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Article

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ESG AND ESG CONTROVERSIES ON FIRM RISKS IN EMERGING MARKETS: THE MODERATING ROLES OF SHARĪʿAH SCREENING AND LEGAL ORIGIN

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ABSTRACT

Purpose — This study examines the impact of environmental, social and governance (ESG) and ESG controversies (ESGC) on firm risks, and it proposes the moderating roles of Sharīʿah screening and legal origins over the relationship.

Design/Methodology/Approach — The research data included 522 firms from 16 emerging markets over the period 2013–2021 (4,689 observations). The data (i.e., ESG, financial data, etc.) were obtained from the Refinitiv database. The panel regression model was used to examine the relationships of the variables studied.

Findings — The study finds that ESG is negatively related to risks while ESGC are positively related to risks. Further, this study finds that both Sharīʿah screening and the legal origins play significant moderating roles in reducing risks via their influence on ESG and ESGC. The evidence is consistent with the observation that Sharīʿah-compliant firms are more inclined to engage in ESG activities.

Originality/Value — This study is unique as it is an attempt to examine the moderating role of Sharīʿah screening and the legal environment in influencing the impact of ESG and ESGC on firm risks in an emerging market situation.

Practical Implications — The findings may be used as a basis for all governments in emerging markets to introduce and strengthen their ESG strategies in all aspects of firms' operations. Additionally, in relation to developing global Islamic finance, policymakers need to be mindful of the importance of the Sharīʿah-ESG linkage and imbed this relationship in their strategic development blueprints.

Research Limitations/Implications — The findings suggest that more aggressive engagement in ESG activities can benefit firms through their risk-mitigating effects. Furthermore, the evidence indicates the positive impact of Sharīʿah screening in mitigating risks via ESG and corporate controversies, lending credibility for firms to be considered Sharīʿah compliant.

Keywords — Corporate controversy, ESG, Idiosyncratic risk, Legal origins, Sharīʿah screening, Systematic risk, Total risk

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INTRODUCTION

In recent years, environmental, social and governance (ESG) practices have been widely adopted around the world, particularly in developed countries. ESG refers to practices adopted by firms that manage their operational impact on the environment and society and endorse good governance principles in their pursuit of corporate sustainability (Jung & Yoo, 2023). Corporate sustainability refers to the extent to which a firm simultaneously considers social responsibilities and environmental protection to create competitive advantages and long-term value for stakeholders (Hawn *et al.*, 2018; Lin *et al.*, 2022). This means corporate sustainability will have a direct impact on the quality of stakeholders' lives by reducing the negative impacts of a firm's operations on the society and the environment (Manning *et al.*, 2019). Hence, ESG practices are likely to align with social needs and better management of relationships with corporate stakeholders. Despite firms' increased involvement in ESG, the corporate world also suffers from what is known as ESG controversies (ESGC).

ESGC comprises the negative issues related to ESG, such as environmental pollution, abusive labour practices, unhealthy foods or products, and bad management practices (Deegan, 2017). This indicates the corporation's failure to fulfil their obligations, suggesting firms might have ESG and ESGC simultaneously.

A review of the literature indicates that scholars have primarily focused on how ESG affects financial performance (e.g., Li *et al.*, 2018; Lee & Isa, 2024), firm risk (e.g., Hassan *et al.*, 2021), and cost of debt (e.g., Eliwa *et al.*, 2021), whereas the impact of ESGC has received scant attention from scholars (Treepongkaruna *et al.*, 2022). Moreover, these studies mainly focus on the effect of ESG in developed markets (Boubakri *et al.*, 2021), while studies focusing on emerging markets are still lacking (Anita *et al.*, 2023).

Previous studies highlight that responsible business practices result in reducing firm risks through better stakeholder relations (e.g., Nguyen & Nguyen, 2015; Chollet & Sandwidi, 2018). While these studies focus on the effects of corporate social responsibility (CSR), the influence of ESGC is little investigated. In this context, Galletta and Mazzu (2023) find that banks with fewer controversies have less risk-taking. ESGC may be conceptualised as a conflicting force to ESG, giving rise to negative stakeholder relationships and consequently increasing firm risks. ESGC are undesirable events such as environmental and business ethics controversies reflected in the media which affect firms' systematic and idiosyncratic risks. Becchetti *et al.* (2015) argue that corporate social activities only impact idiosyncratic risk, due to this activity being firm-specific. Meanwhile, Farah *et al.* (2021) find that corporate social activities reduce the firm's systematic risk. Given these contradictions, more studies need to be conducted, especially those relating ESG and ESGC to the three types of risk: idiosyncratic risk, systematic risk, and total risk.

From the institutional theory perspective, Harjoto *et al.* (2021) suggest that corporate acts of social irresponsibility increase risk due to violations of both formal (regulations, laws, etc.) and informal constraints (customs, codes of conduct, etc.). Khanna and Palepu (2011) view the lack of formal rules in emerging countries as forcing the stakeholders to depend on informal constraints. La Porta *et al.* (2008) state that a country's legal system affects country-level institutions and firm-level contracting environments. Drawing from the institutional theory, it can be argued that the effect of ESG and ESGC on firm risks varies across countries' legal systems. This study extends the corporate social irresponsibility literature by focusing on the link between ESGC and firm risks. The study argues that ESGC can cause severe reputational damage to firms, diminishing stakeholders' relationships and increasing volatility of the stock

price, thus increasing firm risks. On the other hand, ESG practices have the potential to reduce the risks of the firm (Benlemlih & Girerd-Potin, 2017; Shakil, 2021).

At the same time, the Islamic finance literature, particularly on Sharīʿah screening and Sharīʿah compliance, is expanding. Williams and Zinkin (2010) and Elghuweel *et al.* (2017) opine that Sharīʿah laws have considerable resemblance with traditional thinking and moral values. However, studies on ESG rarely extend the analysis to Sharīʿah-compliant firms (Lee & Isa, 2024; Hassan *et al*., 2021), let alone studies on ESGC and Sharīʿah screening. Sharīʿah-compliant firms are those companies that comply with Sharīʿah principles; and because of this, according to Durand *et al.* (2013), these firms exhibit lower risk. Furthermore, Sharīʿah-compliant firms also have a lower level of leverage compared to Sharīʿah non-compliant firms (Hassan *et al.*, 2021). In this study, it is argued that Sharīʿah screening has an influential role in firm risks, and it may also moderate the relationship between ESGC and firm risks.

Evidence from previous studies related to environmental and sustainability issues carried out in developed markets may be less relevant for emerging markets (Anita *et al.*, 2023). Unlike developed markets, emerging markets face obstacles such as weak standards, institutions and legal infrastructure (Chapple & Moon, 2005; Anita *et al.*, 2023). Martins (2022) states that companies from emerging countries are expected to have different reasons to invest in ESG. First, prior studies (e.g., La Porta *et al.*, 1998) suggest that the level of investor protection is lower in emerging countries. Second, institutions and rules about social and environmental investments are weaker and less developed, markets are less efficient, corporate practices are more opaque, and relationships are perceived as more corrupt (Kaufmann *et al.*, 2011; Witt *et al.*, 2018).

The objectives of this study are first, to examine the impact of ESG and ESGC on firm risks (total, idiosyncratic, and systematic) in emerging markets; and second, to examine the moderating roles of Sharīʿah screening and legal origins over these relationships. This study contributes as follows. First, this study focuses exclusively on emerging markets; hence, it brings new evidence on the issue of ESG, corporate controversies and risks faced by firms in emerging countries. Second, this study brings in Islamic finance into corporate sustainability and risk issues and presents evidence of the positive impact of Sharīʿah screening on mitigating risk via ESG and corporate controversies. Third, this study presents evidence on the moderating role of the legal system in influencing the ESG-risk and ESGC-risk relationships. Specifically, it is shown that the civil law system plays a significant moderating role in reducing risks through ESG and ESGC.

This paper is organised as follows. The next section discusses the theoretical background and hypotheses development, followed by discussions on data and methodology. Then the results of the study are presented and discussed. The last section concludes the study and presents implications and suggestions for further studies.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

ESG, ESGC and Firm Risks

Currently, corporate involvement in ESG initiatives has played a central role in corporate decision-making and strategies. An ESG strategy is an organised approach that incorporates a company's ESG practices to achieve a long-term business sustainability objectives. Corporations are increasingly aware that their long-term survival depends on their ability to gain support from their various stakeholders. One way to do this is to operate businesses with long-term strategies that do not have any negative impact on the society or the environment. In this way, ESG

practices may be used as an instrument to earn customer loyalty while at the same time minimising costs and maximising financial performance. According to Huang (2021), ESG factors are a major element of firm strategies concerning maintaining and developing the firm's social licence, mitigating and managing risks, and building relationships with related stakeholders. The literature shows that the nexus between ESG, ESGC and firm risks is not limited to a single theory; rather, various theories offer insight into understanding these relationships. For this purpose, this study draws from three theories, which are the legitimacy theory, the stakeholder theory, and the institutional theory, to underlie the study's hypotheses.

Stakeholder Theory

Freeman's (1984) stakeholder theory views that firms need to consider all stakeholder interests when pursuing their goals because each individual can affect or be affected by firms' operations. According to the stakeholder theory, demands from stakeholders can influence firms' decisions on their ESG engagements in a way that solves conflicts between stakeholders and firms, which will eventually result in reduced risks (Farah *et al.*, 2021). There have been many studies relating ESG with firm performance, but the association between ESG and risks has remained largely unexplored (Farah *et al.*, 2021). Investors may perceive firms with higher ESG as being less prone to social crises and having a better future positioning to comply with more stringent regulations. In this sense, higher ESG activities will reduce firm risks through reduced financial and operating risks and environmental risks (Sharfman & Fernando, 2008). Further, based on the stakeholder theory, ESG activities may mitigate risks due to firms' response to the expectations of stakeholders, which leads to increased stakeholder loyalty (Nirino *et al.*, 2022). The ability to create loyalty among stakeholders decreases firm risks. Similar conclusions are also made by Sassen *et al.* (2016), Benlemlih and Girerd-Potin (2017), and Shakil (2021).

On the contrary, the link between corporate controversies and risks remained mostly unknown (Shakil, 2021). Aouadi and Marsat (2018) state that ESGC raises stakeholders' doubt on the firm's reputation, resulting in lower credibility. According to the stakeholder theory, stakeholders can establish good relationships with firms due to firms' ESG initiatives; on the other hand, stakeholders can also become effective forces that discipline firms that are involved in controversies. Mishra and Modi (2013) use the stakeholder theory to explain that corporate social responsibility (CSR) would reduce risks while corporate social irresponsibility would increase risks. The stakeholder theory conceptualises ESGC as a conflicting force to ESG that leads to negative stakeholder relationships and produces negative effects in the form of negative publicity, financial losses, financial risk, and so on (Lange & Washburn, 2012; Lee & Isa, 2024).

Legitimacy Theory

Based on the legitimacy theory, Deegan (2009) states that companies must continuously ensure that the society perceives them as functioning within its norms. Legitimacy is a generalised assumption that firms' actions are desirable within some social norms, beliefs and values (Elsbach & Sutton, 1992; Schiemann & Tietmeyer, 2022). The legitimacy theory suggests that firms' goals need to be in line with the expectations of the society in which they operate. Engagement in ESG practices conveys information about the level of firms' legitimacy and helps firms improve their public image. Suchman (1995) mentions that as ESG awareness in the society continues to grow, companies continue to engage in ESG initiatives in order to strengthen the appropriateness of their actions within a given set of norms, regulations, beliefs and values that are established by all stakeholders. Cho *et al.* (2015) indicate that companies with

greater ESG practices are not only devoted to improving relationships with stakeholders but to assuring their legitimacy as well. This can translate into corporate sustainability and lower risk.

On the other hand, firms with ESGC would experience a damaging effect on reputation and destruction of accumulated trust, which can seriously threaten a firm's legitimacy. ESGC events such as oil spills and other environmental events can endanger the wellbeing of communities and the environment and thus result in the undermining of the support of stakeholders, including investors. Kolbel *et al.* (2017) indicate that ESGC would have the effect of increasing financial risks.

Institutional Theory

Another theoretical approach explaining the nexus between ESG, ESGC and firm risks is the institutional theory (North, 1990, 1991). This theory suggests that the firms' success depends on the institutional framework in which they operate (Harjoto *et al.*, 2021). North (1990) states that institutions consist of both formal rules (regulations, legal law, etc.) and informal constraints (codes of conduct, trust, etc.). These formal rules and informal constraints are required by businesses for their operations and can help to reduce costs and spread risks for investors (North, 1991). Hence, this will affect firm risks. Baldini *et al.* (2018) and Ahmed and Uddin (2018) state that differences in market rules and regulations may lead to differences in firms' ESG practices. For instance, in the United States, firms are conducting ESG activities based on their discretion and good intentions rather than being compelled by regulations (Matten & Moon, 2008), whereas in countries with heavily regulated institutional environments, firms' ESG activities have to comply with these regulations. Galbreath (2013), Kaufmann and Lafarre (2021), and Rahi *et al.* (2023) provide support that institutional setting, to some extent, influences firms' ESG performance. Hence, the impact of ESG engagements on firms' performance and risk is dependent on the institutional setting of the firms.

Regarding corporate controversies, Harjoto *et al.* (2021) state that corporate social irresponsibility or ESGC, represents firm actions that disregard formal rules and informal constraints. Following Harjoto *et al.* (2021), this study suggests that the investors' responses to ESGC may depend on the institutional environment in which the firm operates. Since there is a great possibility that ESGC will lead to undesirable effects, it will increase firms' risks.

Based on the above discussions, this study formulates the following hypotheses:

H1a: ESG practices decrease firm risks.

H1b: ESGC increase firm risks.

The Moderating Effects of ESGC

Based on the theoretical arguments mentioned previously, firms with controversial corporate issues undermine their good relationships with stakeholders. Negative market news not only damages the firm's reputation and stakeholder relationships but also has the potential to increase firm risks. As a result, firms may engage in ESG due to the pressure exerted by stakeholders. Based on the legitimacy theory, firms may engage in 'symbolic' ESG to positively influence stakeholders' perception of corporate social expectations rather than to reduce environmental and social damage (Li *et al.*, 2019; Brammer & Pavellin, 2006). Li *et al.* (2019) state that corporate controversy may induce firms to engage in corporate sustainable activities. They also state that controversies often put firms' reputation at risk; thus, managers may engage in increased CSR activities to show that they are doing something good and regain their legitimacy among stakeholders. That being the case, it can be hypothesised that when firms are facing

controversies, they tend to be more aggressive in their ESG activities. This tends to indicate that ESG activities become a positive function of ESGC. This idea is consistent with those of Aouadi and Marsat (2018), Nirino *et al.* (2021), and Lee and Isa (2024). Because of this relationship, this study proposes that ESGC plays a moderating role on the ESG-risk relationship. Thus, the following hypothesis is proposed:
H2: ESGC positively moderates the negative ESG-risk relationship.

The Moderating Effect of Sharīʿah Screening

Despite the growing literature in Islamic finance, research on Sharīʿah screening and ESG is scarce (Hassan *et al.*, 2023). Sharīʿah screening is a process to identify Sharīʿah-compliant firms. This study uses Sharīʿah screening of the MSCI World Islamic Index, which applies across all countries. The MSCI Sharīʿah screening involves two criteria: business activity screening and financial screening. Within business activity screening, companies are not allowed to directly derive more than 5 per cent of their revenue from industries prohibited by Islamic law, which include alcohol, tobacco, cannabis, pork, interest-based financial services, weaponry, gambling, music, hotel, cinema and adult entertainment. Under financial screening, firms are not allowed to carry conventional debt, or cash plus interest-bearing securities, or cash plus account receivables in excess of 33 per cent of total assets. A firm is deemed to be Sharīʿah compliant when both criteria are fulfilled. According to Williams and Zinkin (2010), there are no conflicts between Sharīʿah principles and ESG practices. Qoyum *et al.* (2022) find that Sharīʿah-compliant firms have better ESG compared to Sharīʿah non-compliant firms. Sharīʿah-compliant firms also need to avoid investing in excessively risky projects. Durand *et al.* (2013) and Cheong (2021) find that firms that are Sharīʿah compliant have lower risk.

Ali and Al-Owaihan (2008) state that Sharīʿah principles also strongly emphasise transparency towards stakeholders. Through transparent operations, Sharīʿah-compliant firms are able to show lower fraudulent accounting and better earnings management and forecasting of errors (Alsaadi *et al.*, 2017). Further, Sharīʿah-compliant firms are strongly connected with business ethics. Charfeddine *et al.* (2016) stress that both Sharīʿah screening and ESG focus on ethical business practices. Further, Erragragui and Revelli (2016) state that Sharīʿah screening is associated with social and environmental sustainability aspects. The discussions seem to point out that Sharīʿah-compliant firms are more inclined to have a greater involvement in ESG compared to Sharīʿah non-compliant firms. Therefore, it can be hypothesised that Sharīʿah screening would have a negative moderating (risk-reducing) effect on the negative ESG-risk relationship. In a similar vein, this study argues that Sharīʿah screening would also have a negative moderating effect on the positive ESGC-risk relationship. Therefore, the following hypotheses are proposed:
H3a: Sharīʿah screening negatively moderates the negative ESG-risk relationship.
H3b: Sharīʿah screening negatively moderates the positive ESGC-risk relationship.

The Moderating Effect of Legal Origins

The institutional theory emphasises the importance of legal laws, rules and regulations, constitutions, etc., in shaping firms' operations and their inclination towards involvement in ESG activities (North, 1991). A country's legal system falls under one of two categories: if it originates from the civil law system it is referred to as practising a civil law legal system, whereas if it originates from the common law system it is referred to as practising the common law legal system (La Porta *et al.*, 1998). Countries with civil law legal origins are known to be

more inclined towards fulfilling their various stakeholders' interests, not just those of shareholders. This orientation naturally paves the way for engagement in ESG activities. Kim *et al.* (2015), Jo *et al.* (2016) and Becchetti *et al.* (2020) find that, on average, CSR scores of companies operating in civil law countries are significantly greater than those in common law countries. On the other hand, La Porta *et al.* (2008) state that countries with common law legal origins tend to be shareholder-oriented. Liang and Renneboog (2017) and Harjoto *et al.* (2021) indicate that firms in common law countries are more shareholder-oriented and favour shareholder protection. This tends to suggest that firms in common law countries are less open to ESG practices.

The above discussions tend to indicate that a country's legal system has an impact on the extent of firm engagement in ESG activities (DasGupta & Roy, 2023). Correspondingly, it can be argued that the legal system also has an impact on ESGC events. Benlemlih and Girerd-Potin (2017) state that the negative relationship between CSR and firm risks is stronger in civil law countries (stakeholder-oriented countries) than in common law countries. Since it is expected that firms in the civil law system are more inclined to engage in ESG practices and reduce risk, they are also more prone to ESGC events. Thus, the legal origins can moderate the negative ESG-risk relationship as well as the positive ESGC-risk relationship. Consequently, this study formulates the following hypotheses:

H4a: Civil law legal system negatively moderates the negative ESG-risk relationship.
H4b: Civil law legal system negatively moderates the positive ESGC-risk relationship.

DATA AND METHODOLOGY

Data

For this study, the list of emerging markets is taken from the MSCI website. ESG and ESGC data are obtained from the Refinitiv Eikon database. The firm-level financial data are obtained from Refinitiv Datastream. All emerging markets based on the MSCI classification that have the required data, i.e. ESG, ESGC and financial data, in the database are included. The final sample excluded financial firms and firms with missing values. Markets that have less than five firms are also excluded. The final sample consists of 522 firms from 16 countries. This selection procedure allows us to obtain a balanced panel sample. The final sample consists of 4,698 firm-year observations over the period 2013–2021. The firms are then cross-checked with the list of the MSCI World Islamic Index to determine the Sharīʿah-compliance status of the company.

Table 1 presents the distribution of the final sample by country, legal origin, and industry type. Panel A shows that most emerging markets have a civil law system. Sharīʿah-compliant firms seem to be outnumbered by Sharīʿah non-compliant firms in most countries. The largest representations are from China (16.67%), South Africa (13.22%), and India (10.15%). Panel B shows that the industry with the greatest sample is metal and mining (11.88%), food and beverage (9.77%), and oil and gas (7.66%). Industries with the highest average total assets values are industrial, and oil and gas.

Regression Variables

Dependent Variables

Following Chollet and Sandwidi (2018), and Hassan *et al.* (2021), this study uses three measures of firm risk. These are:

1. Total risk: This refers to stock price volatility. It is measured by the standard deviation of monthly returns for the previous twelve months.

2. Systematic risk: The firm's beta of a fiscal year is estimated using the market model. Specifically, monthly stock returns are regressed against the local market index for the preceding twelve-month period.
3. Idiosyncratic risk: This risk reflects variation in stock returns due to firm-specific forces, unexplained by the systematic risk. Idiosyncratic risk is the standard deviation of the residuals from the market model.

Table 1: Sample Description by Country, Legal Origin, Sharīʿah Compliance and Industry

	Panel A: Firm Status				Panel B: Average Total Assets (in USD million)			
	No. of Obs.	**%**	**Sharīʿah-Compliant**	**Sharīʿah Non-Compliant**	**Industry**	**No. of Obs.**	**%**	**Average Total Assets**
Civil Law					Metals and Mining	62	11.88	14,010
China	87	16.67	13	74	Food and beverage	51	9.77	6,885
South Korea	51	9.77	19	32	Oil and gas	40	7.66	57,064
Taiwan	51	9.77	12	39	Electricity	38	7.28	22,769
Brazil	49	9.39	3	46	Telecommunications	34	6.51	11,508
Colombia	32	6.13	5	27	Tech. hardware and software	34	6.51	22,120
Russia	24	4.60	0	24	Transportation	28	5.36	14,466
Thailand	17	3.26	3	14	Automobiles and parts	26	4.98	30,825
Chile	16	3.06	4	12	Industrials	23	4.41	59,304
Turkey	16	3.06	4	12	Consumer goods	23	4.41	3,878
Poland	15	2.87	3	12	Travel and leisure	22	4.21	9,605
Indonesia	10	1.92	5	5	Chemicals	21	4.02	9,797
Philippines	7	1.34	1	6	Pharmaceuticals	19	3.64	5,666
Greece	6	1.15	0	6	Constructions and materials	31	5.94	10,935
Subtotal	**381**	**72.99**	**72**	**309**	Electronic equipment	18	3.45	13,980
					General retailer	15	2.87	5,710
Common Law					Consumer services	10	1.92	4,327
South Africa	69	13.22	9	60	Manufacturing	8	1.53	16,546
India	53	10.15	27	26	Healthcare	7	1.34	3,123
Malaysia	19	3.64	14	5	Shipping	6	1.15	17,476
Subtotal	**141**	**27.01**	**50**	**91**	Forestry and paper	6	1.15	9,651
Total	**522**	**100**	**122**	**400**	**Total**	**522**	**100**	

Source: Authors' own

Independent Variables

The main independent variables are ESG, ESGC, Sharīʿah dummy and civil law dummy variables, and their interaction terms.

The ESG and ESGC scores are obtained from the Refinitiv Eikon database. The ESG score is calculated by averaging the individual scores of ESG in the database. The scores range from 0 to 100, where 0 indicates no commitment to ESG and 100 indicates the highest level of ESG performance.

The ESGC score is based on 23 ESG controversial topics in the database. These include violations of human rights, the environment, working conditions, consumers, and so on

(Refinitiv, 2022). Refinitiv takes into account negative media stories; for example, legislation disputes, fines and lawsuits. If a scandal occurs, the firm involved is penalised, and this affects the ESG controversy score. ESG controversy scores range from 0 to 100; firms with no controversy will get a score of 100. Following Aouadi and Marsat (2018), this study multiplies the ESGC score by (-1). In this way, the interpretation becomes easier where a higher score means more controversies.

Control Variables

Following Hassan *et al.* (2021) and Farah *et al.* (2021), this study controls for firm-level variables that may influence firm risk. The variables are as follows:

1. Firm size, represented by total assets.
2. Profitability, represented by return on asset (ROA)
3. Leverage, represented by the ratio of total debt to total asset
4. Firm value, represented by the ratio of market to book value (MTB)
5. Liquidity, represented by the current ratio, which is the ratio of current assets to current liability.

Table 2 defines all variables and their expected signs.

Table 2: Definition of Variables

Variable	Definition/Measurement	Expected Sign
Total risk	Annualised standard deviation of monthly return for the previous 12 months.	
Systematic risk	This is the beta coefficient of the market model regression. The regression runs monthly returns against their respective market index for the previous 12 months.	
Idiosyncratic risk	Annualised residual standard deviation of the above market model.	
ESG	Average of ESG scores from the Refinitiv database.	-
ESGC	ESGC score extracted from Refinitiv database. The score ranges from 0 to 100. A score of 100 means no controversy.	+
Sharīʿah	Dummy variable, equals 1 if the firm is Sharīʿah-compliant and 0 otherwise	-
ESG*Sharīʿah	The interaction term between ESG and Sharīʿah.	
ESGC*Sharīʿah	The interaction term between ESGC and Sharīʿah.	
Civil	A dummy variable equal to 1 for firms operating in a civil law country and 0 otherwise.	+/-
ESG*civil	Interaction of ESG with the civil dummy variable.	-
ESGC*civil	Interaction of ESGC with the civil dummy variable.	-
LnTA (Total assets)	Natural logarithm of total assets	+/-
ROA (Return on assets)	Net income divides total assets	+/-
Leverage	Leverage ratio calculated as total debt of a firm scaled by total assets.	+
MTB (Market-to-book)	Market value of assets divided book value of assets.	+/-
Liquidity	Total current assets divided total current liabilities.	+

Source: Authors' own

Model Specification

Following the methods used by previous studies such as Galletta and Mazzu (2023) and Wu *et al.* (2023), we test the above hypothesis using pooled ordinary least squares (OLS) regression on a basic equation followed by extended equations. To test hypotheses 1a and 1b, the following basic model is estimated:

$$Risk_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 ESGC_{i,t} + \sum_{k=1}^{m} \delta_k control_{ikt} + \varphi_i + \gamma_t + \omega_i + \varepsilon_{i,t} \quad (1)$$

where *Risk* is the dependent variable (idiosyncratic risk, total risk, and systematic risk); ESG is the calculated *ESG* score, *ESGC* is the transformed score, *Control* is the set of firm-specific control variables, β_0 is a constant term and φ_i, γ_t, ω_i, are industry, time and country fixed effects, and $\varepsilon_{i,t}$ is the error term. Non-binary variables are lagged by one fiscal year to reduce possible endogeneity concerns. Equation (1) is estimated using pooled OLS with standard errors adjusted for heteroskedasticity and clustering by firm.

To test hypothesis 2, the following regression Equation (2) is run, which includes ESGC dummy variable and the interaction term in the explanatory variables. ESGC firms are divided into five categories based on the intensity of their respective ESGC scores. The five categories are labelled as ESGC_dum1 to ESGC_dum5, where category 1 has the lowest controversy score while category 5 has the greatest controversy score. The interaction term (ESGC_dum*ESG) is used to test the moderating role of ESGC in influencing the ESG-risk relationship.

$$Risk_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 ESGC\_dum_{i,t} + \beta_3 ESGC\_dum * ESG_{i,t} + \sum_{k=1}^{m} \delta_k control_{ikt} + \varphi_i + \gamma_t + \omega_i + \varepsilon_{i,t} \quad (2)$$

Hypotheses 3 and 4 focus on the moderating effects of Sharīʿah screening and legal origins on the relationship of ESG-risk, and ESGC-risk respectively. Equation (3) is used to test these relationships.

$$Risk_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 ESGC_{i,t} + \beta_3 MV_{kt} + \beta_4 ESG_{i,t} * MV_{kt} + \beta_5 ESGC_{i,t} * MV_{kt} + \sum_{k=1}^{m} \delta_k control_{ikt} + \varphi_i + \gamma_t + \omega_i + \varepsilon_{i,t} \quad (3)$$

Here, MV represents the moderating variables, which are Sharīʿah screening (Sharīʿah) and legal origins (civil).

RESULTS AND DISCUSSION

Descriptive Statistics and Correlations

Table 3 presents the summary statistics of variables used in this study for the full sample and sub-samples. Column 1 shows the whole sample mean of total risk is 0.089, systematic risk is 0.943, and idiosyncratic risk is 0.085, respectively. The values of these variables fall within the bounds of estimates reported in previous studies (Hassan *et al.*, 2021; Chollet & Sandwidi, 2018). The mean of ESG and ESGC are 52.389 and 90.346, respectively.

Columns 2 and 3 in **Table 3** show that Sharīʿah-compliant firms have lower firm risk compared to Sharīʿah non-compliant firms. This preliminary result supports the argument that Sharīʿah screening reduces firm risks. The table also indicates that Sharīʿah-compliant firms have a higher ESG score and a lower ESGC score compared to Sharīʿah non-compliant firms. This means Sharīʿah-compliant firms, in general, are more active in ESG activities while at the same time having fewer incidents of controversies compared to Sharīʿah non-compliant firms. As for legal origins, Columns 4 and 5 in **Table 3** show that companies operating in civil law countries, on average, exhibit slightly greater risk compared to those operating in the common law system. Looking at ESG and ESGC, on average, firms in civil law countries are more active in ESG activities and have fewer controversies compared to those in common law countries.

To check for possible multicollinearity in the regression, we run pairwise Pearson correlation coefficients for all variables. The results are reported in **Table 4**. Overall, the correlation coefficients among explanatory variables in **Table 4** may be considered weak and all variance inflation factor (VIF) scores are less than 5; this suggests that our models are unlikely to suffer from multicollinearity problems. It should be noted that **Table 4** also shows that ESG is negatively related to all risks, while ESGC is positively related to risks. These are preliminary evidence that ESG serves to mitigate risks while the opposite goes for ESGC. Interestingly, ESG and ESGC are positively correlated, which means that as firms engage in more ESG activities they also face higher incidents of controversies.

Regression Results

ESG, ESGC and Firm Risk

Table 5 presents the results of the pooled OLS regression Equation (1). The table shows that ESG is negatively related to all types of risk. This is consistent with the expectation that ESG activities act as a mitigating factor in reducing the level of firm risks. This finding is consistent with Hassan *et al.* (2021). Thus, H1a is supported.

With regard to ESGC, as predicted, the coefficient is positive across all three measures of firm risk. The ESGC effect is strongest for the idiosyncratic risk. This is consistent with the argument that firm controversies are usually confined to a particular firm or industry, and hence, it is captured by the idiosyncratic risk. The result supports H1b. This evidence is consistent with the findings of Kölbel *et al.* (2017), who report that ESGCs translate into financial risk.

With reference to control variables, the coefficients offer some important insights. For instance, firm size (LnTA) is negative with both idiosyncratic risk and total risk but positive with systematic risk. This shows that large firms are more vulnerable to undiversified volatility. This is in line with Sila *et al.* (2016) and Hassan *et al.* (2021). ROA appears to be negatively associated with all risk measures. This is consistent with evidence from Farah *et al.* (2021), where firms with higher returns experience less risk. For leverage, there is a positive association across all risk measures. This implies that more debt increases companies' fragility (Sila *et al.*, 2016; Farah *et al.*, 2021; Schiemann & Tietmeyer, 2022). Looking at the MTB, the results show it is positively related to total risk and systematic risk, which is consistent with the findings of Benlemlih & Girerd-Potin (2017).

Table 3: Descriptive Statistics

	N=522 Full Sample (1)		N=122 Sharīʿah-Compliant Firms (2)		N=400 Sharīʿah Non-Compliant Firms (3)		N=381 Civil Law (4)		N=141 Common Law (5)		Differences in Mean (2) - (3)	Differences in Mean (4) - (5)
Variables	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Total risk	0.089	0.053	0.078	0.039	0.093	0.056	0.090	0.051	0.086	0.056	-0.015***	0.004**
Systematic risk	0.943	0.456	0.897	0.377	0.956	0.474	0.986	0.448	0.844	0.455	-0.059***	0.142***
Idiosyncratic risk	0.085	0.116	0.081	0.079	0.087	0.124	0.086	0.127	0.084	0.083	-0.006	0.002
ESG	52.389	18.041	55.428	17.912	52.185	17.650	55.603	16.36	53.064	18.692	3.243***	2.539***
ESGC	-90.346	22.850	-91.421	21.752	-86.663	25.928	-92.066	20.973	-86.482	26.178	4.758***	5.584***
Total assets (USD million)	18,784	6,194	20,320	49,883	18,340	65,018	23,512	73,317	21,755	30,050	1,980	1.757***
ROA	6.919	6.971	9.004	7.061	6.371	6.929	6.417	6.434	8.194	8.130	2.633***	-1.777***
Leverage	27.210	16.792	17.628	9.646	29.973	17.37	28.452	16.515	24.386	17.023	-12.345***	4.066**
Market-to-book	2.926	4.311	3.832	5.339	2.665	3.929	2.568	3.907	3.738	5.018	1.167***	-1.170***
Liquidity	1.625	1.190	1.761	1.012	1.582	1.233	1.595	1.192	1.686	1.181	0.179***	-0.091**

Source: Authors' own

Table 4: Correlation Matrix

Variables	VIF	1	2	3	4	5	6	7	8	9	10
1. Total risk		1									
2. Systematic risk		**0.320**	1								
3. Idiosyncratic risk		**0.338**	**0.141**	1							
4. ESGC	1.060	**0.091**	**0.037**	**0.038**	1						
5. ESG	1.050	**-0.041**	**-0.052**	**-0.048**	**0.159**	1					
6. Total assets	1.040	**-0.117**	**0.142**	-0.024	**0.132**	**0.241**	1				
7. ROA	1.400	**-0.190**	**-0.228**	**-0.094**	**-0.058**	0.017	**-0.069**	1			
8. Leverage	1.150	**0.109**	**0.120**	0.025	**0.050**	0.027	0.020	**-0.327**	1		
9. MTB	1.260	**-0.076**	**-0.149**	**-0.029**	-0.020	0.019	**-0.089**	**0.442**	**-0.070**	1	
10. Liquidity	1.040	-0.011	**-0.032**	-0.007	**-0.047**	**-0.072**	**-0.107**	**0.230**	**-0.324**	**-0.039**	1
Mean VIF	1.140										

Note: Coefficients in bold indicate significance at the 5% level
Source: Authors' own

Table 5: Baseline Regression Results of ESG and ESGC on Firm Risks (Regression Equation 1)

	Total Risk	Systematic Risk	Idiosyncratic Risk
ESG	-0.005***	-0.009**	-0.016**
	(-2.794)	(-2.383)	(-2.247)
ESGC	0.016***	0.008*	0.021***
	(5.995)	(1.725)	(3.402)
LnTA	-0.003***	0.025***	-0.004***
	(-6.785)	(6.123)	(-2.640)
ROA	-0.001***	-0.011***	-0.001***
	(-10.866)	(-10.744)	(-5.067)
Leverage	0.023***	0.182***	0.028**
	(3.437)	(4.480)	(2.056)
MTB	0.005**	0.004***	0.001
	(2.090)	(2.680)	(1.115)
Liquidity	0.001	-0.002	0.002
	(0.979)	(-0.310)	(0.612)
Constant	0.199***	0.881***	0.217***
	(15.014)	(7.656)	(6.815)
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Country fixed effect	Yes	Yes	Yes
No. of pooled observations	4,689	4,689	4,689
R-squared	0.217	0.211	0.112
F-statistic	47.927	46.055	22.193

Note: ***, ** and * indicate significance at the 1%, 5%, and 10% levels.
Source: Authors' own

Moderating Effects of ESGC

Table 6 presents the results for regression Equation (2) that divides the ESGC sample into five categories, ranging from very low controversies (category 1) to very high controversies (category 5). The results in **Table 6** indicate that only high categories (categories 4 and 5) of ESGC are related to risks, and so are the interaction terms. Further, **Table 6** provides more detailed information on the nature of ESG-risk and ESGC-risk relationships. It tells us the relationships are significant only for firms with high levels of controversies, while there is no effect on risk for firms with low levels of controversies. The interaction terms between ESGC and ESG indicate a similar behaviour, that is, only for firms in high categories of controversies that ESGC significantly act as a moderating element in the ESG-risk relationship. Hypothesis 2 which says ESGC positively moderates the ESG-risk relationship is therefore partially supported.

Moderating Effects of Sharīʿah Screening

Panel A of **Table 7** presents the regression results with Sharīʿah screening and its interaction term in the independent variables. The results indicate that Sharīʿah screening is negatively associated with risk. This means that Sharīʿah-compliant firms would have a lower risk compared to Sharīʿah non-compliant firms. This is true for all types of risks. Concerning the interaction term of ESG*Sharīʿah, the coefficient is negative for total risk and idiosyncratic risk. The negative coefficient of the interaction term with total risk suggests that the risk mitigating effect of ESG is enhanced for Sharīʿah-compliant firms. Therefore, hypothesis 3a is supported. The coefficient of ESGC*Sharīʿah is negative but only significant for total risk; the relationship is insignificant with systematic and idiosyncratic risks. So, hypothesis 3b is weakly supported. It can, therefore, be concluded that Sharīʿah screening has a weak moderating role in the relationship between ESGC and risk.

Table 6: Pooled OLS Regression Categories of ESGC on Risk (Regression Equation 2)

	Panel A: Total Risk					Panel B: Systematic Risk					Panel C: Idiosyncratic Risk				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
ESG	-0.004** (2.256)	-0.005** (-2.285)	-0.009** (-2.332)	-0.006** (-2.146)	-0.010** (2.188)	-0.010*** (-4.257)	-0.012*** (-4.327)	-0.009*** (-4.353)	-0.007*** (-4.357)	-0.011*** (-4.438)	-0.009** (-1.988)	-0.017** (2.085)	-0.013** (-2.055)	-0.010** (-2.199)	-0.013** (-2.030)
ESGC_dum1	-0.008 (-0.876)					-0.317 (-0.714)					0.190 (1.632)				
ESGC_dum2		0.011 (0.643)					0.045 (0.283)					0.084 (1.471)			
ESGC_dum3			0.009 (0.646)					0.031 (0.798)					-0.029 (-0.848)		
ESGC_dum4				0.037* (1.681)					0.286 (0.889)					0.010** (2.168)	
ESGC_dum5					0.099** (2.445)					0.092 (0.653)					0.028* (1.850)
ESGC_dum1*ESG	-0.002 (-0.990)					0.052 (0.475)					-0.045 (-1.538)				
ESGC_dum2*ESG		0.005 (0.749)					0.001 (0.023)					0.019 (1.321)			
ESGC_dum3*ESG			0.010 (0.698)					0.003 (0.948)					0.006 (0.663)		
ESGC_dum4*ESG				0.007* (1.801)					0.036 (0.434)					0.020* (1.717)	
ESGC_dum5*ESG					0.022** (2.066)					0.042 (0.653)					0.036** (1.993)
Constant	0.149*** (14.044)	0.152*** (13.919)	0.150*** (14.035)	0.156*** (14.118)	0.154*** (14.393)	0.743*** (8.078)	0.781*** (8.829)	0.758*** (8.200)	0.764*** (8.339)	0.786*** (8.567)	0.151*** (5.937)	0.149*** (5.689)	0.154*** (6.021)	0.160*** (6.205)	0.151*** (5.944)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry, year and country fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.212	0.211	0.212	0.214	0.216	0.210	0.211	0.209	0.215	0.212	0.164	0.165	0.163	0.170	0.164
F-statistic	44.695	44.681	44.690	45.280	45.745	44.593	44.625	44.320	45.470	44.798	21.450	21.477	21.377	22.811	21.345
No. of pooled obs.	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689	4,689

Note: The main independent variables are interaction terms that capture the differences between firms with no controversy and firms with various levels of controversy.
***, ** and * indicate significance at the 1%, 5%, and 10% levels.
Source: Authors' own

Moderating Effects of Legal Origin

Panel B of **Table 7** presents the regression results with the legal origin and its interaction term in the independent variables. The results show that the civil law system has a negative coefficient for all types of risk. This means that firms operating in the civil law environment would have lower risks compared to companies in the common law system. This implies that companies operating under civil law tend to engage in more ESG activities due to expectations for such behaviour from stakeholders. Additionally, the interaction term of ESG*civil is negatively associated with both systematic risk and total risk. This means the legal system has the effect of reducing the ESG-risk relationship. Thus, H4a is supported.

Interestingly, these results indicate that the coefficients for the interaction terms ESGC*Civil are all negative. This means the country's legal system has an effective role in moderating the ESGC-risk relationship. It can be argued that this is due to the civil law framework, which is stakeholder-oriented; hence, investors would have expectations that firms facing controversies would engage in increased ESG initiatives to overcome the negative impact; hence, the negative moderating impact of the civil law system on the ESGC-risk relationship. Therefore, H4b is supported.

Table 7: Regression Results: Moderating Effects of Sharīʿah-screening and Legal Origins (Regression Equation 3)

	Panel A: Sharīʿah compliance			**Pane B: Civil Law**		
	Total Risk	**Systematic Risk**	**Idiosyncratic Risk**	**Total Risk**	**Systematic Risk**	**Idiosyncratic Risk**
ESG	-0.021*** (-4.336)	-0.023*** (-4.378)	-0.038** (-3.448)	-0.008*** (-2.743)	-0.011** (-2.108)	-0.022** (-2.335)
ESGC	0.010*** (6.146)	0.014* (1.936)	0.031*** (3.585)	0.013*** (6.144)	0.019* (1.864)	0.036** (2.217)
Sharīʿah	-0.086*** (-3.815)	-0.109* (-1.827)	-0.176*** (-3.260)			
ESG*Sharīʿah	-0.034*** (-3.422)	-0.051 (-1.441)	-0.075*** (-3.534)			
ESGC*Sharīʿah	-0.005* (-1.676)	-0.038 (-1.437)	-0.010 (-1.451)			
Civil				-0.028** (-1.979)	-0.042* (-1.740)	-0.031* (-1.682)
ESG*Civil				-0.014** (-3.510)	-0.046** (-2.288)	-0.014 (-1.416)
ESGC*Civil				-0.009*** (-3.339)	-0.010** (-2.414)	-0.005** (-2.326)
Constant	0.220*** (14.884)	0.987*** (7.699)	0.277*** (7.814)	0.148*** (7.652)	0.805*** (4.807)	0.160*** (3.436)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry, year and country fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.222	0.217	0.172	0.224	0.220	0.166
F-statistic	39.061	37.999	20.520	44.241	43.837	20.994
No. of pooled obs.	4,689	4,689	4,689	4,689	4,689	4,689

Note: ***, ** and * denote significance at the 1%, 5%, and 10% levels.
Source: Authors' own

Endogeneity Test

In running the above regression, this study has taken some precautions, such as including firm-level control variables and using lagged explanatory variables to reduce the possibility of endogeneity issues. However, endogeneity and omitted variables bias might still exist and could weaken the results. To address this problem, this study further refines the treatment of endogeneity by rerunning the analysis using a two-step system generalised model of moment (SYS-GMM). This technique has been employed by many previous studies, such as Emma and Jennifer (2021), Wu *et al.* (2023), and Galletta and Mazzu (2023). Emma and Jennifer (2021) state that GMM not only solves the possible endogeneity problem but by employing lagged values as suitable instruments, also controls for heteroskedasticity and autocorrelation issues.

The endogeneity test analysis is based on Equation (1) as given in the model specification section. To check the consistency of the SYS-GMM estimator, this study uses two diagnostic tests. Firstly, it uses the second-order autocorrelation (AR2) test for the error term, which tests the null (H0) of the non-existence of AR2. Secondly, it uses the Sargan/Hansen test of over-identifying restrictions, which checks the null (H0) of overall instruments validity. **Table 8** reports the results of the SYS-GMM estimation of Equation (1). The validity of the instruments has been confirmed by the Sargan and Hansen test, showing that the instruments are valid for the model. The p-value of AR(2) is greater than 0.05 indicating that there is no second order correlation. The AR2 tests and Sargan/Hansen test indicate that the model is validated. The results in **Table 8** show that the coefficient of ESG and ESGC is qualitatively similar to those in **Table 5**, indicating that ESG is negatively associated with risk and that ESGC is positively associated with risk. This is consistent with the pooled OLS results. Thus, the endogeneity problems are not likely to affect the findings in the regression results.

Table 8: Regression Results of ESG and ESGC on Firm Risks: SYS-GMM Model

	Total Risk	Systematic Risk	Idiosyncratic Risk
ESG	-0.049** (-4.765)	-0.031* (-1.802)	-0.058** (-2.219)
ESGC	0.066*** (3.747)	0.042* (1.833)	0.080** (2.131)
LnTA	-0.006*** (-4.507)	0.009* (1.859)	-0.003** (-2.018)
ROA	-0.001** (-2.758)	-0.005** (-2.274)	-0.002* (-1.933)
Leverage	0.002** (2.250)	0.001** (0.286)	0.001* (1.929)
MTB	0.003 (1.248)	0.011** (1.973)	0.001 (0.606)
Liquidity	0.002 (1.077)	-0.004 (-0.458)	0.005 (1.356)
Total $risk_{t-1}$	0.260*** (5.263)		
Systematic $risk_{t-1}$		0.516*** (29.015)	
Idiosyncratic $risk_{t-1}$			0.736*** (4.532)
Constant	0.136** (1.983)	0.628* (1.696)	0.078* (1.818)

Table 8: Regression Results of ESG and ESGC on Firm Risks: SYS-GMM Model (Cont.)

	Total Risk	Systematic Risk	Idiosyncratic Risk
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Country fixed effect	Yes	Yes	Yes
No. of pooled obs.	4,689	4,689	4,689
Model fits:			
F-statistic	15.010	53.270	21.950
AR(1): *P*-value	0.000	0.000	0.000
AR(2): *P*-value	0.195	0.206	0.117
Sargan's test of over Restrictions Prob > chi^2	0.000	0.000	0.008
Hansen *J*-statistics: *P*-value	0.562	0.744	0.250
No. of instruments	80	80	80

Note: ***, ** and * indicate significance at the 1%, 5%, and 10% levels.
Source: Authors' own

CONCLUSION

The objective of this study is to examine the impact of ESG and ESGC (corporate controversies) on firm risk. The study also examines the moderating role of Sharīʿah screening and legal origins over these relationships. Using a balanced sample of 522 firms from 16 emerging countries covering the period 2013–2021, the findings show that ESG is negatively related to risk while ESGC is positively related. This means ESG reduces risks while ESGC increases risks. The study also finds that Sharīʿah-compliant firms have lower risk than Sharīʿah non-compliant firms and companies operating in a civil law system have lower risk than those in common law systems. Both Sharīʿah screening and the legal system play effective roles in negatively moderating the ESG-risk and ESGC-risk relationships. The results of this study thus lead to important implications:

1. The study's findings underscore the importance of having an ESG blueprint by all governments in emerging markets; they need to beef up their ESG strategies in various aspects of firms' operations in order for firms to succeed in the global competitive environment. In countries like Malaysia, it has been made mandatory for listed firms to disclose a Sustainability Statement in their annual reports detailing their management of material economic, environmental and social risks and opportunities.
2. In relation to developing global Islamic finance, policymakers need to be mindful of the importance of the Sharīʿah-ESG linkage and imbed this relationship in their strategic development blueprints. Efforts to incorporate ESG in Islamic finance are currently undergoing. For example, there is great demand for ESG *ṣukūk*, where issuers are leveraging on the rising global investor demand for green, sustainable and social bonds in markets such as the Gulf Cooperation Council (GCC), Malaysia, Indonesia, Türkiye and Pakistan (Al-Natoor, 2022). The rest of the Islamic finance markets should follow suit.
3. Our evidence indicates that ESG reduces firm risks and the risk reduction is stronger when integrating with Sharīʿah screening. This suggests the importance of integrating ESG and Sharīʿah principles into business operations, as this can align firms towards sustainability goals while reducing risks. Regulators and policymakers in emerging economies can leverage on these findings to promote and create more awareness, adopt responsible practices by incorporating ESG considerations, and foster sustainable

practices. Adopting Sharīʿah screening can support the development of Islamic finance and contribute to more resilient and sustainable financial markets.

One possible limitation of the current study is its focus on emerging markets, hence limiting the generalisation of the findings. Future studies may address this issue by incorporating both developed and emerging markets for comparative analysis. In this way, it will be known if there are any meaningful differences in ESG, ESGC and risk behaviour between these markets.

REFERENCES

Ahmed, S. & Uddin, S. (2018), 'Toward a political economy of corporate governance change and stability in family business groups: a morphogenetic approach', *Accounting, Auditing & Accountability Journal*, Vol. 31 No. 8, pp. 2192–2217.

Ali, A.J. & Al-Owaihan, A. (2008), 'Islamic work ethic: a critical review', *Cross Cultural Management: An International Journal*, Vol. 15 No. 1, pp. 5–19.

Al-Natoor, B. (2022), 'Islamic finance update: rating agency perspective', available at: https://www.fitchratings.com/islamic-finance

Alsaadi, A., Ebrahim, M.S. & Jaafar, A. (2017), 'Corporate social responsibility, Shariah-compliance, and earnings quality', *Journal of Financial Services Research*, Vol. 51, pp. 169–194.

Anita, M., Shevta, S., Surendra, S.Y. & Arvind, M. (2023), 'When do ESG controversies reduce firm value in India?', *Global Finance Journal*, Vol. 55, https://doi.org/10.1016/j.gfj.2023.100809

Aouadi, A. & Marsat, S. (2018), 'Do ESG controversies matter for firm value? Evidence from international data', *Journal of Business Ethics*, Vol. 151, pp. 1027–1047.

Baldini, M., Dal Maso, L., Liberatore, G., Mazzi, F. & Terzani, S. (2018), 'Role of country-and firm-level determinants in environmental, social, and governance disclosure', *Journal of Business Ethics*, Vol. 150 No. 1, pp. 79–98.

Becchetti, L., Ciciretti, R. & Conzo, P. (2020), 'The legal origins of corporate social responsibility', *Sustainability*, Vol. 12 No. 7, pp. 1–34, https://doi.org/10.3390/su12072717

Becchetti, L., Ciciretti, R. & Hasan, I. (2015), 'Corporate social responsibility, stakeholder risk, and idiosyncratic volatility', *Journal of Corporate Finance*, Vol. 35, pp. 297–309.

Benlemlih, M. & Girerd-Potin, I. (2017), 'Corporate social responsibility and firm financial risk reduction: on the moderating role of the legal environment', *Journal of Business Finance & Accounting*, Vol. 44 No. 7–8, pp. 1137–1166.

Boubakri, N., El Ghoul, S., Guedhami, O. & Wang, H. (2021), 'Corporate social responsibility in emerging market economies: determinants, consequences, and future research directions', *Emerging Markets Review*, Vol. 46, https://doi.org/10.1016/j.ememar.2020.100758

Brammer, S.J. & Pavelin, S. (2006), 'Corporate reputation and social performance: the importance of fit', *Journal of Management Studies*, Vol. 43 No. 3, pp. 435–455.

Chapple, W. & Moon, J. (2005), 'Corporate social responsibility (CSR) in Asia: a seven-country study of CSR web site reporting', *Business and Society*, Vol. 44 No. 4, pp. 415–441.

Charfeddine, L., Najah, A. & Teulon, F. (2016), 'Socially responsible investing and Islamic funds: new perspective for portfolio allocation', *Research in International Business and Finance*, Vol. 36, pp. 351–361.

Cheong, C.W.H. (2021), 'Risk, resilience, and Shariah-compliance', *Research in International Business and Finance*, Vol 55, https://doi.org/10.1016/j.ribaf.2020.101313

Cho, C.H., Laine, M., Roberts, R.W. & Rodrigue, M. (2015), 'Organized hypocrisy, organizational façades, and sustainability reporting', *Accounting, Organizations and Society*, Vol. 40, pp. 78–94.

Chollet, P. & Sandwidi, B.W. (2018), 'CSR engagement and financial risk: a virtuous circle? International evidence', *Global Finance Journal*, Vol. 38(C), pp. 65–81.

DasGupta, R. & Roy, A. (2023), 'Firm environmental, social, governance and financial performance relationship contradictions: insights from institutional environment mediation', *Technological Forecasting & Social Change*, Vol. 189, https://doi.org/10.1016/j.techfore.2023.122341

Deegan, C. (2009), *Financial Accounting Theory*, McGraw Hill.

Deegan, C. (2017), 'Twenty five years of social and environmental accounting research within critical perspectives of accounting: hits, misses and ways forward', *Critical Perspectives on Accounting*, Vol. 43(C), pp. 65–87.

Durand, R.B., Koh, S.K. & Limkriangkrai, M. (2013), 'Saints versus sinners: does morality matter?', *Journal of International Financial Markets, Institutions and Money*, Vol. 24, pp. 166–183.

Elghuweel, M.I., Ntim, C.G., Opong, K.K. & Avison, I. (2017), 'Corporate governance, Islamic governance and earnings management in Oman: a new empirical insights from a behavioural theoretical framework', *Journal of Accounting in Emerging Economies*, Vol. 7 No. 2, pp. 190–224.

Eliwa, Y., Aboud, A. & Saleh, A. (2021), 'ESG practices and the cost of debt: evidence from EU countries', *Critical Perspectives on Accounting*, Vol. 79(C), https://doi.org/10.1016/j.cpa.2019.102097

Emma, G.M. & Jennifer, M.F. (2021), 'Is SDG reporting substantial or symbolic? An examination of controversial and environmentally sensitive industries', *Journal of Cleaner Production*, Vol. 298, https://doi.org/10.1016/j.jclepro.2021.126781

Elsbach, K.D. & Sutton, R.I. (1992), 'Acquiring organizational legitimacy through illegitimate actions: a marriage of institutional and impression management theories', *Academy of Management Journal*, Vol. 33 No. 4, pp. 699–738.

Erragragui, E. & Revelli, C. (2016), 'Is it costly to be both Shariah compliant and socially responsible?', *Review of Financial Economics*, Vol. 31, pp. 64–74.

Farah, T., Li, J., Li, Z. & Shamsuddin, A. (2021), 'The non-linear effect of CSR on firms' systematic risk: international evidence', *Journal of International Financial Markets, Institutions & Money*, Vol. 71, https://doi.org/10.1016/j.intfin.2021.101288

Freeman, R.E. (1984), *Strategic Management: A Stakeholder Perspective*, Pitman Publishing Inc., Marshfield, MA.

Galbreath, J. (2013), 'ESG in focus: the Australian evidence', *Journal of Business Ethics*, Vol. 118, pp. 529–541.

Galletta, S. & Mazzu, S. (2023), 'ESG controversies and bank risk taking', *Business Strategy and the Environment*, Vol. 32 No. 1, pp. 274–288.

Harjoto, M.A. & Hoepner, A.G.F. & Li, Q. (2021), 'Corporate social irresponsibility and portfolio performance: a cross-national study', *Journal of International Financial Markets, Institutions and Money*, Vol. 70, https://doi.org/10.1016/j.intfin.2020.101274

Hassan, K.M., Chiaramonte, L., Dreassi, A., Paltrinieri, A. & Piserà, S. (2021), 'The crossroads of ESG and religious screening on firm risk', *Research in International Business and Finance*, Vol. 58, https://doi.org/10.1016/j.ribaf.2021.101500

Hassan, M.K., Chiaramonte, L., Dreassi, A., Paltrinieri, A. & Piserà, S. (2023), 'Equity costs and risks in emerging markets: are ESG and Sharia principles complementary?', *Pacific-Basin Finance Journal*, Vol. 77(C), https://doi.org/10.1016/j.pacfin.2022.101904

Hawn, O., Chatterji, A.K. & Mitchell, W. (2018), 'Do investors actually value sustainability? New evidence from investor reactions to the Dow Jones Sustainability Index (DJSI)', *Strategic Management Journal*, Vol. 39 No. 4, pp. 949–976**.**

Huang, D.Z.X. (2021), 'Environmental, social and governance (ESG) activity and firm performance: a review and consolidation', *Accounting & Finance*, Vol. 61 No. 1, pp. 335–360.

Jo, H., Song, M.H. & Tsang, A. (2016), 'Corporate social responsibility and stakeholder governance around the world', *Global Finance Journal*, Vol. 29, pp. 42–69.

Jung, Y.L. & Yoo, H.S. (2023), 'Environmental, social, and governance activities and firm performance: global evidence and the moderating effect of market competition', *Corporate Social Responsibility and Environmental Management*, pp. 1–10. https://doi.org/10.1002/csr.2518

Kaufmann, D., Kraay, A. & Mastruzzi, M. (2011), 'The worldwide governance indicators: methodology and analytical issues', *Hague Journal on the Rule of Law*, Vol. 3 No. 2, pp. 220–246.

Kaufmann, W. & Lafarre, A. (2021), 'Does good governance mean better corporate social performance? A comparative study of OECD countries', *International Public Management Journal*, Vol. 24 No. 6, pp.762–791.

Khanna, T. & Palepu, K.G. (2011), 'Winning in emerging markets: spotting and responding to institutional voids', *World Financial Review*, May-June, pp. 18–20.

Kim, H., Park, K. & Ryu, D. (2015), 'Corporate environmental responsibility: a legal origins perspective', *Journal of Business Ethics*, Vol. 140 No. 3, pp. 381–402.

Kölbel, J.F., Busch, T. & Jancso, L.M. (2017), 'How media coverage of corporate social irresponsibility increases financial risk', *Strategic Management Journal*, Vol. 38 No. 11, pp. 2266–2284.

Lange, D. & Washburn, N.T. (2012), 'Understanding attributions of corporate social irresponsibility', *Academy of Management Review*, Vol. 37, pp. 300–326.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R.W. (1998), 'Law and finance', *Journal of Political Economy*, Vol. 106 No. 6, pp. 1113–1155.

La Porta, R., Lopez-de-Silanes, F. & Shleifer, A., (2008), 'The economic consequence of legal origins', *Journal of Economic Literature*, Vol. 46, pp. 285–332.

Lee, S.P. & Isa, M. (2024), 'Corporate sustainability practices and financial performance: the moderating role of corporate controversies and Shariah screening', *Corporate Social Responsibility and Environmental Management*, https://doi.org/10.1002/csr.2763

Li, Y.W., Gong, M.F., Zhang, X.Y. & Koh, L. (2018), 'The impact of environmental, social, and governance disclosure on firm value: the role of CEO power', *The British Accounting Review*, Vol. 50 No. 1, pp. 60–75.

Li, J., Haider, Z.A., Jin, X. & Yuan, W. (2019), 'Corporate controversy, social responsibility and market performance: international evidence', *Journal of International Financial Markets Institutions and Money*, Vol. 60, pp. 1–18.

Liang, H. & Renneboog, L. (2017), 'On the foundations of corporate social responsibility', Journal Finance, Vol. 72 No. 2, pp. 853–910.

Lin, F.Y., Lin, S.W. & Fang, W.C. (2022), 'Impact of CEO narcissism and hubris on corporate sustainability and firm performance', *North American Journal of Economics and Finance*, Vol. 59, https://doi.org/10.1016/j.najef.2021.101586

Lee, S.P. & Isa, M. (2020), 'Environmental, social and governance (ESG) practices and performance in Shariah firms: agency or stakeholder theory?', *Asian Academy of Management Journal of Accounting and Finance*, Vol. 16 No. 1, pp. 1–34.

Manning, B., Braam, G. & Reimsbach, D. (2019), 'Corporate governance and sustainable business conduct: effects of board monitoring effectiveness and stakeholder engagement on corporate sustainability performance and disclosure choices', *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 2, pp. 351–366.

Martins, H.C. (2022), 'Competition and ESG practices in emerging markets: evidence from a difference-in-differences model', *Finance Research Letters*, Vol. 46(PA), https://doi.org/10.1016/j.frl.2021.10237

Matten, D. & Moon, J. (2008), 'Implicit and explicit CSR: a conceptual framework for a comparative understanding of corporate social responsibility', *Academy of Management Review*, Vol. 33 No. 2, pp. 404–424.

Mishra, S. & Modi, S.B. (2013), 'Positive and negative corporate social responsibility, financial leverage, and idiosyncratic risk', *Journal of Business Ethics*, Vol. 117 No. 2, pp. 431–448.

Nguyen, P. & Nguyen, A. (2015), 'The effect of corporate social responsibility on firm risk', *Social Responsibility Journal*, Vol. 11 No. 2, pp. 324–339.

Nirino, N., Santoro, G., Miglietta, N. & Quaglia, R. (2021), 'Corporate controversies and company's financial performance: exploring the moderating role of ESG practices', *Technological Forecasting and Social Change*, Vol. 162, 120341. https://doi.org/10.1016/j.techfore.2020.120341

North, D.C. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge, MA.

North, D.C. (1991), 'Institutions', *The Journal of Economic Perspectives*, Vol. 5, No. 1, pp. 97–112.

Qoyum, A., Sakti, M.R.P., Thaker, H.M.T. & Alhashfi, R.U. (2022), 'Does the Islamic label indicate good environmental, social, and governance (ESG) performance? Evidence from sharia-compliant in Indonesia and Malaysia', *Borsa Istanbul Review*, Vol. 22 No. 2, pp. 306–320.

Rahi, A.F., Chowdhury, M.A.F., Johansson, J. & Blomkvist, M. (2023), 'Nexus between institutional quality and corporate sustainable performance: European evidence', *Journal of Cleaner Production*, Vol. 382, https://doi.org/10.1016/j.jclepro.2022.135188

Refinitiv (2022), 'Environmental, social and governance scores from Refinitiv', available at: https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf

Sassen, R., Hinze, A.K. & Hardeck, I. (2016), 'Impact of ESG factors on firm risk in Europe', *Journal of Business Economics*, Vol. 86 No. 8, pp. 867–904.

Schiemann, F. & Tietmeyer, R. (2022), 'ESG controversies, ESG disclosure and analyst forecast accuracy', *International Review of Financial Analysis*, Vol. 84, https://doi.org/10.1016/j.irfa.2022.102373

Sharfman, M.P. & Fernando, C.S. (2008), 'Environmental risk management and the cost of capital', *Strategic Management Journal*, Vol. 29 No. 6, pp. 569–592.

Shakil, M.H. (2021), 'Environmental, social and governance performance and financial risk: moderating role of ESG controversies and board gender diversity', *Resources Policy*, Vol. 72, https://doi.org/10.1016/j.resourpol.2021.102144

Sila, V., Angelica Gonzalez, A. & Hagendorff, J. (2016), 'Women on board: does boardroom gender diversity affect firm risk?', *Journal of Corporate Finance*, Vol. 36, pp. 26–53.

Suchman, M.C. (1995), 'Managing legitimacy: strategic and institutional approaches', *Academy of Management Review*, Vol. 20 No. 3, pp. 571–610.

Treepongkaruna, S., Kyaw, K. & Jiraporn, P. (2022), 'Shareholder litigation rights and ESG controversies: a quasi-natural experiment', *International Review of Financial Analysis*, Vol. 84, https://doi.org/10.1016/j.ribaf.2021.101500

Williams, G. & Zinkin, J. (2010), 'Islam and CSR: a study of the compatibility between the tenets of Islam and the UN global compact', *Journal of Business Ethics*, Vol. 91, pp. 519–533.

Witt, M.A., de Castro, L.R.K., Amaeshi, L., Mahroum, S., Bohle, D. & Saez, L. (2018), 'Mapping the business systems of 61 major economies: a taxonomy and implications for varieties of capitalism and business systems research', *Socio-Economic Review*, Vol. 16 No. 1, pp. 5–38.

Wu, Z., Lin, S., Chen, T., Luo, C. & Xu, H. (2023), 'Does effective corporate governance mitigate the negative effect of ESG controversies on firm value?', *Economic Analysis and Policy*, Vol. 80, pp. 1772–1793.

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DECLARATION

Credit Authorship Contribution Statement

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The authors do not have permission to share data.

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Appendix

None