THE IMPACT OF BOARD GENDER DIVERSITY ON THE GULF COOPERATION COUNCIL'S REPORTING ON SUSTAINABLE DEVELOPMENT GOALS

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Abstract

The topic of gender diversity on corporate boards is becoming increasingly significant globally, particularly in the Gulf Cooperation Council (GCC) region. Investors are progressively taking environmental, social, and governance (ESG) considerations, such as gender diversity and sustainability reporting when making investment decisions. The research contributes to the existing but limited academic literature on gender diversity, corporate governance, and sustainability reporting in emerging markets by specifically examining the GCC region. The study emphasizes the strategic significance of adopting gender diversity and sustainability reporting as a means to improve company reputation and engage stakeholders for companies in the GCC. The purpose of this study was to investigate the board gender diversity and its impact on sustainable development goals (SDGs) reporting. The study collected a sample of 50 banks from the GCC region over 11 years from 2013 to 2023. The study concluded that return on assets (ROA), female on board, size, and book value (price-to-book ratio) had a positive impact on the SDGs, while leverage had a negative impact. Thus, this paper recommended including more females on boards to enhance the performance of companies towards reporting SDGs. Also, companies have to concentrate on increasing profitability, getting larger in size, and growing more in the market in order to attain SDGs as required by the GCC's 2030 Vision. Nevertheless, companies have to reduce leverage to reduce risk and increase the possibility to move towards their SDGs. The results of the paper are robust by applying the maximum likelihood estimator (MLE).

Keywords: Board Gender Diversity, SDGs, Profitability, Growth, Size, Probit Model, Seemingly Unrelated Regressions

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1. INTRODUCTION

The members of the Gulf Cooperation Council (GCC) have instituted programs to increase the representation of women on corporate boards and executive teams. An example of such regulations is the United Arab Emirates (UAE) Securities and Commodities Authority's announcement in March 2021 that all publicly listed companies will be required to include a woman on their board of

directors (The National News, 2021). In addition, to encourage more women to serve on the boards of publicly traded Saudi companies, the Capital Market Authority and the Ministry of Human Resources and Social Development in Saudi Arabia signed a memorandum of understanding (Saudi Gazette, 2021). Similarly, the Omani bourse has announced the appointment of two female board members in an effort to increase gender diversity on the board and encourage other Omani businesses to adapt the same of female inclusion (Arabian Business, 2021). Data from the Association of Chartered Certified Accountants (ACCA) shows that women held about 2% of board positions in the GCC in 2017. ACCA also reports that women make up 17% of the UAE's executive ranks, compared to 7% in Qatar. They also state that women make up only 7% of board chairs and 13% of chief executive officers (CEOs) in the GCC (ACCA, 2021). In other words, the GCC's government is increasingly demanding to be more accountable and socially responsible in addressing female presence on boards. For example, the Qatari community is becoming more assertive about its rights to receive information and influence government decision-making (Loang, 2023). The nation is faced with these loud demands, and the legislature and executive branches are looking for new ways to measure performance. Therefore, understanding the impact of board gender diversity on sustainable development goals (SDGs) can guide corporate governance reforms, enhance corporate accountability, and foster sustainable business practices in the GCC.

Meanwhile, the topic of women's rights and inclusion has become increasingly important internationally. A number of countries have mandated gender quotas on board positions in businesses since the turn of the twentieth century. According to Kuzmina and Melentyeva (2021), national gender quotas for corporate boards have been implemented in several countries. For example, in Italy, 30% of board members are women, in the UK — 33%, in the Netherlands — 30% since 2016, in France — 40% since 2017, and in Spain — 40% since 2015. Also, Terjesen et al. (2015) argued that the following countries have implemented gender quotas on boards such as: Kenya — 33% since 2010, Finland — 40% since 2005, and Iceland — 40% since 2013.

Consequently, as a way of responding to the GCC 2030 Vision, modern business environments have emphasized corporate sustainability by increasing shares of employment and gross domestic products to double market shares. For example, Qatar, one of the most rapidly developing nations, sees this as an opportunity to stabilize its presence in global corporations to stay in line with SDG 9 ("Industry, Innovation and Infrastructure"). Thus, the board's gender diversity plays a significant role in providing in-depth scrutiny and analysis of the working of any public utility vis-à-vis its finance and social relevance (Mohammadi et al., 2021).

This paper investigates the relationship between board gender diversity and the pursuit of SDGs in the GCC. It explores board gender diversity's impact on SDGs while controlling for size, profitability, growth, and leverage integrating their influence into organizational practices to achieve the reporting of the SDGs. This paper will help GCC's governments understand how corporate efforts and practices can enhance sustainability reporting. It will also provide in-depth insight into practical implications that can be drawn from governors, policymakers, regulators, and other stakeholders to influence the integration of sustainability principles and SDGs into corporate strategies. Therefore, studying the relationship between board gender diversity and pursuing SDG will help GCC enhance its sustainable disclosures.

Board gender diversity and the pursuit of SDGs will help GCC enhance its capacity to determine that the country lives to the values it espouses (Darwish, 2014). It will assess the impact of stakeholders, improve their strategic planning process by identifying potential risks before they spread, and increase their accountability to the citizenry. This study is significant to Gulf countries to understand the reasons for including more females on board to ensure the integration of sustainable practices to realize SDGs. The research has three main objectives. Firstly, it aims to identify the impact of board gender diversity on SDGs in the GCC region. Secondly, it seeks to assess the level of integration of SDGs within the GCC corporations. Thirdly, it intends to provide valuable insights and recommendations for policymakers and corporate leaders to enhance the alignment of board gender diversity with sustainable development objectives.

This paper is structured as follows. Section 2 reviews the relevant literature. Section 3 presents the model used to investigate the relationship and provides the hypothesis for the variables included in the model. Section 4 analyses the results and compares them with published empirical papers. Lastly, Section 5 concludes the paper by considering its limitations and charting directions for future research.

2. LITERATURE REVIEW

2.1. Theoretical background

2.1.1. Stewardship theory

Chrisman (2021) views stewardship theory as an alternative approach to agency theory for studying sustainable practices in corporate governance. This theory bases its arguments on the relevance and feasibility of aligning SDGs and control systems. Stewardship theory posits that individuals may seek to achieve higher-order demands via pro-organizational behaviors (Chrisman, 2021). As such, they may align their needs with their principals (organization). Individuals (stewards) tend to value cooperation more than defection, even if their interests do not coincide with the interests of the organization (principals). It overcomes the limitation of agency theory, which assumes that individuals have self-centered interests, so when their interests diverge from those of the organization, they behave opportunistically.

2.1.2. Stakeholder theory

Jan et al. (2021) argue that stakeholder theory has driven the growth of accounting. The essence of sustainable accounting is ensuring that there is

reporting, tracking, aggregation, and tracing of social and environmental information to curb unsustainability and promote sustainable development (Jan et al., 2021). However, the stakeholders need to ask and assess what needs to be accounted for. Therefore, if there is a connection between stakeholders' accountability and sustainable accounting, there will be an increased possibility of integrating stakeholders' ideas into sustainable practices.

2.1.3. Agency theory

Agency theory provides a solid theoretical background for the drive for opportunistic behaviors in buyer-supplier relationships. This theory can be used to reduce negative returns. In other words, the theory explains the divergent motivations and asymmetric information between the agents (managers) and the principals to expound on sustainable practices (Matinheikki et al., 2022). According to this theory, the organization undertakes and discloses sustainable practices to reduce the information asymmetry between stakeholders and the management to promote shareholders' values. Therefore, agency theory explains the agency challenges, such as the negative influence of opportunistic behaviors on sustainable practices and development.

2.2. Previous studies

According to Gurol and Lagasio (2023) who examined the impact of board composition on sustainable development (using data from 35 European banks included in the STOXX Europe 600 Index), environmental, social, and governance (ESG) disclosure, E and S scores are positively and strongly correlated with board size, women-to-directors ratio, and independent directors-to-board ratio. Furthermore, they discovered a correlation between ESG disclosure and bank profitability.

Subramaniam et al. (2023) used multinomial logistic regression analysis to identify determinants of disclosure and content analysis of sustainability reports from top Australian firms to back up their claims. An examination of the linkages between SDG disclosures and the factors that influence them is conducted via the lens of institutional theory and agency theory. The research shows that external institutional variables and organisational traits are driving a new trend towards reporting on the SDGs. In order to help businesses connect their strategy with the SDGs, the study found that a stronger structure for measuring and reporting on these objectives is necessary.

According to Toukabri and Mohamed Youssef (2023), carbon disclosure is significantly impacted by factors such as board size, director independence, gender diversity, and the existence of an environmental committee. They collected the data for 387 United States corporations that voluntarily took part in the carbon disclosure project survey from 2011 to 2018 and applied panel data analysis using multiple regression models. They also found that reducing emissions and improving carbon performance practices are expected outcomes of a more effective governance structure, according to the findings about carbon disclosure. Also, contrasting low-carbon and high-carbon industries, the analyses paint a different picture of corporate governance's function in the former.

Zampone et al. (2022) examined the relationship between gender diversity on boards of directors and disclosure of SDGs. As a potential mediator between gender diversity on boards and SDG disclosure, it also delves into the function of the Sustainability Committee (SC). To assess the SDG disclosure, the authors focused on the yearly communication on progress (CoP) documents produced by 526 corporations across 10 industries and 39 countries from 2017 to 2020. The results provide insight into the CoP's potential as a substitute reporting instrument for conveying progress towards the attainment of the SDGs, particularly with regard to SDGs 13 and 8 (Zampone et al., 2022). This study shows that having a diverse gender representation on boards has a beneficial effect on disclosing SDGs. In addition to a direct relationship, the existence of an SC mediates the one between gender diversity on boards and SDG disclosure.

A study by Daniel-Vasconcelos et al. (2022) aims to examine the correlation between the presence of corporate social responsibility (CSR) committees and SDG disclosure, and the moderating effect of gender diversity in this regard. From 2018 to 2020, 238 companies in Argentina, Colombia, Brazil, Mexico, Chile, and Peru contributed 897 annual observations to the sample. The positive impact on the SDGs is demonstrated by the results of the presence of CSR committees. The relationship between CSR committees and SDGs is favourably moderated by gender diversity. The SDGs are also positively affected by leverage and the scale of the enterprise. Disadvantages to SDG disclosure include large boards and CEOs with dual roles.

A study by Sekarlangit and Wardhani (2021) assessed board commitment to the SDGs by examining the qualities and behaviors of board members and the presence or absence of CSR committees on SDG disclosure. The number of annual board meetings and their attendance, board independence, board size, proportion of women on the board, and the presence of international directors were analyzed. This study looked at companies in Indonesia, the Philippines, Singapore, and Malaysia in 2016 and 2017. This exploratory research objectively examined how public corporations' boards of directors in five Southeast Asian states affected SDG declarations. The study found that CSR committees and board director attendance increased SDG disclosures. This shows that more thorough SDG disclosures may be encouraged when the board is present. Companies with CSR committees disclosed more SDGs, demonstrating their sustainability commitment.

Based on the previous literature, mixed findings on SDG reporting determinants suggest more research is needed. Some studies identify a substantial association between SDG disclosure factors, while others do not. Krasodomska et al. (2023) find that corporate governance structures do not affect the disclosure of large public interest entities in the European Union, contrary to studies that found gender diversity on boards and separate sustainability committees influence SDG disclosure. This study analyses how external and internal organizational factors affect Australian corporate SDG reporting content and quality.

3. RESEARCH METHODOLOGY

3.1. Sample

This study collected the data of 64 financial companies in the GCC region for a span of 11 years (between 2013 and 2023). This sample was collected from Refinitiv Eikon platform and any missing observations were found in the annual reports of respective firms for that specific year. The values of SDG variables (disclosure 1 and 0 otherwise) as dependent variables. The independent variables are gender diversity on the board of directors, firm size, firm size, firm performance, firm leverage, and growth. This study applied the probit regression model instead of the ordinary least squares (OLS), and panel regression since the dependent variable is a dummy variable (Ktit & Khalaf, 2024; Khalaf, 2022b). The following Table 1 provides the number of banks included in each GCC country.

Table 1. Collected sample from Refinitiv Eikon platform

Country	*Full sample*	*Final sample*
Saudi Arabia	10	8
Bahrain	9	8
Qatar	9	7
UAE	18	14
Oman	11	9
Kuwait	7	4
Total	**64**	**50**

3.2. Model development

3.2.1. Dependent variables

Sustainable development goals are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. These 17 interconnected goals were established by the United Nations (UN) in 2015 as part of the 2030 Agenda for Sustainable Development. They address various global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice (UN, 2015). With a rising focus on CSR and sustainable business practices, GCC corporations place great importance on the SDGs. GCC countries, like many other fast-developing nations, understand the importance of balancing economic development, social progress, and environmental protection. Companies can better connect their operations with global sustainability objectives by embracing the SDGs, which give a strategic framework. Key SDGs including clean energy, gender equality, and responsible consumption and production are being addressed by GCC companies through the incorporation of sustainable practices into their business models. Businesses can improve their long-term viability, standing in the community, and ability to compete by aiding these causes. Businesses in GCC can use the SDGs as a map to follow as they venture into the murky waters of sustainable business practices, helping to realize the country's larger goal of building an economy that can weather any storm. This paper measured the SDG variable as a dummy variable; in other words, this paper checked the annual reports of each company for each year for keywords regarding SDG. The variable was included as one of the companies in that specific year provided and mentioned the SDG and 0 otherwise.

3.2.2. Independent variables

Board gender diversity (Percentage of females on the board of directors)

Increasing gender diversity on corporate boards (SDG 5) can lead to improved decision-making and a broader perspective on sustainability. Companies with more women on their boards may be more inclined to prioritize social and environmental goals (SDGs 10, 12, 13). In other words, gender diversity in organizations supports SDG 5, which seeks gender equality and empowerment for all women (Ahmed et al., 2023). Corporations impact society by promoting an inclusive workplace that embraces different ideas, talents, and backgrounds. Gender-diverse teams improve creativity, innovation, and problem-solving, furthering economic growth, reducing disparities (SDG 10), excellent education (SDG 4), and decent work and economic growth (SDG 8). Engaging women professionally benefits communities and supports SDG 1 and SDG 3 on poverty reduction, health and well-being, and sustainable communities. Gender diversity's effect on the SDGs emphasizes the interdependence of social, economic, and environmental goals and the need for inclusive approaches to promote sustainable development.

H1: Companies with more women on their boards are more likely to prioritize social and environmental goals (SDGs 10, 12, 13).

Leverage (Total liability of total assets ratio)

The level of leverage in a company can affect SDGs, for example, an increased leverage may lead to higher financial risk, potentially hindering the company's ability to invest in sustainable practices or contribute to economic growth (SDG 8). It can also impact social goals (SDGs 5, 10) if it results in layoffs or reduced employee benefits. In other words, the management and use of financial leverage by enterprises determine the nature of the link between leverage and SDGs (Khalaf et al., 2023b; Al-Kubaisi & Khalaf, 2023). By funding projects that enhance ESG factors, leverage can be a weapon for sustainable development if utilized deliberately and with responsibility. On the other hand, if leverage is not handled responsibly, it can lead to financial and operational risks and weaken the commitment of an organization to the SDGs (Michael et al., 2023). There is a rising tide of momentum towards the idea that financial strategies — including leverage — should be in sync with larger ESG and SDG goals as businesses come to see the value of sustainable finance. Thus, this article puts forward the following hypothesis:

H2: There is a negative relationship between leverage and the SDGs.

Firm size (Natural logarithm of total assets)

Larger total assets can enable companies to invest in sustainable technologies and practices, potentially

positively impacting SDGs related to economic growth (SDG 8), innovation (SDG 9), and environmental sustainability (SDGs 12, 13, 14, 15). More specifically, using programs like ethical sourcing, environmental preservation, and social impact programs, large firms may contribute significantly to the SDGs because of their influence and wealth. In order to solve global problems, these businesses can develop innovative solutions, build stronger communities, and execute thorough sustainability plans (Khalaf, 2022a). Conversely, smaller companies may be agiler and have stronger relationships with their surrounding communities, which could enable them to make more focused contributions to the SDGs that reflect their beliefs (Khalaf & Alajlani, 2021b). When it comes to promoting sustainable practices within their local areas of influence, smaller businesses can be just as influential as bigger ones when it comes to driving change on a global scale. In the end, a company's size determines the extent to which it impacts the SDGs, although businesses of all sizes may make valuable contributions to the global sustainability agenda (Khalaf et al. 2023b). Thus, the third hypothesis can be formulated as follows:

H3: Larger firms can contribute to achieving SDGs.

Growth (Price-to-book ratio)

This ratio reflects a company's market value relative to its book value. A higher ratio may indicate market confidence and potential for growth, which could support economic growth (SDG 8). However, if it reflects overvaluation, it may not be sustainable and could negatively affect financial stability (SDG 17). Therefore, a company's influence on economic, social, and environmental factors grows in direct proportion to its size and success. Positive change can be propelled by growth methods that are in line with SDGs; this transformation can encourage innovation, responsible use of resources, and community development. SDGs like renewable energy, gender equality, and poverty alleviation are advanced by businesses that include sustainable practices in their growth strategies (Khalaf, 2023). On the flip hand, negative outcomes might result from unregulated growth that disregards social and environmental implications, which may hinder the advancement of the SDGs. The task at hand is to turn expansion into a positive force by establishing a balance between financial success sustainability and decent corporate practices (Khalaf & Alajlani, 2021a). Corporations can play a key role in fostering a more sustainable and fair global economy by including SDGs in their growth strategies. This will allow them to create significant and inclusive progress.

H4: A higher growth is linked with more reporting to sustainable development goals.

Profitability

A higher return on assets (ROA) indicates efficient use of assets, which can positively impact economic growth (SDG 8). However, the application of sustainable development practices in line with environmental goals (SDGs 12, 13, 14, 15) should also be considered. Although there is a belief that financial success and the SDGs are mutually exclusive, there is growing recognition that they can benefit each other (Ahmed et al., 2023). Company strategies based on the SDGs benefit society, the environment and long-term profits. Sustainable practices include social responsibility, ethical supply chain management, and resource efficiency, which enhances a company's reputation, consumer loyalty and market access. Investors also view a company's commitment to achieving the SDGs as a sign of its responsible business practices, which can impact its financial performance (Ktit & Khalaf, 2024). The global movement for sustainable development benefits when corporations incorporate sustainability into daily operations to achieve the SDGs and increase their profits.

H5: A higher ROA is positively associated with a company's ability to contribute to economic growth (SDG 8) and align with environmental goals (SDGs 12, 13, 14, 15).

3.3. Model development

In order to investigate the impact of board gender diversity on SDG, based on the previous section, the following model has been developed:

$$SDG_{i,t} = \beta 0 + \beta 1 * Board\ gender\ diversity_{i,t} + \beta 2 * Firm\ size_{\ i,t} + \beta 3 * Growth_{i,t} + \beta 4 * ROA_{i,t} + \beta 5 * Leverage_{i,t} + \varepsilon_{i,t} \quad (1)$$

where, *SDG* is a dummy variable (1 if the company mentioned SDG in their annual report and 0 otherwise); *Board gender diversity* is a percentage of female presence on boards; *Firm size* is the natural logarithm of total assets; *Growth* is measured by the market to book ratio; *ROA* (Profitability) is measured by the ROA ratio; *Leverage* is measured by the debt ratio (total liabilities to total assets ratio).

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

As shown in below Table 2, the standard deviations of females on boards and bank size had high variations. In particular, the variable with the highest variation was female on board, with a standard deviation of 4.598. This implies that GCC banks have different strategies regarding including females on the board of directors. In addition, the mean profitability of GCC banks is 5.9%. Generally, according to Aguilera and Grøgaard (2019), different companies use different business models, significantly affecting the ROA, female on board, size, and leverage. Besides, the financial leveraging may vary depending on the banks' strategies and portfolio diversification (Nguyen et al., 2019).

Table 2. Descriptive statistics

Indicators	*Board gender diversity*	*ROA*	*Firm size*	*Leverage*	*Growth*	*SDG*
Mean	0.025	0.059	21.611	0.355	0.510	0.502
Std. dev.	4.598	0.052	1.109	0.245	0.479	0.428
Min	0.000	-0.031	19.690	0.006	0.356	0
Max	0.327	0.286	24.016	0.878	1.262	1

4.2. Correlation results

The correlation between ROA and SDG has a positive effect. Implying a weak positive correlation between the two. The literature shows a potential correlation between ROA and the SDG because a company's financial performance can be influenced by its sustainability practices and alignment with the SDG. The factors interconnect due to improved efficiency, cost savings, and enhanced brand reputation (Khan et al., 2021). The correlation between females on board (*Board gender diversity*) and SDG has a negative effect. Implying a weak negative correlation between the two. The results supported the information found in the literature. As observed by Alarcón and Cole (2021), having a greater representation of women on corporate boards diversifies perspectives, decision-making, and innovation.

Table 3. Correlation matrix

	ROA	*Board gender diversity*	*Firm size*	*Leverage*	*Growth*	*SDG*
ROA	1					
Board gender diversity	-0.235	1				
Firm size	0.161	-0.067	1			
Leverage	-0.266	0.024	0.138	1		
Growth	0.146	-0.181	0.039	0.067	1	
SDG	0.012	-0.024	0.069	-0.004	0.038	1

In addition, the correlation between firm size and SDG has a positive effect and the correlation between leverage and SDG has a negative effect. The correlation between price-to-book (*Growth)* and SDG has a positive effect. This implies that larger companies and high-growth companies in the GCC are more involved in following the SDGs and visions set by the governments. However, it seems that the higher the leverage then the less the concertation on following the guidelines and principles of SDGs, this might be due to the fact that banks need to service their liabilities and not worry about fulfilling the requirements of SDG.

4.3. Probit regression model

This paper applied the probit regression in order to investigate the impact of board gender diversity on SDGs (Xie et al., 2022; Opić, 2020). The analysis produced an adjusted R-squared of 0.325, implying that ROA, female on board, size, leverage, and price-to-book explained 32.5% of the variations in the predicted probability of achieving the SDG.

According to the analysis, ROA was significant at a 1% significance level (p-value = 0.000). Its coefficient was positive, implying that it impacted SDG positively. ROA and SDG interconnect due to improved efficiency, cost savings, and enhanced brand reputation (Khan et al., 2021). Female on board (*Board gender diversity*) was significant at a 5% significance level, with a positive coefficient, implying that it impacted SDG positively. Having a greater representation of women on corporate boards diversifies perspectives, decision-making, and innovation (Alarcón & Cole, 2021). The size was significant at a 1% significance level, with a positive coefficient, implying that it impacted the SDG positively. The literature noted that the size of an entity can impact its ability to contribute to and address the SDGs through resource allocation, economies of scale, innovation, and market influence (Kwakwa et al., 2021).

Table 4. Probit regression results

Variables	*Coefficient*	*Significance*
ROA	0.235	0.000
Board gender diversity	0.124	0.031
Firm size	0.254	0.000
Leverage	-0.084	0.082
Growth	0.045	0.106
Adjusted R^2	0.325	
Loglikelihood	-749.628	
Chi^2	285.289 (0.000)	

Note: Dependent variable — SDG.

Leverage was significant at a 10% significance level, with a negative coefficient, implying that it impacted SDG negatively. Mutiarani and Siswantoro (2020) observed that leverage can provide access to significant capital, allowing entities to undertake large-scale projects and investments related to SDGs. However, since leverage uses borrowed funds to finance investments and operations, it can have a negative impact on sustainability goals, by creating financial instabilities and income inequality (Mutiarani & Siswantoro, 2020). Also, it can disproportionately affect vulnerable communities. Price-to-book (*Growth*) was significant at 10%, with a positive coefficient, implying that it impacted SDG positively. A reasonable price-to-book ratio influences investors to invest more, providing capital for the company's operations and growth (Kwakwa et al., 2021).

This research examines the influence of board representation of women on reporting of SDGs in the GCC countries. While it reveals important connections, there are still several debatable aspects that need to be addressed. For example, the distinct cultural and socio-economic circumstances of the GCC region might impact the makeup of business boards and the implementation of sustainable practices. There may be disagreement on whether the outcomes are specifically due to gender diversity or more generally influenced by cultural beliefs about gender roles and sustainability. This raises questions about how applicable the results are to other situations.

Similarly, the study's emphasis on quantitative indicators of gender diversity, for instance, the count of women serving on the board, might neglect the qualitative dimensions of diversity, such as the specific roles and impact of female board members. Sceptics may contend that the mere presence of more women on the board does not inherently result in improved SDG reporting unless their level of involvement and decision-making authority is considered.

4.4. Robustness of results

This part focuses on verifying the strength and reliability of our main discoveries concerning the connection between the board gender diversity and the reporting of SDG within the overall framework of the members of the GCC. Our robustness checks are implemented to ascertain the dependability, consistency, and impartiality of our results while minimizing the impact of methodological decisions or special data characteristics.

In order to assess the impact of different model specifications on the accuracy of our results, we utilize an alternative econometric model. At first, we performed our investigation using a probit regression model. To ensure the reliability of our results, we additionally utilized a maximum likelihood estimator (MLE) to address any potential problems linked to endogeneity. This new model offers reliable evidence that strengthens the observed correlation between board gender diversity and SDG reporting, hence validating our earlier findings. The following Table 4 reports the results of the MLE results.

Table 5. Maximum likelihood estimator results

Variables	*Coefficient*	*Significance*
ROA	0.162	0.000
Board gender diversity	0.103	0.000
Firm size	0.171	0.000
Leverage	-0.028	0.052
Growth	0.072	0.048
Adjusted R^2	0.435	
F-statistics	120.658 (0.000)	

Note: Dependent variable — SDG.

The strong correlation between board gender diversity and SDG reporting in GCC corporations provides confidence in the accuracy of our findings.

5. CONCLUSION

In conclusion, this study delved into the critical relationship between board gender diversity and the pursuit of SDGs in the GCC region. The SDGs represent a global commitment to address pressing social, economic, and environmental challenges, and the GCC countries, as rapidly developing nations, are striving to align themselves with these goals to ensure a sustainable future.

The study's findings shed light on several important aspects. First, it identified key characteristics of banks in the GCC region, including factors such as ROA, the presence of females on the board, company size, leverage, and the price-to-book ratio. These characteristics play a pivotal role in influencing the adoption and pursuit of SDGs within GCC banks. The research revealed that ROA, the presence of females on the board, company size, and the price-to-book ratio had a positive impact on the adoption of SDGs. These factors indicate that financial performance, gender diversity, and firm size are significant drivers of sustainable development initiatives within GCC organizations. On the other hand, leverage was found to have a negative impact on the pursuit of SDGs, suggesting that excessive debt may hinder an organization's ability to commit to sustainable practices fully.

The implications of this study are profound for both GCC and other nations striving to align corporate practices with SDGs. It underscores the importance of fostering gender diversity and enhancing financial performance to promote sustainable development. The recommendations derived from this research can guide policymakers, regulators, and corporate leaders in GCC in formulating strategies and policies that facilitate the integration of sustainability principles and SDGs into corporate governance.

Although we made significant efforts to thoroughly and meticulously investigate the influence of board gender diversity on SDG reporting in GCC companies, our study has several limitations that need to be recognized. The analysis relies on publicly accessible data, which may not fully encompass the scope of SDG reporting standards or the intricacies of board gender diversity. The study focuses on a certain time period and may not consider long-term patterns or recent changes in corporate governance and sustainability procedures. The scope of our analysis is centered on the GCC region, which possesses distinct cultural, economic, and legal attributes. Although this study offers interesting insights within its specific context, it is important to note that the findings may not be easily applicable to other regions or nations that have distinct governance systems and cultural views regarding gender diversity and sustainability.

Recognizing these constraints, future investigations could seek to broaden the dataset to encompass privately owned enterprises, lengthen the study duration to encompass more up-to-date patterns, integrate qualitative analyses, and examine supplementary factors that may impact the correlation between board gender diversity and SDG reporting. By overcoming these constraints, future studies can expand upon our findings to achieve a more comprehensive comprehension of the underlying dynamics.

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