DOES BOARD STRUCTURE DRIVE SUSTAINABLE DEVELOPMENT GOALS DISCLOSURE? EVIDENCE FROM AN EMERGING MARKET

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Abstract

The study investigates to which extent corporate board characteristics influence the disclosure of Sustainable Development Goals (SDGs) in Omani-listed financial institutions. Using hand-collected data for 34 Omani financial institutions listed on the Muscat Stock Exchange for the period between 2016 and 2020, the study applies multivariate analysis to examine the association between corporate board characteristics and SDGs disclosure following Al Lawati and Hussainey's (2022) method in measuring SDG variables. Drawing from agency theory and resource dependence theory, our results showed that the independence and financial expertise of the corporate board promote better disclosure of SDGs. On the other hand, gender and nationality diversity of the board were found to be negatively associated with the disclosure of the SDGs. Our paper contributes to the growing literature by being the first study to examine the extent to which corporate board characteristics drive SDGs disclosure in one of the emerging markets. In addition, in our study, we employ the resource dependence theory with the agency theory to investigate our research hypotheses in order to capture the full practice of the SDGs disclosure. The study implies that the characteristics of the corporate board are one of the main determinants of SDGs disclosure in emerging markets. Furthermore, not all boards behave the same with regard to the disclosure of the SDGs, and this behavior is determined by its characteristics. The study recommends that a sustainability committee may be initiated to enhance the disclosure of the SDGs in Omani financial institutions.

Keywords: Sustainable Development Goals, Board of Directors, Board Diversity, Voluntary Disclosure, Oman

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1. INTRODUCTION

In September 2015, the United Nations (UN) approved a global plan for sustainable development (Resolution A/RES/70/1, 2015) in an effort to enhance sustainable practices across the globe (Hummel & Szekely, 2022; Lassala et al., 2021). This initiative marks a historical shift toward one of the common sustainable development agendas raised by the United Nations to integrate three developmental aspects namely, economic, social, and environmental sustainability (Mukhi & Quental, 2019). A practical framework was offered by "the United Global Compact" for companies to engage in issues covered by the Sustainable Development Goals (SDGs), in which the companies and organizations are expected to initiate solutions that are in line with the SDGs practices (UN Global Compact, 2015).

Several studies have been conducted to examine the extent to which businesses have adopted and achieved the SDGs. Previous studies have found that the adoption of the SDGs was found to be determined by the structural characteristics of the firm (Rosati & Faria, 2019), the nature of the stakeholders, financial vs non-financial (Hummel & Szekely, 2022), ownership structure (Huafang & Jianguo, 2007; Akhtaruddin & Haron, 2010), firm characteristics (Khaled et al., 2021) industry and audit type (Kamel & Awadallah, 2017), and regulatory framework of the country (Erin et al., 2022). Given the importance of the corporate board in corporate governance studies, little is currently known about whether corporate board characteristics can determine SDGs disclosure, especially in the emerging market (Rosati & Faria, 2019). Motivated by the ongoing debate on this topic, this study examines to which extent corporate board characteristics can influence SDGs disclosure in Omani-listed firms.

The literature has identified several incentives for firms to enhance sustainable practices. From the perspective of the agency theory, it is suggested that firms engage in sustainability disclosure in order to eliminate information asymmetries between the managers and the investors, which contributes to creating value for the shareholders of the firm (Khaled et al., 2021). In addition, agency theory predicts firms comply with SDGs in the annual reports to reduce uncertainty and enhance constructive decision-making by the stakeholders of the company (Lassala et al., 2021). While, according to the resource dependence theory, board diversity (i.e., gender and nationality diversity) may influence sustainability disclosure due to different resources, skills, and experiences they have. For instance, the presence of female directors on the board may enhance the legitimacy between society and stakeholders through their connections and resources by representing their needs and diversity (Marashdeh et al., 2021). These two theories would provide different insights into the drivers that motivate companies to engage in sustainability initiatives.

The paper provides several contributions to the literature in the context of the emerging market. First, using hand-collected data, the study broadens previous literature review on how corporate board characteristics, such as gender diversity, nationality diversity, independence, and financial expertise, have an impact on the disclosure of SDGs. Second, the study complements previous studies by examining this association in an emerging market, which may have different behavior toward disclosing SDGs practices compared to the developed markets. Third, most of the previous studies have adopted agency theory to examine the association between corporate board characteristics and the disclosure of the SDGs. In our study, we employ the resource dependence theory with the agency theory to investigate our research hypotheses in order to capture the full practice of the SDGs disclosure.

The objectives of this study were driven by two main reasons. First, among all Gulf Cooperation Council (GCC) countries, Oman is the first country to issue corporate governance codes which focused largely on the characteristics of the corporate board (Alshabibi et al., 2021b). Therefore, this study aims to provide an understanding of whether the characteristics of the corporate board might be the driver of the SDGs in one of the emerging markets in the region. Second, the study is designed to provide insight into the SDGs and its implementation in Oman given that the government of Oman has committed and signed the 17 SDGs in 2015. The findings of this study have potential aftermath for the regulators. More attention needs to be given to the disclosures of the SDGs in the annual reports of the listed firms recommending the promotion of more independent directors and directors with more financial expertise in the corporate boards. In addition, besides other committees (i.e., audit, compensation, and nomination), corporate boards are recommended to create sustainability committees in an effort to enhance the awareness of the SDGs.

The remainder of the paper is structured as follows. Section 2 highlights the context of the topic in Oman, followed by the literature review discussion. Section 3 presents the research methodology. Section 4 provides empirical results with a discussion followed by additional analysis. Section 5 concludes the paper.

2. LITERATURE REVIEW

2.1. The context of Oman

The sultanate was present at the UN Summit in September 2015, in which participating countries embraced the importance of SDGs and the need in putting all efforts in order to meet them. As a result, Oman's Ninth National Five-Year Plan (2016–2020) (Supreme Council for Planning, 2016) has incorporated SDGs as one of its main pillars. Moreover, SDGs are integrated into Oman 2040 Vision (Oman Vision 2040 Implementation Follow-up Unit, n.d.) which outlines the government's seriousness in attaining the SDGs by developing medium and long terms comprehensive plans: allocating budgets and creating programs and policies that ensure the accomplishment of SDGs. It is well-known among organizations worldwide that businesses have to move from the usual thinking and widen their focus not only on the economic side but should balance between financial, environmental, and human development (Shank & Shockey, 2016). Companies in Oman are of no difference and have realized that in order to compete and survive in the competitive changing market, they have to take quick steps towards attaining SDGs.

The implementation of SDGs in Oman will unlock the capabilities and resources of the newly developed communities (Al Lawati & Hussainey, 2022). The Omani government has defined targets to achieve SDGs, embedded within Oman Vision 2040 (Oman Vision 2040 Implementation Follow-up Unit, n.d.), which aims to develop a sustainable economy in order to survive the emerging global market. The government in its journey towards implementing the SDGs will face a main issue related to planning and building infrastructures in the new sustainable societies and communities. However, it does understand that without its contribution towards SDGs, the referred societies and communities will not be able to benefit from the positive impact of SDGs.

Our paper shed the light on this topic due to its importance in facing the urgent challenges facing the world. Also, SDGs emphasize the collaborative work between everyone, governments, states, organizations, societies, and individuals, the small or big contribution which will have an impact on the world we are living in.

2.2. Hypotheses development

2.2.1. Board financial expertise

The need for more financial experts on the board becomes essential, especially after the recent financial scandals as they have the ability to exercise better monitoring to serve the interests of the shareholders (Alcaide-Ruiz & Bravo-Urquiza, 2023; Harris & Raviv, 2008). Directors with financial experience are expected to have the ability to oversee financial reporting and accounting transactions; thus, preventing any possible fraud (Carcello et al., 2006). Using a sample from US banks, García-Sánchez et al. (2017) found that banks with a higher presence of directors with financial expertise are associated with earning quality, indicating that financially experienced directors can contribute to better board oversight and reduce agency conflict. Bravo and Alcaide-Ruiz (2019) found that financial forward-looking disclosure was found to be promoted by female directors with financial expertise, using a sample from the Standards and Poors (S&P) 100 Index. The findings are consistent with Naheed et al. (2021) who found that boards with more financially experienced directors are associated with better corporate social responsibility disclosure, using a sample from Chinese listed firms. Given the discussion above, the first hypothesis is formulated as follows:

H1: The financial expertise of the board has a positive impact on firm SDGs disclosure.

2.2.2. Board gender diversity

The gender diversity of the board is becoming an increasingly important topic in corporate governance (Pham & Lo, 2023). Several countries around the globe have enacted gender quota laws on corporate boards (Ahern & Dittmar, 2012). Currently, female directors are engaging in different areas of business management, which was taken up earlier by men (Pham & Lo, 2023). According to resource dependence theory, women on board can enhance the monitoring role of the board and reduce agency conflict (Al-Matari & Alosaimi, 2022; Musviyanti et al., 2021; Marashdeh et al., 2021; Carter et al., 2003). From the perspective of voluntary disclosure, Saha and Kabra (2022), found that the presence of female directors is associated positively with forward-looking disclosure, using a sample from Indian listed firms. This concurs with Nicolo et al. (2022) who reported a positive association between the presence of female directors on the board and intellectual capital disclosure using a sample from Italian listed firms. This is also in line with Radu and Smaili (2022) who found that cybersecurity risk disclosure is positively associated with gender diversity of the corporate board using a sample from Canadian listed firms. Using an international sample from 22 countries, Fernandez-Feijoo et al. (2012) found that the higher the presence of female directors on the board, the better the disclosure related to corporate social responsibility and its strategy. Given the discussion above, the second hypothesis is formulated as follows:

H2: Gender diversity of the board has a positive impact on firm SDGs disclosure.

2.2.3. Board independence

According to the agency theory, board independence is considered one of the key characteristics of the board as the main duty of the independent directors is to oversee the behavior of the executive directors (Fama & Jensen, 1983). Several studies have found that the inclusion of outside directors on the board can contribute to more voluntary disclosure of the firm (Alijoyo & Sirait, 2022; Chebbi & Ammer, 2022; Otman, 2021). Using a sample from Australian listed firms, Lim et al. (2007) found that the higher the independence, the higher the voluntary disclosure of the firm, suggesting that board independence plays an important role in enhancing the disclosure. In line with this, Huafang and Jianguo (2007) found that board independence contributes positively to corporate disclosure, using evidence from Chinese listed firms. According to Buertey and Pae (2021), more independent directors on company boards may improve information disclosure and transparency. Using a sample from Irish listed firms, Donnelly and Mulcahy (2008) found that the higher the presence of non-executive directors, the better the disclosure of voluntary information, indicating that non-executive directors are good monitors and tend to protect shareholders' rights by providing the needed information. In addition, Rashid and Hossain (2022) find that board independent directors positively impact the corporate social responsibility disclosure of the firms. Therefore, the third hypothesis is formulated as follows:

H3: The independence of the board has a positive impact on firm SDGs disclosure.

2.2.4. Board nationality diversity

Foreign directors play a key influential role in improving the quality of environmental information presented in annual reports, according to Oba and

Fodio (2012). For the period between 2008 and 2014, Elgammal et al. (2018) investigated the influence of corporate governance on risk and forward-looking disclosures in Qatar. They concluded that companies with a larger percentage of foreign ownership reveal more forward-looking information. Shehadeh et al. (2021) investigated the level of online disclosure of businesses in the United States, as well as the influence of a director's nationality on online disclosure. This is because foreign directors bring unique skills and expertise from their home countries to the boardroom, resulting in increased board discussion, creativity, and innovation. All of which have a favorable influence on the degree of online disclosure. This is consistent with Ayman et al. (2019) who found that a nationally diverse board is associated with the earlier adoption of Twitter as an information dissemination channel, using a sample from UK-listed firms. Recently, Dobija et al. (2023) find that international directors play a vital role in improving non-financial disclosure and they facilitate the movement toward sustainable development. Based on these arguments, we hypothesize that:

H4: National diversity of the board has a positive impact on firm SDGs disclosure.

3. RESEARCH METHODOLOGY

3.1. Sample and data

Our sample includes 34 Omani financial institutions listed on the Muscat Stock Exchange for the period of 2016–2020, totaling 170 firm-year observations. Following Al Lawati and Hussainey (2022), this period has been selected due to the agreement and the adoption of the SDGs by the United Nations starting in 2015. There are 5 sub-sectors included in the financial sector, which are banks, financial services companies, insurance firms, and investment and real estate companies. Our data has been collected from the institutions' annual reports as they consider the formal and official tool for the corporations to disclose their information to the public (Al Lawati et al., 2021). In addition, these annual reports combine financial and non-financial voluntary information which are considered the platform to assess the stakeholders in making their financial decisions.

The financial sector has been chosen for the study, other than the remaining sectors, due to the strongly regulated by government bodies, such as the Central Bank of Oman and Capital Market Authority (Al Lawati, 2022; Al Lawati et al., 2021). Moreover, as the financial sector is considered the primary and vital section of the country's economy and generates the highest portion of the profit, therefore, the public will heavily expect a high return from them in serving the community and the environment.

We have applied a textual analysis method in measuring our SDGs variables. It is referred to as "the notion of parsing text for patterns" (Loughran & McDonald, 2016, p. 1187). This method has been widely used in voluntary disclosure studies, such as Ibrahim and Hussainey (2019), Al Lawati et al. (2021), Al Lawati and Hussainey (in press), and Alshabibi et al. (2021a).

3.2. Definition of the variables

Table 1 provides the definitions of all variables (dependent, independent, and control variables) used in the study.

3.2.1. Dependent variable: Measurement of SDGs disclosure

Following Al Lawati and Hussainey (2022), we have applied two variables to measure SDGs disclosure by using manual content analysis on Omani financial firms' annual reports. The first one "*Overall SDG*" is a dummy variable, which equals 1 if the corporation refers to the SDGs in its annual report, and 0 otherwise. Particular words are used, such as "SDG", "SDGs", or "global goal" or the existence of "sustainable", "development", and "goal" within a window of five words to assess the indication of SDG in the annual reports following Hummel and Szekely (2022).

The second measure, "*Total SDG*", is a quantitative measure. Following Hummel and Szekely (2022), we used a bag of words to measure each of the 17 SDGs within an annual report. We have countered a score of 1 for the occurrence of any goal, and zero otherwise, which could accumulate to having a maximum of 17 points varying on the corporation's engagement with SDGs adoption.

3.2.2. Independent variables: Characteristics of the board of directors

We follow prior literature in the selection of our independent variables, such as Hu and Loh (2018) and Sekarlangit and Wardhani (2021). Our independent variables are several characteristics of the board of directors, which are: the existence of female directors, the proportion of independent directors, the presence of foreign directors, and the appearance of directors with financial expertise.

3.2.3. Control variables

We follow the literature by using several control variables that may affect the corporation's engagement in SDGs disclosure (Sekarlangit & Wardhani, 2021). These include the corporation's performance, which is measured as return on equity (ROE), the corporation's size, corporation leverage, and auditor quality. We also include the industry and year fixed-effect variables to control for any impact they could play in the study sample period.

Table 1. Variables' definitions and measurements

Variables	*Abbreviation*	*Measurement*
SDG disclosure (1)	*Overall SDG*	Is a dummy variable, which is equal to 1 if the corporation refers to the SDGs in its annual report, and 0 otherwise.
SDG disclosure (2)	*Total SDG*	Is a quantitative measure, a score of 1 is given to each SDG goal, which could total to have a max of 17 points.
Board directors with financial expertise	*BrdFin*	Refers to the percentage of directors with financial expertise on boards.
Independent directors	*BrdInd*	Percentage of independent directors on boards.
Female directors	*BrdFem*	Percentage of female directors on board.
Foreign directors	*BrdFor*	Percentage of foreign directors on boards.
Firm size	*Total asset*	Refers to the firm size measured as a natural logarithm of total assets.
Firm performance	*ROE*	Refers to the firm profitability, measured as return on equity.
Firm leverage	*LEV*	Refers to the leverage of the firm, measured as the ratio of total debt to total assets.
Auditor quality	*Big4*	Takes the value of 1 if the company's financial statements are audited by one of the Big 4 external auditors, and 0 otherwise.
Industry and year fixed effect	*Year & Fixed affect*	Dummy variables are created to control for a year and industry effects.

3.3. Model specification

We have applied both the univariate and multivariate analyses to test out hypotheses. A correlation matrix is used to apply the univariate analysis and ordinary least squares (OLS) regression analysis is applied to test for multivariate analysis. All regressions are run using industry and year fixed effects to address and control for any time or industry effect that could occur. The following baseline regression model has been used to examine the impact of board of directors' characteristics on SDGs adoption:

$$SDGs\ adoption = \alpha + \beta_1 BrdFin + \beta_2 BrdFem + \beta_3 BrdInd + \beta_4 BrdFor + \beta_5 Total\ Asset + \beta_6 LEV + \beta_7 Big4 + \beta_8 ROE + Industry\ fixed\ effect + Year\ fixed\ effect + \varepsilon_{it} \quad (1)$$

where, *SDGs adoption* refers to the measure of SDGs adoption information in a firm's annual report; *BrdFin* refers to the percentage of directors with financial expertise on boards; *BrdFem* refers to the percentage of female directors on the board; *BrdInd* refers to the percentage of independent directors on boards; *BrdFor* refers to the percentage of foreign directors on boards; *Total asset* refers to the firm size; *LEV* refers to the leverage of the firm; *Big4* takes the value of 1 if the company's financial statements are audited by one of the Big 4 external auditors, zero otherwise; *ROE* refers to the firm profitability.

4. EMPIRICAL RESULTS AND DISCUSSION

4.1. Diagnostics tests

We have conducted some diagnostics tests to check the suitability of the empirical mode. Firstly, we tested the normality assumption by utilizing the skewness statistic test and the results confirmed the normality of data distribution. Secondly, the autocorrelation assumption has been tested by applying a Durbin–Watson (DW) statistic test and the findings confirmed the non-existence of autocorrelation in the data sample. Thirdly, we have checked for the homoscedasticity assumption by applying the Breusch–Pagan test and the results confirm the homoscedasticity of the empirical model.

Moreover, we have assessed the reliability and validity of the SDGs disclosures measurements by conducting a Cronbach's alpha test and the finding returned a percentage greater than 85%, which implies the data's acceptability. The result confirmed the findings of Al Lawati and Hussianey's (2022) study in Oman. Also, independent researchers have assured the reliability of the content analysis approach that has been used in the study.

We have examined SDGs disclosures in the annual reports as a whole due to its importance as the institutions are moving towards increasing non-financial information in the annual reports. Moreover, annual reports are considered the main public channel for disseminating information to a wide range of stakeholders, including financial and non-financial stakeholders.

We have chosen those SDGs disclosure quality measurements as they have been driven by the recommendations on SDG reporting provided by the Global Reporting Initiative (GRI) and UN Global Compact (Hummel & Szekely, 2022). These measurements emphasize all 17 goals which have been highlighted by the UN. Moreover, we have used two measurements, binary and quantitative measures, to avoid the limitations that existed in prior studies.

4.2. Descriptive analysis

Table 2 reports the descriptive statistics of the study variables. The table shows a considerable degree of variation in the level of the SDGs variable. The *Total SDG* ranges from 0 to a maximum of 15 with a mean of 4.02 and the *Overall SDG* scores a mean value of 0.06. This shows that still there is no financial institution to date that discloses all the 17 SDGs in the context of Oman. The results are consistent with Al Lawati and Hussainey's (2022) study in Oman. This may be due to the internal factors related to the company's operation nature and the strength of the level of corporate governance utilized in the company. Regarding the independent variables, *BrdFem* ranges from 0 to 27% with a mean of 0.01, indicating that the rate of females on board is relatively low and reaches 0 in many financial companies, and *BrdInd* has a mean of 0.62 and ranges from 14% to 100%, which indicates a high level of independence in the boards of Omani financial companies. *BrdFor* reaches a maximum of 86% and a minimum of 0 with a mean of 33%, and lastly, *BrdFin* has a mean of 72% with a maximum of 100% and a minimum of 22%.

Regarding the control variables, 5.17, 17.26, 2.13, and 91% are the mean values of the *ROE* of Omani financial institutions, their leverage, their size, and who have been audited by Big 4 firms, respectively.

Table 2. Descriptive statistics

Variables	*Mean*	*Std. dev.*	*Min*	*Max*
Total SDG	4.02	4.53	0.00	15.00
Overall SDG	0.06	0.24	0.00	1.00
BrdFem	0.01	0.04	0.00	0.27
BrdInd	0.62	0.22	0.14	1.00
BrdFor	0.33	0.24	0.00	0.86
BrdFin	0.72	0.20	0.22	1.00
ROE	5.17	10.53	-41.58	22.00
LEV	17.26	22.78	0.00	69.58
Total asset	2.13	0.89	0.48	4.09
Big4	0.91	0.28	0.00	1.00

4.3. Correlation analysis

Table 3 presents the Pearson pairwise correlation matrix for the variables employed in the regression analysis. *Overall SDG* is statically significant and positively associated with *BrdFin* and *BrdInd* at the confidence level of 95%. However, a negative association has been reported with foreign directors on board at the confidence level of 95%. These findings provide initial evidence for our *H4*. Table 3 shows no high coefficients exceeding 0.8 among the study variables, implying that no multicollinearity issues exist. In addition, the variance inflation factors (VIF) test has been employed and the results show no VIF exceeds 10 (untabulated), indicating that multicollinearity is not an issue for our analyses.

Table 3. Pearson correlation matrix

Variables	*Overall SDG*	*BrdFem*	*BrdFor*	*BrdFin*	*BrdInd*	*ROE*	*LEV*	*Total asset*	*Big4*
Overall SDG	1.000								
BrdFem	-0.062	1.000							
BrdFor	-0.1695**	0.027	1.000						
BrdFin	0.2104**	-0.077	0.064	1.000					
BrdInd	0.1874**	-0.076	-0.2196**	-0.2007**	1.000				
ROE	0.038	0.080	0.1716**	0.3002**	0.024	1.000			
LEV	-0.105	-0.041	0.017	0.1452*	0.119	-0.114	1.000		
Total asset	0.3431**	0.1708**	0.033	0.1289*	0.089	0.1718**	0.124	1.000	
Big4	0.078	0.077	0.069	0.100	-0.1394*	0.097	0.2021**	0.3230**	1.000

*Note: * Correlation is significant at the 0.10 level (2-tailed); ** Correlation is significant at the 0.05 level (2-tailed).*

4.4. Multivariate analysis

Tables 4 and 5 present our study's regression analysis results for the relationship between board characteristics and SDGs adoption. Table 4 shows the findings regarding the first measure of our sustainable development disclosure *Overall SDG* (binary variable implying if the institution refers to SDGs in its annual report or not), as Table 5 refers to the second measure of the sustainable development disclosure *Total SDG* (a quantity variable which counts the existence of 17 SDGs adoption within the annual report).

Both tables find that SDGs disclosures are significantly and positively associated with board directors having financial expertise at the significant level of 0.01 with *Overall SDG* and 0.05 with *Total SDG*. Hence, our first hypothesis (*H1*) is accepted. The results are in line with agency theory and with prior literature, such as Naheed et al. (2021), who find the same positive impact between financial expertise on board and corporate social responsibility disclosure. According to the agency theory, these members will better control management's financial reporting decisions which would enhance the non-financial voluntary disclosure of the corporations and also would strengthen the internal control system and risk management framework of the companies (Sultana, 2015). Due to their unique expertise, these directors have the ability to encourage the board to balance their decisions makings between being socially responsible and enhancing corporate financial performance.

We have observed that female directors are significantly and negatively affecting the SDGs disclosure in the context of Oman at the significant level of 0.1 in both tables. Therefore, we reject the second hypothesis (*H2*). Our findings confirm Mohamed et al.'s (2014) results but contradict previous literature, such as Seto-Pamies (2015), Arayssi et al. (2016), Jizi (2017), Cicchiello et al. (2021), who find that a greater female representation on board of directors increases the adoption of new sustainability reporting practices (SDGs disclosure). Also, our results contradict upper echelon theory, which assumes that various characteristics on board will lead to the enhancement of making corporate strategic decisions and that females are different from males regarding their educational background, personality, and career experience (Liao et al., 2015), which put them to be more socially responsible (Cicchiello et al., 2021). This could be because the proportion of female directors in our sample is very low compared to the male percentage, which could hamper their freedom to be active and weaken their contribution in encouraging SDGs disclosure as the nature of the men is more performance-oriented and they would concentrate to enhance the corporate financial performance than being socially responsible (Amran et al., 2014).

Moreover, independent board members are affecting significantly and positively SDGs disclosure in Table 4 at a significant level of 0.01. Therefore, we accept the third hypothesis (*H3*). The result is in line with agency and resource dependence theories and also confirms the prior literature, such as Post et al. (2011), Liu and Zhang (2017), and Jizi (2017). These independent directors are effective in their monitoring mechanism to mitigate management's opportunistic behaviours at the expense of shareholders, which will increase the level of accountability, transparency and the reputation of the corporations. These directors advocate for long term economic and social responsibilities of the firms (Rao et al., 2012). Also, they are considered to be a unique resource, by bringing external expertise and social and environmental knowledge, that unites the corporations with its stakeholders by satisfying their interests, which will enhance stakeholders' making decisions process (Amran et al., 2014).

Lastly, we find that foreign directors affect significantly and negatively SDGs disclosure in Table 4 at a significant level of 0.1. Hence, we reject the fourth hypothesis (*H4*). The result contradicts resource dependence theory, and this could be due that these directors are not involved in the daily operating activities of the corporations which will weaken their knowledge about companies' sustainability development activities that have to be reported and disclosed to the public. In addition, the sustainability practices could not receive sufficient attention from the investor community which would lead the directors to focus on financial income-generating activities to be disclosed to the public. Considering the importance of SDGs adoption and the challenges associated with determining reporting quality, these issues require further investigation. Moreover, foreign directors seem to pay less attention to the importance of non-financial reporting as their role is to advise the corporations on effective ways to enhance companies' performance. Therefore, they assume that users of corporate disclosure might find sustainability information less valuable whereas users of corporate information rely primarily on financial reports.

Regarding control variables, we find that company size (measured by the natural logarithm of the total asset) is positively affecting the SDGs disclosure at a significant level of 0.01 in Table 5. The result confirms prior literate, such as Haniffa and Cooke (2005), Ntim and Soobaroyen (2013), Mohamed et al. (2014), and Sekarlangit and Wardhani (2021). This indicates that large-sized firms aim to disclose more sustainable development practices to maintain their reputation in the market. The result also implies that the bigger the company, the more sustainable development practices will be disclosed, thus by doing this, they could distinguish themselves from other companies in the market. Lastly, the firm's leverage has a negative effect on SDGs disclosure at a significant level of 0.01 in Table 5. This could be due that these firms have a big responsibility to pay out their debts, hence, they will be less focused on non-financial disclosure as their stakeholders' interests are more focused on knowing financial orientation information.

Table 4. Regression analysis (*Overall SDG*)

SDG disclosure		
Variables	***Coefficients***	***Significance***
BrdFin	0.260***	0.007
BrdFem	-0.556*	0.100
BrdInd	0.214***	0.010
BrdFor	-0.126*	0.069
ROE	-0.001	0.552
LEV	-0.001	0.363
Total asset	0.028	0.472
Big4	0.044	0.478
_cons	-0.301	0.116
Industry effect	Yes	
Years effect	Yes	
No. of obs.	170	
Prob. > F	0.0000	
R-squared	0.23	

Table 5. Regression analysis (*Total SDG*)

SDG disclosure		
Variables	***Coefficients***	***Significance***
BrdFin	2.3321**	0.050
BrdFem	-8.0255*	0.1
BrdInd	-0.2818	0.802
BrdFor	0.2654	0.785
ROE	0.0456*	0.061
LEV	-0.0965***	0
Total asset	2.9575***	0
Big4	1.2294	0.128
_cons	0.5793	0.814
Industry effect	Yes	
Years effect	Yes	
No. of obs.	170	
Prob. > F	0.0000	
R-squared	0.65	

4.5. Additional analysis

We have conducted a two-step system generalized method of moments (GMM) to tackle possible endogeneity issues, such as omitted variables or causality if any. Table 6 provides the findings and it has been shown that the board characteristics (financial expertise members, female directors, independent directors, and foreign directors) are significantly influencing the company's engagement in sustainability initiatives. The results of this approach confirm the main findings of the paper. Table 6 reports the results of the Arellano–Bond test for AR (1) and the Sargan test of overidentifying the restriction regarding the system GMM approach. The results confirm the rejection of the null hypothesis of no first-order (AR (1)) auto-correlation and over-identified model, which in turn validate the utilizing of the system GMM approach and ensure that our results are free from endogeneity issues.

Table 6. Two-step GMM analysis (*Overall SDG*)

SDG disclosure				
Variables	***Coefficients***	***Significance***	***Std. err.***	***z***
BrdFin	0.3145**	0.037	0.150	2.09
BrdFem	-0.4480**	0.051	0.229	-1.95
BrdInd	0.2579*	0.081	0.148	1.74
BrdFor	-0.1143*	0.081	0.106	-1.08
ROE	-0.0024	0.168	0.002	-1.38
LEV	-0.0024**	0.05	0.001	-1.9
Total asset	0.0853***	0.011	0.034	2.53
Big4	0.0433	0.564	0.075	0.58
_cons	-0.4517	0.029	0.207	-2.19
Industry effect			Yes	
Years effect			Yes	
No. of obs.			170	
Prob. > F			0.00	
Arellano–Bond test AR (1) (p-value)			0.00	
Sargan test (p-value)			0.00	

5. CONCLUSION

"We do not inherit the Earth from our ancestors; we borrow it from our children", this saying is embracing the world need to change by adopting SDGs, at different levels: individuals, corporations, businesses, governments, nations… etc., in order to survive in the long term and play positive role in the future generations' life. The paper examined the impact of boards of directors' characteristics on SDG disclosures. The entire 17 UN-recommended SDGs are focused on in this paper to get a holistic view of sustainability practices. Omani government has collaborated with the UN and the other member states to encourage businesses in adopting SDGs within their activities.

The findings of the paper show that directors having financial expertise and independent directors are positively affecting the SDGs disclosure in the Omani context. The result indicates that directors on the boards have taken great initiatives in implementing SDGs practices. This will increase firms' survival as it directly affects positively the firms' reputation, hence, increasing the stakeholders' trust (Ameer & Othman, 2012).

However, female and foreign directors tend to have a negative impact on the SDGs disclosure. This could be due to their less presence and less power of votes exercising among their peers and colleagues.

The study has several practical implications for regulators and policymakers. Regulators should encourage the board of directors to enhance the SDGs disclosure by recommending companies appoint more independent directors and directors possessing financial expertise. Policymakers should recommend companies have a specific committee in order to improve the quality of sustainability practices and disclosures. The research implies that regulators need to enhance the effectiveness of boards to be able to improve corporate accountability.

The study is not free from limitations. We have focused only on one sector, which is financial institutions, thus, future studies could examine the relationship between non-financial institutions. In addition, future research could also enrich the findings of the paper and add knowledge regarding the role played by the board of directors in disclosing SDGs practices by applying not only quantitative methods but also qualitative methods, such as interviews, questionnaires, and group discussions.

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