company's management to disclose more information (Naser, Al-Hussaini, Al-Kwari, & Nuseibeh, 2006). More specifically, agency theory posits that institutional owners have additional incentives to monitor disclosure policies because they are sophisticated shareholders, who have a lot of experience and resources that enable them to effectively monitor firm's strategic decisions (Jensen & Meckling, 1976; Ntim & Soobaroyen, 2013). In a broader context, as institutional investors own a significant percentage of the firm's shares, they are expected to be more attentive to the firm's decisions than other shareholders (Oh et al., 2011). Another rational explanation of the influential role of institutional shareholders on the organizational decisions comes from the argument that they hold a great voting power over other shareholders (Shleifer & Vishny, 1997). Furthermore, since the institutional investors own a

significant proportion of firm's equity and cannot easily sell their shares, they tend to be more attentive to the corporation's strategic decisions than other counterpart shareholders (Oh et al., 2011). According to Siegel and Vitaliano (2007), institutional owners are usually showing their sense of responsibility to outsiders by using CSR disclosure as an effective tool. More importantly, Kathy Rao et al. (2012) argued that institutional investors play a crucial role in management monitoring by putting more pressure on managers to disclose more CSR information. Elgergeni, Khan, and Kakabadse (2018) found that firms with high proportion of institutional ownership are more likely to invest in CSR-related activities. Contrariwise, Habbash (2016) provided a contradictory result with the argument that the presence of institutional owners have an impact on the controlling process. Although prior studies reveal somewhat mixed findings, following agency theory, we outline our second hypothesis on institutional ownership as follows:

Hypothesis 2. *There is a positive relationship between institutional ownership and CSR disclosure*

2.3 Foreign ownership

There is an increasing number of studies examining the vital effect of foreign investors on CSR reporting. Oh et al. (2011) argued that greater foreign ownership is more likely to have pressures on managers to participate in social-related activities. In this light, a higher level of disclosures is foretold due to the geographic distance created by foreign shareholders (Bradbury, 1991; Haniffa & Cooke, 2005). In addition, the existence of foreign investors on the firm's ownership structure may bring a diversity of knowledge and experience because of their foreign market engagement. Hence, a company with foreign shareholders is expected to disclose more social and environment information (Khan et al., 2013; Muttakin & Subramaniam, 2015). According to the agency theory framework, foreign investors have the ability to monitor managers' action (Randøy & Goel, 2003). Thereby, firms with dominant foreign owners may tend to set more control measures such as sophisticated auditing procedure and frequent reporting system. These actions lead to lower agency cost and, thus, better performance, especially in small countries (Abor & Biekpe, 2007). As foreign investors have a deep-insight in optimizing their investment, they will pay more attention to improve the quality of financial reporting, including CSR disclosure. The majority of prior studies (Haniffa & Cooke, 2005; Khan et al., 2013; Khan 2010; Muttakin, Khan, & Subramaniam, 2015) report that foreign investors have a significant positive impact on

CSR disclosure, However, Branco and Rodrigues (2008) and Amran and Susela Devi (2008) found that foreign ownership has no contribution to the explanation of CSR disclosure. Despite the inconsistent empirical evidence in prior literature, we formulate our last hypothesis on foreign ownership in line with agency theory as follows:

Hypothesis 3. *There is a positive relationship between foreign ownership and CSR disclosure*

2.4 The moderating effect of board independence

Board with a high proportion of non-executive directors are more likely to be more successful in directing and controlling management (Cheng & Courtenay, 2006; Dalton, Daily, Johnson, & Ellstrand, 1999; García-Sánchez, Gómez-Miranda, David, & Rodríguez-Ariza, 2019). Although outsiders and insiders have their merits and demerits, empirical evidence provided by past research reveals that outsider-dominated boards are more favorable to meet the varied interests of stakeholders (De Andres, Azofra, & Lopez, 2005). Further, they can enhance the independence and objectivity dimensions in boardroom's decision-making (Fama & Jensen, 1983), and enhance CSR reporting (Fernández-Gago, Cabeza-García, & Nieto, 2018). More specifically, independent directors do not have any relation with the firm and, thus, they will tend to engage in more CSR-related activities (Pucheta-Martínez, Bel-Oms, & Olcina-Sempere, 2019), which, in turn, satisfy the interests of various group of stakeholders (Ibrahim & Angelidis, 1995). More importantly, increasing the number of outside directors on a boardroom increases the ethnic, racial, and gender diversity of the company (Johnson & Greening, 1999). This increased diversity would logically be related to the employee dimension of CSR since divers' boards have non-profit goals alongside profit goals (Pfeffer, 1973).

Ownership in the hand of professional shareholders such as government, foreign and institutional owners, are different from the rest of investors in two sides: (i) they are long-term shareholders by nature in most cases (Kronborg & Thomsen, 2009; Oh et al., 2011) and (ii) they are interested in enhancing their own reputation (Brammer & Pavelin, 2006), which is strongly linked to their investments. This implies that professional investors are interested in achieving both profit and non-profit goals (i.e., social and environmental goals). Accordingly, they will be more likely to maximize firms' profitability and CSR dimensions than other types of investors.

However, their influence will be greater when independent directors dominate the board. The plausible logic behind that is that the presence of independent directors has a multidimensional impact including, but not limited, to firm performance (Liu, Miletkov, Wei, & Yang, 2015), reputation and credibility of an organization (Salancik, 1978). In this sense, independent directors will be more inclined to comply with social and environmental standards to avoid penalties and negative media exposure and ,a subsequent, loss of reputation (Johnson & Greening, 1999). Based on the above discussion, professional investors perceive that boards with high-level of independent directors have a strong incentive to meet their expectations as they are one of the most important group of stakeholders. Subsequently, especially in the global business environment, professional shareholders will take into account the level of board independence in the targeted firm to satisfy their interests both profit and non-profit.

Drawing on these arguments, firms without independent directors will be far from the desired level of good governance and, therefore, will not benefit from the presence of independent directors, which, in turn, limit the influence of different types of professional owners on CSR disclosure. Compared with executive directors, we theorize that independent directors have strong control over the board's involvement in strategic decisions, including CSR agendas. Therefore, professional owners may help firms in dealing with their social and environmental responsibility in a good and significant manner, when board members are independent from the firm's management. Congruent with agency theory, we develop the following hypotheses:

Hypothesis 4a: *The effect of government ownership on a firm's CSR reporting is moderated by board independence*

Hypothesis 4b: *The effect of institutional ownership on a firm's CSR reporting is moderated by board independence*

Hypothesis 4c: *The effect of foreign ownership on a firm's CSR reporting is moderated by board independence*

Based on the aforementioned, our research argues that the relationship between ownership structure and CSR reporting is shaped by independent directors, as shown in Figure 1

INSERT FIGURE 1 HERE

3. RESEARCH METHOD

3.1 Sample and data collection

Data variables were obtained from companies' annual reports listed on the Palestine Stock Exchange (PEX). In Palestine, based on the PEX, firms are classified into five core groups, services, industry, investment, banking & financial services, and insurance. On this matter, to develop a sample of Palestinian companies, the following methodical steps were taken. Financial entities were excluded because they have particular attributes of their accounting and reporting system. Hence, they differ organizationally and conceptually from other firms. The research sample covers 2013-2018, a period of 6 years, which as a period witnessed a reasonable increased awareness of CSR initiatives among policymakers in developing countries. Thereby, it could be more likely to gather rich content about CSR data. Furthermore, we cover this period because it provides panel data to mitigate the endogeneity issue in the model specifications.

The research population was 48 listed companies on PEX as of 31 December 2018. After excluding financial firms, the initial sample for this study consists of 34 non-financial firms listed on PEX. Due to forming a balanced panel data, firms with missing annual reports and firms without complete financial or non-financial data related to study variables were eliminated. As a result, the number of companies that formed the final sample was reduced to 33. Therefore, a total of 198 firm-year observations was collected.

3.2 Variables measurements

3.2.1 Dependent variable

The dependent variable is CSR disclosure score and was denoted as (CSRDS). To meticulously measure the dependent variable, CSR disclosure, a content analysis (CA) technique is employed as an instrument of CSR reporting. Content analysis has been immensely accepted in CSR disclosure research (Coffie, Aboagye-Otchere, & Musah, 2018; Haniffa & Cooke, 2005; Liao, Xia, Wu, Zhang, & Yeh, 2017).

For this study, a checklist encompassing 32 items was constructed. These items were divided into four subcategories, namely, environmental disclosure, human resources, product and consumer, and community involvement. The categories and items were selected based on prior studies (Branco & Rodrigues, 2008; Castelo Branco & Lima Rodrigues, 2006; Ernst & Ernst, 1978; Haniffa & Cooke, 2005). To be more reasonable, the study applied a number of processes to ensure

that the checklist is applicable in the Palestinian context and to evaluate the credibility issue: First, after an initial reading for a random sample of the annual reports, we justified our checklist, according to the most common items. Second, the Cronbach's coefficient alpha Cronbach (1951) was employed to evaluate the reliability, and internal consistency of the items included in the checklist, and the result show that the checklist is suitable for our study. The final checklist comprised of 32 items (see Appendix A). Mathematically, we have selected the unweighted scoring method (dichotomous approach) to score CSR disclosure (Cooke, 1989). A firm is scored 1 if an item included in the checklist is disclosed and 0, otherwise (Zaid et al., 2019).

3.2.2 Independent variable

Data on the ownership structure variables and board independence was extracted from annual reports of the sampled firms. First, government ownership (GVOWN) represents the percentage of shares held by the Palestinian government to the total number of outstanding shares of the firm (Mohd Ghazali, 2007; Said et al., 2009). The Second variable in our empirical model is institutional owners (INOWN), which is measured as the proportion of shares owned by institutional investors to the total number of shares issued (Habbash, 2016; Joubert, 2019). Foreign ownership (FROWN) is calculated as the percentage of shares held by foreign shareholders to the total number of outstanding shares (Haniffa & Cooke, 2005; Oh et al., 2011). The last explanatory variable is board independence (BIN), which is measured as a ratio of non-executive directors to total directors (Habbash, 2016; Said et al., 2009).

3.2.3 Control variables

We control for additional variables to avoid model misspecification, and to capture other factors that may intrinsically influence CSR disclosure. Firm-level control variables are included in the study model. We control for profitability (ROA) since some of the existent literature on CSR recommends that profitable firms whose financial performance is strong are more likely to contribute in society's well-being through engaging in CSR activities (Campbell 2007; Khan et al., 2013). This variable was measured as the ratio of total return on total assets. We also control for firm size (FSIZE). Larger firms are expected to face tighter regulatory conditions and tend to subject to a higher level of public scrutiny (Reverte, 2009). Therefore, they incline to engage in CSR activities to conciliate all stakeholder parties and meet their needs. Firm size measured by

calculating the natural logarithm of total assets. We include a firm age (FAGE) in our econometric model. The older firm age is the more CSR disclosure (Khan et al., 2013; Muttakin, Mihret, & Khan, 2018). This variable was measured as a natural log of the number of years since the firm's inception. It is also essential to control for leverage (LEV). In the context of agency theory, (Jensen & Meckling, 1976) argued that firms have higher leverage disclose information voluntarily to minimize their agency costs and, as a result, their cost of capital. Leverage was calculated as total debt over total assets. Additionally, we support the importance of controlling for corporate governance mechanism by controlling for board size (BSIZE), since the larger board size has a higher diversity level of nationality, backgrounds, and experience that can be useful for a firm to gain different creative ideas about the engagement in CSR initiatives (Ahmed Haji, 2013). This variable was measured by the total number of the board member. Finally, we introduce industry type (INDUSTRY DUMMY) to control for industries differences and reduce such effects, and year fixed effects (YEAR DUMMY) to capture any variation in the output that exists over time which reflects business cycle and macroeconomic fluctuations (Nguyen et al., 2015)

3.3 Regression model specification

To econometrically analysis the study dataset and illustrate how endogeneity bias may cause incorrect estimates, we examine our study model using three different approaches, namely, ordinary least square (OLS), fixed effects, and the generalized method of moments (GMM) models. Mathematically, the study regression equation is modelled as follows:

$$(1) \quad CSRDS_{it} = \beta_0 + \beta_1 GVOWN_{it} + \beta_2 INOWN_{it} + \beta_3 FROWN_{it} + \beta_4 BIN + \beta_5 GVOWN \times BIN + \beta_6 INOWN \times BIN + \beta_7 FROWN \times BIN + \beta_8 ROA_{it} + \beta_9 FSIZE_{it} + \beta_{10} FAGE_{it} + \beta_{11} LEV_{it} + \beta_{12} BSIZE + \sum INDUSTRY \ DUMMY + \sum YEAR \ DUMMY + \varepsilon$$

Where the interaction between the three dimensions of ownership and board independence as shown in Model 1 i.e., (GOVOWN×BIN), (INSOWN×BIN), and (FOROWN×BIN), (*i*) represents firm, (*t*) represents time dimension (years), β_0 is the constant and β_1 to β_{12} are the regression coefficients, ε is a vector of the stochastic error term.

We used two different types of panel data to estimate our study models. The first approach is static panel data, which is used for estimating pooled OLS and fixed effect. The second type is dynamic panel data, which is analyzed using GMM estimation. Dynamic effects were tested by including a lagged independent variable into the study regression model to handle the impact of

the past period of CSR disclosure score on the present period. In this regard, the CSR reporting level in the current period not only depends on the ownership structure, but also depends on the CSR disclosure level of the previous period. In a nutshell, if a lagged dependent variable (CSRDS_{t-1}) can affect the current dependent variable (CSRDS), we can use a dynamic panel data GMM model. Additionally, this study takes into account the fact that causality relationship could run in either direction. In essence, it could move from ownership structure to CSR or from CSR to ownership structure. The dynamic panel data model is represented as follows:

$$(2) \quad CSRDS_{it} = CSRDS_{i(t-1)} + CSRDS_{i(t-2)} + \dots + CSRDS_{i(t-K)} + Os_{it} + BIN_{it} + MD_{it} + CO_{it} + C_i + \varepsilon_{it}$$

Where CSRDS is corporate social responsibility disclosure score; Os is a vector of ownership diversity variables; BIN is a vector of the moderator variable (board independence); MD is a vector of the interaction between ownership dimensions and board independence. CSRDS_{i(t-K)} is the lagged value of the dependent variable; CO is a vector of control variables; k is a vector of the number of lags of the firm's CSR disclosure level; C_i represents unobservable firm heterogeneity; ε is the idiosyncratic error term, and the subscripts i and t indicate firm and year, respectively.

4. RESULTS

4.1 Descriptive statistics of the categories considered in the CSR score

Table 1 provides a summary of the content analysis findings of the CSR reporting categories. The number of items disclosed for each category was derived by calculating the sum of items disclosed in a certain year for all firms, while the proportion was computed by dividing NI on the total items under each theme for all firms. The ensuing discussion comprehensively explains each of the four themes that comprise the CSR checklist.

INSERT TABLE 1 HERE

As shown in Table 1, the most vastly disclosed items are human resources items, which range between 69.7 to 81.14 percent, followed by product and consumers, community involvement, and environmental category, respectively. Additionally, Table 1 also indicates that the level of the four categories has virtually experienced increases during the next 5 years. For instance, the product and consumers theme is ranked second, among the four CSR dimensions for the number of disclosed items, which were disclosed by 47.47 percent in 2013, while 61.61 percent

was disclosed in 2018. Similarly, items under community involvement umbrella, and environmental were approximately encountered congruent improvements.

4.2 Descriptive statistics of the dependent and independent variables

Table 2 presents a summary of the descriptive statistics for the variables considered in the study model. It is noticeable a high variability in CSR disclosure level across Palestinian non-financial firms as the minimum 9% and the maximum 97%. This colossal discrepancy implies that there are some companies in our sample, which are reluctant to disseminate their social and environmental responsibility information to stakeholders. The average reporting score is 48% (median= 46%). This asserts that the volume of the CSR disclosure is still rather unsatisfactory and there is apparently room for improvement in the Palestinian context. The mean value of government ownership (GVOWN) variable is approximately 5%, whereas the average foreign investor (FROWN) is 10%. Institutional ownership (INOWN) is the most significant shareholder in our sample. The average level is 43 % of the outstanding shares held by large institutions. Finally, the average level of board independence (BIN) is 88%. Denoting that, on average, most of the boards' directors are independent from the management in our sample.

INSERT TABLE 2 HERE

4.3 Bivariate analysis

The assumption of no perfect multicollinearity among input variables was checked by using the bivariate correlation matrix, as shown in Table 3. Multicollinearity is predicted to be “harmful” when the correlation coefficient between two independent variables exceed the critical value of 0.8 (Gujarati, 2009). The intercorrelation among explanatory variables was range between -0.380 to 0.482, which is below the concern level of 0.8. Additionally, Variance Inflation Factor (VIF) and tolerance were employed as multicollinearity diagnostic tests. As a rule of thumb, Marquardt (1970) and Gujarati (2009) state that VIF greater than 10 points out serious collinearity. Menard (1995) indicates that a tolerance <0.20 is cause for concern and a tolerance <0.10 reflects severe collinearity. Accordingly, as shown in Table 3, there is no multicollinearity concern among X's.

INSERT TABLE 3 HERE

4.4 Multivariate analysis

Most of the previous studies have focused on endogeneity in corporate governance-firm performance relation (Duru et al., 2016; Nguyen et al., 2015; Ullah, Akhtar, & Zaefarian, 2018; Wintoki et al., 2012), whereas dealing with this issue in ownership-CSR disclosure nexus was predominantly ignored by ancestors. Consequently, we adopt a comprehensive approach to illustrate the impact of endogeneity on ownership structure-CSR disclosure relation by using various econometric techniques. More specifically, we start with a baseline estimation using a pooled OLS model. Additionally, we performed the fixed effects (FE) model to control for time-invariant unobserved characteristics across the firm (Nguyen et al., 2015).

4.4.1 Empirical evidence from static models: pooled OLS and panel fixed effects

For robust analysis and comparison with GMM estimates presented in the following subsection, we report the findings from pooled OLS and fixed-effects models in Table 4. Model 1 reports pooled OLS findings. The adjusted coefficient of determination (Adjusted R^2) shows that the explanatory variables explained almost 64 percent of the variation in the dependent variable “CSR reporting”. Moving to the p-value, our model revealed congruous findings. The overall p-value of F-test is statistically significant (35.45, $p < 0.01$). Therefore, we can draw an indisputable conclusion that our empirical model fits the data better than the intercept-only model. The OLS results also indicate that there is a statistically significant impact of individual ownership dimensions (i.e., government, institutional, and foreign ownership) on CSR reporting. Moreover, the Pooled OLS findings show that board independence plays a significant role in shaping the relationship between professional shareholders and CSR reporting.

Moving to model 2, the fixed effects results reveal that the statistical significance of the estimated coefficient of (FROWN), (INOWN \times BIN), and (FROWN \times BIN) disappears when we take into account the unobserved firm fixed-effects. Hence, this denotes that the findings yielded from pooled OLS estimator are likely to be affected by omitted firm-level attributes. In this context, our results, therefore, are consistent with a number of prior researchers (Ahmed Haji, 2013; Habbash, 2016; Khan et al., 2013; Muttakin et al., 2015). Although the results mentioned above are in alignment with a stream of previous studies, our findings are expected to be sorely distorted by other sources of endogeneity, which have not taken into account by OLS/FE models such as simultaneity and dynamic endogeneity. Hence, the two-steps GMM approach was

employed in the next sub-sections, which allows us to control for the different sources of endogeneity (Wintoki et al., 2012)

INSERT TABLE 4 HERE

4.4.2 Detecting endogeneity bias

With regard to the endogeneity issue, Roberts and Whited (2013) point out that the most remarkable and pervasive pitfalls encountering empirical studies in corporate finance are driven by endogeneity. The ambiguous findings in a prior study on the relationship between ownership structure and CSR disclosure are often considered a consequence of the endogeneity issue. In this vein, OLS and FE may generate biased and inconsistent results. Hence, we run GMM estimator as an alternative approach, developed by Arellano and Bond (1991) and Blundell and Bond (1998), for dealing with endogeneity problem and provide robust results by using dynamic panel data. From a dynamic panel data point of view, the cause-effect relationship for a certain phenomenon is generally dynamic over time (Ullah et al., 2018). For instance, it may not be the current year's ownership structure that is affecting the extent of CSR reporting, but rather the previous year's CSR disclosure level that could be playing a crucial role in such relationship.

Following Duru et al. (2016), Nguyen et al. (2015), and Wintoki et al. (2012), we check the endogeneity of the explanatory variable before proceeding with the system GMM estimator. Briefly, Roodman (2009) documents that there are well-entrenched assumptions that need to be fulfilled when executing GMM model. Firstly, the nature of the relationship should be dynamic, implying that the current CSR reporting is affected by prior period¹. Secondly, some explanatory variables are endogenously determined and, finally, the time span in panel data (T) is smaller than units (N), (i.e., small T, large N). Accordingly, we apply the Durbin–Wu– Hausman (DWH) test as the most vastly used test for endogeneity of regressors (Durbin, 1954; Hausman, 1978; Wu, 1973).

The findings of Durbin–Wu– Hausman (DWH) test show that all interest variables, (BIN, GVOWN, INOWN, FROWN) are endogenously determined². This finding implies that the null hypothesis of exogeneity is rejected. Consequently, from a theoretical perspective, our empirical model is affected by the endogeneity issue and, thus, the results reported from OLS in Table 4 are

¹ GMM model is designed for situation where the explanatory variables are not strictly exogenous.

² Strictly endogenous; means that firm's past/ current CSR disclosure level affects the current/ future the structure of firm's ownership. The results are unreported to save space but available from the authors upon request.

inconsistent³ (Wintoki et al., 2012). Additionally, under a strict exogeneity assumption on the independent variables, the fixed-effects estimation technique is unbiased and help to control for unobservable heterogeneity. However, this assumption was violated in our empirical model and, therefore, the fixed-effects is biased (Wooldridge, 2012). As a result, in the presence of endogeneity, the dynamic GMM panel specification will be superior in terms of consistency by including lagged values of the past corporate’s disclosure.

It is worthwhile to indicate how many lags (the optimal number) of the dependent variable should be employed on the right-hand side of our empirical model. Following Wintoki et al. (2012) and Nguyen et al. (2015), we estimate our regression by using pooled OLS model of Y_{it} on Y_{it-1} , Y_{it-2} and X_{it} , then we rerun our regression Y_{it} on Y_{it-2} and X_{it} . The findings⁴ suggest that one lag is sufficient in capturing dynamic endogeneity of the ownership structure-CSR reporting relation. According to the discussion above, we can confirm our model specification showed by Eq. (2). A detailed specification for the first-order autoregressive model can be expressed as the following formula:

$$(3) \quad CSRDS_{it} = \beta_0 + \beta_1 CSRDS_{it-1} + \beta_2 GVOWN_{it} + \beta_3 INOWN_{it} + \beta_4 FROWN_{it} + \beta_5 BIN + \beta_6 GVOWN \times BIN + \beta_7 INOWN \times BIN + \beta_8 FROWN \times BIN + \beta_9 ROA_{it} + \beta_{10} FSIZE_{it} + \beta_{11} FAGE_{it} + \beta_{12} LEV_{it} + \beta_{13} BSIZE + C_i + \varepsilon$$

4.4.3 Two-step system GMM findings

The system GMM parameter estimates and p-values are reported in Table 5. The p-value of F-test (20.83 to 67.72) for all models in Table 5 is less than 1 percent. Consequently, all explanatory variables have a notable influence on the dependent variables jointly. The results indicate that the effect of government ownership and its interaction with board independence on CSR reporting is similar across three models; pooled OLS, fixed-effects, and system GMM “no change in significance levels”. In contrast, the influence of other independent variables (institutional and foreign ownership) and their interactions with board independence have experienced changes in their significance level, when we employ static panel data model and dynamic panel data.

INSERT TABLE 5 HERE

³ Since one of the main assumption of OLS that there is no association between regressors and the error term, having endogenous explanatory variable (X is affected by Y) in our model will generate biased OLS results.

⁴ The results are unreported to save space but available from the authors upon request.

In details, we test the impact of government ownership on CSR reporting in Table 5, Model 1. The results indicate a positive and statistically significant coefficient ($\beta = 0.501$; $p < 0.05$) of government ownership (GVOWN). It implies that publicly-owned firms result in a greater extent of CSR reporting. Thus, we cannot reject Hypothesis 1. The findings denote that governments are a political body and trusted by the public (Muttakin & Subramaniam, 2015). This may necessitate more social and environmental-related activities and, therefore, disclose these activities to respond to different stakeholder claims. Furthermore, a contribution can be added from the Palestinian context, where governments are under conflict situations and the socio-political situation is instable, because they are more likely to stimulate their firms to engage in social activities, particularly philanthropic dimension to help the community transform suffering into a favorable condition. This outcome is consistent with past research (Ahmed Haji, 2013; Habbash, 2016; Khan et al., 2013). This result also supports the agency theory perspectives.

With regard to the interaction with board independence, the results in Model 1 show a positive coefficient, as predicted, and significant effect of the interaction between government shareholders and board independence on CSR reporting. This evidence confirms that the effect of government ownership on a firm's CSR reporting is more positive under conditions of the high level of board independence. Therefore, this result supports Hypothesis 4a. Additionally, this finding is supported by the theoretical background, which argues that the extent of the disclosure will be affected by the conflict of interest between firm's shareholders and executive managers and, therefore, the strategic decisions, including CSR-related agendas, will build accordingly. More specifically, outside directors play a vital role in monitoring management (Fernández-Gago et al., 2018) and, therefore, stimulate firms to disclose more CSR information as a means to mitigate agency problem between firm's shareholders and executive managers (Kathy Rao et al., 2012).

In Model 2, we explored the effect of institutional owners on CSR reporting. The variable after controlling for unobserved heterogeneity, simultaneity and dynamic endogeneity by using the GMM estimator had a positive and insignificant impact (INOWN) ($\beta = 0.033$; $p < 0.181$). This result, therefore, led us to reject Hypothesis 2, which indicates that the more shares held by institutional investors, is the more CSR disclosure. Additionally, this finding is in line with Kathy Rao et al. (2012), and Dam and Scholtens (2012), who confirm that ownership by institutional investors does not significantly impact on CSR disclosure.

Whereas, Model 4, in Table 5, reports a positive and significant effect of the interaction between institutional shareholders and board independence on CSR reporting. Therefore, Hypothesis 4b must be accepted. This denotes that institutional investors have a positive and insignificant influence on CSR reporting level when board independence is equal to zero, (i.e., when all boardroom members are non-independent directors). Contrarily, when the proportion of independent directors increases, the effect of institutional investors will move to be significant as a result of the moderating impact of board independence. This results support the argument that the interdependencies between multiple CG mechanisms may have a different impact on CSR compared to individual CG practices (Walls, Berrone, & Phan, 2012).

Contrary to expectations, the results in Model 3, Table 5, show a positive and statistically insignificant coefficient ($\beta = 0.381$; $p < 0.111$) of foreign investors (FROWN) variable in the Palestinian business environment. Thus, we have to reject Hypothesis 3, which denotes that a higher level of foreign ownership results in a greater extent of CSR-related activities. The underlying logic behind this result is most of the foreign shareholders are Arabian nationality holders. To put it more straightforwardly, there is a cultural and behavioral homogeneity between the Arab countries. In this regard, foreign investors in Palestine have not enough power to monitor managers' actions since the majority of them did not bring a diverse set of knowledge, experience, and skill, which are necessary to improve the firm engagement in CSR-related activities. This result is consistent with prior study's findings (Amran & Susela Devi, 2008; Branco & Rodrigues, 2008), which evidence that the presence of foreign owners on company's equity structure has no contribution to the explanation of CSR reporting, whereas this result is inconsistent with authors such as Khan et al. (2013) and Muttakin & Subramaniam (2015).

Moving to the moderating effect, the results in Table 5, Model 4, show a positive and significant effect of the interaction between foreign investors and board independence on CSR disclosure. Thereby, we cannot reject Hypothesis 4c. This denotes that when the proportion of independent directors increases, the effect of foreign investors on CSR reporting will move to be significant. The plausible logic behind that is that firms driven by independent directors will enhance good management practices and, therefore, it will encourage to disclose more CSR information to reduce the agency conflict between executive managers and their foreign owners (Wang et al., 2008). Additionally, firms own by foreigners are more likely to have pressures from their foreign shareholders to report additional information, and this pressure will be strengthened

by increasing level of board independence since independent directors act in the best interests of the professional shareholders.

4.4.4 Robustness analysis

In this section, we run a battery of robustness tests. First, we rerun our main model “system GMM” in Table 4 separately for each additional independent variable. Our result concerning government ownership in Model 1 is in line with the finding in the entire Model 4. Moving to Model 2 and 3, the findings concerning institutional and foreign shareholders are consistent with the result reported in the entire Model 4. Second, we rerun our model with alternative measures of CSR reporting (replace a proportion of disclosure by natural logarithm value of the CSR reporting). The results reveal that the effects of all variables remain unchanged (See Table 6). More interestingly, the findings in all models were similar to somewhat. Third, we paid rigorous attention to the critical debates regarding select the fit econometrics model. In this regard, several tests were performed, and the results indicate that the system GMM specification is suitable for this study.

INSERT TABLE6 HERE

5. CONCLUSIONS

The importance of stakeholder engagement in the form of shareholders has experienced an increased amount of attention in the past few years. Hence, this study explored the influence of ownership structure, particularly professional shareholders (i.e., government, institutional, and foreign investors) on the firm’s CSR reporting. In particular, we made a distinction between direct and indirect methods in analyzing the nexus between ownership structure and CSR disclosure. In this regard, this study offers a new perspective for firms, investors and other stakeholders about the investments in CSR activities.

According to the research analyses, it appears that our results are in alignment with agency theory arguments for explaining the logic behind why corporations tend to engage in CSR agenda. Robust findings based on two-step system GMM model show that the effect of government, institutional, and foreign investors on a firm’s CSR reporting is more positive under conditions of the high level of board independence. More specifically, when the percentage of non-executive directors rises, the effects of “institutional and foreign” shareholders turn from positive insignificant to positive significant. In this vein, a conclusion can be drawn that firms with a high

proportion of board independence are considered to work under good governance practices, which, in turn, reflect on managing the sensitive relationship between firm's management and different group of stakeholders. Accordingly, the level of board independence has a vital impact on strategic decisions, directly and indirectly, implying that the effect of professional owners on corporate decisions are influenced by independent directors' orientations. Professional investors are interested in reaping the long-term benefits of a company's involvement and spending on CSR. Therefore, they are more likely to support the investment in CSR activities. In most countries, professional investors are the largest category of shareholders, which, in turn, give them enough power to intervene in monitoring process and thus affect firm's CSR engagement, particularly under high level of board independence. We conclude that independent directors act in the best interests of the professional shareholders.

The empirical analysis has contributed to the current debate regarding the ambiguous impact of stakeholder engagement in the form of shareholders on CSR reporting. This research has highlighted that without a high level of board independence, professional shareholders are not able, in most cases, to significantly affect CSR reporting path. More specifically, findings on the individual effect of different type of professional shareholders are not as predicted, whereas findings on the moderating role of board independence are as predicted. In this context, this study reveals that the relationship between ownership structure and CSR can vary by the shareholder type. In addition, the results emphasize that corporate governance practices are more effective when jointly considering them. For example, the effect of government, institutional, and foreign shareholders on the firm's CSR engagement is more significant when the members on boardroom are independent. Moreover, our results help stakeholders to manage their efforts more effectively and provide deep-insights for managers about how to create social and environmental value beside shareholder value.

In light of the results obtained, we drive practical and theoretical implications to ownership structure and CSR literature, which are essential to the policy-makers, firms, government, and different stakeholders. First, our findings provide practical implications since they suggest that companies should behave in a social and ethically responsible manner, not just acting in a pure financial side. In the broadest sense, firm as a part of a human community and as the principal party, which has a significant direct impact on the society, should pay a higher level of attention to achieving local community purposes and improving its quality life. More importantly, this study

supports the call for adopting a holistic approach in investigating the CG-related issue. More clearly, researchers should examine both the influence of individual CG practices as well as the interaction between multiple CG mechanisms and their impact on CSR reporting. Second, from a theoretical point of view, our results support the validity of the entrenched assumptions under an agency theory, which provides insights about how CG practices can manage reporting function. In this theoretical context, a contribution can be added from the Palestinian economy, firms with a high level of “board independence” are more likely to take part in CSR-related actions. Furthermore, the existence of government shareholders in the ownership structure of a specific firm can play a positive role in improving company engagement in CSR initiatives, particularly in a country under socio-political instability. The convincing logic behind that is that the political conflict situation stimulates firms to seriously engage in society's initiatives, mainly philanthropic, to help the community to transform from suffering situation to a favorable condition.

In spite of above-mentioned contributions, this research is not without limitation. First, one of the most critical limitations encountered during this scholarly article is the novelty of this study. The underlying assumptions of the moderating role of board independence on the effect of ownership structure on the firm's CSR reporting have not yet examined by ancestors. Second, this study was restricted to one institutional context (Palestine), therefore the results reflect the attributes of the Palestinian business environment. In this vein, it is possible to generate different findings in other countries.

Keeping the dynamic endogeneity in mind, this study can serve as a basis for future scholarship pertaining to “CSR and CG.” For example, this study excluded some ownership dimensions, such as family ownership and managerial ownership. Accordingly, further systematic investigations are required in this context. Moreover, our focus in this research has been on the moderating role of board independence on the relationship between ownership structure and CSR disclosure within a dynamic context. Hence, to gain a comprehensive understanding of the association between ownership structure and CSR reporting, this study encourages the researchers for further future research to investigate theoretically other significant moderators.

References

- Abor, J., & Biekpe, N. (2007). Corporate governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities. *Corporate Governance: The International Journal of Business in Society*, 7(3), 288-300. doi:<https://doi.org/10.1108/14720700710756562>
- Ahmed Haji, A. (2013). Corporate social responsibility disclosures over time: evidence from Malaysia. *Managerial Auditing Journal*, 28(7), 647-676. doi:<https://doi.org/10.1108/MAJ-07-2012-0729>
- Amran, A., & Susela Devi, S. (2008). The impact of government and foreign affiliate influence on corporate social reporting: The case of Malaysia. *Managerial Auditing Journal*, 23(4), 386-404. doi:<https://doi.org/10.1108/02686900810864327>
- Appuhami, R., & Tashakor, S. (2017). The impact of audit committee characteristics on CSR disclosure: An analysis of Australian firms. *Australian Accounting Review*, 27(4), 400-420. doi: <https://doi.org/10.1111/auar.12170>
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277-297. doi:<https://doi.org/10.2307/2297968>
- Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28(2), 446-463. doi:<https://doi.org/10.5465/256210>
- Barako, D. G., Hancock, P., & Izan, H. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, 14(2), 107-125. doi:<https://doi.org/10.1111/j.1467-8683.2006.00491.x>
- Baysinger, B. D., Kosnik, R. D., & Turk, T. A. (1991). Effects of board and ownership structure on corporate R&D strategy. *Academy of Management Journal*, 34(1), 205-214. doi:<https://doi.org/10.5465/256308>
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115-143. doi:[https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Boyd, B. K. (1994). Board control and CEO compensation. *Strategic Management Journal*, 15(5), 335-344. doi:<https://doi.org/10.1002/smj.4250150502>
- Bradbury, M. (1991). Characteristics of firms and voluntary interim earnings disclosure: New Zealand evidence. *Pacific Accounting Review*, 3(1), 37-62.
- Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies*, 43(3), 435-455. doi:<https://doi.org/10.1111/j.1467-6486.2006.00597.x>
- Branco, M. C., & Rodrigues, L. L. (2008). Social responsibility disclosure: A study of proxies for the public visibility of Portuguese banks. *The British Accounting Review*, 40(2), 161-181. doi:<https://doi.org/10.1016/j.bar.2008.02.004>
- Buallay, A., & Al-Ajmi, J. (2019). The role of audit committee attributes in corporate sustainability reporting: Evidence from banks in the Gulf Cooperation Council. *Journal of Applied Accounting Research*. doi:<https://doi.org/10.1108/JAAR-06-2018-0085>
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967. doi:<https://doi.org/10.5465/amr.2007.25275684>

- Castelo Branco, M., & Lima Rodrigues, L. (2006). Communication of corporate social responsibility by Portuguese banks: A legitimacy theory perspective. *Corporate Communications: An International Journal*, 11(3), 232-248. doi:<https://doi.org/10.1108/13563280610680821>
- Chaganti, R., & Damanpour, F. (1991). Institutional ownership, capital structure, and firm performance. *Strategic Management Journal*, 12(7), 479-491. doi:<https://doi.org/10.1002/smj.4250120702>
- Chang, Y. K., Oh, W.-Y., Park, J. H., & Jang, M. G. (2017). Exploring the relationship between board characteristics and CSR: Empirical evidence from Korea. *Journal of Business Ethics*, 140(2), 225-242. doi:<https://doi.org/10.1007/s10551-015-2651-z>
- Cheng, E. C., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The International Journal of Accounting*, 41(3), 262-289. doi:<https://doi.org/10.1016/j.intacc.2006.07.001>
- Coffie, W., Aboagye-Otchere, F., & Musah, A. (2018). Corporate social responsibility disclosures (CSR D), corporate governance and the degree of multinational activities: Evidence from a developing economy. *Journal of Accounting in Emerging Economies*, 8(1), 106-123. doi:<https://doi.org/10.1108/JAEE-01-2017-0004>
- Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research*, 19(74), 113-124. doi:<https://doi.org/10.1080/00014788.1989.9728841>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. doi:<https://doi.org/10.1007/BF02310555>
- Cuadrado-Ballesteros, B., Martínez-Ferrero, J., & García-Sánchez, I. M. (2017). Board structure to enhance social responsibility development: A qualitative comparative analysis of US companies. *Corporate Social Responsibility and Environmental Management*, 24(6), 524-542. doi: <https://doi.org/10.1002/csr.1425>
- Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42(6), 674-686. doi:<https://doi.org/10.5465/256988>
- Dam, L., & Scholtens, B. (2012). Does ownership type matter for corporate social responsibility? *Corporate Governance: An International Review*, 20(3), 233-252. doi:<https://doi.org/10.1111/j.1467-8683.2011.00907.x>
- Darko, J., Aribi, Z. A., & Uzonwanne, G. C. (2016). Corporate governance: the impact of director and board structure, ownership structure and corporate control on the performance of listed companies on the Ghana stock exchange. *Corporate Governance*, 16(2), 259-277. doi: <https://doi.org/10.1108/CG-11-2014-0133>
- De Andres, P., Azofra, V., & Lopez, F. (2005). Corporate boards in OECD countries: Size, composition, functioning and effectiveness. *Corporate Governance: An International Review*, 13(2), 197-210. doi:<https://doi.org/10.1111/j.1467-8683.2005.00418.x>
- De Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of Banking & Finance*, 32(12), 2570-2580. doi:<https://doi.org/10.1016/j.jbankfin.2008.05.008>
- De Miguel, A., Pindado, J., & De La Torre, C. (2004). Ownership structure and firm value: New evidence from Spain. *Strategic Management Journal*, 25(12), 1199-1207. doi:<https://doi.org/10.1002/smj.430>

- Desender, K. A. (2009). The relationship between the ownership structure and the role of the board. *Working papers, University of Illinois*. doi:<http://dx.doi.org/10.2139/ssrn.1440750>
- Durbin, J. (1954). Errors in variables. *Review of the International Statistical Institute*, 22, 23–32.
- Duru, A., Iyengar, R. J., & Zampelli, E. M. (2016). The dynamic relationship between CEO duality and firm performance: The moderating role of board independence. *Journal of Business Research*, 69(10), 4269-4277. doi:<https://doi.org/10.1016/j.jbusres.2016.04.001>
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1), 57-74. doi:<https://doi.org/10.5465/amr.1989.4279003>
- Elgergeni, S., Khan, N., & Kakabadse, N. K. (2018). Firm ownership structure impact on corporate social responsibility: evidence from austerity UK. *International Journal of Sustainable Development & World Ecology*, 25(7), 602-618. doi:<https://doi.org/10.1080/13504509.2018.1450306>
- Elmagrhi, M. H., Ntim, C. G., & Wang, Y. (2016). Antecedents of voluntary corporate governance disclosure: A post-2007/08 financial crisis evidence from the influential UK Combined Code. *Corporate Governance*, 16(3), 507-538. doi:<https://doi.org/10.1108/CG-01-2016-0006>
- Ernst, & Ernst. (1978). *Social Responsibility Disclosure Surveys*. Cleveland, OH
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325. doi:<https://doi.org/10.1086/467037>
- Fernández-Gago, R., Cabeza-García, L., & Nieto, M. (2018). Independent directors' background and CSR disclosure. *Corporate Social Responsibility and Environmental Management*, 25(5), 991-1001. doi:<https://doi.org/10.1002/csr.1515>
- Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science*, 5(2-3), 233-262. doi:<https://doi.org/10.1007/s11846-010-0052-3>
- García-Sánchez, I., Gómez-Miranda, M., David, F., & Rodríguez-Ariza, L. (2019). Board independence and GRI-IFC performance standards: The mediating effect of the CSR committee. *Journal of Cleaner Production*, 225, 554-562. doi:<https://doi.org/10.1016/j.jclepro.2019.03.337>
- Gedajlovic, E., & Shapiro, D. M. (2002). Ownership structure and firm profitability in Japan. *Academy of Management Journal*, 45(3), 565-575. doi:<https://doi.org/10.5465/3069381>
- Gujarati, D. N. (2009). *Basic econometrics*: Tata McGraw-Hill Education.
- Habbash, M. (2016). Corporate governance and corporate social responsibility disclosure: evidence from Saudi Arabia. *Social Responsibility Journal*, 12(4), 740-754. doi:<https://doi.org/10.1108/SRJ-07-2015-0088>
- Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317-349. doi:<https://doi.org/10.1111/1467-6281.00112>
- Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, 24(5), 391-430. doi:<https://doi.org/10.1016/j.jaccpubpol.2005.06.001>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the Econometric Society*, 1251-1271. doi:10.2307/1913827
- Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Grossman, W. (2002). Conflicting voices: The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management Journal*, 45(4), 697-716. doi:<https://doi.org/10.5465/3069305>

- Hu, Y., & Izumida, S. (2008). Ownership concentration and corporate performance: A causal analysis with Japanese panel data. *Corporate Governance: An International Review*, 16(4), 342-358. doi:<https://doi.org/10.1111/j.1467-8683.2008.00690.x>
- Ibrahim, N. A., & Angelidis, J. P. (1995). The corporate social responsiveness orientation of board members: Are there differences between inside and outside directors? *Journal of Business Ethics*, 14(5), 405-410. doi:<https://doi.org/10.1007/BF00872102>
- Jain, T., & Jamali, D. (2016). Looking inside the black box: The effect of corporate governance on corporate social responsibility. *Corporate Governance: An International Review*, 24(3), 253-273. doi:<https://doi.org/10.1111/corg.12154>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. doi:[https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Johnson, R. A., & Greening, D. W. (1999). The effects of corporate governance and institutional ownership types on corporate social performance. *Academy of Management Journal*, 42(5), 564-576. doi:<https://doi.org/10.5465/256977>
- Jouber, H. (2019). How does CEO pay slice influence corporate social responsibility? US–Canadian versus Spanish–French listed firms. *Corporate Social Responsibility and Environmental Management*, 26(2), 502-517. doi: <https://doi.org/10.1002/csr.1728>
- Kathy Rao, K., Tilt, C. A., & Lester, L. H. (2012). Corporate governance and environmental reporting: an Australian study. *Corporate Governance: The International Journal of Business in Society*, 12(2), 143-163. doi:<https://doi.org/10.1108/14720701211214052>
- Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of Business Ethics*, 114(2), 207-223. doi:<https://doi.org/10.1007/s10551-012-1336-0>
- 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*, 52(2), 82-109. doi:<https://doi.org/10.1108/17542431011029406>
- Kiliç, M., Kuzey, C., & Uyar, A. (2015). The impact of ownership and board structure on Corporate Social Responsibility (CSR) reporting in the Turkish banking industry. *Corporate Governance*, 15(3), 357-374. doi:<https://doi.org/10.1108/CG-02-2014-0022>
- Kronborg, D., & Thomsen, S. (2009). Foreign ownership and long-term survival. *Strategic Management Journal*, 30(2), 207-219. doi: <https://doi.org/10.1002/smj.732>
- Li, W., & Zhang, R. (2010). Corporate social responsibility, ownership structure, and political interference: Evidence from China. *Journal of Business Ethics*, 96(4), 631-645. doi:<https://doi.org/10.1007/s10551-010-0488-z>
- Liao, P.-C., Xia, N.-N., Wu, C.-L., Zhang, X.-L., & Yeh, J.-L. (2017). Communicating the corporate social responsibility (CSR) of international contractors: Content analysis of CSR reporting. *Journal of Cleaner Production*, 156, 327-336. doi:<https://doi.org/10.1016/j.jclepro.2017.04.027>
- Liu, Y., Miletkov, M. K., Wei, Z., & Yang, T. (2015). Board independence and firm performance in China. *Journal of Corporate Finance*, 30, 223-244. doi:<https://doi.org/10.1016/j.jcorpfin.2014.12.004>
- Lopatta, K., Jaeschke, R., & Chen, C. (2017). Stakeholder engagement and corporate social responsibility (CSR) performance: International evidence. *Corporate Social Responsibility and Environmental Management*, 24(3), 199-209. doi:<https://doi.org/10.1002/csr.1398>

- Mahoney, L., & Roberts, R. W. (2007). Corporate social performance, financial performance and institutional ownership in Canadian firms. *Accounting forum*, 31(3), 233-253. doi:<https://doi.org/10.1016/j.accfor.2007.05.001>
- Manning, B., Braam, G., & Reimsbach, D. (2019). Corporate governance and sustainable business conduct—Effects of board monitoring effectiveness and stakeholder engagement on corporate sustainability performance and disclosure choices. *Corporate Social Responsibility and Environmental Management*, 26(2), 351-366. doi:<https://doi.org/10.1002/csr.1687>
- Marquardt, D. W. (1970). Generalized inverses, ridge regression, biased linear estimation, and nonlinear estimation. *Technometrics*, 12(3), 591-612. doi:<https://doi.org/10.1080/00401706.1970.10488699>
- McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21(5), 603-609. doi:[https://doi.org/10.1002/\(SICI\)1097-0266\(200005\)21:5<603::AID-SMJ101>3.0.CO;2-3](https://doi.org/10.1002/(SICI)1097-0266(200005)21:5<603::AID-SMJ101>3.0.CO;2-3)
- Menard, S. W. (1995). *Applied logistic regression analysis*.
- Mohd Ghazali, N. A. (2007). Ownership structure and corporate social responsibility disclosure: some Malaysian evidence. *Corporate Governance: The International Journal of Business in Society*, 7(3), 251-266. doi: <https://doi.org/10.1108/14720700710756535>
- Muttakin, M. B., Khan, A., & Subramaniam, N. (2015). Firm characteristics, board diversity and corporate social responsibility: evidence from Bangladesh. *Pacific Accounting Review*, 27(3), 353-372. doi:<https://doi.org/10.1108/PAR-01-2013-0007>
- Muttakin, M. B., Mihret, D. G., & Khan, A. (2018). Corporate political connection and corporate social responsibility disclosures: A neo-pluralist hypothesis and empirical evidence. *Accounting, Auditing & Accountability Journal*, 31(2), 725-744. doi: <https://doi.org/10.1108/AAAJ-06-2015-2078>
- Muttakin, M. B., & 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*, 6(2), 138-165. doi:<https://doi.org/10.1108/SAMPJ-10-2013-0042>
- Naser, K., Al-Hussaini, A., Al-Kwari, D., & Nuseibeh, R. (2006). Determinants of corporate social disclosure in developing countries: the case of Qatar. *Advances in International Accounting*, 19, 1-23. doi:[https://doi.org/10.1016/S0897-3660\(06\)19001-7](https://doi.org/10.1016/S0897-3660(06)19001-7)
- Nguyen, T., Locke, S., & Reddy, K. (2015). Ownership concentration and corporate performance from a dynamic perspective: Does national governance quality matter? *International Review of Financial Analysis*, 41, 148-161. doi:<https://doi.org/10.1016/j.irfa.2015.06.005>
- Ntim, C. G., & Soobaroyen, T. (2013). Black economic empowerment disclosures by South African listed corporations: The influence of ownership and board characteristics. *Journal of Business Ethics*, 116(1), 121-138. doi:<https://doi.org/10.1007/s10551-012-1446-8>
- Oh, W. Y., Chang, Y. K., & Martynov, A. (2011). The effect of ownership structure on corporate social responsibility: Empirical evidence from Korea. *Journal of Business Ethics*, 104(2), 283-297. doi:<https://doi.org/10.1007/s10551-011-0912-z>
- Pfeffer, J. (1973). Size, composition, and function of hospital boards of directors: A study of organization-environment linkage. *Administrative Science Quarterly*, 349-364. doi:10.2307/2391668

- Prado-Lorenzo, J. M., Gallego-Alvarez, I., & Garcia-Sanchez, I. M. (2009). Stakeholder engagement and corporate social responsibility reporting: the ownership structure effect. *Corporate Social Responsibility and Environmental Management*, 16(2), 94-107. doi:<https://doi.org/10.1002/csr.189>
- Pucheta-Martínez, M. C., Bel-Oms, I., & Olcina-Sempere, G. (2019). Commitment of independent and institutional women directors to corporate social responsibility reporting. *Business Ethics: a European Review*, 28(3), 290-304. doi:<https://doi.org/10.1111/beer.12218>
- Randøy, T., & Goel, S. (2003). Ownership structure, founder leadership, and performance in Norwegian SMEs: implications for financing entrepreneurial opportunities. *Journal of Business Venturing*, 18(5), 619-637. doi:[https://doi.org/10.1016/S0883-9026\(03\)00013-2](https://doi.org/10.1016/S0883-9026(03)00013-2)
- Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, 88(2), 351-366. doi:<https://doi.org/10.1007/s10551-008-9968-9>
- Roberts, M. R., & Whited, T. M. (2013). Endogeneity in empirical corporate finance1 *Handbook of the Economics of Finance* (Vol. 2, pp. 493-572): Elsevier.
- Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The Stata Journal*, 9(1), 86-136. doi:<https://doi.org/10.1177/1536867X0900900106>
- Said, R., Hj Zainuddin, Y., & Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal*, 5(2), 212-226. doi:<https://doi.org/10.1108/17471110910964496>
- Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*: New York: Harper & Row.
- See, G. (2009). Harmonious society and Chinese CSR: Is there really a link? *Journal of Business Ethics*, 89, 1-22. doi:<https://doi.org/10.1007/s10551-008-9981-z>
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783. doi:<https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
- Siegel, D. S., & Vitaliano, D. F. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, 16(3), 773-792. doi:<https://doi.org/10.1111/j.1530-9134.2007.00157.x>
- Simerly, R. L., & Bass, K. E. (1998). The impact of equity position on corporate social performance. *International Journal of Management*, 15, 130-135.
- Ullah, S., Akhtar, P., & Zaefarian, G. (2018). Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Industrial Marketing Management*, 71, 69-78. doi:<https://doi.org/10.1016/j.indmarman.2017.11.010>
- Ullmann, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of Management Review*, 10(3), 540-557. doi:<https://doi.org/10.5465/amr.1985.4278989>
- Van der Laan Smith, J., Adhikari, A., & Tondkar, R. H. (2005). Exploring differences in social disclosures internationally: A stakeholder perspective. *Journal of Accounting and Public Policy*, 24(2), 123-151. doi:<https://doi.org/10.1016/j.jaccpubpol.2004.12.007>
- Walls, J. L., Berrone, P., & Phan, P. H. (2012). Corporate governance and environmental performance: Is there really a link? *Strategic Management Journal*, 33(8), 885-913. doi:<https://doi.org/10.1002/smj.1952>

- Wang, K., Sewon, O., & Claiborne, M. C. (2008). Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, 17(1), 14-30. doi:<https://doi.org/10.1016/j.intaccaudtax.2008.01.001>
- Williamson, O. E. (1984). Corporate governance. *Yale Law Journal*(93).
- Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics*, 105(3), 581-606. doi:<https://doi.org/10.1016/j.jfineco.2012.03.005>
- Wooldridge, J. M. (2012). *Introductory econometrics: A modern approach* (fifth edition ed.): Nelson Education.
- Wu, D.-M. (1973). Alternative tests of independence between stochastic regressors and disturbances. *Econometrica (pre-1986)*, 41(4), 733.
- Zahra, S. A. (1996). Governance, ownership, and corporate entrepreneurship: The moderating impact of industry technological opportunities. *Academy of Management Journal*, 39(6), 1713-1735. doi:<https://doi.org/10.5465/257076>
- Zaid, M. A., Wang, M., & Abuhijleh, S. T. (2019). The effect of corporate governance practices on corporate social responsibility disclosure: Evidence from Palestine. *Journal of Global Responsibility*, 10(2), 134-160. doi:<https://doi.org/10.1108/JGR-10-2018-0053>
- Zhou, Q., Faff, R., & Alpert, K. (2014). Bias correction in the estimation of dynamic panel models in corporate finance. *Journal of Corporate Finance*, 25, 494-513. doi:<https://doi.org/10.1016/j.jcorpfin.2014.01.009>

Appendix A: CSR disclosure items

Category	No	Items
Environmental disclosure	1	Environmental policies
	2	Environmental protection programme
	3	Conservation of natural resources
	4	Energy efficiency
	5	Recycling waste products.
	6	Pollution control - air and water
	7	Involvement in environmental organizations
	8	Prevention or repair of damage to the environment
	9	Radiation safety / emission information
Human resources disclosure	10	Number of employees
	11	Employee training and education
	12	Employee health and safety
	13	Provident and pension funds; compensation
	14	Employee remuneration
	15	Information about the firm's stability and future
	16	Safety in the workplace
	17	Employment opportunities
	18	Employee assistance/benefits.
Product and consumers disclosure	19	Product quality information
	20	Product safety information
	21	Improvement in product quality
	22	Consumer safety
	23	Improvement in customer service
	24	Consumer complaints, satisfaction
Community involvement disclosure	25	Charitable donations and activities
	26	Sponsoring educational programme
	27	Social welfare
	28	Sponsoring sporting or recreational projects & gifts
	29	Relations with the local population
	30	Support for public health
	31	Support for the arts and culture
	32	Sponsoring conferences, seminars or exhibits

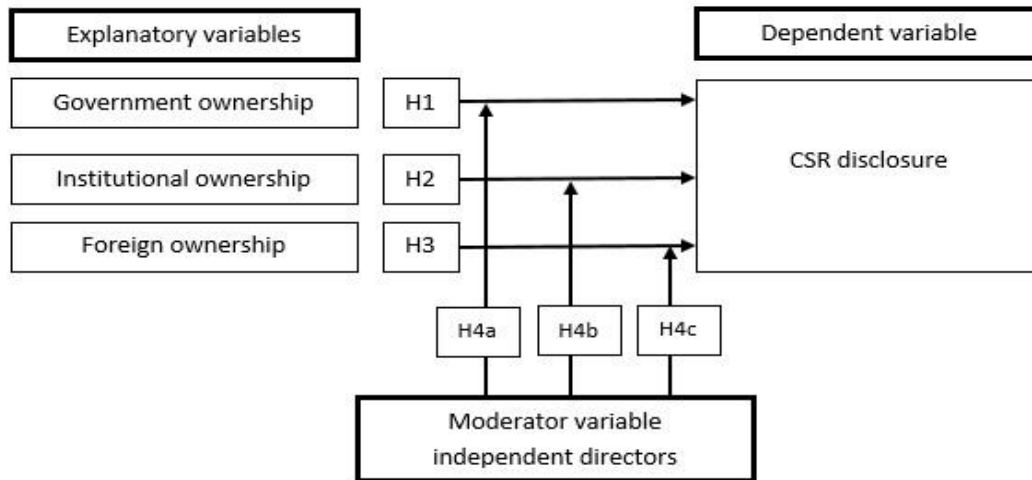


Figure 1: Analytical framework

Table 1 Summary of the content analysis findings of CSR disclosure

Categories	2013		2014		2015		2016		2017		2018	
	NI	(%)	NI	(%)	NI	(%)	NI	(%)	NI	(%)	NI	(%)
Environmental	35	11.78%	45	15.15%	54	18.18%	64	21.55%	73	24.58%	78	26.26%
Human resources	207	69.7%	214	72.05%	219	73.74%	219	73.74%	236	79.46%	241	81.14%
Product and consumers	94	47.47%	96	48.48%	108	54.55%	115	58.08%	118	59.60%	122	61.61%
Community involvement	105	39.77%	115	43.56%	115	43.56%	132	50.00%	146	55.30%	149	56.44%
Overall disclosure	441	41.76%	470	44.51%	496	46.97%	530	50.19%	573	54.56%	590	55.87%

Notes: NI= the number of disclosed items , % percentage of disclosed items by general themes

Table 2 Descriptive statistics

Variables	Mean	Median	S.d	Min	Max
CSRDS	0.48	0.46	0.20	0.09	0.97
GVOWN	0.05	0.00	0.09	0.00	0.37
INOWN	0.43	0.41	0.33	0.00	0.94
FROWN	0.10	0.00	0.20	0.00	0.64
BIN	0.88	1.00	0.17	0.46	1.00
FSIZE	16.13	17.18	1.56	12.31	21.10
ROA	0.02	0.02	0.11	-0.63	0.38
FAGE	1.31	1.34	0.23	0.60	1.86
LEV	0.30	0.29	0.19	0.02	0.78
BSIZE	8.76	9.00	2.45	5.00	15.00

Notes: this table reports a summary statistics of the study variables; *CSRDS* corporate social responsibility disclosure score, *GVOWN* percentage of shares held by the Palestinian government to the total number of outstanding shares of the firm, *INOWN* proportion of shares owned by institutional investors to the total number of shares issued, *FROWN* percentage of shares held by foreign shareholders to the total number of outstanding shares, *BIN* percentage of presence of independent directors in the board, *FSIZE* natural logarithm of total assets, *ROA* ratio of total return and total assets, *FAGE* natural log of the number of years since the firm's inception, *LEV* ratio of total debt and total assets, *BSIZE* total number of board members.

Table 3 Bivariate correlation matrix

Variables	VIF	Tolerance	CSRDS	GVOWN	INOWN	FROWN	BIN	FSIZE	ROA	FAGE	LEV	BSIZE
CSRDS			1									
GVOWN	1.96	0.51	0.454***	1								
INOWN	1.25	0.8	0.244***	0.242***	1							
FROWN	1.56	0.64	0.306***	0.270***	0.0124	1						
BIN	1.44	0.78	0.210*	0.147*	0.153*	0.124	1					
FSIZE	1.73	0.58	0.474***	0.439***	0.150*	0.417***	0.388***	1				
ROA	1.29	0.77	0.310***	0.0249	-0.117	-0.108	0.066	0.237***	1			
FAGE	1.81	0.55	-0.148*	-0.276***	-0.234***	-0.380***	-0.155	0.0051	0.329***	1		
LEV	1.6	0.63	0.294***	0.482***	-0.0267	0.101	0.053	0.0553	-0.147*	-0.156**	1	
BSIZE	1.52	0.66	0.266***	0.146*	0.241***	0.137	0.212**	0.253***	0.275***	0.301***	0.075	1

Notes: *, ** and *** correlation statistically significant at the 0.10, 0.05, 0.01 levels, respectively, two-tailed coefficient test.

Table 4 Pooled OLS and fixed effects estimators findings using static panel data

Variables	Model 1		Model 2	
	Pooled OLS		Fixed effects	
	Coefficients	P-value	Coefficients	P-value
Constant	-0.120	0.438	-0.088	0.955
<u>Control variables</u>				
Firm size (FSIZE)	0.041	0.000***	0.036	0.000***
Profitability (ROA)	0.508	0.001***	0.581	0.000***
Firm age (FAGE)	-0.243	0.000***	-0.202	0.027**
Leverage (LEV)	0.038	0.005***	0.035	0.074*
Board size (BSIZE)	0.026	0.034*	0.063	0.143
<u>Main effects</u>				
Government ownership (GVOWN)	0.526	0.043**	0.573	0.043**
Institutional ownership (INOWN)	0.114	0.093*	0.128	0.041**
Foreign ownership (FROWN)	0.338	0.081*	0.297	0.193
Board independence ratio (BIN)	0.214	0.002***	0.547	0.091*
<u>Moderated effects</u>				
GVOWN × BIN ratio	0.381	0.005***	0.413	0.001***
INOWN × BIN ratio	0.448	0.048**	0.031	0.111
FROWN × BIN ratio	0.532	0.000**	0.381	0.137
Standard errors	Clustered		Clustered	
Year dummies	Yes		Yes	
Industry dummies	Yes		No	
Firm fixed effects	No		Yes	
Adj R-squared	0.6381		0.6173	
F- statistics (model)	35.45***		16.67***	
F-test for fixed effects			36.31***	
Hausman test			14.81 **	
Number of observations	198		198	

Notes: The estimated coefficients and t statistics are two-way cluster-robust with finite sample correction to adjust for arbitrary heteroscedasticity and serial correlation. Further, in all models, time-fixed effects are controlled for. Superscripts *, ** and *** statistically significant at 0.10, 0.05 and 0.01 levels, respectively.

Table 5 Empirical results reported for system GMM

Variables	Model 1		Model 2		Model 3		Model 4	
	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value
CSRDS (<i>t</i> - 1)	0.641	0.003***	0.613	0.000***	0.580	0.001***	0.545	0.000***
GVOWN	0.501	0.022**	0.538	0.001***	0.481	0.048**	0.534	0.031**
INOWN			0.033	0.181	0.061	0.104	0.048	0.135
FROWN					0.381	0.111	0.487	0.173
BIN ratio							0.073	0.023**
GVOWN × BIN ratio							0.062	0.000***
INOWN × BIN ratio							0.094	0.000***
FROWN × BIN ratio							0.599	0.077*
FSIZE	0.168	0.077*	0.341	0.022**	0.383	0.001***	0.391	0.003***
ROA	0.613	0.281	0.431	0.067*	0.471	0.031**	0.613	0.089*
FAGE	-0.539	0.140	-0.511	0.211	-0.466	0.247	-0.381	0.191
LEV	0.050	0.941	0.099	0.712	0.141	0.871	0.111	0.691
BSIZE	0.061	0.033**	0.066	0.071*	0.059	0.093*	0.076	0.041**
Year dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistic	20.83***		23.69***		46.11***		67.72***	
Number of observations	198		198		198		198	
Number of instruments	16		17		17		18	
Number of groups	33		33		33		33	
AR (1)	0.024		0.355		0.060		0.087	
AR (2)	0.555		0.216		0.652		0.500	
Over identification test	0.158		0.126		0.242		0.190	
Difference-in-Hansen test	0.931		0.881		0.427		0.395	

Notes: This table presents empirical findings from estimating Eq. (3). CSRDS (*t* - 1) one-year lagged value of corporate social responsibility disclosure score, the estimated coefficients and t statistics are two-way system GMM. Further, in all models, year and industry effects are controlled for, firm age and year dummies are treated as exogenous variables, Hansen test of over-identification for the validity of the full instruments set was conducted, the Difference-in-Hansen test was performed, Arellano-Bond test of the null hypothesis of no serial correlation (autocorrelation) in the first-differenced residuals is performed, the results of year dummies and industry dummies are unreported. Superscripts *, ** and *** statistically significant at 0.10, 0.05 and 0.01 levels, respectively.

Table 6 Empirical results reported for system GMM

Variables	Model 1		Model 2		Model 3		Model 4	
	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value	Coefficients	P-value
CSRDS (<i>t</i> - 1)	0.722	0.021**	1.200	0.000***	0.639	0.000***	0.783	0.041**
GVOWN	0.812	0.014**	0.688	0.071*	0.711	0.237	0.591	0.003***
INOWN			0.057	0.290	0.074	0.143	0.068	0.176
FROWN					0.593	0.231	0.311	0.187
BIN ratio							0.096	0.057*
GVOWN × BIN ratio							0.075	0.003***
INOWN × BIN ratio							0.144	0.011**
FROWN × BIN ratio							0.787	0.047**
FSIZE	0.312	0.047**	0.481	0.053*	0.576	0.000***	0.623	0.021**
ROA	0.900	0.438	0.654	0.017**	0.685	0.101	0.879	0.064*
FAGE	-0.713	0.343	-0.673	0.405	-0.612	0.367	-0.576	0.305
LEV	0.073	0.600	0.142	0.682	0.199	0.953	0.211	0.595
BSIZE	0.084	0.053*	0.091	0.041**	0.079	0.016**	0.108	0.000***
Year dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistic	48.16***		17.65***		55.95***		74.40***	
Number of observations	198		198		198		198	
Number of instruments	16		17		17		18	
Number of groups	33		33		33		33	
AR (1)	0.148		0.267		0.242		0.287	
AR (2)	0.481		0.530		0.529		0.567	
Over identification test	0.160		0.224		0.168		0.230	
Difference-in-Hansen test	0.761		0.984		0.788		0.599	

Notes: This table presents empirical findings from estimating Eq. (3). CSRDS (*t* - 1) one-year lagged value of corporate social responsibility disclosure score, the estimated coefficients and t statistics are two-way system GMM. Further, in all models, year and industry effects are controlled for, firm age and year dummies are treated as exogenous variables, Hansen test of over-identification for the validity of the full instruments set was conducted, the Difference-in-Hansen test was performed, Arellano-Bond test of the null hypothesis of no serial correlation (autocorrelation) in the first-differenced residuals is performed, the results of year dummies and industry dummies are unreported. Superscripts *, ** and *** statistically significant at 0.10, 0.05 and 0.01 levels, respectively.

