

EXPLORING ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AND BANK PERFORMANCE IN THE GULF COOPERATION COUNCIL REGION

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Abstract

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Corporate strategies today are shaped by the increased importance given by companies, investors, and regulators to environmental, social, and governance (ESG) activities. This paper empirically investigated the impact of ESG on the performance of banks in the Gulf Cooperation Council (GCC) region by collecting and analyzing the data of 29 banks located in the six GCC countries — namely the United Arab Emirates (UAE), Kuwait, Qatar, Oman, and Saudi Arabia. It studies data for the period 2010-2022 collected from the Refinitiv Eikon platform. Applying the ordinary least squares (OLS) and panel regression (fixed and random effect) techniques, it examines the impact of ESG on the performance of these banks. The significant Hausman test favored using the fixed effect results. The results suggest that a bank's size positively influences its performance. The larger the bank the more diverse its ESG activities and the better its performance. Additionally, ESG and asset quality have a significant negative correlation to performance, implying a lower asset quality indicates higher loan loss provision and leads to lower financial performance. Finally, the results also suggest banks are overinvesting in ESG to comply with the latest standards set by investors and regulators.

Keywords: ESG, GCC, Performance, Panel Regression, Asset Quality, Loan Loss Provision

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1. INTRODUCTION

Recently, there have been empirical studies to measure the extent companies are strategically using environmental, social, and governance (ESG) activities to measure their corporate performance

and motivate investors to accelerate capital to flow to their companies (Arvidsson & Dumay, 2022).

This relationship between corporate financial performance and ESG or its earlier manifestation — corporate social responsibility (CSR) — has been of academic and corporate interest for a few decades.

As far back as 1985, Aupperle et al. (1985) did an empirical study of the relationship between CSR, financial performance, and risk.

The current importance being given to ESG by investors, customers, and regulators contrasts with the thinking of neoclassical economists who gave primacy to profit maximization and priority to shareholders among their stakeholders (Shakil et al., 2019). In line with this trend and probably sensing an opportunity in 2019, over 2300 investment management firms that managed assets of US\$86 trillion, committed themselves to include ESG disclosure in their investment decisions (El Khoury et al., 2021). This was done under the initiative called Principles for Responsible Investment (PRI) (CFA Institute, 2019).

Several studies on ESG and the financial performance of banks have been conducted in Europe (Bătae et al., 2020; Buallay et al., 2021; Brooks & Oikonomou, 2018); in the USA (Ersoy et al., 2022); in Latin America (Dandaro & Lima, 2022); and in Asia (He, 2022). However, an empirical research gap on this topic exists generally in Asia where there have been very limited studies. This gap widens especially in the Gulf Cooperation Countries (GCC) (He, 2022), where few have concentrated on the banking industry (Ersoy et al., 2022).

The contribution made by this research study is to fill in a small measure the empirical research gaps in an under-researched geographical area and to also verify the theoretical validity of the increased attention given to ESG by investors, consumers, and regulators in terms of real financial performance, as mentioned in the recent work of Khaled et al. (2023). Theoretically, the model we build will also verify the explanation of Landi et al. (2022) that companies that apply ESG principles are expected to improve their profit. This is an area discussed and examined in our model.

Using data collected from sources like Refinitiv Eikon, annual reports of the selected banks in different GCC countries and public, and reports available in the related Stock Exchange of that bank, we have applied an ordinary least squares (OLS) and panel regression (fixed and random effect techniques) similar to the previous studies of Khalaf (2022a) and Khalaf, Awad, and Ahmed (2023).

Overall, this study tries to bridge the research gaps and evaluate the effect of ESG activities on the financial performance of banks operating in the six GCC countries, where ESG adoption is on the rise.

In terms of main findings and contributions, this study has achieved its desired goals by adding a new empirical study related to banks in the GCC. More importantly, the findings have confirmed the existence of a significant relationship between ESG and bank performance within the banks studied in the GCC countries.

The remainder of this paper is constructed as follows. Section 2 reviews selected previous studies. Section 3 provides the sample, model development, and the model used. Then, Section 4 discusses the results and compares them to the recently published evidence. Section 5 concludes our research and suggests future interests in research.

2. LITERATURE REVIEW

ESG first entered business vocabulary in a 2005 presentation called “Who Cares Wins — Connecting Financial Markets to a Changing World”, where the United Nations (UN) Global Compact recommended that financial analysts include ESG factors in research, and build essential investment competence, models, and tools (The Global Compact, 2004). Since then, ESG effectively replaced earlier terms like CSR and sustainable growth.

Empirical studies before 1985 have been inconclusive about the correlation between CSR, corporate financial performance, and risk. Milton Friedman, a neo-classical economist argued that the opportunity cost of CSR activities was a reduced use of resources that could potentially have been allocated for profit maximization, which implied CSR activities harmed financial performance (Friedman, 2007). Greening and Turban (2000) agreed with the idea concluding that CSR activities led to higher costs and so were not in the best interests of stakeholders, as they triggered competitive disadvantages leading to reduced performance by firms. On the other hand, the stakeholder theory view suggested that CSR activities have a positive impact on stakeholder interests (Russo & Perrini, 2010).

A paper published in 2022 used a systematic literature review method of articles published between 2017 to 2021 in 52 journals spread over 39 global publishers. The correlation between ESG and financial performance (FP) was theoretically examined, and the review concluded that when companies make ESG disclosures, they are by nature only focusing on company performance, and so results shed light only on its financial and managerial performance (Fithriyana et al., 2022).

Shakil et al. (2019) were arguably the first ones to investigate the role of ESG practices on the financial performance of banks. Their study conducted in emerging economies explores the effect of the ESG performance of 93 banks operating in emerging markets and the role of ESG activities on financial performance. Using the standardized ESG scores from Refinitiv DataStream, they concluded the existence of a positive association between environmental and social performance in the financial performance of banks in emerging countries. Interestingly, they found the relationship between corporate governance and financial performance insignificant.

In 2022, a study of 505 firms listed on the S&P 500 index from 2009 to 2018 revealed that ESG activities and firms' performance were positively correlated. Using panel regression analysis, 4,869 observations evaluated the firms' performance based on multiple dimensions. The analysis of three dependent, three independent, and four control variables provided an overall result that ESG disclosure positively impacted a firm's performance measures. But, measuring ESG sub-components individually offered mixed results. Most importantly, the study concluded that ESG, CSR, environmental (ENV), and corporate governance (CG) factors tend to be higher in firms that have large assets and higher financial leverage capacity. Finally, it found that the higher the levels of ESG, ENV, CSR, and CG disclosure, the higher the return on assets (ROA) and return on equity (ROE) (Alareeni & Hamdan, 2020).

A study of commercial banks in the USA examining ESG's impact on their stock value over the period 2016–2020, used an unbalanced panel sampling information of 151 banks. To determine the linkage of ESG to performance it combined the accounting measures of ROA and ROE, with its stock-related measures Tobin's Q, price-to-book value, and stock return. While the empirical results revealed no linear relationship of significance, the control variables of capital adequacy ratio, profitability, differences in income, size, and bad loans showed an impact on the stock value of banks that needed further investigation (Ersoy et al., 2022).

Transparency demands by stakeholders have led to the general adoption of ESG reporting globally by firms. A study investigated the relationship between ESG and a bank's operational, financial, and market performance by examining 2,350 observations from 235 banks listed on the stock exchanges located in the European Union for a period of ten years, 2007–2016. The findings inferred a significant positive impact of ESG on a bank's operational, financial, and market performance (Buallay, 2019).

The European transparency study of 2020 used information for the period 2007–2016 from the annual transparency reports of 12 Romanian banks to study ESG's impact on bank performance. The results, of the linear regressions and processing done using Stata software, show that as the ROA or the leverage multiplier increases, the use of ESG as a strategic factor decreases (Nițescu & Cristea, 2020).

A study of 52 countries in Europe done in 2020 employed a statistical comparison of variables that measured the ESG and financial performance of European banks based on three new types of classifications — the geographical location, the functional currency, and cluster analysis of the gross domestic product (GDP) and population of the respective European country. The countries were classified as developed and emerging countries in Europe. Data obtained from Refinitiv's software included 81 banks from developed Europe and 27 banks from emerging Europe. Classification, cluster analysis, and the ANOVA test were run to arrive at the empirical results. The results showed significant differences in financial performance between banks from developed countries and emerging European countries (Bătae et al., 2020).

A study focusing specifically on bank performance examined 882 banks from 80 developed and developing countries covering 11 years since the 2008 financial crisis. The results reinforced that ESG improves banks' performance in developed countries supporting the value creation theory. However, the authors conclude that bankers must resist taking the easy route of just trying to improve their ESG performance and expecting to improve their overall performance (Buallay et al., 2021).

A paper published in 2021 attempts to go beyond the usual studies by assessing bank environmental, social, and governance performance (ESGP) as it relates to corporate financial performance (CFP). A panel estimation method on the financial information of banks listed in STOXX Europe 600, between 2008 and 2019, showed a positive and statistically significant relationship between the ESGP and value-based metrics, VBM (EVA spread) and no relationship with accounted-based performance (La Torre et al., 2021).

Nizam et al. (2019) conducted a unique global study of ESG performances in the banking sector related to 'access' to finance and 'environmental' financing. It examined 713 banks from 75 countries for the years 2013–2015. The bank-specific dependent variable used was ROE and the independent variables were access to finance shown by the weight of underserved regions and loans under green financing. Control variables were asset quality, management efficiency, liquidity, business models, and loan-to-deposit growth. The macroeconomic variables used were GDP growth and inflation. Results clearly showed the bank's ROE when controlled for access-to-finance was significant as was environmental financing. The results were positive in financial performance from loan growth and quality of asset management. Finally, the size of the banks also had an impact with banks having total assets below US\$2.07 billion showing a significantly positive impact of access to finance on their ROE (Nizam et al., 2019).

In conclusion, our literature review indicates a variety of approaches that have been taken to study and establish the relationship between ESG activities and the performance of companies and banks. Based on this our study has chosen to investigate banks in the GCC where while ESG adoption is growing there are only a few empirical study reports currently available and to evaluate the value of ESG activities in banks operating in the GCC countries.

3. RESEARCH METHODOLOGY

3.1. Sample used

The data has been collected from several sources; starting from the Refinitiv Eikon platform, the annual reports of the selected banks in different GCC markets, and any missing data collected from the reports available in the respective Stock Market Exchange of that bank. The final sample included a total of 29 banks in 6 countries: 3 banks from Kuwait, 5 Qatari Banks, 9 Saudi banks, 7 banks listed on the Emirati market, and five banks in Oman. This empirical investigation covered 13 years (2010–2022) to analyze the impact of ESG on banks' performance in the GCC region. This study covered 44% of the banks listed on the GCC listed stock exchanges; specifically, 37 banks were excluded due to the problem of not having data for more than five years. The study applied the OLS and the panel regression (fixed and random effect techniques) to empirically investigate the model developed in the next subsection.

3.2. Model development

3.2.1. Dependent variable: Return on total assets (ROA)

Doğan and Yildiz (2023) and Khalaf and Alajlani (2021) stated that return on assets (ROA) is a proxy of profitability and Jigeer and Koroleva (2023) confirmed that ROA provides how efficient the management has been in using its assets to produce earning. Specifically, they argued that such ratios highlight if the managers have effectively provided quality loans to maximize their profits. In addition, Punagi et al. (2022) and Sutrisno (2020)

argued that when the bank reports a higher ROA that can be interpreted as good performance and managers have been successful in managing their portfolios by well-designed diversification. This paper follows Khalaf (2022b) and Koroleva et al. (2021) in using ROA as a measure of profitability and is measured by dividing net income by total assets.

3.2.2. Independent variables

ESG score

Recently, in a study performed by Khaled et al. (2023), they stated that international investors allow great attention to firms that incorporate ESG principles in their operations. In other words, investors do expect that companies which comply with the ESG values and principles are likely to sustain and grow and this should lead to better performance and development in the long run. This has been in line with the argument provided by Egorova et al. (2022). For example, Landi et al. (2022) explained that companies that apply the ESG principles are expected to improve their profits by either reducing their cost or including positive net present value projects in their portfolios and this should affect the profitability positively. Also, many empirical studies enriched the literature by stating that following and complying with ESG principles should affect the performance of complied firms positively and a great demand for their shares is expected by international investors in their activities and this in turn will help companies to better development and sustainability in their future. Consequently, this paper hypothesizes that:

H1: There is a positive relation between the bank's ESG and profitability.

Asset quality

Several studies have used the loan loss provisions ratio to total loans as a proxy for loan quality such as Buallay et al. (2020) and Yuen et al. (2022). They argued that the loan-loss provisions ratio is considered as a degree of the bank's asset quality. More specifically, the lower the ratio specifies a better asset quality; accordingly, the bank performance should be enhanced by better profitability. Though the previous argument stands solid for several researchers, mixed results have been reported by different researchers; where irrelevancy is reported by Yuen et al. (2022) and Buallay et al. (2020) revealing a significant negative

relationship between the bank's asset quality and financial performance. So, this empirical paper hypothesizes that:

H2: There is a relation between the bank's asset quality and its performance.

Bank size

Following Menicucci and Paolucci (2023), the bank's size has been included in the empirical model and measured as the natural logarithm of total assets and comes in line with Yuen et al. (2022). Many researchers investigated the impact of size on companies' performance and concluded mixed results; for example, Nizam et al. (2019) and Velte (2017). More specifically, Yuen et al. (2022) found a significant positive effect of size on 487 banks from 51 different countries. Also, Buallay et al. (2020) reported a positive impact on the MENA banks, though La Torre et al. (2021) demonstrated a negative result with the performance. In addition, Menicucci and Paolucci (2023) supported the irrelevancy results as the size of the firm does not affect the profitability and this contradicted the results reported by Platonova et al. (2018). Based on the previous discussion this empirical study hypothesizes that:

H3: There is a relation between the bank size and its ROA.

Real GDP growth rate

Many empirical studies argued the validity of including the GDP growth rate of banks as a control variable when examining the performance (El Khoury et al., 2021; Demirgüç-Kunt & Huizinga, 1999). Following Bikker and Hu (2002), this paper uses the GDP per capita growth rate as a proxy. Several studies also included the GDP growth rate as a variable that might affect the profitability of banks in different markets such as Flamini et al. (2009) and El Khoury et al. (2021). In addition, Yuen et al. (2022) reported a significant positive relation between the GDP and bank's financial performance. On the other hand, Buallay (2019) argued that the European banks exposed a negative relationship between GDP and bank performance. Also, Menicucci and Paolucci (2023) concluded that the Italian banks found no relation between GDP and financial performance. Hereafter, this paper hypothesizes that:

H4: There is a relation between the real GDP growth rate and the bank performance.

Table 1. Model variables

Variable	Abbreviation	Measurement	Reference
Dependent variable			
Bank performance	ROA	Net income divided by average total assets	Doğan and Yildiz (2023), Khalaf and Alajlani (2021)
Independent variables			
ESG score	ESG	ESG overall score obtained from the Refinitiv Eikon platform	La Torre et al. (2021), Khaled et al. (2023)
Asset quality	AQ	Total end-of-year loan-loss provisions divided by end-of-year total loans	Yuen et al. (2022), Buallay et al. (2020)
Control variables			
Real GDP growth rate	RGDP	Year-on-year change in real GDP growth rate	Koroleva et al. (2022), Menicucci and Paolucci (2023)
Bank size	BS	Natural logarithm of bank's end-of-year total assets	Khalaf et al. (2023b), Nizam et al. (2019)

Note: Table 1 presents the model variables discussed in the section to enhance readability and explain the measurement and references of the variables.

3.3. Model developed

Based on the previous section, this empirical paper has developed the following model to empirically investigate the impact of ESG and asset quality on the bank financial performance in the GCC countries. Previous studies by Aqabna et al. (2023) and Awad et al. (2022) have implemented the generalized method of moments (GMM) and the OLS regression to investigate the determinants of the bank performance; nevertheless, following Khalaf, Awad, and Nasr (2023) and Khalaf, Awad, and Ahmed (2023), this paper applied the OLS and panel regression (fixed and random effect techniques) to examine the relation between ESG and asset quality with the bank performance in the GCC countries through the below model:

$$ROA_{t,i} = \beta_0 + \beta_1 ESG_{t,i} + \beta_2 AQ_{t,i} + \beta_3 \Delta RGDP_{t,i} + \beta_4 BS_{t,i} + \varepsilon \quad (1)$$

where,

ROA is a measure of the bank performance.

ESG is measured by a score extracted from the Refinitiv Eikon platform.

AQ is the asset quality measured by the loan loss provision ratio.

$\Delta RGDP$ is the GDP growth rate.

BS is the bank size measured by the natural logarithm of total assets.

ε is the error term.

4. RESULTS AND ANALYSIS

4.1. Descriptive analysis

Table 2 provides the details of the selected variables included in the previous model, specifically, the mean, standard deviation, minimum, and maximum of the reported ratios.

Table 2. Descriptive statistics

Variables	Mean	Std. Dev.	Min	Max
<i>ROA</i>	0.096	0.057	-0.015	0.254
<i>ESG score</i>	40.885	16.498	4.598	83.254
<i>Loan loss rate (Asset quality)</i>	0.059	0.024	0.043	0.185
<i>Bank size (Log total asset)</i>	12.832	1.576	7.946	17.745
<i>Real GDP growth rate</i>	0.086	0.675	-0.089	0.132

Based on Table 2, there are several interesting points that the GCC banks possess between 2010 and 2022. Firstly, the *ESG score* has a mean value of 40.885 and this suggests that several banks have complied with the ESG principles, and this is interesting for international investors, and this comes in line with the reported descriptive statistics of El Khoury et al. (2021) who investigated the Middle East North Africa and Turkey region (MENAT). In addition, the *ESG score* has the highest standard deviation which implies that there is a huge difference between the GCC banks in applying the ESG values and adhering to the importance of such principles. Secondly, the minimum value of the loan loss provision ratio is 0.043 which suggests

that the Gulf banks have a high *asset quality*, and this comes in line with Al-Matari (2023). Finally, the second highest standard deviation is for the *bank size* (1.576) which suggests that the GCC banks differ in their size and this confirms the importance of controlling for size in the GCC region (Galletta & Mazzù, 2023; Khalaf, 2022a).

4.2. Correlation analysis

Table 3 provides the correlation coefficients between the variables justified by the previous studies to be included in our model. Some comments can be raised as follows.

Table 3. Correlation matrix

Variables	<i>ROA</i>	<i>ESG</i>	<i>Asset quality</i>	<i>Bank size</i>	<i>GDP growth rate</i>
<i>ROA</i>	1				
<i>ESG score</i>	0.063***	1			
<i>Asset quality</i>	-0.057***	-0.064**	1		
<i>Bank size</i>	0.091***	0.390**	0.035***	1	
<i>Real GDP growth rate</i>	0.386	0.183	-0.066	0.112*	1

Note: ***, **, and * show statistical significance at 1%, 5%, and 10%, respectively.

ROA has a positive correlation with the *ESG score* and this suggests that the GCC banks comply with the ESG standards to enhance their profitability. This result comes in line with the argument provided by Alareeni and Hamdan (2020) who stated that when firms apply and comply with the ESG standards this should be appreciated by the international investor and affect their profitability certainly in an upward direction. Furthermore, *bank size* has also a positive correlation with profitability suggesting that large banks have easier access to the market and their

ability to accept risk is higher than smaller banks and this affects the profitability positively. As discussed by Yuen et al. (2022), larger banks have better portfolio diversification and this in turn might affect the economies of scale and consequently have better performance. Finally, the positive correlation between the *bank size* and the *ESG score* suggests that larger banks comply with the ESG standards in the GCC region, and this might provide a tempting investing opportunity for international investors, and this might have an effect on the performance and share price favorably (Al-Jalalma et al., 2020).

4.3. Panel regression results and analysis

Table 4 shows the results for the four variables selected based on the previous studies: *ESG score*, *bank size*, *asset quality*, and *real GDP growth rate* on the dependent variable (*ROA*) for the banks operating in the GCC countries. The OLS, random

effect, and fixed effect models are used to estimate the coefficients of the variables. Table 4 provides the results of the model developed in the previous section and is based on the significant result of the Hausman test; the fixed effect results are the favorable results to be analyzed (Khalaf, 2022b).

Table 4. Regression results (fixed effects)

Variables	OLS	Random effect	Fixed effect	VIF	1/VIF
<i>ESG score</i>	-0.032***	-0.055***	-0.071***	1.35	0.741
<i>Asset quality</i>	-0.319*	-0.279**	-0.429***	1.28	0.781
<i>Bank size</i>	0.176***	0.106***	0.193***	1.31	0.763
<i>Real GDP growth rate</i>	0.785	0.812	0.772	1.25	0.800
Constant	-0.684***	-0.538***	-0.589***		
F-statistic	37.785***	73.454***	96.884***		
R-squared	0.389	0.408	0.489		
Hausman test (χ^2)			49.925		
p-value (χ^2)			0.000		

Note: ***, **, and * show statistical significance at 1%, 5%, and 10%, respectively.

As evident in Table 4, the variance inflation factor (VIF) of all the variables is lower than 5, indicating that there is no multicollinearity problem among the variables (Gujarati & Porter, 2009). This result is consistent with several studies such as Rahman and Saima (2018) and Masum and Khan (2019). In addition, the results state that the *ESG score* affects the profitability of the GCC banks negatively and this comes in line with the overinvestment theory as suggested by He (2022). This implies that GCC banks that followed a policy of adopting and incorporating the ESG standards affected their profitability negatively because the cost of the implementation was higher than the expected reward (Buallay et al., 2021). This result contradicts several empirical studies such as Shakil et al. (2019) and El Khoury et al. (2021) who argued that the higher the compliance with the ESG standards the better the expected performance since such firms will be in demand for international investors. Also, Batae et al. (2020) and Dandaro and Lima (2022) argued that firms that comply with the ESG standards should have the resources and enough capital to invest in positive net present value projects and have better diversification in their portfolios which should affect the profitability of such firms positively.

The *asset quality* measured by the loan loss provision ratio has a significant negative impact on the bank's profitability, indicating that in GCC countries banks with better *asset quality* are more profitable. In other words, a lower loan loss provision ratio implies better quality of loan provided and this should increase the profitability of banks. This confirms the findings of previous studies such as He (2022). Furthermore, *bank size* has a significant positive impact on the GCC banks' profitability, signifying that larger banks have a high customer base and diversify their portfolio in a better way than small banks. This comes in line with Alareeni and Hamdan (2020) who argued that large firms have more assets, high-qualified employees, and higher efficiency; and are expected to have a higher performance. Finally, the *real GDP growth rate* variable did not show any significant relationship with bank profitability. As discussed by Diaye et al. (2022), a possibility might be

the variability in the short and long run, for example, ESG performance does not have a significant impact on GDP per capita in the short run, however in the long run the ESG performance of countries has a positive and significant impact on GDP per capita. This factor could have useful implications for banks operating in stable, volatile, and emerging economies.

5. CONCLUSION

While there have been several empirical studies on ESG and bank performance globally, in Asia, it has been very low (He, 2022). So, this study provides a rare empirical study of banks operating in GCC countries. Unlike earlier studies that depended on OLS regression (Awad et al., 2022), GMM (Aqabna et al., 2023), or generalized least squares and structural pathways analysis (Dang et al., 2019), this paper uses a panel regression (fixed and random effect techniques) model to determine which one is more robust.

Using the findings of the fixed effects regression model as per the result of the Hausman test, we conclude that the *ESG score* and *asset quality* have a significant negative impact on bank profitability. An insight that should interest banks operating in the GCC countries and elsewhere. GCC banks are incurring a high cost to implement the ESG standards as per the requirements of the capital markets, regulators, and investors; thus, reducing profitability. Similarly, banks with a high percentage of nonperforming loans tend to have higher loan loss provisions and consequently less profitability. Besides, the results also showed a significant positive relation between bank size and bank profitability. Larger GCC banks have the ability to extend more loans and credit facilities thanks to their large customer base and financial capability.

With regards to the *ESG score's* relationships, as we only investigated *ESG's* combined score in this paper, consequently, the findings of this study are limited. The quality of the results and conclusions can be improved in a future study by individually investigating the impact of each of the three ESG pillars — environment, society, and governance. Moreover, future studies can still encompass other

bank-related metrics and macroeconomic factors that drive the bank's profitability. Consequently, researchers are also advised to investigate further the impact of ESG and other factors on bank profitability in the GCC countries on a standalone basis along with other countries and regions.

Since ESG disclosure by banks operating in GCC is still not mandatory, we had to exclude some

banks due to the lack of usable data. To overcome this limitation, future studies can consider adding more variables to explain the variation in bank performance. Overall, despite the limitations, the main findings confirm the significance of the relationship between ESG and bank performance in GCC countries and further studies as mentioned earlier will help get better conclusions.

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