Cogent Business & Management

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/oabm20

# Economic consequence of social and environmental concern in Islamic bank – Do COVID-19 pandemic matter?

Asrori, Hasan Mukhibad & Ahmad Nurkhin

**To cite this article:** Asrori, Hasan Mukhibad & Ahmad Nurkhin (2023) Economic consequence of social and environmental concern in Islamic bank – Do COVID-19 pandemic matter?, Cogent Business & Management, 10:2, 2225818, DOI: 10.1080/23311975.2023.2225818

**To link to this article:** https://doi.org/10.1080/23311975.2023.2225818



Published online: 21 Jun 2023.

cogent business & management

ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

# Economic consequence of social and environmental concern in Islamic bank – Do COVID-19 pandemic matter?

Asrori[1]*, Hasan Mukhibad[1] and Ahmad Nurkhin[1]

Received: 17 May 2023
Accepted: 11 June 2023

*Corresponding author: Asrori, Faculty of Economics and Business, Universitas Negeri Semarang, Semarang, Central Java 50229, Indonesia
E-mail: asroriunnes@mail.unnes.ac.id

Reviewing editor:
Collins G. Ntim, Accounting, University of Southampton, UK

Additional information is available at the end of the article

**Abstract:** Islamic banks should care about social and environmental issues. However, the economic consequence of social and environmental concerns is still being debated. This study aims to prove the role of economic consequences of social and environmental concerns and market competition on financial performance. Based on the system-oriented view, the entity is assumed to be influenced by, and in turn, to have an influence upon, the society in which it operates, including the crisis due to the COVID-19 pandemic, which had an impact on bank operations. Based on this argument, this research aims to examine the role of the COVID-19 pandemic in the relationship between social and environmental concerns and market competition on financial performance. This study uses hand-collected data on the annual reports of 14 full-flagged Islamic banks (IBs) in Indonesia between 2009 and 2021. Data were analyzed using GLS regressions with robust standard

## ABOUT THE AUTHORS

Asrori is an associate Professor at the Department of Accounting, Faculty of Economics and Business, Universitas Negeri Semarang, Indonesia. His current research interests include Islamic Accounting, and Islamic philanthropy. He received his Ph.D. in Islamic economics from Walisongo State Islamic University, Indonesia, in 2022.
Hasan Mukhibad is an associate Professor at the Department of Accounting, Faculty of Economics and Business, Universitas Negeri Semarang, Indonesia. His current research interests include Islamic Accounting, Islamic Finance, and corporate governance. Currently, he is editor and reviewer in many international journals.
Ahmad Nurkhin is an associate Professor at the Department of Economics Education, Faculty of Economics and Business, Universitas Negeri Semarang, Indonesia. He is also a reviewer in some international and national academic journals. He is active in the organization profession of accounting and economic educator. His field of research is ICT and education, learning methods, information system, and accounting.

## PUBLIC INTEREST STATEMENT

Islamic bank (IB) is a bank that operates using Islamic law (shariah), which is based on the Qur'an and Sunnah. IBs should care about social and environmental issues. However, prior literature on social performance in IB emphasized disclosure performance and was limited to social fund distribution. This study expands the existing literature. First, this research proves the economic consequences of social and environmental concerns for IBs. Second, we use the distribution of zakat fund and *qardul hasan* fund as social and environmental concerns of IB. This is because the standard-setting body in Indonesia stipulates that IBs issue reports on the statement of sources and distribution of *zakah* fund and statement of sources and uses of *qardul hasan*. Third, this research expands on previous references by providing evidence of the impact of the COVID-19 pandemic on the economic consequences of social and environmental concerns.

errors. This study showed that social and environmental concerns and market competition did not affect financial performance. Therefore, the COVID-19 pandemic plays a major role in the extent to which social and environmental concerns affect financial performance. The findings suggest that directors should increase the effectiveness of the distribution of social funds to improve financial performance.

**Subjects: Environmental Economics; Finance; Business, Management and Accounting**

**Keywords: System-oriented view; environmental concern; economic consequence; Covid-19 pandemic; *qardul hasan funds***

## 1. Introduction

Islamic bank (IB) is a bank that operates using Islamic law (shariah), which is based on the Qur'an and Sunnah. Al-Qur'an has revealed 675 verses in 84 chapters throughout all 30 parts of the Qur'an, with environmental content relating to the core components of the natural world, including human beings, water, land, plants, animals, and other natural resources (Helfaya et al., 2016). In addition (Mukhibad et al., 2019), added that in Islamic teaching, there are the concepts of *Hablum Minallah* and *Hablum Minannas* which posit that humans must have good vertical relations (humans with God) and good horizontal relations (humans with other humans and nature). Rizk (2014) appointed the concept of *khalifa*, or guardian of the planet Earth that every man and woman inherit the power and responsibility in relation to the planet and all its life forms. From this argument, a good Islamic should care for social and environmental concerns.

Meanwhile, a review of the general literature emphasizes that corporations do not only focus on profit. The company's operations have a negative impact on the environment and, in the long run, will further affect business continuity. From the perspective of legitimacy, companies must conduct business according to firm gain legitimacy by conforming to societal norms and values, such as ethical standards, legal requirements, and environmental responsibilities. They also gain legitimacy by engaging in social and environmental initiatives that benefit the community and the environment. This is the reason that corporate social responsibility (CSR) is a major concern of all three researchers, the business people, and the government.

Regulators from various countries set regulations to increase corporate awareness of CSR. Regulations from the Indonesian government (OJK Regulation No. 51/POJK.03/2017) concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies oblige the company to issue a business continuity report where this report contains the company's contribution to creating sustainable economic growth by aligning economic, social and environmental issues. In IBs in Indonesia, the regulator has adopted a policy that IBs care about CSR. Our identification, the fatwa of the National Shariah Council of the Indonesian UIama Council (DSN-MUI) number 17/DSN-MUI/IX/2000 and 123/DSN-MUI/XI/2018 explain that loan penalty income and non-halal income obtained by Islamic entities must be issued as bank operating income and recognized as social funds. Then the standard-setting body in Indonesia (the Indonesian financial accounting standards board) stipulates those Islamic commercial entities issue reports on the statement of sources and distribution of *zakah* fund and statement of sources and uses of *qardul hasan* fund. These two financial reports describe the receipt and distribution of social funds, including *zakah* (Islamic tax), loan penalty income, non-halal income, etc.

Prior literature on CSR performance evaluation can be summed up in two approaches: disclosure of CSR activities and CSR expense. However, previous studies on social performance in IB put more emphasis on disclosure performance and were limited to social fund distribution performance (see Ahmed & El-Belihy, 2017; Amran et al., 2017; Bukair & Abdul-Rahman, 2013; Farook & Roman, 2007; Farook et al., 2011; Harun et al., 2020; Hassan & Harahap, 2010; Jusoh & Ibrahim, 2018). CSR performance studies on IBs in Indonesia also focus on disclosure-based CSR performance (see

Handayati et al., 2017; Mukhibad, Nurkhin, et al., 2022; Nugraheni & Khasanah, 2019; Probohudono et al., 2021; Qoyum et al., 2017). Researchers use a variety of factors, including corporate governance (Bukair & Abdul-Rahman, 2013; Farook et al., 2011; Harun et al., 2020; Mukhibad, Nurkhin, et al., 2022) and financial factors (Menassa & Dagher, 2019) to explain CSR disclosure performance. Other researchers proved the economic consequences of CSR disclosure on IBs (Alshurafat et al., 2022; Platonova et al., 2016).

Mukhibad and Setiawan (2020) and Mukhibad et al. (2017) measure CSR performance based on the expenditure of IB zakat funds. Mukhibad et al. (2017) use the corporate governance index, financing deposit ratio (FDR), and size factors as factors to explain financial performance (return on assets-ROA) and social performance. They found that the corporate governance index, FDR, and size had an influence on social and financial performance. Furthermore, Mukhibad and Setiawan (2020) complements previous research by using financial factors (leverage, capital adequacy ratio, non-performing loans, profitability) and corporate governance (shariah supervisory board-SSB, independence Board of directors-BOD) to explain the distribution of social funds. They report that independent BOD and profitability had a positive influence on the distribution of social funds.

The heterogeneity of previous research models in explaining the social performance of IB is because there are indications that the IB has not focused on social performance as one of the performance targets. Recent studies indicate that IBs are not completely fulfilling their social role in accordance with Islamic teaching (Farook et al., 2011). The study from Maali et al. (2006) suggests that IBs' CSR reporting falls short of the benchmark for entities whose operations are founded on Islamic principles. IBs use forms of financial instruments, both in mobilizing funds for their operations and in providing finance for their clients, that comply with the principles and rules of shariah. So, IBs required to pay the Islamic religious tax *zakah* provide more social disclosures than banks not subject to *zakah* (Maali et al., 2006). It seems that the implementation of CSR reports is still limited to a mere formality of abortion obligations.

CSR studies on non-religion-based entities also show that they have low social and environmental concerns, and there is still an ongoing debate about its economic consequences (Zhou et al., 2021). Studies of the economic consequence of social and environmental concerns on non-religion-based entities have been proven by many researchers and show that social and environmental concerns increase the corporate's financial performance (Alshurafat et al., 2022; Wang et al., 2011), reducing the cost of debt (Chen et al., 2022; El Ghoul et al., 2011), reducing asset price volatility (Chen et al., 2022), and reducing the firm risk (Do, 2022; Shih et al., 2021; Zhou et al., 2021). Positive economic consequences of social and environmental concerns help corporate gain sociopolitical legitimacy, obtain positive stakeholder responses (Alshurafat et al., 2022; Wang et al., 2011), and increase investor confidence (Chen et al., 2022). However, previous research to prove the economic consequence of social and environmental concerns of IBs is still limited.

Our studies contribute to expanding the existing literature in several important ways. First, this research proves the economic consequences of social and environmental concerns for IBs. IBs use Islamic law as the basis for bank operations emphasizing that IBs must have deep social and environmental concerns as a form of carrying out tasks from God (Farook et al., 2011). Islamic teaching teaches Muslims to take responsibility as God's representatives for the welfare of humans (*hablumminanas*) and nature (*hablumminal Alam*). Thus, the social and environmental concerns in Islam as a form of Worship.

Second, previous research that proves the economic consequences of social and environmental concerns focuses on companies in developed countries as research objects (Chen et al., 2022; Dai et al., 2019; Hao et al., 2018; Magnanelli & Izzo, 2017; Servaes & Tamayo, 2013; Suganda & Kim, 2023; Xue et al., 2023). This study uses a sample of IBs in developed countries, and developing countries have different cultures. Different cultures may also occur in the response of stakeholders in companies that have social and environmental concerns. This different setting from the culture and operations of the research sample allows different results from previous researchers.

Third, we use the observation period of the year the COVID-19 pandemic occurred. The financial crisis failures occurred in the banking sector as banks were exposed to various types of risk (Elamer et al., 2019). This pandemic can increase company social and environmental concerns as a tool to increase bank legitimacy (Hasanah et al., 2023). However, the COVID-19 pandemic has also caused a decline in sales due to limitations on the government taking policies to limit community activities. Accordingly, this research expands on previous references by providing evidence of the impact of the COVID-19 pandemic on the economic consequences of social and environmental concerns.

## 2. Background

This research examines the economic consequences of social and environmental concerns and market competition on financial performance in religion-based entities, especially IBs. This research is based on the fact that IBs use shariah as a bank operation (Elghuweel et al., 2017), and shariah encourages Muslims to care about social and environmental issues (Mukhibad, Yudo Jayanto, et al., 2022). Shariah encourages transactions that must be guided by religious/spiritual/Islamic values of accountability, responsibility, and social justice (Albassam & Ntim, 2017).

The object of this research is IB in Indonesia. Indonesia uses a dual banking system where IBs and conventional banks run bank operations together. Thus, IBs and conventional banks (CBs) compete to provide the best bank services for customers. Prior studies reported that IBs customers tend to be rational in choosing bank services (Aysan et al., 2018; Ismal, 2011). This market characteristic causes IB and CB to compete in providing banking services. Meanwhile, recent literature shows that the level of competition affects bank risk (Mukhibad, Nurkhin, et al., 2022) and bank performance (Alshubiri, 2022; Trinugroho et al., 2018). The competition affects bank margins, and high margins lead to increased financial performance (Trinugroho et al., 2018). This background underlies this research to examine the effect of market competition on bank profitability.

Prior literature on economic consequences of social and environmental corporate concerns is carried out in the context of no crisis due to the COVID-19 pandemic. The COVID-19 pandemic has caused an increase in social and environmental problems. In addition, the COVID-19 pandemic has increased public awareness of social and environmental issues. Based on the system-oriented view, the entity is assumed to be influenced by, and in turn, to have an influence upon, the society in which it operates, including the crisis due to the COVID-19 pandemic, which had an impact on bank operations. Based on this argument, this research aims to examine the role of the COVID-19 pandemic in the relationship between social and environmental concerns and market competition on profitability.

Based on this research background, the purpose of this study was to examine (1) the influence of social and environmental concerns to have a positive effect on financial performance; (2) Market competition has a negative effect on financial performance; (3) the role of the COVID-19 pandemic in the relationship between social and environmental concern for financial performance; and (4) the role of the COVID-19 pandemic in the relationship between market competition for financial performance.

This paper is presented in several important related sections. The first section presents the research background and research background. The next section of this paper is the theoretical background and hypothesis development. In this section, the paper discusses the legitimacy theory and logical background of the relationship between social and environmental concerns and the corporate's financial performance. The fourth section is the empirical literature review and hypotheses development. The five sections present the research design, including technique samples, methods of measuring variables, and data analysis. The sixth section is the empirical results and discussion, and the end of the paper explains the conclusions, theoretical and practical recommendations, and research limitations.

## 3. Theoretical literature review

Despite the growth of literature on social responsibility in the context of IBs, few researchers have addressed the issue of the economic consequence of social and environmental concerns in the context of IBs. While several papers have explored CSR in Islamic institutions and banks, they have generally used CSR disclosure and lack empirical analysis of the CSR expense of Islamic organizations.

While there is a broad, commonly accepted definition of CSR, it generally refers to business decisions making linked to ethical values, compliance with legal requirements, respect for people, and involvement in social activities, communities, and the environment (Hassan & Harahap, 2010). Naylor (1998) defines CSR as the obligation of managers to choose and act in ways that benefit both the interests of the organization and those of society as a whole. With CSR, organizations can manage the economic, social, and environmental impacts of their operations. Based on this definition, the CSR concern of an organization can be measured based on disclosure and CSR expense.

In the CSR literature, the former influence is related to systems-oriented theories such as political economy, legitimacy, and stakeholder theories (Deegan, 2002; Farook et al., 2011). Systems-oriented theories such as political economy, stakeholder, and legitimacy propose that individuals, institutions, and organizations seeking to preserve their own self-interest will attempt to operate and interact within the system through various relationships with other parties (Farook et al., 2011). The systems-oriented theories also emphasize that the actors (individuals, institutions, and organizations) in this system have the right to pursue their own goals and self-interests, and these rights to self-interest are moderated by the social and political environment in which the actors interact (Farook et al., 2011).

The concept of unity (*Tawhid*) prevails in the Islamic paradigm. According to the *tauhid* concept, God is the creator, owner, and source of all things, and God has entrusted mankind to the use of resources. The trusteeship requires a total commitment to the will of God and therefore involves both submission and a mission to follow the shariah in all aspects of life, including economic aspects (Farook et al., 2011). In Islam, the enjoyment of self-interest is only conditioned by the permanent needs of a greater society (*umma*). As such, individual freedom is sacred only as long as it does not conflict with the larger societal interest or as long as the individual does not transgress the rights of others and God's rules.

Similarly, the proponents of political economy, stakeholder, and legitimacy theories define the relationship between individuals, organizations, and society as a "social contract" (Deegan, 2002; Farook et al., 2011). Organizations themselves play a significant role in society and have responsibilities assigned to them based on their status in society. The implications of this concept, both managers and providers of capital, are accountable for their policies both inside and outside their firms; accountability in this context means accountability to the community to establish socio-economic justice within their own capacity. Some examples of this concept are the payment of religious taxes (*zakah*), philanthropic trusts *(waqf)*, alms, charity (*infaq* or *sadaqa*), interest-free loans (*qardul-hasan*) (Hassan & Harahap, 2010).

In Islamic banking in Indonesia, the setters of accounting standards in Indonesia (Indonesian financial accounting standards board) issue additional annual reports that specifically apply to Islamic entities, namely statements of sources and distribution of zakat funds and statements of sources and distribution of *qardul hasan* funds. The statement of sources and distribution of zakat funds provides information on the number of zakat funds received and distributed by IB. Zakat receipts can come from zakat on the bank's net profit or professional zakat for employees and customers. IBs distribute zakat funds to the parties who are entitled to receive zakat or *asnaf*. The *asnaf* are poor, needy, *amil, mualaf, riqab* or slave, *gharim*, *fisabilillah*, and *ibnu sabil*. Distribution of zakat funds as a form of bank social responsibility and bank participation in overcoming social, economic, and environmental problems.

The statement of sources and distribution of *qardul hasan* funds provides information on the *qardul hasan* funds received and distributed by IBs. *Qardul hasan* fund receipts come from loan penalty income, non-halal income, *infaq* or *sadaqa* funds, etc. The *qardul hasan* fund is channeled in the form of bank social activities, and IBs can have a bank's flagship social program to channel this fund. *Qardul hasan* funds are different from *qard* financing. *Qard* financing is one of IB's products in channeling *qardul hasan* funds. Regulators do not provide specific rules for types of activities, time of distribution, or parties receiving *qardul hasan* funds. Thus, it is possible for IB to use *qardul hasan* funds to finance planned IB social activities, namely social activities that have a major impact on enhancing the bank's reputation. Based on political economy, stakeholder, and legitimacy theories, IBs determine an effective program in realizing the social contract, improving bank reputation, increasing stakeholder trust, and further improving bank financial performance. This policy allows banks to be chosen because regulators do not have specific provisions that IBs must comply with in channeling *qardul hasan* funds, including when and the amount of *qardul hasan* funds distributed by banks.

## 4. Empirical literature review and hypotheses development

Based on a system-oriented view, the entity is assumed to be influenced by, and in turn, to have an influence upon, the society in which it operates (Deegan, 2002; Gusrianti & Sari, 2023). Stakeholder theory basically operates on the assumption that banks need to manage their relationships with their stakeholders in order to exist in bank operations. Deegan and Blomquist (2006) recognize that, according to stakeholder theory, reporting on specific types of information can be used to attract or maintain particular groups of stakeholders. For example, suppose a powerful individual or group is interested in a firm's social or environmental activities. In that case, the firm's social and environmental concerns are essential to attract or maintain them.

Cragg (2002) shows that the disclosure of CSR values and objectives in corporate statements and goals enhances the appeal of the firm's shares to socially responsible investors. Moreover, Fombrun and Foss (2004) stated that CSR is a valuable tool for creating reputational capital in the form of a good corporate image and enhanced reputation, which affords the firm a competitive advantage. Literature has provided a lot of evidence of the economic consequences of CSR disclosure. Xue et al. (2023) state that CSR disclosure reduces information asymmetry between firms and stakeholders. The CSR disclosure is a tool to facilitate the monitoring of managers by stakeholders outside the company, such as investors, creditors, consumers, debtors, etc., on the company's concern for economic, environmental, and social issues. Thus, CSR disclosure will increase investor interest in investing in the company and further reduce the cost of debt (El Ghoul et al., 2011; Goss & Roberts, 2011; Magnanelli & Izzo, 2017).

Legitimate view, the company's concern for social and environmental issues is a manifestation that banks have established their social contract with society. Conforming to such expected social behavior can be a strategic approach toward enhancing IBs' legitimacy and justifying IB's right to exist (Elamer et al., 2020). This is the main tool to improve the bank's reputation and will further increase customer loyalty. Thus, CSR spending can improve the bank's financial performance. This study links social and environmental concerns with financial performance on the grounds that the financial performance of a firm is driven by the company's fundamental performance, such as return on assets (ROA) and return on equity (ROE) (Horta et al., 2012).

**H1:** Social and environmental concerns have a positive effect on financial performance.

One of the significant challenges for IBs to improve their performance is the factor of business competition, both with fellow IBs and conventional banks. Even though IBs have different types of products from conventional banks. However, Ismal (2011) and Aysan et al. (2018) reported that IBs customers tend to be rational and do not pay attention to the characteristics of IBs who provide shariah-compliant bank product services. This causes IB to be required to be able to compete with conventional banks in providing banking services. Thus, market competition factors can affect bank performance (Yuanita, 2019).

Recent literature develops two opposite effects of market competition: fragile market competition and stable market competition (Louhichi et al., 2020). The competition-stability view implies that high competition promotes the financial performance of banks. High market power enjoys lower competition in the loan market which encourages them to set high-interest rates for borrowers (Noman et al., 2017). In contrast, the competition-fragility view assumes causing reduced bank performance because competition leads banks to become more fragile and erodes market power (Noman et al., 2017). Based on the Lerner index, Alshubiri (2022) note that LR has a significant negative impact on financial performance. Trinugroho et al. (2018) have provided evidence that bank margins are affected mainly by competition. In a less competitive market, IBs banks are able to set high margins, which leads to increased financial performance.

**H2:** Market competition has a negative effect on financial performance.

The COVID-19 pandemic that hit all countries caused a decline in economic performance fundamentally. The COVID-19 pandemic caused increases and uncertainties, security prices, and reduced trust, causing financial markets to fall to their lowest point since the 2008–2009 global financial crisis (Makki & Alqahtani, 2023). This condition makes it difficult for the company to maintain sales and reduces the company's fundamental performance (Alsamhi et al., 2022). The COVID-19 pandemic has caused a decrease in disbursed credit, a decrease in receipt of income from financing, and an increase in credit risk. Thus, the COVID-19 pandemic has caused a decrease in corporate performance (Alsamhi et al., 2022; Makki & Alqahtani, 2023).

Political economy theory, like several other theories such as legitimacy theory and stakeholder theory, is considered to be a system-oriented theory. According to Deegan (2002), political economy theory explicitly recognizes the power conflict that exists within society and the various struggles that occur among groups within society. Based on political economy theory, the reduced corporate performance due to the COVID-19 pandemic has caused banks to adopt normative policies by increasing their social and environmental concern to improve bank image and customer loyalty. In difficult conditions, a good bank image causes banks to remain in demand by customers using banking transactions.

**H3:** The COVID-19 pandemic has caused social and environmental concerns to have a positive effect on financial performance.

**H4:** The COVID-19 pandemic has caused market competition to have a positive effect on financial performance.

## 5. Research design

The object of this research is 14 full-fledged IBs in Indonesia. This research used hand-collected data from annual reports over 14 years from 2009 to 2021 and produced 145 bank-year (unbalanced data). The unbalanced data method was chosen because there were several IBs spin-offs (separate from the parent bank) during the study period. Table 1 illustrates variables used for measuring dependent variables, independent variables, and control variables.

Data were analyzed using panel data analysis. The Langgrang test and Hausman test will be carried out in this test to determine the recommended analysis method between random and fixed effects. The classic assumption test includes multicollinearity, heteroscedasticity, and autocorrelation tests. The multicollinearity test is carried out by testing the correlation between the independent variables and the variance inflation factor (VIF). The Wooldridge test is used to detect the presence of autocorrelation in the model, and the Wald test is used to detect the existence of heteroscedasticity problems in the model.

The following research equations were formed:

$$ROA_{i,t} \text{ or } ROE_{i,t,} = \beta_0 + \beta_1 SEC_{i,t} + \beta_2 LERNER_{i,t} + control_{i,t,c} + \varepsilon$$

$$ROA_{i,t} \text{ or } ROE_{i,t,} = \beta_0 + \beta_1 SEC_{i,t} + \beta_2 SEC * COVID_{i,t} + \beta_3 LERNER_{i,t} + \beta_2 LERNER * COVID_{i,t,} + control_{i,t,} + \varepsilon$$

## 6. Empirical results and discussion

### *6.1. Descriptive statistic*

Table 2 describes that the average ROA score is 1.477%, the minimum score is −20.13, and the maximum score is 13.60%. The research sample has an average ROE of 10.215%, a minimum score of −32.040, and a maximum score of 94.010%. Table 2 also presents that IBs channel social funds on average 0.393% of total assets. However, there are IBs that do not distribute social funds.

LERNER's average score is 0.093. LERNER's cores tend toward 0, meaning a purely competitive market and no pricing power otherwise. These results indicate that IBs in Indonesia face a competitive market. IBs in Indonesia face competition from fellow IBs and CBs. Indonesia, as the country with the largest Muslim population country in the world, does not cause them to choose IB in using banking transactions. Mukhibad et al. (2020) reported that IBs in Indonesia have a large annual growth but have a low market share compared to other countries.

### *6.2. Regression analysis test*

Table 3 presents the correlation scores between variables. The largest correlation score is 0.443 (SIZE and CAPITAL). Table 3 shows that the correlation between variables is lower than 0.8 and indicates no serious correlation in the model. The VIF test strengthens this conclusion because all models produce a mean VIF of less than 5.

The results of the autocorrelation test using the Wooldridge test on all models yield a probability < 0.05 and indicate autocorrelation problems in the model. The Modified Wald test is used to test the heteroscedasticity problem and produces a probability of all models less than 0.05 (Table 3) and indicates that there is a heteroscedasticity problem in all models.

The Hausman test is to determine whether the coefficients for the two estimates (fixed effect and random effect model) are statistically different. In this case, the random effects model is better for our case because the probability of this test (prob>chi2 0.99 for models 1 and 2, 0.77 for model 3, 0.96 for model 4) is greater than the threshold of 0.05.

Table 4 presents the results of the model test using random effects. Model 1 test results show that SEC has a coefficient of 0.020 and a p-value score of more than 0.10. The test results indicate that SEC has no influence on ROA. The test results show that LERNER has a coefficient of −0.108, a p-value score is more than 0.10, and indicates that LERNER has no effect on ROA.

**Table 1. The operational variables**

| Variables | Abbreviations | Retained measure | References |
|---|---|---|---|
| **Dependent variables** | | | |
| a. Return on assets | ROA | $ROA_{i,t}$ = net $income_{i,t}$ /Total assets $_{i,t}$ | Louhichi et al. (2020) |
| b. Return on equity | ROE | $ROE_{i,t}$ = net $income_{i,t}$ /Total equity $_{i,t}$ | Louhichi et al. (2019) |
| **Independent variables** | | | |
| a. Social and environmental concerns | SEC | $SEC_{i,t}$ = (distribution of zakat $fund_{i,t}$ + distribution of *qardul hasan* $fund_{i,t}$) /Total $assets_{i,t}$ | developed from literature |
| b. Market competition | LERNER | $Lerner_{i,t} = \frac{Price_{i,t} - MC_{i,t}}{Price_{i,t}}$ Price $_{i,t}$ is the price of banking outputs for bank i at time t, MC $_{it}$ is the marginal cost for bank i at time t. Lerner index is averaged over time under the study for each bank i. Lerner takes values between 0 and 1. Scores tend toward 0, meaning a purely competitive market and no pricing power otherwise. Scores tend toward 1 means low competitive market, reflecting a high markup of price above marginal cost, a high markup of price above marginal cost, the banks have monopoly power, and the market power is increased. | Alam et al. (2019) |
| c. Pandemic COVID-19 crisis | COVID | This classifies the year of observation during the COVID-19 pandemic era and others. The COVID-19 pandemic crisis is measured by a dummy variable that takes the value of one for the 2020 and 2021 years and zero otherwise. | Mukhibad, Yudo Jayanto, et al. (2022) |
| **Control variables** | | | |
| a. Financing ratio | FINAN | $FINAN_{i,t}$ = Total $Financing_{i,t}$ /Total $assets_{i,t}$ | Majid et al. (2014) |
| b. Capital ratio | CAPITAL | $ROA_{i,t}$ = Total $Equity_{i,t}$ /Total $assets_{i,t}$ | Louhichi et al.(2019) |
| c. Non-performing financing | NPF | Impaired $financing_{i,t}$ /Gross $financing_{i,t}$ | Louhichi et al.(2019) |
| d. Total assets | SIZE | Natural logarithm of total $assets_{i,t}$ | Louhichi et al.(2019) |

**Table 2. Descriptive statistics**

| Variables | Mean | Std. Dev. | Min. | Max. |
|---|---|---|---|---|
| ROA | 1.477 | 3.514 | −20.130 | 13.600 |
| ROE | 10.215 | 16.019 | −32.040 | 94.010 |
| SEC | 0.393 | 1.875 | 0.000 | 14.806 |
| LERNER | 0.093 | 0.178 | 0.003 | 0.983 |
| FINAN | 0.920 | 4.330 | 0.015 | 38.822 |
| CAPITAL | 0.279 | 0.739 | 0.019 | 6.013 |
| NPF | 3.736 | 5.171 | 0.000 | 43.990 |
| SIZE | 29.741 | 1.434 | 24.240 | 32.474 |
| COVID | 0.154 | 0.362 | 0.000 | 1.000 |

**Table 3. Matrix correlation**

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| ROA | 1 | 1 | | | | | | | |
| SEC | 2 | −0.051 | 1 | | | | | | |
| LERNER | 3 | −0.026 | −0.034 | 1 | | | | | |
| FINAN | 4 | −0.084 | 0.146 | −0.419 | 1 | | | | |
| CAPITAL | 5 | 0.027 | 0.322 | 0.079 | 0.276 | 1 | | | |
| NPF | 6 | −0.423 | 0.045 | −0.100 | 0.112 | −0.047 | 1 | | |
| SIZE | 7 | 0.016 | −0.104 | −0.234 | 0.109 | −0.443 | −0.021 | 1 | |
| COVID | 8 | −0.025 | −0.092 | −0.096 | −0.012 | −0.051 | −0.063 | 0.151 | 1 |

The impact of COVID on ROA produces a coefficient of −1.229 and a p-value of less than 0.05 (model 1). These results indicate that COVID has reduced bank profitability. This result is consistent with the model 2 result score coefficient of −1.690 and a p-value score of less than 0.05.

Model 2 is a regression test of the role of COVID on the relationship between SEC and LERNER on ROA. Table 4 shows that SEC has a coefficient score of 5,593 (p-value score less than 0.1), while SEC*COVID has a coefficient score of 13,070 (p-value score less than 0.1). These results indicate that COVID causing SEC has an influence on ROA.

Meanwhile, the results of model 2 show that LERNER has a coefficient score of −0.845 (p-value score more than 0.1), while LERNER*COVID has a coefficient score of −0.267 (p-value score more than 0.1). These results indicate that COVID does not cause LERNER to influence ROA.

Model 3 is a regression test that uses ROE as an indicator of a bank's financial performance. Model 3 results show that SEC has a coefficient of −0.189 (p-value score is more than 0.10), and LERNER has a coefficient score of −3.008 (p-value score is more than 0.10). The results of regression model 3 show that SEC and LERNER have no effect on ROE. However, the results of regression model 4 show that SEC has a coefficient of 3,509 (p-value score is below 0.05) and SEC*COVID has a coefficient of 8,495 (p-value score is below 0.01). The results of regression model 4 show that LERNER has a coefficient of 0.495 (p-value score is more than 0.1) and LERNER*COVID has a coefficient of −0.417 (p-value score is more than 0.1). The results of regression model 4 show that COVID causes SEC to have a positive effect on ROE. However, COVID did not cause LERNER to have any influence on ROE.

**Table 4. Regression analysis test**

| | ROA | | | | ROE | | | |
|---|---|---|---|---|---|---|---|---|
| | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
| **SEC** | **0.020** | **0.016** | **5.593*** | **3.090** | **−0.189** | **0.268** | **3.509**** | **1.391** |
| SEC*COVID | - | - | 13.070* | 7.253 | - | - | 8.495*** | 3.274 |
| LERNER | −0.108 | 0.573 | −0.845 | 1.144 | −3.008 | 5.878 | 0.495 | 0.583 |
| LERNER*COVID | - | - | −0.267 | 0.867 | - | - | −0.417 | 0.960 |
| FINAN | 0.015 | 0.064 | 0.027 | 0.062 | 1.209*** | 0.247 | 0.099*** | 0.037 |
| CAPITAL | 0.070 | 0.599 | 0.014 | 0.606 | −1.631 | 2.270 | −0.259 | 0.348 |
| NPF | −0.246 | 0.165 | −0.246 | 0.169 | −0.172 | 0.742 | 0.037 | 0.056 |
| SIZE | 0.189 | 0.261 | 0.167 | 0.283 | 1.461 | 1.151 | 0.024 | 0.188 |
| COVID | −1.229** | 0.539 | −1.690** | 0.672 | −7.948** | 2.704 | −1.356** | 0.578 |
| _CONS | −2.885 | 7.511 | −2.213 | 8.179 | −31.303 | 34.645 | 1.065 | 5.749 |
| VIF (Mean) | 2.51 | | 2.51 | | 2.51 | | 2.51 | |
| Modified Wald test | 925.83*** | | 1.3e+05*** | | 1.6E+06*** | | 8.8E+06*** | |
| Wooldridge test | 1.398 | | 1.354 | | 2.539 | | 2.494 | |
| Breusch and Pagan Lagrangian multiplier test | 21.47*** | | 22.32*** | | 5.15** | | 5.13** | |
| Hausman | 0.80 | | 0.60 | | 4.03 | | 3.08 | |
| Wald chi2 | 168.03*** | | 465.90*** | | 592.58*** | | 265.87*** | |
| R-Sq | 0.170 | | 0.1805 | | 0.081 | | 0.159 | |

We present scores of coefficients and robust standard error. ***, **, * denote 1%, 5%, and 10% significance levels, respectively. Following (Hoechle, 2007), we use random-effect GLS regressions with robust standard errors to solve the problems of autocorrelation and heteroscedasticity. Hausman test result in a p-value score of more than 0.05 recommends using random-effect GLS regressions.

### *6.3. Discussion*

The results of this study (Table 4) provide empirical evidence that social and environmental concerns have no effect on ROA and ROE. These results indicate that bank spending for social and environmental activities of the bank, originating from zakat and *qardul hasan* funds does not affect bank profitability. This result is in accordance with the findings of Kesto (2017) and Schröder (2007) that CSR spending is not able to improve bank performance. This is also in line with the opinion of Friedman (2007) that CSR is served for the personal benefit of managers to raise their reputation in society. In the systems-oriented theories approach, the bank's concern for social and environmental issues as seeking to preserve their bank interest, bank directors will attempt to operate and interact within the system through various good relationships with other parties (Farook et al., 2011). The bank's concern for social and environmental issues indicates that the bank has fulfilled the social contract. However, because society is not concerned about social and environmental issues, it causes society not to use social and environmental concerns as a basis for selecting banks. Following Joshi and Rahman (2015), consumers' social and environmental concerns emerged as the major determinants of consumer behavior to use bank products that care for social and environmental issues. Al Mubarak et al. (2018) report that customers perceive CSR activities as a major element when dealing with banks, and the corporate image is strengthened when banks adopt CSR activities.

The results of the regression test show that market competition has no effect on financial performance. IBs face tremendous pressure to maintain their performance. Regulators and stakeholders demand that IBs provide bank products in accordance with shariah while providing competitive returns like their competitors. However, the investment instruments available on the market are not suitable for IBs because most investment instruments are not in accordance with shariah (Mukhibad et al., 2023). Based on a competition-stability view, high competition causes IBs to try to improve bank services and develop new products to increase customer satisfaction. This policy is to win the market competition and further promote the financial performance of the bank.

IBs in Indonesia have a number of assets that tend to be homogeneous and have a low percentage compared to conventional banks. Low total assets reduce bank economies of scale and affect the market structure as well as bank performance (Alshubiri, 2022; Yuanita, 2019). The homogeneity of the number of IB assets in Indonesia causes them to compete with each other. However, due to their low number of assets, their competition is not able to compete with conventional banks. Keep in mind that IB customers are mostly rational and emphasize economic motivation (see Aysan et al., 2018; Ismal, 2011). This condition causes market competition to not affect IB's financial performance.

The COVID-19 pandemic moderation test (Table 4) on the effect of social and environmental concerns on financial performance shows that the COVID-19 pandemic causes social and environmental concerns to have a positive effect on ROA (model 2) and ROE (model 4). The COVID-19 pandemic has increased social and economic issues and reduced the purchasing power of society. This condition causes a reducing bank lending (Boubakri et al., 2023), it is difficult for banks to maintain performance income and reduces fundamental bank performance (Alsamhi et al., 2022) and profitability (Alsamhi et al., 2022; Makki & Alqahtani, 2023). The COVID-19 pandemic caused an increased economic recession, social imbalance, and inequity, creating even more difficulties for society (Clemente-Suárez et al., 2021). The worsening social and economic problems of the community due to the COVID-19 pandemic have increased the social and economic concerns of society. Society also demands that corporate have social and economic concerns. The consumer's social and environmental concerns are the major determinants of consumer behavior in using bank products (Joshi & Rahman, 2015). Thus, the COVID-19 pandemic causes social and environmental concerns to positively influence financial performance.

The results of this study provide an alternative explanation of recent literature that appears to be rather inclusive of the effects of social and environmental concerns or CSR performance on financial performance (Nollet et al., 2016). According to Maqbool and Zameer (2018), community groups, consumers, investors, civil society, and other actors have deposited tremendous pressure on corporate people to adhere to social and environmental. Moreover, consumers' social and environmental concerns emerged as the major determinants of consumer behavior to use bank products that care for social and environmental issues (Joshi & Rahman, 2015). In the legitimacy theory and stakeholder theory social and environmental concern approach of banks in increasing bank compliance with social contracts (Deegan, 2002) where consumers' encouragement to comply with social contracts increased during the COVID-19 pandemic. Thus, the influence of CSR performance on financial performance depends on consumer behavior concerning social and environmental issues.

Table 4 also reports that the COVID-19 pandemic did not cause social and environmental concerns to ROA (2) and ROE (model 4). The COVID-19 pandemic caused reduced bank lending (Boubakri et al., 2023) and the performance of IBs and CBs (Alsamhi et al., 2022). The crisis due to the COVID-19 pandemic has not caused a change in market competition among banks. This is the reason the COVID-19 pandemic has not caused a social and environmental concern to bank financial performance.

### *6.4. Robustness test*

Following Mukhibad and Setiawan (2022), we add income diversity variables in the model to the robustness test. We developed models 1a, 2a, 3a, and 4a as robustness tests, and the model test results are presented in Table 5. The results of the regression test in Table 5 show that social and environmental concerns and market competition do not affect ROA and ROA. However, the COVID-19 pandemic moderated the impact of social and environmental concerns on ROA and ROE. The COVID-19 pandemic has caused social and environmental concerns to have a positive effect on ROA and ROE. The research results in Table 5 corroborate the results of the main regression test of this study.

## 7. Summary and conclusion

This study aims to prove the influence of social and environmental concerns and market competition on financial performance. We also examine the impact of the COVID-19 pandemic on relations social and environmental concerns on profitability as well as the relationship between market competition and financial performance. The results of the research show that in the context of IBs in Indonesia, social and environmental concerns have no effect on ROA and ROE. The research results also prove that market competition has no effect on ROA and ROE. The results of the moderation test show that the COVID-19 pandemic has caused social and environmental concerns to increase ROA and ROE. However, the COVID-19 pandemic did not cause market competition to have an impact on ROA and ROE.

The research results prove that the economic consequence of social and environmental concerns depends on society's social and environmental concerns. The COVID-19 pandemic increases consumers' social and environmental concerns, encourages banks to care about social issues, and will further improve bank performance. Following the legitimacy theory and stakeholder theory view, society's social and environmental concerns will encourage banks to comply with social contracts and increase consumer behavior to use bank products.

These findings could help regulators IBs in Indonesia should give the necessary training, workshop, or expand socialization to improve society's social and environmental concerns. Consumers' social and environmental concerns emerged consumer behavior to use bank products that care for social and environmental issues. This behavior encourages the IBs' social and environmental concerns. Thus, mutually beneficial behavior occurs between the bank and society. For IBs, this result can be used as a basis for increasing the effectiveness of bank policies in channeling social bank funds (*zakah* and *qardul hasan funds*) and regardless of the rules. This policy is important so that the social and environmental concerns of Islamic banks have an impact on improving financial performance.

**Table 5. Regression analysis test for robustness**

| | ROA | | | | ROE | | | |
|---|---|---|---|---|---|---|---|---|
| | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. | Coef. | Robust Std. Err. |
| | Model 1a | | Model 2a | | Model 3a | | Model 4a | |
| **SEC** | **0.008** | **0.016** | **2.361*** ** | **0.795** | **−0.193** | **0.273** | **2.776** ** | **1.090** |
| SEC*COVID | - | - | 5.779*** | 1.862 | - | - | 6.769*** | 2.561 |
| LERNER | −0.622 | 0.782 | −0.427 | 0.465 | −5.597 | 6.413 | −0.480 | 1.019 |
| LERNER*COVID | - | - | 0.236 | 0.443 | - | - | −0.183 | 0.634 |
| FINAN | 0.035 | 0.054 | 0.035 | 0.033 | 1.271*** | 0.273 | 0.098*** | 0.035 |
| CAPITAL | 0.041 | 0.538 | −0.075 | 0.347 | −1.902 | 2.433 | −0.253 | 0.359 |
| NPF | −0.257 | 0.168 | 0.046 | 0.041 | −0.169 | 0.743 | 0.053 | 0.054 |
| SIZE | 0.220 | 0.250 | −0.140 | 0.210 | 1.482 | 1.198 | 0.026 | 0.209 |
| COVID | −1.503** | 0.626 | −0.056 | 0.312 | −6.119* | 3.384 | −0.547 | 0.481 |
| DIVERINCOM | −0.128 | 0.117 | 0.118* | 0.066 | 0.151 | 0.648 | 0.120* | 0.072 |
| _CONS | −4.074 | 7.322 | 4.464 | 6.301 | −31.310 | 36.340 | 1.352 | 6.345 |
| VIF (Mean) | 2.50 | | 2.50 | | 2.50 | | 2.50 | |
| Modified Wald test (chi2 score) | 1.3E+05*** | | 3.7E+05*** | | 48541*** | | 22787*** | |
| Wooldridge test | 1.463 | | 1.461 | | 2.547 | | 2.477 | |
| Breusch and Pagan Lagrangian multiplier test | 22.76*** | | 22.40*** | | 5.23** | | 5.46*** | |
| Hausman (chi2 score) | 0.57 | | 0.47 | | 4.29 | | 2.91 | |
| Wald chi2 | 463.98*** | | 150.97*** | | 392.963*** | | 423.66*** | |
| R-Sq | 0.180 | | 0.129 | | 0.083 | | 0.155 | |

We present scores of coefficients and robust standard error. ***, **, * denote 1%, 5%, and 10% significance levels, respectively. Following (Hoechle, 2007), we use random-effect GLS regressions with robust standard errors to solve the problems of autocorrelation and heteroscedasticity. Hausman test result in a p-value score of more than 0.05 recommends using random-effect GLS regressions.

This research contributes to expanding prior literature in two ways. First, we give evidence of the influence of the economic consequences of social and environmental concerns on financial performance that still needs to be improved, evidenced by previous studies. In a broader scope, studies on the economic consequence of social and environmental concerns on financial performance have mixed results. Second, previous research that proves the economic consequences of social and environmental concerns has focused on corporate in developing countries, especially Indonesia. The cultural differences may cause differences in the responses of stakeholders in corporate that care about social and environmental issues. Third, this study expands the literature on the economic consequences of social and environmental concerns during the COVID-19 pandemic.

This research is used as a consideration in determining CSR performance for banks because, in the context of IBs in Indonesia, this performance does not positively impact financial performance. CSR performance can improve financial performance if consumer behavior uses bank products that care about social and environmental issues.

This research only uses the scope of IBs in Indonesia because only IBs in Indonesia are required by regulators to publish the statements of sources and distribution of zakat funds and statements of sources and distribution of *qardul hasan* funds as social activities reports. This research bases the social and environmental concerns of IBs based on these reports. Future researchers can adopt this research in another country by adjusting the rules set by the regulator.

**Funding**
The work was supported by the Faculty of Business and Economics, Universitas Negeri Semarang [2023].

**Author details**
Asrori[1]
E-mail: asroriunnes@mail.unnes.ac.id
Hasan Mukhibad[1]
Ahmad Nurkhin[1]
[1] Faculty of Economics and Business, Universitas Negeri Semarang, Semarang, Central Java, Indonesia.

**Disclosure statement**
No potential conflict of interest was reported by the author(s).

**Citation information**
Cite this article as: Economic consequence of social and environmental concern in Islamic bank – Do COVID-19 pandemic matter?, Asrori, Hasan Mukhibad & Ahmad Nurkhin, *Cogent Business & Management* (2023), 10: 2225818.

**References**

Ahmed, A., & El-Belihy, A. (2017). An investigation of the disclosure of corporate social responsibility in UK Islamic Banks. *Academy of Accounting & Financial Studies Journal*, *21*(3), 1–31. https://doi.org/1528-2635-21-3-127

Alam, N., Abdul, B., & Ting, D. (2019). Does competition make banks riskier in dual banking system? *Borsa Istanbul Review*, *19*(1), S34–S43. https://doi.org/10.1016/j.bir.2018.09.002

Albassam, W. M., & Ntim, C. G. (2017). The effect of Islamic values on voluntary corporate governance disclosure: The case of Saudi-listed firms. *Journal of Islamic Accounting and Business Research*, *8*(2), 182–202. https://doi.org/10.1108/JIABR-09-2015-0046

Al Mubarak, Z., Ben Hamed, A., & Al Mubarak, M. (2018). Impact of corporate social responsibility on bank's corporate image. *Social Responsibility Journal*, *15*(5), 710–722. https://doi.org/10.1108/SRJ-01-2018-0015

Alsamhi, M. H., Al-Ofairi, F. A., Farhan, N. H. S., Al-Ahdal, W. M., & Siddiqui, A. (2022). Impact of Covid-2019 on firms' performance: Empirical evidence from India. *Cogent Business & Management*, *9*(1). https://doi.org/10.1080/23311975.2022.2044593

Alshubiri, F. (2022). The financial competition, concentration and structure of financial performance nexus in the financial sector of Oman. *Economic Change and Restructuring*, *55*(2), 681–714. https://doi.org/10.1007/s10644-021-09326-8

Alshurafat, H., Ananzeh, H., Al-Hazaima, H., & Shbail, M. O. A. (2022). Do different dimensions of corporate social responsibility disclosure have different economic consequence: Multi-approaches for pro fi tability examination. *Competitiveness Review: An International Business Journa*, *33*(1), 240–263. https://doi.org/10.1108/CR-06-2022-0082

Amran, A., Fauzi, H., Purwanto, Y., Darus, F., Yusoff, H., Zain, M. M., Naim, D. M. A., & Nejati, M. (2017). Social responsibility disclosure in Islamic banks: A comparative study of Indonesia and Malaysia. *Journal of Financial Reporting and Accounting*, *15*(1), 99–115. https://doi.org/10.1108/jfra-01-2015-0016

Aysan, A. F., Disli, M., Duygun, M., & Ozturk, H. (2018). Religiosity versus rationality: Depositor behavior in Islamic and conventional banks. *Journal of Comparative Economics*, *46*(1), 1–19. https://doi.org/10.1016/j.jce.2017.03.001

Boubakri, N., Mirzaei, A., & Saad, M. (2023). Journal of international financial markets, bank lending during the COVID-19 pandemic: A comparison of Islamic and conventional banks. *Journal of International Financial Markets, Institutions and Money*, *84* (April 2020), 101743. https://doi.org/10.1016/j.intfin.2023.101743

Bukair, A. A., & Abdul-Rahman, A. (2013). The influence of the shariah supervision board on corporate social responsibility disclosure by Islamic banks of gulf co-operation council countries. *Asian Journal of Business and Accounting*, *6*(2), 65–104. https://doi.org/10.5296/jmr.v7i2.6989

Chen, F., Huang, Z. X., Wang, F., & Xie, Z. (2022). Can corporate social responsibility disclosure alleviate asset price volatility? Evidence from China. *Economic Modelling*, *116*(July), 105985. https://doi.org/10.1016/j.econmod.2022.105985

Clemente-Suárez, V. J., Navarro-Jiménez, E., Moreno-Luna, L., Saavedra-Serrano, M. C., Jimenez, M., Simón, J. A., & Tornero-Aguilera, J. F. (2021). The impact of the COVID-19 pandemic on social, health, and economy. *Sustainability*, *13*(6314), 1–25. https://doi.org/10.3390/su13116314

Cragg, W. (2002). Business ethics and stakeholder equity. *Business Ethics Quarterly*, *12*(2), 113–142. https://doi.org/10.2307/3857807

Dai, J., Lu, C., & Qi, J. (2019). Corporate social responsibility disclosure and stock price crash risk: Evidence from China. *Sustainability (Switzerland)*, *11*(2), 448. https://doi.org/10.3390/su11020448

Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – A theoretical foundation. *Accounting Auditing & Accountability Journal*, *15*(3), 282–311. https://doi.org/10.1108/09513570210435852

Deegan, C., & Blomquist, C. (2006). Stakeholder influence on corporate reporting: An exploration of the interaction between WWF-Australia and the Australian minerals industry. *Accounting, Organizations & Society*, *31*(4–5), 343–372. https://doi.org/10.1016/j.aos.2005.04.001

Do, T. K. (2022). Corporate social responsibility and default risk: International evidence. *Finance Research Letters*, 44(August 2020), 102063. https://doi.org/10.1016/j.frl.2021.102063

Elamer, A. A., Ntim, C. G., & Abdou, H. A. (2020). Islamic governance, national governance, and bank risk management and disclosure in MENA countries. *Business & Society*, *59*(5), 914–955. https://doi.org/10.1177/0007650317746108

Elamer, A. A., Ntim, C. G., Abdou, H. A., Zalata, A. M., & Elmagrhi, M. (2019). The impact of multi-layer governance on bank risk disclosure in emerging markets: The case of Middle East and North Africa. *Accounting Forum*, *43*(2), 246–281. https://doi.org/10.1080/01559982.2019.1576577

El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking and Finance*, *35*(9), 2388–2406. https://doi.org/10.1016/j.jbankfin.2011.02.007

Elghuweel, M. I., Ntim, C. G., Opong, K. K., & Avison, L. (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*, *7*(2), 190–224. https://doi.org/10.1108/JAEE-09-2015-0064

Farook, S., M, K. H., & Lanis, R. (2011). Determinants of corporate social responsibility disclosure: The case of Islamic Banks. *Journal of Islamic Accounting and Business Research*, *2*(2), 114–141. https://doi.org/10.1108/17590811111170539

Farook, S., & Roman, L. (2007). Banking on Islam? Determinants of Corporate Social Responsibility Disclosure. *Islamic Economics and Finance*, *2*(17), 355–388. https://doi.org/iefpedia.com/english/wp-content/uploads/2011/02/Advances-in-Islamic-Economics-Finance-–-Munawar-Iqbal-Salman-Syed-Ali-Dadang-Muljawan.pdf#page=230

Fombrun, C., & Foss, C. (2004). Business Ethics: Corporate responses to scandal. *Corporate Reputation Review*, *7*(3), 284–288. https://doi.org/10.1057/palgrave.crr.1540226

Friedman, M. (2007). The social responsibility of business is to increase its profits. *Corporate Ethics and Corporate Governance*, 173–178. https://doi.org/10.1007/978-3-540-70818-6_14

Goss, A., & Roberts, G. S. (2011). The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking and Finance*, *35*(7), 1794–1810. https://doi.org/10.1016/j.jbankfin.2010.12.002

Gusrianti, & Sari, P. H. (2023). Transparency of shariah supervisory board information in Islamic Banks of Indonesia and Malaysia: The effect of Islamic corporate governance. *Jurnal Dinamika Akuntansi*, *15*(1), 1–12. https://doi.org/10.15294/jda.v15i1.38232

Handayati, P., Krisnawati, D., Soetjipto, B. E., Sudarmiatin, & Suharto. (2017). The shariah enterprise theory: Implementation of corporate social responsibility disclosure for Islamic Banking in Indonesia and Malaysia. *International Journal of Economic Research*, *14*(13), 195–206. https://serialsjournals.com/abstract/73211_17.pdf

Hao, D. Y., Qi, G. Y., & Wang, J. (2018). Corporate social responsibility, internal controls, and stock price crash risk: The Chinese stock market. *Sustainability (Switzerland)*, *10*(5), 1675. https://doi.org/10.3390/su10051675

Harun, M. S., Hussainey, K., Mohd Kharuddin, K. A., & Farooque, O. A. (2020). CSR disclosure, corporate governance and firm value: A study on GCC Islamic Banks. *International Journal of Accounting & Information Management*, *28*(4), 607–638. https://doi.org/10.1108/IJAIM-08-2019-0103

Hasanah, V. N., Nuraina, E., & Styaningrum, F. (2023). Sustainability reporting, foreign ownership, firm value as a function of investment opportunity set. *Jurnal Dinamika Akuntansi*, *15*(1), 13–23. https://doi.org/10.15294/jda.v15i1.35793

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

Helfaya, A., Kotb, A., & Hanafi, R. (2016). Qur'anic ethics for environmental responsibility: Implications for business practice. *Journal of Business Ethics*, *150*(4), 1105–1128. https://doi.org/10.1007/s10551-016-3195-6

Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The Stata Journal*, *7*(3), 281–312. https://doi.org/10.1177/1536867X0700700301

Horta, I. M., Camanho, A. S., & Moreira Da Costa, J. (2012). Performance assessment of construction companies: A study of factors promoting financial soundness and innovation in the industry. *International Journal of Production Economics*, *137*(1), 84–93. https://doi.org/10.1016/j.ijpe.2012.01.015

Ismal, R. (2011). Depositors' withdrawal behavior in Islamic banking: Case of Indonesia. *Humanomics*, *27*(1), 61–76. https://doi.org/10.1108/08288661111110187

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, *3*(1–2), 128–143. https://doi.org/10.1016/j.ism.2015.04.001

Jusoh, W. N. H. W., & Ibrahim, U. (2018). The significance of corporate social responsibility disclosure to Islamic Banks in Malaysia: An Islamic view. *Journal of Islamic Finance*, *7*(1), 1–8. https://doi.org/10.12816/0051130

Kesto, D. A. (2017). The impact of corporate social responsibility practices on financial performance of banking sector in Ethiopia. *Global Journal of Management and Business Research: D Accounting and Auditing*, *17*(1), 28–44.

Louhichi, A., Louati, S., & Boujelbene, Y. (2019). Market-power, stability and risk-taking: An analysis surrounding the riba-free banking. *Review of Accounting and Finance*, *18*(1), 2–24. https://doi.org/10.1108/RAF-07-2016-0114

Louhichi, A., Louati, S., & Boujelbene, Y. (2020). The regulations–risk taking nexus under competitive pressure: What about the Islamic banking system? *Research in International Business and Finance*, *51* (January 2018), 101074. https://doi.org/10.1016/j.ribaf.2019.101074

Maali, B., Casson, P., & Napier, C. (2006). Social reporting by Islamic banks. *Abacus*, *42*(2), 266–289. https://doi.org/10.1111/j.1467-6281.2006.00200.x

Magnanelli, B. S., & Izzo, M. F. (2017). Corporate social performance and cost of debt: The relationship. *Social Responsibility Journal*, *13*(2), 250–265. https://doi.org/10.1108/SRJ-06-2016-0103

Majid, M. S. A., Musnadi, S., & Putra, I. Y. (2014). A comparative analysis of the quality of Islamic and conventional banks' asset management in Indonesia. *Gadjah Mada International Journal of Business*, *16*(2), 185–200. https://doi.org/10.22146/gamaijb.5463

Makki, A. A., & Alqahtani, A. Y. (2023). Capturing the effect of the COVID-19 pandemic outbreak on the financial performance disparities in the energy sector: A Hybrid MCDM-Based evaluation approach. *Economies*, *11*(2), 1–21. https://doi.org/10.3390/economies11020061

Maqbool, S., & Zameer, M. N. (2018). Corporate social responsibility and fi nancial performance: An empirical analysis of Indian banks. *Future Business Journal*, 4(1), 84–93. https://doi.org/10.1016/j.fbj.2017.12.002

Menassa, E., & Dagher, N. (2019). Determinants of corporate social responsibility disclosures of UAE national banks: A multi-perspective approach. *Social Responsibility Journal*, *16*(5), 631–654. https://doi.org/10.1108/SRJ-09-2017-0191

Mukhibad, H., Anisykurlillah, I., Nurkhin, A., & Jayanto, P. Y. (2019). Can social performance improve financial performance and increase customers' trust? *International Journal of Financial Research*, *10*(4), 37. https://doi.org/10.5430/ijfr.v10n4p37

Mukhibad, H., Kiswanto, Jayanto, P. Y., & Kiswanto, N. A. (2017). An analysis on financial and social performance of Islamic Banks in Indonesia. *International Journal of Monetary Economics and Finance*, *10*(3/4), 295–308. https://doi.org/10.1504/IJMEF.2017.087479

Mukhibad, H., Muthmainah, Andraeny, D., & Muthmainah, M. (2020). The role of corporate social responsibility disclosure in improving financial performance (case study in Indonesian Islamic Bank). *Al-Uqud: Journal of Islamic Economics*, 4(2), 162–173. https://doi.org/10.26740/al-uqud.v4n2.p162-173

Mukhibad, H., Nurkhin, A., Anisykurlillah, I., Fachrurrozie, F., & Jayanto, P. Y. (2023). Open innovation in shariah compliance in Islamic banks – Does shariah supervisory board attributes matter? *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(1), 1–10. https://doi.org/10.1016/j.joitmc.2023.100014

Mukhibad, H., Nurkhin, A., Jati, K. W., & Yudo, P. (2022). Corporate governance and Islamic law compliance risk. *Cogent Economics & Finance*, *10*(1), 1–17. https://doi.org/10.1080/23322039.2022.2111057

Mukhibad, H., & Setiawan, D. (2020). Could risk, corporate governance, and corporate ethics enhance social performance? Evidence from Islamic Banks in Indonesia. *Indian Journal of Finance*, *14*(4), 24–38. https://doi.org/10.17010/ijf/2020/v14i4/151706

Mukhibad, H., & Setiawan, D. (2022). Shariah supervisory board attributes and corporate risk-taking in Islamic banks. *Cogent Business & Management*, *9*(1), 1–25. https://doi.org/10.1080/23311975.2022.2158607

Mukhibad, H., Yudo Jayanto, P., Suryarini, T., & Bagas Hapsoro, B. (2022). Corporate governance and Islamic bank accountability based on disclosure—a study on Islamic banks in Indonesia. *Cogent Business & Management*, *9*(1), 13–19. https://doi.org/10.1080/23311975.2022.2080151

Naylor, J. (1998). *Management*. Financial Times Pitman.

Nollet, J., Filis, G., & Mitrokostas, E. (2016). Corporate social responsibility and fi nancial performance: A non-linear and disaggregated approach. *Economic Modelling*, *52*, 400–407. https://doi.org/10.1016/j.econmod.2015.09.019

Noman, A. H., Gee, C. S., Isa, C. R., & Hernandez Montoya, A. R. (2017). Does competition improve financial stability of the banking sector in ASEAN countries? An empirical analysis. *PLOS ONE*, *12*(5), 1–27. https://doi.org/10.1371/journal.pone.0176546

Nugraheni, P., & Khasanah, E. N. (2019). Implementation of the AAOIFI index on CSR disclosure in Indonesian Islamic banks. *Journal of Financial Reporting and Accounting*, *17*(3), 365–382. https://doi.org/10.1108/JFRA-02-2018-0013

Platonova, E., Asutay, M., Dixon, R., & Mohammad, S. (2016). The impact of corporate social responsibility disclosure on financial performance: Evidence from the GCC Islamic Banking sector. *Journal of Business Ethics*, *151*(2), 451–471. https://doi.org/10.1007/s10551-016-3229-0

Probohudono, A. N., Nugraheni, A., & Nurrahmawati, A. (2021). Comparative analysis of QISMUT+3's Islamic corporate social responsibility. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-05-2020-0146

Qoyum, A., Mutmainah, L., Setyono, J., & Qizam, I. (2017). The impact of good corporate governance, company size nn corporate social responsibility disclosure: Case study of Islamic Banking in Indonesia. *Iqtishadia*, *10*(1), 130–159. https://doi.org/10.21043/iqtishadia.v10i1.2365

Rizk, R. R. (2014). Islamic environmental ethics. *Journal of Islamic Accounting and Business Research*, *5*(2), 194–204. https://doi.org/10.1108/JIABR-09-2012-0060

Schröder, M. (2007). Is there a difference? The performance characteristics of SRI equity indices. *Journal of Business Finance and Accounting*, *34*(1–2), 331–348. https://doi.org/10.1111/j.1468-5957.2006.00647.x

Servaes, H., & Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science*, *59*(5), 1045–1061. https://doi.org/10.1287/mnsc.1120.1630

Shih, Y. C., Wang, Y., Zhong, R., & Ma, Y. M. (2021). Corporate environmental responsibility and default risk: Evidence from China. *Pacific Basin Finance Journal*, *68*(May), 101596. https://doi.org/10.1016/j.pacfin.2021.101596

Suganda, T. R., & Kim, J. (2023). An empirical study on the relationship between corporate social responsibility and default risk: Evidence in Korea. *Sustainability*, *15* (4), 3644. https://doi.org/10.3390/su15043644

Trinugroho, I., Risfandy, T., & Doddy, M. (2018). *Competition, diversification, and bank margins: Evidence from Indonesian Islamic rural banks*. https://doi.org/10.1016/j.bir.2018.07.006

Wang, Qian, Wang, H., & Qian, C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy of Management Journal*, *54*(6), 1159–1181. https://doi.org/10.5465/amj.2009.0548

Xue, S., Chang, Q., & Xu, J. (2023). The effect of voluntary and mandatory corporate social responsibility disclosure on firm profitability: Evidence from China. *Pacific-Basin Finance Journal*, *77* (December 2022), 101919. https://doi.org/10.1016/j.pacfin.2022.101919

Yuanita, N. (2019). Competition and bank profitability. *Journal of Economic Structures*, *8*(1). https://doi.org/10.1186/s40008-019-0164-0

Zhou, F., Zhu, J., Qi, Y., Yang, J., & An, Y. (2021). Multidimensional corporate social responsibilities and stock price crash risk: Evidence from China. *International Review of Financial Analysis*, *78* (August 2020), 101928. https://doi.org/10.1016/j.irfa.2021.101928