




## Corporate social responsibility practices and enterprise risk management of the GCC Islamic banks

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### ABSTRACT

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This study intends to investigate the impact of CSR practices on ERM implementation, focusing on Islamic banks operating in Gulf Cooperation Council (GCC) countries. Following the banking industry's collapse during the 2008 financial crisis, there has been a notable rise in the enactment and literature of Corporate Social Responsibility (CSR). Although the influence of CSR practices on performance, trust, and reputation has been extensively researched, limited research studies have examined their impact on enterprise risk management (ERM). The study uses secondary data obtained from the annual reports of 23 Islamic banks between 2011 and 2020. CSR practices and ERM implementations were scored using content analysis. Using panel regression techniques, we find a significant positive relationship between CSR practices and ERM implementation for listed Islamic banks over the sample period. The relationship remains intact across two distinct ERM measures and various estimation methods. The findings of the study contribute to the literature by offering valuable empirical evidence of the effect of corporate social responsibility practices on enterprise risk management implementation in the GCC Islamic banks. The study suggests that executives, policymakers, and regulators of Islamic banks in the GCC should support and endorse socially related initiatives to aid in the successful implementation of ERM.

**Contribution/Originality:** This study makes an important contribution to existing literature by exploring the impact of CSR practices on ERM implementation and providing a new context for Islamic banks operating in GCC countries.

## 1. INTRODUCTION

Due to the complexity of risks and the evolving regulatory environment, enterprise risk management (ERM) is considered an effective tool for risk management (Gordon, Loeb, & Tseng, 2009; Lechner & Gatzert, 2018). The role of ERM is to oversee an organisation's risk portfolio by combining various measures to address business risks holistically, rather than focusing on individual risks. Hence, ERM is termed "strategic," "integrated," or "holistic" risk management, with a focus on collective risk management (Hoyt & Liebenberg, 2011). ERM includes all types of business risks in a unified ERM system that can enhance corporate performance (Nair, Purohit, & Choudhary, 2014; Soliman, Mukhtar, & Shubita, 2018; Yang, Ishtiaq, & Anwar, 2018). Furthermore, ERM shifts the risk management focus from passive to a more proactive strategic approach, hence facilitating top management oversight of risk

portfolios (Liebenberg & Hoyt, 2003). Companies use ERM best practices to connect the company's policies, costs, accounting, guidelines, and long-term projections in order to effectively regulate assets and interests (Cohen, Krishnamoorthy, & Wright, 2017).

Value creation is an important agenda for organisations to engage in CSR and incorporate it into their management strategy, especially after the 2008 financial crises, as noted by Cornett, Erhemjamts, and Tehranian (2016) and Chen, Hung, and Lee (2018). According to Harjoto and Laksmana (2018) research, it has been suggested that CSR practices aid companies in managing risks. They believe that CSR effectively balances resources by reducing excessive risk-taking (which involves high resource allocations to shareholders) and excessive risk-avoiding (which involves high resource allocations to non-investing stakeholders). Researchers have found that CSR practices can lower idiosyncratic risk by improving stakeholder satisfaction, reducing uncertainty, and sending positive market signals (Chen et al., 2018; Kim, Li, & Li, 2014). Godfrey, Merrill, and Hansen (2009) argue that engaging in CSR helps raise the required capital and create goodwill that can work as insurance in the face of adverse events. However, firms' CSR has been underscored due to higher business risk arising from social issues, which resulted in an increase in operating costs and shareholders' investment (Goss & Roberts, 2011; Nizam, Ng, Dewandaru, Nagayev, & Nkoba, 2019; Utz, 2018). Therefore, ERM is becoming increasingly relevant to CSR practices.

According to prior studies, a greater level of CSR practice and reporting mitigates stock price crash risk (Utz, 2018; Wu & Hu, 2019); decreases a firm's cost of equity capital (Berry-Stölzle & Xu, 2018; Liang, Chang, & Shao, 2018; Thuy, Khuong, Canh, & Liem, 2022); increases firm value (Albuquerque, Koskinen, & Zhang, 2019; Devie, Liman, Tarigan, & Jie, 2020; Harjoto & Laksmana, 2018); promotes employee well-being and hence supports psychosocial risk management (Bondy, Matten, & Moon, 2004; Jain, Leka, & Zwetsloot, 2011); reduces other social and operational risks (Starks, 2009). As a result, researchers propose that CSR practices demonstrate how companies manage social and financial risks, thereby improving the holistic view of risk management and its effectiveness to enhance their sustainability value (Hummel, Laun, & Krauss, 2021; Liu, 2019). We argue that CSR serves as a mechanism to assist businesses in identifying, managing, and mitigating risks. Consequently, we think that improving the degree of alignment between CSR and the company's ERM structure will enhance CSR's contribution to ERM effectiveness. The significance of CSR practices in ERM is widely acknowledged. However, Liu (2019) argues that the literature currently available on the impact of CSR practices on ERM is insufficient. In particular, there are not many studies about how CSR practices affect ERM in the banking industry, especially in Islamic banks, where the risk level is high (Abu Hussain & Al-Ajmi, 2012; Ariffin & Kassim, 2011).

The present investigation centres on the GCC Islamic banks due to various factors. The GCC nations hold a prominent global standing in the financial industry, with unique religious business principles and Islamic regulations (Shariah) governing the Islamic banking domain (Elamer, Ntim, & Abdou, 2020). Second, Islamic banks from the GCC hold about 42.3% of all global Islamic bank assets (IFSB, 2019). The dominant position of the Islamic banks' assets is an important characteristic that enables an established and productive system of Islamic banking and finance (Al-Obaidan, 2008). Thirdly, globalisation has increased the risk that Islamic institutions face (Ariffin & Kassim, 2011; Elgharbawy, 2020). Moreover, risk management is more difficult for Islamic institutions than for other types of financial institutions (Ariffin & Kassim, 2011; IFSB, 2005). Accordingly, the unique background and significance of these countries provide an opportunity for examination of the relationship between CSR practices and ERM implementation from an Islamic perspective. To the best of our knowledge, this is the first study of its nature conducted in such settings. Examining the influence of CSR practices on the Islamic banks' ERM would help to make informed decisions, safeguard stakeholders' interests, and boost their risk management effectiveness.

The sample for the study has been selected from Islamic banks within the GCC countries from 2011 to 2020. Study findings suggest a noteworthy relationship between CSR practices and ERM implementation. In addition, the results are consistent across different estimation methods. The results contribute to the governance literature

on the role of CSR practices in improving ERM implementation effectiveness. The results also aid in enhancing the awareness of managers, regulators, and policymakers about the importance of CSR practices as a strategic mechanism for companies to manage and mitigate risk associated with stakeholders' concerns.

The subsequent sections of this paper are staged in the following way: Section 2 discusses relevant literature and presents the study hypothesis. Section 3 details the methodology employed. In Section 4, the empirical finding is discussed. Section 5 concludes with an overview of contributions, limitations, and potential areas of future research.

## **2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

An effective risk management framework does not only aim to prevent monetary losses; rather, it guarantees that the bank attains its financial outcomes with a significant level of dependability and uniformity, thereby securing the financial institution's robustness, steadiness, and endurance (Mokni, Echchabi, & Rajhi, 2015). To achieve this goal, organisations move towards ERM as a holistic approach to counter “downside risk” and “upside risk” through managing various risks facing a business and taking advantage of the different opportunities that can generate higher earnings (Callahan & Soileau, 2017; Gordon et al., 2009). ERM makes an important contribution to the organisation's sustainable development through holistic management of the firm's risks, including CSR-related risks (Liu, 2019; Shad & Lai, 2019).

Proactive engagement with business stakeholders on social issues is crucial for the business. Hence, social risk management practices must be thoroughly incorporated into corporate strategy (Kytte & Ruggie, 2005). The assumption of these claims' essence by stakeholders and corporations has led to the growing importance of CSR activities and risk management (Bosch-Badia, Montllor-Serrats, & Tarrazon-Rodon, 2014). According to stakeholder theory, in the decision-making process, managers must consider stakeholders' interests and safeguard them by engaging in CSR initiatives to address the concerns of various stakeholders. Furthermore, due to the self-regulatory mechanisms within each society, there might be differences in the effect of risk management convictions in an ERM system (Liu, 2019). Therefore, firms' leaders could consider CSR practices as a strategic tool to boost the firms ERM philosophy and offer opportunities for the ERM system to address various risks associated with their stakeholders. As Devie et al. (2020) state, the ability to utilise CSR for the purpose of preventing and reducing risk plays a crucial role in firms' survival and success.

Previous research indicates that firms that engage in CSR activities consistently and over a prolonged period are more inclined to accumulate enough moral capital by earning the trust and goodwill of their stakeholders (Godfrey et al., 2009; Kao, Shiu, & Lin, 2016; Kytte & Ruggie, 2005; Lu, Liu, & Falkenberg, 2022). Several past studies have suggested that CSR acts as an insurance device against stock return volatility during the financial crisis (Chen et al., 2018; Jo & Na, 2012; Kao et al., 2016; Shiu & Yang, 2017). Furthermore, certain studies have demonstrated that increased levels of CSR engagement enhance creditworthiness and reduce firms' equity costs (El Ghouli, Guedhami, Kwok, & Mishra, 2011; Fatemi, Fooladi, & Tehranian, 2015; Thuy et al., 2022). Zhao, Song, and Chen (2016) reported that high CSR performance leads to lower operational risk. Jain et al. (2011) state that corporate leaders view CSR as a tactic to enhance workplace well-being. This involves providing psychosocial risk management opportunities to address concerns that arise from evolving work environments, which can affect the health and safety of employees. In the same line, research has shown that CSR practices promote stronger work engagement, employees' satisfaction, organizational commitment, productivity, and retention (Onkila & Sarna, 2022). Therefore, firms that adopt better CSR practices are better positioned to reduce risk exposures effectively.

Moreover, CSR activities help managers with risk management by solving agency problems through strengthening relationships with stakeholders and managing risks resulting from their concerns. Studies have shown that CSR practices reduce information asymmetry and agency costs (Arora & Lodhia, 2017; Cao, Nguyen, Nguyen, & Nguyen, 2023; Kuo, Lin, & Chien, 2021). The authors of Jo and Na (2012) argue that organizations that

practice CSR are more likely to manage risk effectively. Due to its ability to mitigate stakeholder conflicts, reputational risks, operational risks, return uncertainty, social risks, and environmental risks, CSR impacts on firms provide evidence supporting effective risk management adaptation. In addition, a study by Lu, Liu, and Osiyevskyy (2022) found a positive relationship between CSR performance and ERM practices in the form of risk reduction strategies. Therefore, as seen through stakeholder and agency theories, insufficient CSR activity hinders the effectiveness of ERM.

Additionally, according to Ahmed (2009), Islamic banks face particular risks due to the availability of various financing options through profit-loss sharing and the occurrence of particular risks related to Shariah compliance. Islamic banks are constantly striving to offer their stakeholders a comfortable and safe investment environment, which is the essence of risk management (Al-Tamimi & Al-Mazrooei, 2007; Al Rahahleh, Ishaq Bhatti, & Najuna Misman, 2019). Islamic ethics consider CSR as a means of improving reputation, image, and mission accomplishment while also meeting the needs of stakeholders. Given these reasons, Islamic banks need to have a complete understanding of how the utilisation of CSR practices can aid in the effectiveness of their ERM system. Thus, the study put forth the following hypothesis:

*H: CSR practice is positively related to Islamic banks' ERM implementation.*

### 3. METHODOLOGY

#### 3.1. Data

The study aims to evaluate how CSR practices affect Islamic banks' ERM implementation. It draws its sample from Islamic banks operating in the GCC region from 2011 to 2020. The study utilised secondary data obtained from the bank's annual reports and the DataStream database to collect the study variables' data. The sample was drawn based on the listing status of the banks on GCC stock exchanges and the availability of data for the study period. Table 1 provides information about the selected 23 Islamic banks, with a total of 221 bank-year observations.

Table 1. Sample selection procedure.

Sample selection	Yearly observations
Initial sample with Islamic banks in the GCC	270
(-) Number of observations with unlisted banks	(40)
(-) Number of observations with missing data	(9)
Final total bank-year observations	221

#### 3.2. Variables Measurements

##### 3.2.1. Corporate Social Responsibility (CSR) Practices

The CSR practices variable includes all CSR-related practices implemented by Islamic banks. The variable is operationalised through the CSR index, which was formulated based on prior research on Islamic CSR in adherence to Islamic principles and the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) standard No.7 of CSR disclosure for Islamic financial institutions (AAOIFI, 2010; Haniffa & Hudaib, 2007; Platonova, Asutay, Dixon, & Mohammad, 2018). To assess banks' CSR practices, a CSR index is used to analyze the social characteristics disclosed in their annual reports based on the model developed by Platonova et al. (2018). The Islamic CSR index has six distinct dimensions, including (i) vision and mission, (ii) products and services, (iii) commitment to employees, (iv) commitment to debtors, (v) zakah, charity, and benevolent funding, and (vi) commitment to society. To sum up, there are 56 different attributed related to CSR practices in the framework that was built for content analysis. These dimensions of Islamic banks were evaluated through the utilisation of the attributes outlined in Appendix A. Thus, these items help evaluate the extent of CSR activities in the annual reports of a sample of Islamic banks.

### 3.2.2. Enterprise Risk Management (ERM)

The study utilised the ERM measure employed by Florio and Leoni (2017), which assessed the implementation of the ERM system using six indicators. The sophistication of ERM is assessed based on its capability of integrating risk management (RM) and conducting risk assessment (RA) procedures. The integration of RM into corporate governance (CG) involves the analysis of three variables. These variables are used to determine whether a company has an International Compliance Officer (ICO) or Chief Risk Officer (CRO), whether a risk committee (RC) exists, and how frequently the RC reports to the board of directors (BOD) (Florio & Leoni, 2017). Three additional variables were included in analysing the risk assessment procedure: RA frequency indicated how frequently the assessment would be performed, RA level indicated the level of the assessment for the entire company or a specific business unit, and RA method specified the methodology by which the risk would be assessed, whether it is qualitative or quantitative. The overall score of ERM sophistication was thus calculated in two steps. First, the user considered six binary variables for each ERM component separately (Appendix B). Then, we computed a comprehensive score by adding all variables together to evaluate the implementation of a firm's ERM system.

### 3.2.3. Control Variables

To enhance the reliability of the study's results, several control variables were included. The study included bank-specific characteristics, which are bank size, age, and leverage (Adelina, Trilaksono, & Rohi-Mone, 2020; Baxter, Bedard, Hoitash, & Yezegel, 2013; Gatzert & Martin, 2015; Lu et al., 2022; Naseem, Shahzad, Asim, Rehman, & Nawaz, 2020). Moreover, corporate governance variables include board size, Shariah supervisory board (SSB), risk committee size, risk committee meetings, risk committee independence, risk committee multi-membership, and risk committee expert (Adelina et al., 2020; Aljughaiman & Salama, 2019; Malik, Zaman, & Buckby, 2020). Table 2 provides information on the measurements of variables in the study.

**Table 2.** The measurements of variables.

Variable	Acronym	Measurement	Source
Dependent variable			
Enterprise risk management Implementation	ERM	The comprehensive ERM score is adopted from Florio and Leoni (2017).	Annual report
Independent variables			
Corporate social Responsibility practices	CSR	CSR index measures the level of CSR practices by Islamic banks following Platonova et al. (2018).	Annual report
Control variables			
Bank size	Size	The natural logarithm of the total asset value.	Data stream & annual report
Bank age	Age	The duration of time since the bank was established.	
Leverage	Lev	Total debt to total assets ratio.	
Board size	BOD size	The number of board members.	
Sharia supervisory board size	SSB size	The number of Shariah supervisory board members.	
Risk committee size	RC size	The number of risk committee members.	
Risk committee meetings	RC meetings	The frequency of annual risk committee meetings.	
Risk committee independence	RC independence	Ratio of independent members to the total number of members in risk committee.	
Risk committee multi-membership	RC membership	Ratio of risk committee members who also serve on other board-level committees.	
Risk committee experts	RC expert	Ratio of risk committee members with accounting, finance, or risk management qualifications.	

3.3. Study Model

In order to investigate CSR practices and ERM implementation, we used the following regression model:

$$ERM_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 Lev_{it} + \beta_5 BOD\ Size_{it} + \beta_6 SSB\ Size_{it} + \beta_7 RC\ Size_{it} + \beta_8 RC\ Meetings_{it} + \beta_9 RC\ Independence_{it} + \beta_{10} RC\ Membership_{it} + \beta_{11} RC\ Expert_{it} + Year_{it} + \varepsilon_{it}$$

In the model, the dependent variable ERM implementation was regressed on the independent variable CSR practices, along with the control variables. Table 2 provides further details about variable definitions. The model was run using fixed-effects panel regression.

4. RESULTS AND DISCUSSIONS

4.1. Descriptive Statistics and Correlations

Table 3 displays the descriptive statistics of the variables used in the current study. As indicated in the table, the average score of overall CSR practices is 0.58, with a minimum value of 0.38 and a maximum value of 0.78. This means that the GCC Islamic banks practice 58% of the CSR items on the index. This demonstrates that Islamic banks use socially responsible activities to enhance their relationships with stakeholders, including customers, investors, employees, and debtors, thereby bridging the communication gap and improving their overall image. These findings are similar to those of Platonova et al. (2018) and Rehman et al. (2020). In terms of the dependent variable, descriptive statistics of ERM implementation show that the average ERM score is around 4, indicating that the average ERM implementation among Islamic banks in the GCC is 67%, indicating a moderate level of ERM implementation by GCC Islamic banks. The minimum observed value is 1, while the maximum observed value is 6. The findings show a significant variation in the adoption of ERM by GCC Islamic banks.

The Pearson Correlation Matrix of the variables is shown in Table 4. At the 1% level, there is a considerable positive link between the implementation of ERM and CSR practices. Furthermore, the correlation coefficients between the independent and control variables are below 0.70. In general, there is no multicollinearity among the variables, as supported by the Variance Inflation Factor test results. Table 5 displays the VIF values (<5) for all the independent variables.

Table 3. Descriptive statistics.

Variables	Obs.	Mean	Std. dev.	Min.	Max.	Skew.	Kurt.
CSR	221	0.583	0.090	0.375	0.782	-0.097	2.693
ERM	221	3.986	1.460	1.000	6.000	-0.451	2.190
Size	221	10.080	0.474	8.820	11.100	-0.233	2.502
Age	221	27.050	15.665	2.000	63.000	0.087	1.789
Lev	221	7.414	2.773	1.732	17.743	0.982	5.229
BOD size	221	9.516	2.095	5.000	16.000	0.785	3.906
SSB size	221	3.932	0.968	3.000	6.000	0.347	1.584
RC size	221	3.403	1.571	0.000	7.000	-0.415	3.750
RC meetings	221	3.606	2.350	0.000	10.000	0.124	2.879
RC independence	221	0.275	0.356	0.000	1.000	0.851	2.194
RC membership	221	0.622	0.382	0.000	1.000	-0.556	1.836
RC expert	221	0.294	0.258	0.000	1.000	0.341	2.096

Table 4. Matrix of correlations.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CSR	1.000											
(2) ERM	0.589	1.000										
(3) Size	0.278	0.305	1.000									
(4) Age	0.265	0.166	0.501	1.000								
(5) Lev	0.133	0.221	0.171	0.228	1.000							
(6) BOD size	0.323	0.300	0.245	0.225	0.176	1.000						
(7) SSB size	0.310	0.102	0.226	0.135	0.186	0.414	1.000					
(8) RC size	0.112	0.189	0.160	0.021	0.223	0.086	0.141	1.000				
(9) RC meetings	0.336	0.392	0.167	0.140	0.251	0.141	0.028	0.468	1.000			
(10) RC independence	0.151	0.267	-0.175	-0.076	0.177	0.300	0.347	0.215	0.105	1.000		
(11) RC membership	0.109	0.176	0.166	0.128	0.095	-0.088	-0.054	0.395	0.542	0.090	1.000	
(12) RC expert	0.149	0.123	0.201	0.208	0.139	-0.095	0.006	0.286	0.412	0.049	0.529	1.000

Table 5. Variance inflation factor.

Variables	VIF	1/VIF
RC meetings	1.933	0.517
RC membership	1.827	0.547
Size	1.637	0.611
RC expert	1.524	0.656
BOD size	1.501	0.666
Age	1.47	0.68
RC size	1.458	0.686
SSB size	1.452	0.689
RC independence	1.444	0.693
CSR	1.384	0.723
Lev	1.189	0.841
Mean VIF	1.529	-

#### 4.2. Empirical Results

We relied on the Hausman test to ascertain the most effective approach for the research model, following prior literature (Alsheikh & Alsheikh, 2023; Nguyen, 2021). According to the findings, the fixed effects estimator, which addresses the bias resulting from omitted variables (Alsheikh, Hassan, Mohd-Saleh, Bin Abdullah, & Alsheikh, 2021), ought to be utilised for testing the research hypothesis. The regression results for the model on the impact of CSR practices on the ERM implementation of the sample Islamic banks are provided in Table 6. The R-squared value of the regression model is 0.724, suggesting that CSR practices account for 72% of the variations in ERM. The association between the level of CSR practices and ERM implementation is positive with a coefficient of 3.305 and significant at the 1% level. The increased value in CSR practices, according to the coefficient, follows a 3.305 basis point increase in the effectiveness of Islamic banks' ERM implementation levels in the GCC region. Thus, the results corroborate our hypothesis, which posited a significant and positive correlation between the implementation of ERM and CSR practices. The results indicate that improved CSR performance enhances the implementation of ERM. The findings are similar to those by Lu et al. (2022), who argue that companies with better CSR practices are more inclined towards implementing integrated RM practices. Specifically, the results demonstrate that CSR practices assist GCC Islamic banks in mitigating risks and enhancing ERM development, which provides valuable insights for developing countries.

Table 6. Regression of the relationship between CSR practices and ERM.

ERM	Coef.	St. err.	t-value	p-value	[95% conf. interval]
CSR	3.305***	0.801	4.13	0.000	1.644 4.966
Size	-0.812	0.835	-0.97	0.341	-2.543 0.918
Age	0.302***	0.046	6.53	0.000	0.206 0.398
Lev	-0.025	0.041	-0.60	0.552	-0.11 0.06
BOD size	0.028	0.067	0.41	0.685	-0.111 0.166
SSB size	0.041	0.108	0.38	0.705	-0.182 0.265
RC size	0.000	0.072	-0.00	0.997	-0.149 0.148
RC meetings	0.065**	0.03	2.19	0.039	0.003 0.127
RC independence	-0.054	0.35	-0.16	0.878	-0.78 0.671
RC membership	-0.139	0.27	-0.51	0.613	-0.699 0.422
RC expert	-0.676**	0.279	-2.42	0.024	-1.253 -0.098
Constant	1.767	7.758	0.23	0.822	-14.321 17.856
Mean dependent var.	3.986		SD dependent var.		1.460
R-squared	0.724		Number of obs.		221
F-test	56.387		Prob > F		0.000
Akaike crit. (AIC)	410.170		Bayesian crit. (BIC)		474.735

Note: \*\*\* p<.01, \*\* p<.05.



### 4.3. Additional Tests

We conducted several robustness checks to evaluate the strength of our primary findings presented in Table 6. Firstly, we used two alternative measures of ERM, namely ERM average and ERM advancement. The ERM average was determined by dividing the ERM score by the total number of ERM indicators. On the other hand, ERM advancement was calculated using the natural logarithm of the overall ERM score. The findings of Table 7 indicated that CSR practices exerted a positive and significant effect on both alternative metrics of ERM implementation. These findings provided evidence in support of the study's main finding (Table 6). Secondly, we applied pooled ordinary least squares (OLS) and random effect models for the primary model of the study. On the basis of estimates, Table 8 shows a noteworthy correlation between CSR practices and ERM implementation. The findings presented in Table 8 were consistent with the initial finding that was presented in Table 6. In general, the supplementary tests validated the primary discovery of this study and supported the hypothesis of the study.

**Table 7.** Regression of the relationship between CSR Practices and ERM using two different ERM measures.

Dependent variable	ERM average	ERM_Log
CSR	0.556*** (4.159)	0.565*** (3.954)
Size	-0.137 (-0.982)	-0.045 (-0.352)
Age	0.049*** (6.103)	0.039*** (4.825)
Lev	-0.005 (-0.663)	-0.003 (-0.401)
BOD size	0.005 (0.448)	0.001 (0.176)
SSB size	0.006 (0.322)	0.000 (0.024)
RC size	0.004 (0.287)	-0.007 (-0.624)
RC meetings	0.010* (1.964)	0.011** (2.601)
RC independence	-0.001 (-0.022)	-0.041 (-0.724)
RC membership	-0.035 (-0.737)	0.002 (0.049)
RC expert	-0.100** (-2.125)	-0.082 (-1.700)
_cons	0.341 (0.264)	-0.393 (-0.336)
Observations	221	221
R-squared	0.712	0.673

Note: t-values are in parentheses.  
\*\*\* p<.01, \*\* p<.05, \* p<.1.

## 5. CONCLUSION

In this study, we investigate the influence of CSR practices on ERM implementation among a sample of 23 listed GCC Islamic banks from 2011 to 2020. This study addresses a gap in the literature by investigating the link between CSR practices and Islamic bank ERM, with a particular focus on developing economies and GCC settings. We used a panel data regression analysis to find that there is a strong positive link between Islamic banks' CSR practices and the level of ERM implementation. In addition, we used alternative measures, specifically ERM average and ERM advancement, and employed different estimation models (OLS model and random-effect model). The findings indicated a consistent conclusion.

**Table 8.** Regressions of the relationship between CSR Practices and ERM using pooled (OLS) and random effect analysis (RE).

Dependent variable	OLS ERM score	RE ERM score
CSR	6.467*** (6.038)	3.724*** (4.311)
Size	0.681*** (3.841)	0.022 (0.053)
Age	-0.006 (-1.470)	0.004 (0.345)
Lev	0.005 (0.268)	-0.036 (-1.085)
BOD size	0.043 (0.925)	0.026 (0.369)
SSB size	-0.205** (-2.259)	0.036 (0.346)
RC size	-0.041 (-0.733)	-0.004 (-0.061)
RC meetings	0.058* (1.664)	0.062** (2.006)
RC independence	0.800*** (3.977)	0.050 (0.152)
RC membership	-0.137 (-0.566)	-0.178 (-0.669)
RC expert	-0.824*** (-2.665)	-0.714** (-2.507)
_cons	-7.057*** (-4.533)	0.089 (0.024)
Observations	221	221
Pseudo R <sup>2</sup>	0.5873	0.5189

Note: t-values are in parentheses.  
 \*\*\* p<.01, \*\* p<.05, \* p<.1.

The study offered several theoretical contributions and held significant implications for regulators, policymakers, and managers in Islamic institutions. Firstly, the study contributed to the existing literature on Islamic CSR practices by presenting empirical evidence of the influence of CSR practices on Islamic banks' ERM implementation. The focus of the paper was on CSR practices as a tool to enhance the effectiveness of ERM implementation in Islamic banks. Secondly, a theoretical contribution has been made by emphasising how CSR practices affect the ERM implementation efficiency of Islamic banks, employing stakeholder theory and agency theory. The stakeholder theory emphasised the role of CSR practices in improving companies' relationships with stakeholders, while the agency theory emphasised the effectiveness of CSR as a mechanism for reducing information asymmetry among stakeholders. Thirdly, it enables regulators and policymakers to enhance the development of frameworks or sets of guidelines that assist banks in better integrating CSR and ERM. In addition, regulators encouraged the adoption of CSR to enhance the usefulness of ERM. Finally, understanding the function and significance of CSR practices in ERM advancement may assist managers. ERM proved to be useful for management in maximising their market position, enhancing their operations, and ensuring compliance with regulatory requirements. Besides, Islamic banks could potentially decrease their financial risks by drawing in investors who acknowledge signals of risk management integration. These signals provided an understanding of the management's endeavours to minimise corporate risk, such as social and Shariah compliance risks.

Future studies may extend our analysis to other contexts. Since our analysis was confined to Islamic banks in GCC countries, we could not guarantee that the evidence from other periods, cultures, and countries would be the same. By analysing other Islamic banking countries or regions, further research could expand the sample to provide a broader perspective. Expanding the research scope to other Islamic financial institutions or comparing two countries from two different regions is also possible while maintaining the same variables. Furthermore, the study examined the general impact of CSR on the implementation of banking ERM, which set the stage for the

subsequent examination of particular CSR elements in forthcoming research. Finally, it is worth noting that although this study draws upon secondary data from annual reports, future research endeavours may seek to investigate the risk management implications of CSR by utilising primary data obtained through surveys and interviews.

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## APPENDICES

## Appendix A. The CSR practices index.

Main dimensions	Sub-dimensions items
Mission and vision	<p>Commitments to operating in accordance with Shariah principles/Values.</p> <p>Commitments to offering returns in accordance with Shariah principles.</p> <p>Current directions for providing services tailored to the needs of Muslims community.</p> <p>Commitments to delivering contractual obligations with diverse stakeholders through contract statements (uqud).</p> <p>Future directions for serving Muslim community demands.</p> <p>Commitments to only conduct permissible financing transactions.</p> <p>Commitments to meet contracts through contract statements (uquds).</p> <p>Customer appreciation.</p> <p>Place a focus on maximizing returns to stakeholders.</p>
Products and services	<p>Avoid involvement with non-permissible activities.</p> <p>Percentage of profit derived from non-permissible activities.</p> <p>Reasons for engaging in non-permissible activities.</p> <p>Dealing with non-permissible activities.</p> <p>Launched of new products.</p> <p>New products have been ex ante approved by SSB.</p> <p>New product approval based on Shariah principles.</p> <p>A glossary or definition to products.</p> <p>Investment activities (General).</p> <p>Financing activities (General).</p>
Zakah, charity and benevolent	<p>Bank obligated to pay zakah</p> <p>The sum of money paid as zakah</p> <p>Sources of zakah</p> <p>The utilisation and beneficiaries of zakah</p> <p>Balance of zakah undistributed-amount.</p> <p>Reasons for the zakah balance.</p> <p>The SSB attestation confirms that the sources and uses of zakah comply with Shariah principles.</p> <p>The SSB attestation confirms that the computation of zakah complies with Shariah principles.</p> <p>Amount of zakah to be paid by individuals.</p> <p>Charity sources (Sadaqa).</p> <p>Charity uses (Sadaqa).</p> <p>Qard al-hassan sources.</p> <p>Qard al-hassan uses.</p> <p>Providing qard al-hassan policies.</p> <p>Non-payment of qard al-hassan policy.</p>
Commitment towards employees	<p>Appreciation of employees.</p> <p>Employees number.</p> <p>A policy of equal opportunity.</p> <p>Providing competitive salaries.</p> <p>Employee well-being.</p> <p>Training: Shariah awareness.</p> <p>Training: other.</p> <p>Training: student or recruitment scheme.</p> <p>Training: monetary.</p> <p>Employee rewards.</p>
Commitment towards debtors	<p>Debt policy</p> <p>Debt product attitude</p> <p>Debts written off-Amount.</p> <p>Type of lending activities in general.</p> <p>Type of lending activities in detail.</p>
Commitment towards community	<p>Branches for women.</p> <p>Offering job opportunities.</p> <p>Providing support to organizations that contribute to society.</p> <p>Participation in government social programs.</p> <p>Sponsorship of community activities.</p> <p>Commitment to social roles.</p> <p>Conferences related to Islamic economics and other educational topics</p>

Source: Platonova et al. (2018).

## Appendix B. ERM scoring items.

Variables	Definition
1.Chief risk officer	Dummy variable values 1 when the company has appointed a chief risk officer or an ICR officer, and 0 otherwise.
2.Risk committee	Dummy variable values 1 when the company has established a separate risk committee or ICR committee, and 0 otherwise.
3.Risk committee to board of director	Dummy variable values 1 when the risk management CG body, such as the specific risk committee, ICR committee, or IC committee, reports to the BOD at least twice annually, and 0 otherwise.
4.Risk assessment frequency	Dummy variable values 1 when the company conducts risk assessments at least twice annually, and 0 otherwise.
5.Risk assessment level	Dummy variable values 1 when risk assessment is conducted at a smaller scale than the whole company (for example, by business unit or function), and 0 otherwise.
6.Risk assessment method	Dummy variable values 1 when the company uses both qualitative and quantitative approaches to risk assessment, and 0 otherwise.

Source: Florio and Leoni (2017).

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