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Full Length Article

Does the islamic label indicate good environmental, social, and governance (ESG) performance? Evidence from sharia-compliant firms in Indonesia and Malaysia

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Abstract

This study empirically investigates the effect of an Islamic label on environmental, social, and governance (ESG) performance. Islamic firms in Indonesia and Malaysia that are characterized by lower debt and lower non-sharia compliant income and have a higher ethical standard are expected to make a better contribution to the environment and society. Testing firms in Indonesia and Malaysia, two emerging countries in ASEAN (Association of Southeast Asian Nations), reveals a significant difference in overall environmental and social performance, but not in governance quality. Also, the study documents the significant effect on performance of using Islamic criteria for leverage, accounts receivable, and cash. Overall, after controlling for some variables and splitting the sample into different time horizons and firm sizes, the study consistently reveals that firms labeled as Islamic have better environmental and social performance, but not governance performance. The relevant policies should be adjusted.

Jel classifications: G21, G29.

Keywords: Corporate governance; ESG; Indonesia; Malaysia; Sharia compliance; SRI

1. Introduction

Environmental, social and governance (ESG) factors are considered important in fulfilling corporate social responsibility. This also applies to Islamic firms, which must pay greater attention to ESG issues (Bennett & Iqbal, 2013; Masih et al., 2018; Moghul & Safar-Aly, 2014). In 2015, as reported by the Global Sustainable Investment Alliance (2015), approximately $21.4 trillion was invested and managed for socially responsible investment (SRI) purposes in 2014. The assets under management (AUM) increased by over 60 percent with conventional strategies. Europe had the highest cumulative total investment, $13.61 trillion, and the US shows a rapid progression of 74 percent per year even though the benchmark is only 50 percent. Most SRI is by institutional investors, rather than retail investors. However, retail investors are becoming more interested in SRI.

Whether conventional or Islamic, investment strategies depend on two main types of information: fundamental information and technical information. Fundamental information includes financial statements, the rate of firm growth, and key financial highlights of the company, whereas technical information come from the company's past performance or

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momentum, depicted in graphs. Although these two types of information remain the most useful for investment, investors seek other ways to distinguish firm performance that does not use a risk and returns perspective, that is, SRI (Erragragui & Revelli, 2016).

The European Sustainable Investment Forum defined SRI as the incorporation of ESG factors in investment selection (Hebb et al., 2014). Thus, investors may opt to select a particular company or sector because of its impact on the environment or stakeholders (Junkus & Berry, 2015). The SRI are distinctive in two ways. First, investors are interested in giving back to society, not just focused on monetary gains, so they invest their funds looking at different factors, such as whether the firm aligns with their environment, ethical, and social values. Second, the objective of SRIs includes the promotion of long-term sustainable investment, which is environmentally friendly and contributes to social and ethical values (Bilbao-Terol et al., 2016). That is, socially responsible investors do not have profit as their main objective when it comes to investment; rather, their focus is more directly to drive change in society to ameliorate worldwide conditions, such as climate change, human trafficking, unethical labor practices, and corruption, which can harm the environment (de Zwaan et al., 2015; Stubbs & Rogers, 2013).

Many academics have written about the role of Islamic firms in preventing environmental damage and supporting social empowerment, such Azmi et al. (2019), Chowdhury and Masih (2015), Erragraguy and Revelli (2015), Qoyum et al. (2021), and Salma Sairally (2013). Their crux of their discussion is that the shariah screening procedure has no specific standard that covers environmental and social issues (Ashraf & Khawaja, 2016; Ho et al., 2011, 2012). In addition, no existing empirical studies have tested the performance of Islamic firms in terms of ESG factors. Previous studies focus on the performance of Islamic firms in terms of the financial factors, such as Al-Awadhi and Dempsey (2017), Ashraf and Khawaja (2016), BinMahfouz and Kabir Hassan (2013), El-Masry et al. (2016), Erragragui and Revelli (2016), Erragragui et al. (2018), Junkus and Berry (2015), and Paranque and Erragragui (2016).

The existing literature also shows an increasing pattern with respect to SRI. Shareholders are concerned about the ESG factors because they can cause socially irresponsible firms to face lawsuits if they not manage these matters wisely, which can destroy value for long-term shareholders (Arjaliès, 2010; Galbreath, 2013). Investors place high importance on safeguarding their assets and those interested in SRI want to contribute to social change by investing in firms with good ESG practices. In both developed and developing economies, integration of nonfinancial characteristics, such as ethical and ESG factors, in investment decisions has become a dominant trend (Berry & Junkus, 2013; Crifo et al., 2015; Nakamura, 2013; Pérez-Gladish et al., 2012). Incorporation of nonfinancial criteria in measuring a firm's performance and investment selection criteria is examined in many studies (Adam & Shauki, 2014; Nair & Ladha, 2014; Tahir & Brimble, 2011), but few of them include Islamic firms in their samples. Hence, our study fills a gap in the literature by focusing on the ESG performance of Islamic firms.

Since 1970, many papers have studied the association between corporate social responsibility (CSR) and corporate financial performance (CFP). For example, Aggarwal and Mehta (2013) discuss the investigation of the relationship between CSR and CFP by Narver, 1971, which found a positive association between them and firm performance. Orlitzky et al. (2003), using a meta-analysis of 52 empirical studies, found a positive relationship between CSR and firm performance, which seems to be bidirectional. Clark and Viehs (2014) distinguish two categories of studies mainly linked to ESG in prior literature. The first is literature with a direct examination of individual dimensions of ESG (e.g., governance) in testing firm performance. About 85 percent of ESG studies examine one aspect of ESG, not all three aspects at the same time. Thus, the results of ESG and firm performance are mixed (Wood, 2010). The second comprises studies focused on SRI funds. The analysis concentrates on the integration of SRI funds with a portfolio of non-SRI funds to assess results on indicators such as cash-flow performance, market valuation, and stock returns (Brammer et al., 2006; Jang et al., 2008). The results found in these studies are mixed as well. Clark and Viehs (2014) reported no significant differences in performance between SRI and non-SRI funds.

Paltrinieri et al. (2019) was inspired by their paper to conduct similar research in the context of Asian markets: Indonesia and Malaysia. Using a sample of 224 banks in sixteen emerging and advanced economies, they investigate the extent to which the development of Islamic financial markets influences banks' sustainability strategies. The study incorporates the new Islamic Finance Development Indicator (IFDI) and how it relates to aggregate and individual ESG scores. The results show a positive association between IFDI and ESG, which revolves around the social pillar.

Many studies have explored the influence of nonfinancial characteristics, such as ethical and ESG factors (Dorfleitner et al., 2018; Nair & Ladha, 2014), but few of them are conducted in the context of sharia-compliant firms in emerging countries that are members of the Association of Southeast Asian Nations (ASEAN). In this study, we look at Indonesia and Malaysia for the following reasons: (1) in general, sharia-compliant stocks encounter less risk because the screening process excludes firms that offer high interest and are highly leveraged, which is expected to encourage non-Muslim to invest in sharia-compliant firms, (2) the governments of both countries give significant support in the promotion of Islamic finance and Islamic capital markets, (3) sharia-compliant firms are regulated with an effective regulatory framework, which is expected to increase confidence among retail and institutional investors, (4) Islamic finance as an industry is making rapid progress in these two countries, and (5) few studies focus on ESG factors in Asian countries, such as Indonesia and Malaysia, so our findings in this paper will fill a gap in the literature. In addition, Indonesia, which has the largest Muslim population in the world, also has been successful in the Islamic

finance industry, which ranks fourth, after Iran, Malaysia, and Saudi Arabia.

The main focus of this study is examining performance by Islamic firms in terms of ESG factors. To do so, we use a firm-level analysis, with a sample of firms in two emerging economies in Asia, Indonesia and Malaysia, and compare sharia-compliant firm to non-sharia firms at two different time horizons.

The remainder of this paper is organized as follows. Section 2 reviews the theoretical and empirical literature. The sample and methodology are presented in Section 3. Sections 4 and 5 are the crux of this study, with the empirical results and discussions. Section 6 provides the conclusion and policy recommendations.

2. Literature review

2.1. Empirical findings on SRI and islamic finance

The topic of SRI was raised in the 1970s, when the modern portfolio theory by Markowitz was articulated, but it gained greater research attention in the 1990s. Pioneered by Hylton (1992), SRI refers to investment activity that is subject to ethical and moral considerations, without deception or fraud. To engage in SRI, investors should screen the portfolios and omit investment that involves any unethical activities. Socially responsible investors should reject investment in companies that have social, ethical, or political issues that are incompatible with SRI values. This is supported by Browning (2020) and Hamilton et al. (1993), who posit that the SRI does not reduce the value of investment in terms of risk-adjusted returns. They added that socially responsible firms offer a higher rate of return than conventional firms.

A report published by the Responsible Investment Association of Australasia (RIAA; 2019) define responsible investing as "an investment process which takes into account environmental, social, and governance (ESG) aspects," which are commonly used by fund managers in adopting SRI approach. From an ESG standpoint, it was recognized that ESG factors have financial implications for companies.

Nevertheless, ESG factors alone are not enough, as they do not fundamentally convey whether the company's activities are good or bad. The white paper published by Browning (2020) emphasizes that responsible and ethical investors seek: (1) competitive returns, (2) tangible positive impacts, and (3) "do well while doing good." In this regard, investors want to achieve "nonfinancial outcomes" while also achieving competitive returns on their investment. In essence, ethics should play a critical role in changes in investment practices, which integrates finance into the realm of ethics, not ethics into finance (Erragragui & Revelli, 2016).

If we look at the idea of excluding unethical businesses, we can see mutual interests between SRI and Islamic investment. According to Wilson (1997), these two kinds of investment have many similarities in terms of the prohibition of investment in businesses that are harmful and that both types of investment require a screening methodology to define ethically acceptable investment. However, Islamic investment, which is based on sharia principles, has different screening methodology criteria from SRI. Islamic investors or sharia-compliant investors cannot invest in companies that are engaged in activities that are impermissible under Islamic law (as they transgress sharia principles), namely, those involving *riba* (usury), *gharar* (speculation), and *maysir* (gambling). According to Hashim (2008), inclusion in the Islamic indices requires companies to satisfy the following:

- The company's leverage ratio must be no greater than one-third or 33 percent.
- The quick assets ratio (accounts receivable to total assets) must not exceed 45 percent.
- The company's interest-generated income must be equal to or less than 5 percent of total revenue.

Charfeddine et al. (2016) note that SRI and Islamic investment have developed in parallel. If we trace them back to their origins, both forms of investment have religious and ethical concerns. SRI traces to the 1920s, when Quakers rejected investment in activities that involved moral issues (Grossman & Sharpe, 1986). Islamic investment emphasizes the ethical principles of Islam and avoiding activities that are not sharia compliant. Today, Islamic investment is a crucial element in the global financial market and has gained considerable interest among investors. Moreover, the inclusion of social and religious criteria in investment has begun to attract greater academic attention (Dunfee, 2003).

Despite the similarities between SRI and Islamic investment, the two types of investment also have several differences. For example, according to Islamic principles, shariah-compliant firms shall not deal with impermissible products and services such as interest-bearing activities, alcohol, pork-related products, pornography, tobacco, weapon, and casino. However, SRI firms have greater concerns about environmental aspects than sharia-compliant firms (Sadeghi, 2008). To determine whether companies are eligible for sharia-compliant status, they are screened to ascertain that they fulfill the requirements laid down in the sharia-screening methodology, which is consistent with Islamic law.

A plethora of studies comparing the returns of SRI and conventional portfolios shows no sacrifice of returns for investors who opt for responsible investment approaches (Girard & Hassan, 2008; Hakim & Rashidian, 2002; Miglietta & Forte, 2011; Renneboog et al., 2008). Many social and ethical indices, such as the Domini 400 Social Index (DSI), the Dow Jones Sustainability (DJS) index, and the FTSE4Good index, have outperformed conventional benchmark indexes. Hakim and Rashidian (2002) compare the performance of Islamic funds, represented by the Dow Jones Islamic Market index (DJIM), to the Wilshere 5000. They find that the DJIM index is less risky than the Wishere 5000 and that these two indexes have no long-term relationship. The absence of a long-term relationship between them has a portfolio diversification benefit. Subsequently, Ashraf and Khawaja (2016) compare the performance of sharia-compliant portfolios with that of conventional portfolios in the US, Canada, Europe, Japan, and the member countries of the Gulf Cooperation Council (GCC). Using sharia-screening

criteria as suggested by MSCI (Morgan Stanley Composite Index), FTSE (Financial Times Stock Exchange), S&P (Standard and Poor), AAOIFI (Accounting and Auditing Organization for Islamic financial institutions), they find that sharia-compliant portfolios are generally less risky than conventional portfolios. However, the sharia-screening process does not have a significant effect on financial performance.

Other studies compare risk-return performance between SRI, Islamic, and conventional funds. For example, Hashim (2008) finds that SRI and Islamic funds are profitable and perform well compared to conventional funds. Hence, company activities that fundamentally are "doing good" are not compromising competitive returns. Investors are likely to achieve positive financial outcomes and positive "nonfinancial" outcomes through their investment. Similarly, Revelli (2017) also argues that SRI practices have transformed the goal of "doing good" while also pursuing profitability.

These papers all take the view that responsible and ethical investing delivers enough benefits to investors to offset any losses in the portfolio. This is because SRI has better operational performance, which ultimately leads to better financial returns for shareholders.

2.2. Corporate governance, ESG, and performance

A large body of empirical research has emerged to clarify the relationship between governance, ESG practices, and financial returns (Eliwa et al., 2019; Khan, 2019; Velte, 2017; Wong, Batten, et al., 2020). In a global context, Khan (2019) examines whether companies' ESG performance that includes corporate governance can predict stock returns. He develops new corporate governance and ESG metrics to examine the association between companies' stock returns and ESG performance, finding that these metrics can predict companies' stock returns in a global universe. In addition, governance is the most crucial component of ESG from the investor perspective. Velte (2017) studies the German market and also finds that ESG practices have a positive impact on the return on assets (ROA), but governance has a stronger impact on ROA than environmental and social dimensions.

Looking at emerging markets, Wong, Wong, & Boon-itt, (2020) finds that the inclusion of ESG adds value to Malaysian listed firms. They conclude that the impact of an ESG rating on firm value is clear, as market performance increases by more than 30 percent, and a firm's cost of capital drops by 1.2 percent. They add that an ESG or SRI agenda has benefits for stakeholders, as it has positive effects on company profitability. This finding also holds in the European market, according to Eliwa et al., 2019, who also determine that firms with strong ESG practices tend to have a lower cost of capital. They affirm that ESG practices are appropriately assessed by stakeholders seeking change in business decisions. These studies demonstrate that strong ESG practices can function as a guide for a company's overall quality of management, which translates into better financial outcomes.

In Muslim-majority countries, according to the Principles for Responsible Investment (PRI, July 13, 2017), the alignment of the social dimension in responsible investment, Islamic finance, and the inclusion of ESG scores with investment processes is crucial in promoting growth. These factors also contribute to the achievement of the UN's Sustainable Development Goals (SDGs). The principles are implemented in a globally sustainable agenda consistent with the triple bottom line (people, planet, and prosperity).

Previous empirical research has mixed evidence about Islamic and ESG strategies. Some scholars argue that integrating ESG into Islamic investment delivers benefits that exceed any losses (Erragraguy & Revelli, 2015; Paltrinieri et al., 2020; Sairally, 2015). Erragraguy and Revelli (2015) examine whether the inclusion of ESG criteria into Islamic portfolios has positive financial outcomes. They find that integrating ESG standards with Islamic portfolios does not sacrifice returns for Muslim investors. After the global financial crisis, the inclusion of ESG criteria into Islamic portfolios led to significantly higher performance. Based on *maqasid al-sharia* (higher objectives of sharia), Sairally (2015) argues that ESG are an integral part of *maqasid*, thus, ESG and sharia-compliance objectives should be achieved by Islamic financial institutions at the same time. Paltrinieri et al. (2020) explore the association between the IFDI and sustainability at 224 banks in sixteen jurisdictions. They find a strong and positive relationship between IFDI and ESG scores, mainly in the social pillar.

By contrast, skeptics argue that applying ESG considerations to Islamic investment might have different investment characteristics and result in lower returns (Ashraf & Khawaja, 2016; Miglietta & Forte, 2011). Miglietta and Forte (2011) argue that SRI and Islamic investment have distinct characteristics in terms of the sectoral exposure, econometric profile, and asset allocation. SRI funds are more inclined toward large-cap stocks, whereas Islamic funds are more oriented toward small-cap stocks. Moreover, Ashraf and Khawaja (2016) find that sharia-compliant portfolios underperform conventional portfolios across different markets. In terms of risk, sharia-compliant portfolios are not very different from conventional portfolios.

In summary, although several studies discuss ESG and investment in terms of Islamic finance, the literature has not reached a consensus. This study contributes to the unfolding discussion by comparing the ESG performance of sharia-compliant and noncompliant firms in Indonesia and Malaysia. We focus on the relationship between the firms' ESG performance scores and specific firm characteristics.

3. Data and methodology

3.1. Data and sample

The purpose of this paper is to examine whether sharia-compliant firms have higher environmental (ENVI), social (SOCI), and governance (GOVE) performance than non−sharia-compliant firms. The study was conducted in two countries, Indonesia and Malaysia, from 2009 to 2018. Specifically, we divide the sample of listed firms as of December 2018 into Islamic (IS, or sharia-compliant) and non-Islamic (NIS, or non-sharia-compliant) firms based on compliance with sharia requirements. In addition,

to measure ESG performance, this study uses ESG data published by Asset4 Thompson-Reuters from 2009 to 2018. Because the ESG concept does not distinguish firms based on the criteria used in the sharia-screening process, the data from Thompson-Reuters does not differentiate between firms in terms of their compliance with sharia requirements. Table 1 breaks down the groups for the two countries.

3.2. Empirical models

The methodology in this research consists of two main steps. First, we use a panel regression to determine whether IS firms perform better than NIS firms in terms of ESG factors. This panel regression is conducted with the full sample and with subsamples that distinguish between Indonesia and Malaysia. The study also adopts a statistical approach by including Islamic criteria in sharia screening to detect which ones have the most impact on the firms' ESG performance. Second, we regress ESG, ENVI, SOCI, and GOVE performance on Islamic dummy and control variables (See Table 2). To test our hypothesis, we adopt the equations by Hayat and Kabir Hassan (2017) as follows:

$$ESG_{it} = \beta_0 + \beta_1 IS_i + \sum_{s=1}^{6} \theta_s Z_{it} + \tau_c + \mu_i + \varepsilon_{it} \quad (1)$$

$$ESG_{it} = \beta_0 + \beta_1 IS_i + \sum_{d}^{3} \delta_d IL_{it} + \sum_{s=1}^{6} \theta_s Z_{it} + \tau_c + \mu_i + \varepsilon_{it} \quad (2)$$

The dependent variables (ESG_{it}) are for environmental (ENVI), social (SOCI), and governance (GOVE) performance and a composite ESG score. Dummy IS is 1 for Islamic stocks, and 0 otherwise. Z_{it} is the control variables for the average annual stock returns (ERET), the annual standard deviation of stock returns (VOL), profit margin (PROM), Tobin's Q (TOBQ), debt-to-equity ratio (DER), and the natural log of total assets (LNTA). IL_{it} comprises Islamic criteria, such as the leverage ratio (LEV), the ratio of accounts receivable to total assets (ARTA), and the ratio of cash to total assets (CATA). τ_c is the country dummy, which takes a value of 1 if the company is listed on the Malaysia Stock Exchange. μ_i is the firm-fixed effect, and ε_{it} is the error term.

Then, we conduct regression testing with the full sample and subsamples. As the fixed-effect or within-estimator model can wipe out the Islamic and country dummies, we adopt the common effect (pooled regression) and random effect generalized least squares (GLS) model to estimate the equations (Greene, 2018; Wooldridge, 2018). Our hypothesis is supported if the coefficient β_1 is significantly different from 0. If β_1 is positive, then the environmental (ENVI), social (SOCI), governance (GOVE), and the composite performance is higher for IS firms than NIS firms.

Table 1
Sample used in the study.

	Indonesia		Malaysia		Total
	IS	NIS	IS	NIS	
2009	3	3	5	4	15
2010	7	5	9	17	38
2011	15	8	13	26	62
2012	15	8	14	29	66
2013	16	10	16	31	73
2014	17	12	17	32	78
2015	19	12	18	32	81
2016	20	13	20	33	86
2017	21	13	22	34	90
2018	21	14	23	34	92

Notes: Table 1 describes the sample used in this study, which is from Malaysia and Indonesia in 2009–2018. The main measurement for environmental, social, and governance performance is issued by the ESG index provider. IS: Islamic firms; NIS: non-Islamic firms.

Source: Thomson-Reuters Datastream.

Table 2
Definitions of the variables.

	Definition and Measurement
Dependent variables	
ESG	Composite ESG Index
ENVI	Environment Index
SOCI	Social Responsibility Index
GOVE	Governance Index
Independent variable	
IS	Binary variable that equals 1 if an Islamic firm, and 0 otherwise
Control variable	
ERET	The annual return is the daily expected return in a year calculated as follows: $\hat{r}_{it} = \frac{1}{n}\sum_{s=1}^{n}(r_{is})$
VOL	Return volatility is the standard deviation of annual returns multiplied by the square root of 250 calculated as follows: $VOL_{it} = \sqrt{\frac{1}{n}\sum_{s=1}^{n}(r_{is} - \hat{r}_{it})} \times \sqrt{250}$
PROM	Net profit margin is the ratio of net income to total revenue
TOBQ	Tobin's Q is the ratio of capitalization to total assets
DER	Debt-to-equity is the ratio of total debt to shareholder equity
LNTA	Natural log of total assets
MALAY	Country dummy: Malaysia equals 1, and 0 otherwise
Islamic criteria	
LEV	Total debt divided by the market value of total assets (total debt plus market capitalization)
ARTA	Ratio of accounts receivable to total assets
CATA	Ratio of cash to total assets

4. Empirical results and discussions

Table 3 reports the descriptive statistics of the variables for the two groups of firms, showing that, in terms of ESG performance, IS firms perform better than NIS firms. The average environmental performance for Islamic firms is at 47.35, compared with 42.63 for non-Islamic firms. In their social contribution, Islamic firms also perform better, with shows that Islamic firms generally have better prospects (Lokuwaduge & Heenetigala, 2017), so it is rational for Islamic firms listed in the ESG index to perform better than non-Islamic firms (Azmi et al., 2019; El-Masry et al., 2016; Erragragui & Revelli, 2016; Qoyum et al., 2021). Table 3 also illustrates that Islamic firms are not different statistically from non-Islamic firms in terms of

Table 3
Descriptive statistics.

	Overall sample					IS (A)		NIS (B)		
	Obs.	Mean	SD	Min.	Max.	Obs.	Mean	Obs.	Mean	DIFF (A-B)
ESG	662	49.20	15.54	8.30	90.92	301	47.87	361	42.61	3.29**
ENVI	662	44.77	19.42	7.20	95.88	301	47.35	361	42.63	5.26***
SOCI	662	53.37	20.02	6.99	97.46	301	56.28	361	50.94	6.45***
GOVE	662	50.04	20.14	2.60	90.78	301	47.25	361	52.37	2.59
VOL	662	0.18	0.07	0.04	0.59	301	0.18	361	0.17	0.01*
ERET	662	0.01	0.14	−0.61	1.88	301	0.02	361	−0.01	0.03**
PROM	662	0.16	0.16	−1.49	0.97	301	0.15	361	0.16	−0.02
TOBQ	662	1.75	2.93	0.03	23.82	301	2.41	361	1.20	1.21***
DER	662	0.82	1.12	0.00	12.15	301	0.52	361	1.07	−0.55***
LNTA	662	22.47	1.41	19.12	26.00	301	22.07	361	22.80	−0.73***
LEV	606	0.24	0.20	0.00	0.90	300	0.16	306	0.32	−0.15***
ARTA	529	0.08	0.07	0.00	0.48	300	0.08	229	0.08	0.01
CATA	474	0.07	0.08	0.00	0.59	281	0.09	193	0.05	0.04***

Notes: ESG: composite score of environment (ENVI), socially responsible (SOCI), and governance (GOVE) index; VOL: standard deviation of annualized daily returns; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets); DER: debt-to-equity ratio; LNTA: natural log of total assets; MALAY: equals 1 if Malaysian firm, and 0 otherwise. Robust standard errors are clustered. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

the quality of governance, supporting Hayat and Kabir Hassan (2017), who find that Islamic firms do not have better quality than their conventional counterparts in terms of governance.

Table 3 also shows that Islamic firms have a lower ratio of debt to equity (DER), 0.52, compared to their conventional counterparts, about 1.07. This means that sharia screening, whose main criterion is leverage, is effective at mitigating the debt ratio, thus it can decrease the financial risk of a firm: the ratio of leverage in the table, is 0.16 for Islamic firms and 0.32 for non-Islamic firms. Islamic firms also perform better in terms of asset quality (at 0.09 for CATA), in which Islamic firms have better liquidity than non-Islamic firms (0.05).

Table S1 (see Supplementary Material, available online), contains a correlation matrix of the variables used in this research. The table shows that all three aspects of ESG are highly correlated. The highest correlation is between ENVI and SOCI (0.64), GOVE and ENVI still show a significant correlation at 0.22, and GOVE and SOCI are correlated at 0.30. All signs for positive correlation indicate that the governance quality of the firm is strongly related to the performance quality of the firm in terms of social and environmental aspects. The tables also report that the goal of "doing well while doing good" as stated by Azmi et al. (2019) and Qoyum et al. (2021) is acceptable. The positive correlation between environmental and social performance scores with TobinQ is 0.15 and 0.17, respectively. In addition, the three financial criteria used in sharia screening have a significant correlation with ENVI and SOCI performance. Leverage has a negative correlation with ENVI and SOCI performance, at −0.05, and −0.10, whereas ARTA (0.10 and 0.11, respectively) and CATA (0.14 and 0.16, respectively) have a positive correlation. The negative correlation between leverage and ENVI and SOCI indicates that firms with higher leverage have lower ENVI and SOCI performance. These simple correlations indicate that screening intensity has a good impact on the overall performance of the firm, whether financial performance or environmental and social performance. This finding supports the findings in previous studies by Ashraf and Khawaja (2016) and Dharani et al. (2019) that screening has a positive impact on performance. Another interesting finding documented in Table S1 is that Islamic screening criteria do not have a significant correlation to GOVE performance, which means that screening criteria for Islamic firms do not help firms to improve the quality of governance.

As stated earlier, few studies compare the performance of Islamic firms with either conventional firms or other types of firms. Some empirical studies—such as Abdullah et al. (2007), Arouri et al. (2013), El-Masry et al. (2016), Hussein (2004), Mansor and Bhatti (2016), and Peillex and Ureche-Rangau (2012)—find that Islamic investment performs better than conventional investment. But others—including Al-Awadhi and Dempsey (2017), Hoepner et al. (2011), Merdad et al. (2010)—find that Islamic investment underperforms their conventional counterparts. The other studies were conducted by Abdelsalam et al. (2014), Ashraf and Khawaja (2016), Charfeddine et al. (2016), BinMahfouz and Kabir Hassan (2013), Hayat and Kraeussl (2011), Girard and Hassan (2008), and Kabir Hassan et al. (2010) conclude that there is no difference in performance between Islamic and conventional (also ESG) investment. However, no previous studies discuss the performance of Islamic firms specifically, in terms of ESG factors in Indonesia and Malaysia.

Theoretically, the ultimate objective in Islamic finance as an alternative financial system is to achieve *maqasid al-sharia,* which emphasizes socioeconomic justice (Masih et al., 2018), poverty alleviation, income distribution, and economic productivity (Erragragui & Revelli, 2016). According to Al-Ghazali, a famous scholar in the eleventh century, the purpose of sharia is "to promote the welfare of the people, which lies in safeguarding their faith, their life, their intellect, their prosperity and their wealth" (Aribi & Gao, 2010). Given this, integrating ESG factors into the screening methods of Islamic investment is expected to help attain *maqasid al-sharia* in Islamic equity. This should allow the current screening process

used in Islamic equity, called mere "mathematical formalism" by critics such as Erragraguy and Revelli (2015), to be eased gradually. Hence, testing the performance of Islamic firms in terms of ESG factors is very important.

Table 4 shows the regression results in which environmental and social performance are dependent variables, and the independent variable is an Islamic dummy variable. We also use some control variables (See Table 2) adopted from previous research, such as Hayat and Kabir Hassan (2017); if β_1 is positive, then sharia-compliant firms have better performance than non-sharia-compliant firms.

Table 4 offers empirical evidence, controlled by the other variables, that Islamic firms have better environmental and social performance than non-Islamic firms as the coefficient of IS is positively significant. The coefficient for ENVI is 6.309 (significant at 1%) and 11.355 (significant at 1%), respectively. And the coefficient for social performance by Islamic firms is 7.537 and 10.188, respectively. Nevertheless, the regression result for GOVE performance shows no statistical difference between Islamic and non-Islamic firms.

This finding leads us to conclude that Islamic firms perform better in terms of the environmental and social indicators but not for governance indicators. This implies that Islamic firms already show better quality in maintaining the environment, such as natural resources, water, sanitation, and energy. In addition, Islamic firms also indicate good awareness of social conditions. This finding supports the basic argument that safeguarding the environment is part of *maqasid al-sharia*. Hence, this finding indicates a good future for Islamic finance, although regulations for Islamic firms regarding the ESG are still not in place. In addition, stakeholder theory states that the objective of firms is to maximize stakeholder satisfaction. Firm stakeholders comprise investors, suppliers, employees, customers, the government, community, political groups, and trade associations (Donaldson & Preston, 1995). Hence, from the perspective of stakeholder theory, Islamic firms have better awareness of stakeholders than non-Islamic firms. This finding supports the conclusions of Hayat and Kabir Hassan (2017) regarding governance quality, which might be due to the fact that screening criteria for Islamic firms include no governance criteria. Hence, in the future, governance quality should be added to the indicators in sharia screening.

The results in the subsamples for Indonesia and Malaysia are generally consistent in showing that Islamic firms have better environmental and social performance than non-Islamic firms. The coefficients are 8.491 (ENVI) and 7.574 (SOCI) for Malaysia and 22.063 for ENVI and 25.775 SOCI for Indonesia. Table 5 reports that Islamic firms in Indonesia and Malaysia perform better than their conventional counterparts. This finding is reasonable because Islamic firms are generally in better financial condition, supported by Durand, Koh, & Limkriangkrai, 2013, who state that sinner stocks generally rely on debt more than equity compared to saints (Islamic or ESG) and also have higher levels of cash. The finding also supports Christie (1982), who stated that volatility is an increasing function of financial leverage. In terms of financial condition and stakeholder reputation, Islamic firms are better than non-Islamic firms. Because of these two conditions, Islamic portfolios face lower risk.

Table 4
Full sample regression results.

	Common Effect				Random Effect			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	4.672***	6.309***	7.537***	−0.487	7.576**	11.355***	10.188**	−0.251
	(3.069)	(3.414)	(3.818)	(-0.245)	(2.482)	(3.192)	(2.520)	(-0.067)
VOL	11.935	16.623	25.501	−9.081	5.920	4.991	12.340	−1.681
	(0.776)	(0.883)	(1.400)	(-0.543)	(0.644)	(0.358)	(1.163)	(-0.130)
ERET	−7.098	0.066	−11.155	−10.362	−4.799	−1.531	−7.208	−5.960
	(-1.007)	(0.009)	(-1.325)	(-1.431)	(-1.157)	(-0.297)	(-1.383)	(-1.341)
PROM	−2.388	−16.941**	−4.840	16.689[b]	−11.271**	−24.591**	−9.480	3.142
	(-0.427)	(-2.258)	(-0.667)	(2.245)	(-2.043)	(-2.152)	(-1.295)	(0.401)
TOBQ	1.350***	1.794***	1.589***	0.577*	0.490	0.893**	0.329	0.469
	(5.790)	(6.769)	(5.659)	(1.806)	(1.287)	(2.227)	(0.703)	(0.945)
DER	−1.910	−2.540	−2.663	−0.331	6.330	5.389	5.013	6.808
	(-0.705)	(-0.769)	(-0.805)	(-0.088)	(1.504)	(0.842)	(1.114)	(1.290)
LNTA	2.707***	3.571***	2.486***	2.000[b]	4.021***	4.508***	4.407**	2.567*
	(4.062)	(4.052)	(3.093)	(2.256)	(3.033)	(2.832)	(2.542)	(1.734)
MALAY	4.331**	5.012**	5.624**	2.067	4.449	6.547	4.498	2.370
	(2.051)	(1.969)	(2.161)	(0.822)	(1.150)	(1.469)	(0.922)	(0.534)
C	−19.477	−42.837**	−15.005	1.359	−50.090	−66.208*	−56.331	−14.110
	(-1.195)	(-2.029)	(-0.765)	(0.064)	(-1.597)	(-1.772)	(-1.422)	(-0.412)
Obs.	673	673	673	673	673	673	673	673
R-Square	0.075	0.092	0.074	0.048	0.093	0.067	0.077	0.018

Notes: ESG: composite score of environmental (ENVI), social (SOCI), and governance (GOVE) aspects; IS: equals 1 if sharia compliant, and 0 otherwise; VOL: standard deviation of daily return annualized; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets); DER: debt-to-equity ratio; LNTA: natural log of total assets. Robust standard errors are clustered at the firm level. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

Table 5
Regression results by country.

MALAYSIA								
	Common Effect				Random Effect GLS			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	0.171	1.258	1.876	−3.026	5.269	8.491**	7.574*	−1.534
	(0.103)	(0.588)	(0.866)	(-1.354)	(1.603)	(2.132)	(1.712)	(-0.364)
VOL	2.034	3.382	14.997	−14.557	9.267	6.782	15.702	3.037
	(0.150)	(0.192)	(0.842)	(-0.793)	(0.746)	(0.403)	(1.028)	(0.176)
ERET	−2.888	1.555	−4.206	−6.308	−6.145	−5.085	−8.442	−4.491
	(-0.533)	(0.222)	(-0.593)	(-0.862)	(-1.356)	(-0.824)	(-1.519)	(-0.709)
PROM	−0.549	−16.433*	−6.848	24.489***	−8.184	−23.800**	−9.662	12.945
	(-0.082)	(-1.896)	(-0.780)	(2.705)	(-1.023)	(-2.238)	(-0.969)	(1.178)
TOBQ	1.570***	2.694***	1.510**	0.388	1.129*	2.102**	0.962	0.309
	(3.200)	(4.243)	(2.349)	(0.584)	(1.665)	(2.420)	(1.108)	(0.341)
DER	3.825	4.216	−0.343	8.242**	7.647**	8.153*	4.785	9.888**
	(1.284)	(1.094)	(-0.088)	(2.047)	(2.089)	(1.686)	(1.045)	(1.976)
LNTA	1.992**	3.387***	1.687	0.793	3.550***	4.431***	3.941**	2.109
	(2.472)	(3.249)	(1.599)	(0.728)	(2.740)	(2.724)	(2.332)	(1.236)
C	0.708	−34.369	11.673	27.047	−37.000	−60.620	−41.866	−4.661
	(0.038)	(-1.439)	(0.483)	(1.084)	(-1.250)	(-1.630)	(-1.084)	(-0.120)
Obs.	421	421	421	421	421	421	421	421
R^2	0.053	0.080	0.022	0.073	0.081	0.060	0.064	0.020
INDONESIA								
	Common Effect				Random Effect GLS			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	19.104***	22.063***	25.775***	8.042*	10.000	12.445*	13.172	5.428
	(5.617)	(6.480)	(6.464)	(1.781)	(1.278)	(1.651)	(1.192)	(0.579)
VOL	19.038	35.905	30.346	−12.928	−1.944	8.797	6.655	−24.750
	(0.646)	(1.130)	(0.830)	(-0.382)	(-0.209)	(0.639)	(0.568)	(-1.134)
ERET	−15.129	−1.807	−22.320	−21.611*	−1.595	7.207	−3.036	−11.147**
	(-1.342)	(-0.147)	(-1.531)	(-1.843)	(-0.371)	(1.212)	(-0.543)	(-2.307)
PROM	−8.103	−25.600*	2.489	−0.925	−13.551	−20.997	−8.662	−12.366
	(-0.969)	(-1.907)	(0.212)	(-0.060)	(-1.514)	(-1.095)	(-0.751)	(-1.319)
TOBQ	1.330***	1.525***	1.771***	0.601	−0.139	−0.167	−0.408	0.583
	(4.994)	(5.523)	(5.593)	(1.368)	(-0.291)	(-0.326)	(-0.728)	(0.986)
DER	−17.990***	−21.810***	−9.726	−23.348***	5.076	1.601	7.807	1.049
	(-3.029)	(-3.119)	(-1.390)	(-3.207)	(0.660)	(0.141)	(1.073)	(0.121)
LNTA	4.551**	4.862***	3.964*	4.889**	5.291	8.514**	4.994	0.797
	(2.604)	(2.622)	(1.729)	(1.990)	(1.539)	(1.981)	(1.303)	(0.165)
C	−66.655*	−79.524*	−62.691	−56.924	−75.174	−150.830	−69.246	28.968
	(-1.693)	(-1.890)	(-1.226)	(-1.024)	(-1.034)	(-1.628)	(-0.870)	(0.283)
Obs.	252	252	252	252	252	252	252	252
R^2	0.273	0.295	0.260	0.109	0.145	0.153	0.126	0.040

Notes: ESG: composite score of environmental (ENVI), social (SOCI), and governance (GOVE) aspects; IS: equals 1 if sharia compliant, and 0 otherwise; VOL: standard deviation of annualized daily returns; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets); DER: debt-to-equity ratio; LNTA: natural log of total assets. Robust standard errors are clustered at the firm level. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

In Table 5, the GOVE performance shows that, although the regression of the full sample (in Table 4) shows no difference in terms of performance between Islamic and non-Islamic firms, the subsample regression finds that in Indonesia, Islamic firms have better governance quality than non-Islamic firms. In contrast, in Malaysia, no significant differences arise between Islamic and non-Islamic firms in terms of GOVE. This fact might be caused by the different screening models applied in Indonesia and Malaysia, which result in a different quality of governance. From this perspective, integrating ESG values into sharia screening is crucial for improving firm quality.

Some researchers (Bennett & Iqbal, 2013; Moghul & Safar-Aly, 2014; Qoyum et al., 2021) have suggested that Islamic screens should be integrated into ESG factors. This suggestion is based on the notion that Islamic screening is comparable to mathematical formalism, in the sense that it focuses on negative screening, rather than positive screening. Positive screening is more concerned about the impacts on the environment and society. Therefore, the idea of integrating ESG into Islamic screening can be seen as an attempt to achieve *maqasid al-sharia*. Under current Islamic finance conditions, sharia screening is insufficient because it tends to be negative, which means it rejects companies that have any operations that

contravene sharia principles. As sharia-compliant firms, they must have a significant impact on the environment and society. This means that their financial profits, in terms of risk, returns, and liquidity, are insufficient (Sun et al., 2011). In modern business, sustainability can be seen as an important element in finance. Many Islamic finance experts have used legitimacy theory[1] and stakeholder theory[2] as the basis of arguments for the need to include ESG factors in Islamic screening (Lokuwaduge & Heenetigala, 2017).

This finding shows that Islamic firms have better quality in terms of environmental and social performance. But the findings in Tables 4 and 5 do not indicate which of the Islamic criteria applied in Islamic screening has a significant impact on performance. Hence, following Hayat and Kabir Hassan (2017), this study regresses Islamic criteria, which are the leverage ratio (LEV), the ratio of accounts receivable to total assets (ARTA), and the ratio of cash to total assets (CATA). They also use the ratio of interest income to revenue, but we do not, because of a lack of information in interest income. Table 6 lists the results of the regression between Islamic screening criteria, showing that all three Islamic criteria have a significant impact on the environmental and social performance of the firms. Islamic firms perform better than non-Islamic firms, at 8.806 (ESG), 12.771 (ENVI), and 10.701 (SOCI), but not for GOVE. A positive sign indicates that Islamic firms have higher performance than non-Islamic firms in terms of the ESG factors.

In addition, the positive sign for the ARTA coefficient as described in Table 6 indicates that the higher the cash flow of the firms, the higher the performance of Islamic firms in environmental and social activities. However, firm leverage also has a positive sign, which demonstrates that firms try to improve their reputation and stakeholder satisfaction by engaging in socially responsible activities. Based on the legitimacy and stakeholder theories, Islamic firms that have good performance in environmental and socially responsible activities as requested in the ESG standards will benefit in terms of stakeholder trust; thus, the company's reputation will improve. Therefore, Islamic firms will raise their productivity, cost saving, and lower reputational risk (Barman, 2018), thus providing higher value for stockholders, less risky business, and lower-cost capital (Feldman et al., 1997; Yuen et al., 2017).

5. Robustness test

5.1. Split sample based on size

Robustness tests are conducted by splitting the sample based on the firm's size and the study period. In the first subsample, we adopt Fama & French, 2015 configuration to divide firms based on size, that is, being big or small, according to their one-year prior market capitalization. More specifically, we calculate the median as the threshold for splitting firms into these two subsamples for every country and year. However, the size can vary over time. Then, we estimate the regressions for each group using pooled least squares, a least-squares dummy variable (LSDV), and random affects GLS. To address potential problems with heteroskedasticity and autocorrelation, we cluster robust standard errors at the firm level.

The results in Tables 4 and 5 shows that Islamic firms have better performance than their non-Islamic counterparts in terms of environmental and social performance, but not for governance performance. However, the finding may be biased due to the size of the firm. So, we perform statistical tests to distinguish firms based on their size, and the results are in Table 7, Table S2 (see Supplementary Material, available online), and Table S3 (see Supplementary Material, available online). As seen in previous studies, such as Fama and French (1992, 2002, 2006, 2018), Bartholdy and Peare (2005), Erragragui and Revelli (2016), and Paranque and Erragragui (2016), this distinction is normal in finance. Table 7 documents that being labeled as Islamic label has a significant impact on a firm's environmental and social performance, regardless of whether it is large or small. This finding confirms the previous results in which Islamic firms in Malaysia and Indonesia are more aware of environmental and socially responsible activities than non-Islamic firms. All the coefficients for both large and small firms are positively significant at 1 percent, as follows for environmental (12.85, 11.34, 21.02, 16.36) and socially responsible (18.29, and 17.38) activities.

The results in Table 7 also show that social performance is more significant at big firms, with coefficients of 18.29 and 17.38, respectively. This finding is rational because firms with higher assets have more flexibility in performing socially responsible activities, thus, their social performance increases. This result supports the current screening criteria in some Islamic indexes, which use asset size as the main criterion (Derigs & Marzban, 2008; Ho et al., 2011, 2015; Khatkhatay & Nisar, 2007; Rizaldy & Ahmed, 2019). Moreover, Table 7 reaffirms that no difference is seen in governance quality performance between Islamic and non-Islamic firms, at either large or small firms. Table S2 and Table S3 (see Supplementary Material, available online) show that the big firms have a better social performance compared to small firms either in case of Malaysia or Indonesia.

5.2. Split sample based on the period

This sample period is 2009−2018, a total of ten years. To test the consistency of the regression results over time, we also divide the sample group into two periods of five years each: 2009−2013 and 2014−2018. As with the subsample based on market capitalization, we estimate each group using pooled least squares, least-squares dummy variables, and random effects GLS, and robust standard errors are clustered at the firm

[1] In this point of view, the company is focused not merely on the stockholder but also all the groups of people related to the firm's operations. Thus, here, the stakeholder theory is more concerned with sustainability issues than conventional theory.

[2] Legitimacy theory, which basically says that if a firm is aware of the environment and the social aspects, it will have a good reputation with the stakeholders.

Table 6
The effect on performance of an Islamic label.

	Common Effect				Random Effect GLS			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	8.806***	12.771***	10.701***	2.181	11.433***	17.122***	12.703**	3.528
	(4.944)	(6.145)	(4.603)	(0.928)	(3.018)	(3.980)	(2.558)	(0.793)
LEV	9.566	7.729	20.493**	−1.106	31.377***	43.683***	34.736***	7.035
	(1.238)	(0.890)	(2.190)	(-0.115)	(3.429)	(3.255)	(3.065)	(0.665)
ARTA	−14.190	−11.888	−16.712	−13.820	17.183	37.129**	1.900	5.722
	(-1.336)	(-0.908)	(-1.292)	(-0.944)	(1.481)	(2.291)	(0.092)	(0.308)
CATA	49.766***	47.630***	65.146***	34.245***	21.649*	10.851	26.932	27.199**
	(5.165)	(4.178)	(5.447)	(2.699)	(1.793)	(0.770)	(1.353)	(2.181)
Control Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C	39.427*	38.096	38.130	42.419	−25.126	0.196	−31.020	−16.798
	(1.786)	(1.422)	(1.367)	(1.451)	(-0.585)	(0.004)	(-0.567)	(-0.340)
Obs.	385	385	385	385	385	385	385	385
R^2	0.171	0.208	0.172	0.037	0.171	0.203	0.115	0.025
Malaysia								
	Common Effect				Random Effect			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	6.287***	10.427***	5.998**	2.010	11.692***	17.976***	10.665**	5.042
	(3.045)	(3.890)	(2.157)	(0.693)	(2.785)	(3.499)	(2.056)	(0.947)
LEV	7.340	13.113	8.921	−0.937	38.245***	50.512***	37.742***	17.923
	(0.679)	(1.120)	(0.715)	(-0.075)	(2.695)	(2.730)	(2.998)	(1.113)
ARTA	−7.254	−9.956	−15.655	5.538	13.063	32.336	−15.168	20.791
	(-0.538)	(-0.598)	(-0.934)	(0.303)	(0.735)	(1.402)	(-0.571)	(1.173)
CATA	−11.354	0.678	3.398	−41.935**	32.528	22.136	66.827***	−2.366
	(-0.746)	(0.042)	(0.151)	(-2.177)	(1.492)	(0.908)	(3.168)	(-0.123)
Control Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C	79.097***	81.423**	70.662**	86.320**	13.790	46.055	−16.062	27.691
	(2.952)	(2.392)	(1.998)	(2.347)	(0.239)	(0.642)	(-0.273)	(0.422)
Obs.	216	216	216.000	216.000	216.000	216.000	216.000	216.000
R^2	0.081	0.163	0.059	0.039	0.229	0.239	0.205	0.029
Indonesia								
	Common Effect				Random Effect			
	ESG	ENVI	SOCI	GOVE	ESG	ENVI	SOCI	GOVE
IS	14.815***	18.948***	20.012***	4.160	10.447	14.032*	14.962	2.544
	(4.722)	(5.612)	(5.692)	(0.883)	(1.349)	(1.806)	(1.405)	(0.264)
LEV	4.853	−5.810	32.559**	−15.509	12.513	26.665	19.404	−11.668
	(0.419)	(-0.390)	(2.299)	(-0.927)	(1.082)	(1.582)	(0.885)	(-0.847)
ARTA	−22.254	−18.203	−15.566	−34.555*	22.187	39.197*	29.630	−10.612
	(-1.634)	(-1.047)	(-0.889)	(-1.662)	(1.630)	(1.752)	(1.237)	(-0.347)
CATA	80.767***	67.507***	95.675***	78.196***	5.444	−8.729	−6.229	39.861**
	(7.048)	(4.754)	(6.606)	(4.494)	(0.385)	(-0.528)	(-0.364)	(2.283)
Control Included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C	−43.355	−45.404	−57.511	−24.593	−71.816	−111.288	−54.555	−20.403
	(-1.410)	(-1.184)	(-1.462)	(-0.543)	(-1.050)	(-1.250)	(-0.730)	(-0.211)
Obs.	169.000	169.000	169.000	169.000	169.000	169.000	169.000	169.000
R^2	0.372	0.327	0.383	0.175	0.135	0.205	0.125	0.076

Notes: ESG: composite score of environmental (ENVI), social (SOCI), and governance (GOVE) aspects; IS: equals 1 if sharia compliant, and 0 otherwise; LEV: leverage ratio; ARTA: Accounts receivable to total assets; CATA: cash to total assets. Control variables consist of VOL: standard deviation of annualized daily returns; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets); LNTA: natural log of total assets. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

level. This testing is crucial for determining whether the results in Tables 4 and 5 are time invariant.

Overall, the results in Table 8, show that Islamic firms have better performance than non-Islamic firms on environmental and social issues. This finding supports the results in Tables 4 and 5 For the period 2009−2013, the coefficients are 10.74 (1%) for environmental issues and 9.10 (1%) for social issues; whereas for the period 2014−2018, a positive coefficient was also obtained: 12.43 (5%) for environmental performance and 10.14 (1%) for social performance. For governance, no results

Table 7
Regression results based on firm size.

	IS	LEV	ARTA	CATA	C	Control Included	Obs.	R^2
Pooled least squares (small)								
ESG	5.23*	−14.04	−57.77***	80.56***	92.42*	Yes	289	0.25
	(1.81)	(-1.21)	(-3.30)	(5.32)	(1.86)			
ENVI	12.85***	−22.93*	−52.57**	82.55***	12.13	Yes	289	0.28
	(3.79)	(-1.77)	(-2.46)	(4.59)	(0.22)			
SOCI	−3.05	−4.38	−85.61***	107.35***	119.94**	Yes	289	0.23
	(-0.87)	(-0.32)	(-4.25)	(5.97)	(2.01)			
GOVE	6.36	−15.37	−31.18	47.17*	149.87**	Yes	289	0.11
	(1.42)	(-0.98)	(-1.33)	(1.75)	(2.32)			
Pooled least squares (big)								
ESG	10.18***	34.88**	26.27*	48.84***	−50.15	Yes	384	0.37
	(4.75)	(2.33)	(1.96)	(4.12)	(-1.42)			
ENVI	11.34***	40.01**	31.56*	44.69***	−8.60	Yes	384	0.34
	(4.40)	(2.40)	(1.82)	(3.27)	(-0.21)			
SOCI	18.29***	46.64***	33.71**	62.70***	−89.10**	Yes	384	0.43
	(6.82)	(2.70)	(2.13)	(4.22)	(-2.09)			
GOVE	−0.57	15.49	11.73	37.33***	−51.13	Yes	384	0.12
	(-0.20)	(0.96)	(0.60)	(2.60)	(-1.10)			
Random effect GLS (small)								
ESG	9.83**	23.59	−4.09	7.21	53.61	Yes	289	0.18
	(2.02)	(1.60)	(-0.23)	(0.44)	(0.65)			
ENVI	21.02***	28.3	37.85	−3.33	3.14	Yes	289	0.26
	3.58	1.45	1.63	−0.18	0.03			
SOCI	3.31	22.67	−37.66*	20.27	35.21	Yes	289	0.11
	0.57	1.33	−1.79	1.38	0.35			
GOVE	4.01	8.83	−22.88	15.31	153.06	Yes	289	0.03
	0.57	0.48	−0.67	0.42	1.6			
Random effect GLS (big)								
ESG	12.62***	38.98**	35.32**	43.93**	−61.94	Yes	384	0.18
	3.25	2.09	2.22	2.49	−1.34			
ENVI	16.36***	52.96**	35.70*	35.59*	−18.6	Yes	384	0.16
	3.83	2.52	1.94	1.85	−0.34			
SOCI	17.38***	41.03**	41.98**	52.85**	−64.26	Yes	384	0.09
	3.65	1.99	2.05	1.97	−1.23			
GOVE	2.48	13.56	19.24	40.14***	−80.54	Yes	384	0.06
	0.53	0.69	0.69	2.65	−1.25			

Notes: This table reports the robustness checks for the full sample. We split the sample into small and big firms based on one-year past market capitalization. The regression model is as follows: $ESG_{it} = \beta_0 + \beta_1 IS_i + \sum_{d}^{3} \delta_d IL_{it} + \sum_{s=1}^{6} \theta_s Z_{it} + \tau_c + \mu_i + \varepsilon_{it}$ where ESG_{it} represents the composite ESG and environmental (ENVI), social (SOCI), and governance (GOVE) scores; IS_i is an Islamic dummy; IL_{it} consists of Islamic label factors, which are LEV: leverage ratio; ARTA: Accounts receivable to total assets; CATA: cash to total assets. Z_{it} consist of control variables, which are GOVE: corporate governance index; VOL: standard deviation of annualized daily returns; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets) and; LNTA: natural log of total assets; τ_c (MALAY) equals 1 if Malaysian firm, and 0 otherwise; μ_i is firm fixed effects, and ε_{it} is the error term. The model is estimated by common effects and random effect GLS. Robust standard errors are clustered at the firm level. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

that were statistically significant indicated differences between Islamic and non-Islamic firms. Table S4, and Table S5 (see Supplementary Material, available online) also comes to the conclusion that either in Malaysia and Indonesia, Islamic firms perform better on environmental and social issues than non-Islamic firms.

6. Conclusion and recommendations

This study analyzes whether having an Islamic label indicates good performance in environmental and social criteria by firms listed in Indonesia and Malaysia, as measured by Asset4 Thomson-Reuters. This result is very crucial for raising the quality of Islamic firms that not only are sharia compliant (based on sharia screening) but also make a real contribution by protecting the environment and improving social well-being. In addition, this study is important for supporting the idea of integrating Islamic values and ESG, as proposed by Bennett and Iqbal (2013), Masih et al. (2018), Moghul and Safar-Aly (2014), and Qoyum et al. (2021). They find that Islamic firms have a better performance in environmental and social activities, therefore Islamic firms are more aware of these issues since they are consistent with *maqasid al-sharia.*

The study finds significant differences in the quality of environmental and social performance between Islamic and non-Islamic firms in Indonesia and Malaysia. This result is documented by our regressions on the Islamic label and control variables (corporate governance quality, volatility,

Table 8
Regression results based on the period.

	IS	LEV	ARTA	CATA	C	Control included	Obs.	R^2
Common effect (2009−2013)								
ESG	7.99***	17.28	1.15	36.57***	66.58	Yes	249	0.28
	2.76	1.14	0.08	2.78	1.47			
ENVI	10.74***	14.36	2.56	30.64*	37.6	Yes	249	0.33
	3.62	1.03	0.17	1.88	0.83			
SOCI	9.10**	32.64*	11.45	39.08**	55.28	Yes	249	0.27
	2.32	1.71	0.73	2.47	0.97			
GOVE	3.63	2.67	−12.42	40.27**	112.03*	Yes	249	0.13
	0.86	0.14	−0.56	2.3	1.78			
Common effect (2014−2018)								
ESG	8.36***	4.2	−20.94	42.55***	29.19	Yes	424	0.18
	3.76	0.45	−1.45	2.84	1.13			
ENVI	12.43***	3.56	−16.38	42.59**	34.25	Yes	424	0.22
	4.64	0.32	−0.85	2.49	1.06			
SOCI	10.14***	13.85	−34.23*	65.26***	40	Yes	424	0.19
	3.57	1.23	−1.85	3.5	1.23			
GOVE	1.75	−6.33	−10.57	16.08	10.97	Yes	424	0.02
	0.6	−0.55	−0.55	0.84	0.32			
Random effect GLS (2009−2013)								
ESG	9.46**	11.62	−5.54	−3.17	17.92	Yes	249	0.08
	2.04	0.7	−0.33	−0.3	0.32			
ENVI	12.56***	25.02	−7.9	−0.86	52.81	Yes	249	0.05
	2.73	1.21	−0.41	−0.05	0.94			
SOCI	10.73*	12.32	−9.34	−5.21	−10.91	Yes	249	0.04
	1.69	0.86	−0.48	−0.37	−0.17			
GOVE	3.81	−10.85	2.41	15.72	61.88	Yes	249	0.01
	0.59	−0.44	0.09	1.04	0.8			
Random effect GLS (2014−2018)								
ESG	9.96***	24.15**	31.66*	28.78*	−16.78	Yes	424	0.20
	2.61	2.37	1.95	1.69	−0.38			
ENVI	15.06***	30.00**	62.84**	29.81	−42.07	Yes	424	0.23
	3.3	2.08	2.54	1.38	−0.77			
SOCI	11.25**	30.68*	16.46	32.3	−19.66	Yes	424	0.12
	2.3	1.96	0.67	1.53	−0.37			
GOVE	2.48	3.78	3.47	22.66	22.26	Yes	424	0.04
	0.54	0.35	0.13	1.17	0.45			

Notes: This table reports the robustness check for the full sample. We split the sample into two periods. The regression model can be expressed as follow: $ESG_{it} = \beta_0 + \beta_1 IS_i + \sum_{d}^{3} \delta_d IL_{it} + \sum_{s=1}^{6} \theta_s Z_{it} + \tau_c + \mu_i + \varepsilon_{it}$ where ESG_{it} represents the composite ESG and environmental (ENVI), social (SOCI), and governance (GOVE) scores; IS_i is an Islamic dummy; IL_{it} consists of Islamic label factors, which are LEV: leverage ratio; ARTA: Accounts receivable to total assets; CATA: cash to total assets. Z_{it} consist of control variables, which are GOVE: corporate governance index; VOL: standard deviation of annualized daily returns; ERET: average annualized daily returns; PROM: profit margin (operating income/revenue); TOBQ: Tobin's q (market capitalization/total assets) and; LNTA: natural log of total assets; τ_c (MALAY) equals 1 if Malaysian firm, and 0 otherwise; μ_i is firm fixed effects, and ε_{it} is the error term. The model is estimated by common effects and random effect GLS. Robust standard errors are clustered at the firm level. *T*-statistics in parentheses. *, **, and *** significant at 10%, 5%, and 1% respectively.

annualized daily return, profit margin, Tobin's Q, the debt-equity ratio, and total assets). The results are consistent even after the sample is divided by firm size and different time horizons. Hence, from this perspective, Islamic firms have taken good steps in integrating Islamic values with ESG factors. From the theoretical perspective, stakeholder theory in particular reveals that Islamic firms are maximizing stakeholder benefits, not just profit. This study also has other interesting findings, in which financial criteria applied in sharia screening have a significant effect on firms' environmental and social performance.

This study makes several contributions to the literature on Islamic finance, especially concerning Islamic screening with ESG factors. This study builds on the previous research about ESG and Islamic firms, such as Abdelsalam et al. (2014), BinMahfouz and Kabir Hassan (2013), Hassan and Syafri Harahap (2010), and Hayat and Kabir Hassan (2017). This study focuses specifically on testing a hypothesis concerning whether Islamic firms perform better in terms of ESG factors as a way to show the impact of the Islamic label on a firm's stakeholders. Hence, from the theoretical perspective, in particular stakeholder theory, this study might be important in developing Islamic finance with ESG factors (Donaldson & Preston, 1995).

In practical terms, this study supports the views of Hayat and Kabir Hassan (2017), who argue that focusing on ESG criteria in sharia screening will improve the quality of Islamic firms. The "Islamic" label is not only a marketing label but

also a quality certification. Hence, as a result of this study, investors should invest in an Islamic firm that has good performance in ESG terms. For policymakers, this study can also be used as a reference for developing Islamic finance more focused on sustainability issues (Qoyum et al., 2021) including socioeconomic and human development (Zain & Muhamad Sori, 2020) by improving the quality of screening of Islamic firms.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.bir.2021.06.001.

References

Abdelsalam, O., Duygun, M., Matallín, J. C., & Tortosa-Ausina, E. (2014). On the comparative performance of socially responsible and Islamic mutual funds. *Journal of Economic Behavior & Organization, 103*, S108−S128. https://doi.org/10.1016/j.jebo.2013.06.011

Abdullah, F., Hassan, T., & Mohamad, S. (2007). Investigation of performance of Malaysian Islamic unit trust funds: Comparison with conventional unit trust funds. *Managerial Finance, 33*(2), 142−153. https://doi.org/10.1108/03074350710715854

Adam, A. A., & Shauki, E. R. (2014). Socially responsible investment in Malaysia: Behavioral framework in evaluating investors' decision-making process. *Journal of Cleaner Production, 80*, 224−240. https://doi.org/10.1016/j.jclepro.2014.05.075

Aggarwal, M., & Mehta, D. (2013). *CSR: A strategy for sustainable business success: Evidence from Indian companies*. Social Science Research Network. https://papers.ssrn.com/abstract=2996335/.

Al-Awadhi, A. M., & Dempsey, M. (2017). Social norms and market outcomes: The effects of religious beliefs on stock markets. *Journal of International Financial Markets, Institutions and Money, 50*, 119−134. https://doi.org/10.1016/j.intfin.2017.05.008

Aribi, Z. A., & Gao, S. (2010). Corporate social responsibility disclosure. *Journal of Financial Reporting & Accounting, 8*(2), 79−91. https://doi.org/10.1108/19852511011088352

Arjaliès, D.-L. (2010). A social movement perspective on finance: How socially responsible investment mattered. *Journal of Business Ethics, 92*(1), 57−78. https://doi.org/10.1007/s10551-010-0634-7

Arouri, M. E., Ben Ameur, H., Jawadi, N., Jawadi, F., & Louhichi, W. (2013). Are islamic finance innovations enough for investors to escape from a financial downturn? Further evidence from portfolio simulations. *Applied Economics, 45*(24), 3412−3420. https://doi.org/10.1080/00036846.2012.707776

Ashraf, D., & Khawaja, M. (2016). Does the shariah screening process matter? Evidence from shariah-compliant portfolios. *Journal of Economic Behavior & Organization, 132*, 77−92. https://doi.org/10.1016/j.jebo.2016.10.003

Azmi, W., Ng, A., Dewandaru, G., & Nagayev, R. (2019). Doing well while doing good: The case of Islamic and sustainability equity investing. *Borsa Istanbul Review, 19*(3), 207−218. https://doi.org/10.1016/j.bir.2019.02.002

Barman, E. (2018). Doing well by doing good: A comparative analysis of ESG standards for responsible investment. In S. Dorobantu, R. V. Aguilera, J. Luo, & F. J. Milliken (Eds.), *Sustainability, stakeholder governance, and corporate social responsibility* (pp. 289−311). Bingley, UK: Emerald. https://doi.org/10.1108/S0742-332220180000038016.

Bartholdy, J., & Peare, P. (2005). Estimation of expected return: CAPM vs. Fama and French. *International Review of Financial Analysis, 14*(4), 407−427. https://doi.org/10.1016/j.irfa.2004.10.009

Bennett, M. S., & Iqbal, Z. (2013). How socially responsible investing can help bridge the gap between Islamic and conventional financial markets. *International Journal of Islamic and Middle Eastern Finance and Management, 6*(3), 211−225. https://doi.org/10.1108/IMEFM-Aug-2012-0078

Berry, T. C., & Junkus, J. C. (2013). Socially responsible investing: An investor perspective. *Journal of Business Ethics, 112*(4), 707−720.

Bilbao-Terol, A., Arenas-Parra, M., Cañal-Fernández, V., & Bilbao-Terol, C. (2016). Multi-criteria decision making for choosing socially responsible investment within a behavioral portfolio theory framework: A new way of investing into a crisis environment. *Annals of Operations Research, 247*(2), 549−580. https://doi.org/10.1007/s10479-015-1947-9

BinMahfouz, S., & Kabir Hassan, M. (2013). Sustainable and socially responsible investing: Does Islamic investing make a difference? *Humanomics, 29*(3), 164−186. https://doi.org/10.1108/H-07-2013-0043

Brammer, S., Brooks, C., & Pavelin, S. (2006). Corporate social performance and stock returns: UK evidence from disaggregate measures. *Financial Management, 35*(3), 97−116.

Browning, M. (2020). *White paper doing well while doing good*. U-Ethical https://www.uethical.com/uploads/resources/White-Paper-Doing-well-while-doing-good-032020-APPROVED.pdf.

Charfeddine, L., Najah, A., & Teulon, F. (2016). Socially responsible investing and Islamic funds: New perspectives for portfolio allocation. *Research in International Business and Finance, 36*, 351−361. https://doi.org/10.1016/j.ribaf.2015.09.031

Chowdhury, M. A. F., & Masih, M. (2015). *Socially responsible investment and shariah-compliant investment compared: Can investors benefit from diversification? An ARDL approach*. MPRA Paper No. 65828.

Christie, A. (1982). The stochastic behavior of common stock variances Value, leverage and interest rate effects. *Journal of Financial Economics, 10*(4), 407−432. https://doi.org/10.1016/0304-405X(82)90018-6

Clark, G. L., & Viehs, M. (2014). The implications of corporate social responsibility for Investors: An overview and evaluation of the existing CSR literature. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2481877

Crifo, P., Forget, V. D., & Teyssier, S. (2015). The price of environmental, social and governance practice disclosure: An experiment with professional private equity investors. *Journal of Corporate Finance, 30*(C), 168−194.

Derigs, U., & Marzban, S. (2008). Review and analysis of current Shariah-compliant equity screening practices. *International Journal of Islamic and Middle Eastern Finance and Management, 1*(4), 285−303. https://doi.org/10.1108/17538390810919600

de Zwaan, L., Brimble, M., & Stewart, J. (2015). Member perceptions of ESG investing through superannuation. *Sustainability Accounting, Management and Policy Journal, 6*(1), 79−102. https://doi.org/10.1108/SAMPJ-03-2014-0017

Dharani, M., Hassan, M. K., & Paltrinieri, A. (2019). Faith-based norms and portfolio performance: Evidence from India. *Global Finance Journal, 41*, 79−89. https://doi.org/10.1016/j.gfj.2019.02.001

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review, 20*(1), 65. https://doi.org/10.2307/258887

Dorfleitner, G., Utz, S., & Wimmer, M. (2018). Patience pays off: Corporate social responsibility and long-term stock returns. *Journal of Sustainable Finance & Investment, 8*(2), 132−157. https://doi.org/10.1080/20430795.2017.1403272

Dunfee, T. W. (2003). Social investing: Mainstream or backwater? *Journal of Business Ethics, 43*(3), 247−252. https://doi.org/10.1023/A:1022914831479

Durand, R. B., Koh, S., & Limkriangkrai, M. (2013). Saints versus sinners: Does morality matter? *Journal of International Financial Markets, Institutions and Money, 24*, 166−183. https://doi.org/10.1016/j.intfin.2012.12.002

El-Masry, A. A., de Mingo-López, D. V., Matallín-Sáez, J. C., & Tortosa-Ausina, E. (2016). Environmental conditions, fund characteristics, and Islamic orientation: An analysis of mutual fund performance for the MENA region. *Journal of Economic Behavior & Organization, 132*, 174−197. https://doi.org/10.1016/j.jebo.2016.10.015

Eliwa, Y., Aboud, A., & Saleh, A. (2019). *ESG practices and the cost of debt: Evidence from EU countries* (p. 102097). Critical Perspectives on Accounting. https://doi.org/10.1016/j.cpa.2019.102097

Erragragui, E., Hassan, M. K., Peillex, J., & Khan, A. N. F. (2018). Does ethics improve stock market resilience in times of instability? *Economic Systems, 42*(3), 450−469. https://doi.org/10.1016/j.ecosys.2017.09.003

Erragragui, E., & Revelli, C. (2016). Is it costly to be both shariah compliant and socially responsible? *Review of Financial Economics, 31*, 64−74. https://doi.org/10.1016/j.rfe.2016.08.003

Erragraguy, E., & Revelli, C. (2015). Should Islamic investors consider SRI criteria in their investment strategies? *Finance Research Letters, 14*, 11−19. https://doi.org/10.1016/j.frl.2015.07.003

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *The Journal of Finance, 47*(2), 427−465. https://doi.org/10.1111/j.1540-6261.1992.tb04398.x

Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of Financial Studies, 15*(1), 1−33.

Fama, E. F., & French, K. R. (2006). Profitability, investment and average returns. *Journal of Financial Economics, 82*(3), 491−518. https://doi.org/10.1016/j.jfineco.2005.09.009

Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. *Journal of Financial Economics, 116*(1), 1−22. https://doi.org/10.1016/j.jfineco.2014.10.010

Fama, E. F., & French, K. R. (2018). Choosing factors. *Journal of Financial Economics, 128*(2), 234−252. https://doi.org/10.1016/j.jfineco.2018.02.012

Feldman, S. J., Soyka, P. A., & Ameer, P. G. (1997). Does improving a firm's environmental management system and environmental performance result in a higher stock price? *Journal of Investing, 6*(4), 87−97. https://doi.org/10.3905/joi.1997.87

Galbreath, J. (2013). ESG in focus: The Australian evidence. *Journal of Business Ethics, 118*(3), 529−541.

Girard, E. C., & Hassan, M. K. (2008). Is there a cost to faith-based investing: Evidence from FTSE Islamic indices. *Journal of Investing, 17*(4), 112−121. https://doi.org/10.3905/JOI.2008.17.4.112

Greene, W. H. (2018). *Econometric analysis*. New York: Pearson Education.

Grossman, B. R., & Sharpe, W. F. (1986). Financial implications of South African divestment. *Financial Analysts Journal, 42*(4), 15−29.

Hakim, S., & Rashidian, M. (2002). *Risk & return of islamic stock market indexes* (Paper presented at the Presentation to Economic Research Forum Annual Meetings, Sharjah, UAE).

Hamilton, S., Jo, H. J., & Statman, M. (1993). Doing well while doing good? The investment performance of socially responsible mutual fund. *Financial Analysts Journal, 49*(6), 62−66. https://doi.org/10.2469/faj.v49.n6.62

Hashim, N. (2008). *The FTSE global Islamic and the risk dilemma*. AIUB Bus Econ Working Paper Series, No. 2008-08.

Hassan, A., & Syafri Harahap, S. (2010). Exploring corporate social responsibility disclosure: The case of Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management, 3*(3), 203−227. https://doi.org/10.1108/17538391011072417

Hayat, R., & Kabir Hassan, M. (2017). Does an Islamic label indicate good corporate governance? *Journal of Corporate Finance, 43*, 159−174. https://doi.org/10.1016/j.jcorpfin.2016.12.012

Hayat, R., & Kraeussl, R. (2011). Risk and return characteristics of Islamic equity funds. *Emerging Markets Review, 12*(2), 189−203. https://doi.org/10.1016/j.ememar.2011.02.002

Hebb, T., Louche, C., & Hachigian, H. (2014). Exploring the societal impacts of SRI. In C. Louche, & T. Hebb (Eds.), *Socially responsible investment in the 21st century: Does it make a difference for society?* (pp. 3−20). Bingley, UK: Emerald Group. https://doi.org/10.1108/S2043-90592014000 0007001.

Ho, C. S. F. (2015). International comparison of shari'ah compliance screening standards. *International Journal of Islamic and Middle Eastern Finance and Management, 8*(2), 222−245. https://doi.org/10.1108/IMEFM-07-2014-0065

Hoepner, A. G. F., Rammal, H. G., & Rezec, M. (2011). Islamic mutual funds' financial performance and international investment style: Evidence from 20 countries. *The European Journal of Finance, 17*(9−10), 829−850. https://doi.org/10.1080/1351847X.2010.538521

Ho, C. S. F., Masood, O., Rehman, A., & Bellalah, M. (2012). *Syariah* accounting and compliant screening practices. *Qualitative Research in Financial Markets, 4*(2/3), 240−254. https://doi.org/10.1108/17554171211252556

Ho, C. S. F., Rahman, N. A. A., Hafizha, N., Yusuf, M., & Zamzamirn, Z. (2011). Comparison of quantitative shariah-compliant screening methods. *ISRA International Journal of Islamic Finance, 3*(2), 91−110.

Hussein, K. A. (2004). Ethical investment: Empirical evidence from FTSE islamic index. *Islamic Economic Studies, 12*(1), 20−40.

Hylton, M. O. (1992). Socially responsible' investing: Doing good versus doing well in an inefficient market. *American University Law Review, 42*(1), 1−52.

Junkus, J., & Berry, T. D. (2015). Socially responsible investing: A review of the critical issues. *Managerial Finance, 41*(11), 1176−1201. https://doi.org/10.1108/MF-12-2014-0307

Kabir Hassan, M., Nahian Faisal Khan, A., & Ngow, T. (2010). Is faith-based investing rewarding? The case for Malaysian islamic unit trust funds. *Journal of Islamic Accounting and Business Research, 1*(2), 148−171. https://doi.org/10.1108/17590811011086732

Khan, M. (2019). Corporate governance, ESG, and stock returns around the world. *Financial Analysts Journal, 75*(4), 103−123. https://doi.org/10.1080/0015198X.2019.1654299

Khatkhatay, M. H., & Nisar, S. (2007). Shariah compliant equity investments: An assessment of current screening norms. *Islamic Economic Studies, 15*(1), 48−76.

Lokuwaduge, C. S. D. S., & Heenetigala, K. (2017). Integrating environmental, social and governance (ESG) disclosure for a sustainable development: An Australian study. *Business Strategy and the Environment, 26*(4), 438−450. https://doi.org/10.1002/bse.1927

Mansor, F., & Bhatti, M. I. (2016). Evidence of risk and return performance of Islamic mutual funds: The case of Malaysia. In D. S. Mutum, M. M. Butt, & M. Rashid (Eds.), *Advances in islamic finance, marketing, and management* (pp. 81−101). Bingley, UK: Emerald Group. https://doi.org/10.1108/978-1-78635-899-820161006.

Masih, M., Kamil, N. K. M., & Bacha, O. I. (2018). Issues in islamic equities: A literature survey. *Emerging Markets Finance and Trade, 54*(1), 1−26. https://doi.org/10.1080/1540496X.2016.1234370

Merdad, H., Hassan, M. K., & Alhenawi, Y. (2010). Islamic versus conventional mutual funds performance in Saudi Arabia: A case study. *JKAU: Islamic Econ, 23*(2), 157−193.

Miglietta, F., & Forte, G. (2011). A comparison of socially responsible and Islamic equity investments. *Journal of Money, Investment and Banking, 21*, 116−132. https://doi.org/10.2139/ssrn.1819002

Moghul, U. F., & Safar-Aly, S. H. K. (2014). Green sukuk: The introduction of Islam's environmental ethics to contemporary Islamic finance. *Georgetown International Environmental Law Review, 27*(1), 1−25.

Nair, A. S., & Ladha, R. (2014). Determinants of non-economic investment goals among Indian investors. *Corporate Governance, 14*(5), 714−727. https://doi.org/10.1108/CG-09-2014-0102

Nakamura, E. (2013). The impact of shareholders' types on corporate social responsibility: Evidence from Japanese firms. *Journal of Global Responsibility, 4*(1), 113−130. https://doi.org/10.1108/20412561311324104

Narver, J. C. (1971). Rational management responses to external effects. *Academy of Management Journal, 14*(1), 99−115. https://doi.org/10.2307/254714

Paltrinieri, A., Dreassi, A., Migliavacca, M., & Piserà, S. (2020). Islamic finance development and banking ESG scores: Evidence from a cross-country analysis. *Research in International Business and Finance, 51*, 101100. https://doi.org/10.1016/j.ribaf.2019.101100

Paltrinieri, A., Floreani, J., Kappen, J. A., Mitchell, M. C., & Chawla, K. (2019). Islamic, socially responsible, and conventional market comovements: Evidence from stock indices. *Thunderbird International Business Review, 61*(5), 719−733. https://doi.org/10.1002/tie.22027

Paranque, B., & Erragragui, E. (2016). Islamic investment versus socially responsible investment: Lessons from comparison. In B. Paranque, &

R. Pérez (Eds.), *Finance reconsidered: New perspectives for a responsible and sustainable finance* (pp. 355−383). Bingley, UK: Emerald Group. https://doi.org/10.1108/S2043-905920160000010034.

Peillex, J., & Ureche-Rangau, L. (2012). Création d'un indice boursier islamique sur la place financière de Paris: Méthodologie et performance. *Revue D'Economie Financiere, 107*(3), 289. https://doi.org/10.3917/ecofi.107.0289

Pérez-Gladish, B., Benson, K., & Faff, R. (2012). Profiling socially responsible investors: Australian evidence. *Australian Journal of Management*. https://doi.org/10.1177/0312896211429158

Qoyum, A., Al Hashfi, R. U., Zusryn, A. S., Kusuma, H., & Qizam, I. (2021). Does an islamic-SRI portfolio really matter? Empirical application of valuation models in Indonesia. *Borsa Istanbul Review, 21*(2), 105−124. https://doi.org/10.1016/j.bir.2020.08.002

Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance, 32*(9), 1723−1742. https://doi.org/10.1016/j.jbankfin.2007.12.039

Revelli, C. (2017). Socially responsible investing (SRI): From mainstream to margin? *Research in International Business and Finance, 39*, 711−717. https://doi.org/10.1016/j.ribaf.2015.11.003

Rizaldy, M. R., & Ahmed, H. (2019). Islamic legal methodologies and Shariah screening standards: Application in the Indonesian stock market. *Thunderbird International Business Review, 61*(5), 793−805. https://doi.org/10.1002/tie.22042

Sadeghi, M. (2008). Financial performance of shariah-compliant investment: Evidence from Malaysian stock market. *International research journal of finance and economics*, (20), 15−26.

Sairally, B. S. (2015). Integrating environmental, social and governance (ESG) factors in Islamic finance: Towards the realisation of maqāṣid al-sharʿah. *ISRA International Journal of Islamic Finance, 7*(2), 145−154.

Salma Sairally, B. (2013). Evaluating the corporate social performance of Islamic financial institutions: An empirical study. *International Journal of Islamic and Middle Eastern Finance and Management, 6*(3), 238−260. https://doi.org/10.1108/IMEFM-02-2013-0026

Stubbs, W., & Rogers, P. (2013). Lifting the veil on environment-social-governance rating methods. *Social Responsibility Journal, 9*(4), 622−640. https://doi.org/10.1108/SRJ-03-2012-0035

Sun, W., Louche, C., & Pérez, R. (2011). Finance and sustainability: Exploring the reality we are Making. *Critical Studies on Corporate Responsibility, Governance and Sustainability, 2*, 3−15. https://doi.org/10.1108/S2043-9059(2011)0000002007

Tahir, I., & Brimble, M. (2011). Islamic investment behaviour. *International Journal of Islamic and Middle Eastern Finance and Management, 4*(2), 116−130. https://doi.org/10.1108/17538391111144515

Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility, 8*(2), 169−178. https://doi.org/10.1108/JGR-11-2016-0029

Wilson, R. (1997). Islamic finance and ethical investment. *International Journal of Social Economics, 24*(11), 1325−1342. https://doi.org/10.1108/03068299710193624

Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2020). Does ESG certification add firm value? *Finance Research Letters*, 101593. https://doi.org/10.1016/j.frl.2020.101593

Wong, C. W. Y., Wong, C. Y., & Boon-itt, S. (2020). Environmental management systems, practices and outcomes: Differences in resource allocation between small and large firms. *International Journal of Production Economics, 228*, 107734. https://doi.org/10.1016/j.ijpe.2020.107734

Wood, D. J. (2010). Measuring corporate social performance: A review. *International Journal of Management Reviews, 12*(1), 50−84. https://doi.org/10.1111/j.1468-2370.2009.00274.x

Wooldridge, J. M. (2018). *Introductory econometrics* (7th ed.). Boston, MA: Cengage Learning.

Yuen, K. F., Wang, X., Wong, Y. D., & Zhou, Q. (2017). Antecedents and outcomes of sustainable shipping practices: The integration of stakeholder and behavioural theories. *Transportation Research Part E: Logistics and Transportation Review, 108*, 18−35. https://doi.org/10.1016/j.tre.2017.10.002

Zain, N. S., & Muhamad Sori, Z. (2020). *An exploratory study on musharakah SRI Sukuk for the development of waqf properties/assets in Malaysia*. Qualitative Research in Financial Markets. https://doi.org/10.1108/QRFM-09-2018-0099. ahead-of-print.