



Unraveling the Complex Dynamics of Islamic Social Reporting and Financial Performance: A Study of Mediating and Moderating Factors in Islamic Banks

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Abstract: Islamic Social Reporting (ISR) is crucial for Islamic banks as it captures the extent of their adherence to social and ethical principles, which influences their financial performance. Drawing on stakeholder theory the primary objective of this study is to scrutinize the impact of ISR on the financial performance of Islamic banks in Indonesia, with a specific focus on the mediating and moderating roles of key governance factors, namely ownership concentration, bank size, board independence composition, and leverage. The study is based on data from ten Indonesian Islamic commercial banks from 2017 to 2020, utilizing regression models and Path SEM analysis for assessment. The findings reveal a positive impact of ISR on financial performance. Additionally, it is discovered that the board independence composition and leverage significantly moderate the ISR-financial performance relationship. However, the study does not find evidence of the mediating effects of ownership concentration and bank size. While the moderating roles of board independence composition and leverage align with prior research, the absence of mediation effects contrasts with previous studies.

Originality/Value: This research offers a distinct exploration of the relationship between ISR-financial and financial performance relationship within the specific context of Indonesian Islamic banks. It creatively probes the mediating and moderating impacts of select governance variables, a largely unexplored territory in extant literature. The findings of this study contribute to the theoretical framework of ISR's influence on financial performance and provide actionable insights for policy and strategic decisions in Islamic banks. It underscores the potential of such studies to drive sustainable growth, thereby laying the groundwork for future research.

Introduction

As society becomes more aware of the environmental, social, and economic challenges facing the world, expectations for corporate responsibility grows. Organizations must continuously adapt to navigate through various shocks and crises to ensure their survival and development. In the context of Islamic banking, Islamic Social Reporting (ISR) plays a crucial factor in demonstrating a bank's adherence to Islamic principles and commitment to sustainable development (Kamla & Rammal, 2013; Maali et al., 2006). With researchers, policymakers, and investors paying more attention to ISR, there is a growing interest in understanding its financial impact. This study aims to examine the influence of ISR on the

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financial performance of Indonesian sharia banks, with a specific focus on the Return on assets (ROA) as the key indicator.

Islamic banks, unlike conventional banks, must operate under the principles of Islamic law, which emphasizes the importance of social responsibility, justice, and ethical behavior (Hanić & Efendic, 2020; Hanić & Smolo, 2023; Mansour et al., 2015). Within this unique operating framework, ISR has emerged as a means for Islamic banks to communicate their social and environmental commitments to stakeholders (Farook et al., 2011; Haniffa & Hudaib, 2007). As the Islamic banking sector continues to expand and gain global recognition, understanding the relationship between ISR and financial performance becomes increasingly vital for regulators, investors, and bank managers.

Several studies have delved into various aspects of ISR and its impact on financial performance. For instance, studies by Susbiyani et al. (2023), Siswanti and Setyaningrum (2023), and Wahyuni and Wafiroh (2023) have highlighted the influence of an independent board of commissioners, Sharia compliance, and good corporate governance on ISR disclosure and firm value. Salman (2023) established a significant relationship between the maqashid sharia index and ISR. Additionally, the work by Kusumasari et al. (2023) and Framitha et al. (2023) emphasized the role of ISR in achieving comprehensive financial management and influence on firm value and tax aggressiveness.

Seminal research conducted by Farook et al. (2011), Haniffa and Hudaib (2007), and Maali et al. (2006), as well as Probahudono et al. (2021), provided ground-breaking insights into the determinants of Corporate Social Responsibility (CSR) disclosure and ethical identity within Islamic banks, the state of social reporting, and the impact of CSR disclosure on financial performance. Hussain et al. (2020), Jihadi et al. (2021), and Fachrurrozie et al. (2021) have examined the determinants of Islamic social reporting in Islamic banks in Pakistan and Indonesia, highlighting the role of firm size, profitability, and the Sharia Supervisory Board (SSB).

In a more recent study, Jan et al. (2023) concentrated on creating an Islamic corporate sustainability practices index aligned with the Sustainable Development Goals (SDGs), demonstrating a significant positive relationship between Islamic corporate sustainability practices and financial performance. They introduce a distinctive sustainability measurement framework for measuring Islamic banking and identifying a positive correlation between sustainability practices and financial performance indicators. Additionally, Mallin et al. (2014) established a compelling connection between CSR disclosure and financial performance, with particular emphasis on the role of the Shari'ah supervisory board.

Despite the considerable amount of research, there is still a lack of consensus on the nature regarding the relationship between ISR and financial performance, thereby motivating the present study. Theoretical perspectives differ, with stakeholder theory suggesting a positive relationship between ISR and ROA (Freeman, 2010; Jensen, 1986; Jensen & Meckling, 1976), whereas agency theory suggests a negative relationship due to potential conflicts of interest between management and shareholders (Barney & Wright, 1998; Jensen, 1986).

In addition, there is a lack of extensive research investigating potential mediating factors that could influence this relationship. This research seeks to fill these gaps by investigating the direct and indirect influences of ISR on ROA, taking into account the interactions of ownership concentration (OC), bank size, board independence composition (BIC), and leverage (LEV). The findings of this study will offer valuable insights that can contribute to the improvement of governance practices and the understanding of the impact of Islamic social reporting on banks' financial performance.

This study is driven by two primary objectives. Firstly, it aims to assess the direct and indirect effects of ISR on ROA, a crucial measure of bank performance. Secondly, it aims to probe the potential mediating roles of OC and bank size in this relationship. By pursuing these objectives, the study offers a comprehensive exploration of the impact of ISR on Islamic banks, delivering valuable insights for bank managers, regulators, and policymakers. These stakeholders could leverage these findings to enhance ISR practices, establish effective governance and regulatory frameworks, and promote sustainable growth in the Islamic banking sector, which plays a vital player in maintaining economic stability.

Indonesia, being the world's most populous Muslim-majority country, serves as a suitable context for this study. The banking sector in Indonesia has experienced rapid growth and transformation, with sharia banks playing an increasingly important role (Ascarya & Yumanita, 2008; Sukmana & Ibrahim, 2017). The Indonesian market possesses distinctive characteristics, including a diverse population,

varying levels of financial literacy, and the presence of both large and small sharia banks, create a rich environment for exploring the impact of ISR on financial performance.

Furthermore, the recent regulatory changes in Indonesia have resulted in increased scrutiny of corporate governance practices within the banking sector. There is now a particular focus on transparency, accountability, and ethical behaviour (Bank Indonesia, 2009, 2012, 2013; OJK-RI, 2022). These regulatory shifts have elevated the importance of ISR as a mechanism for demonstrating compliance with the new regulatory requirements and communicating the bank's commitment to sustainable development (Cahya et al., 2019; Cahya & Rohmah, 2019; Schaltegger et al., 2017). This evolving regulatory landscape highlights the necessity for a comprehensive understanding of the relationship between ISR and the financial performance of Indonesian sharia banks.

The remainder of this paper is organized as follows: Section 2 presents a comprehensive literature review and hypotheses development. Section 3 outlines the research design, including the regression and the structural equation modeling (SEM) approaches used in data analysis. Section 4 presents the results of the analysis and robustness tests, which reveal the direct and indirect effects of ISR, OC, bank size, BIC, and LEV on ROA. Furthermore, it delves into mediating roles of OC and bank size in the relationship between ISR and ROA are discussed. Section 5 concludes the paper, offering a summary of the findings, their implications for bank managers, regulators, and policymakers, and recommendations for future research.

Literature Review

Islamic Social Responsibility, Governance Factors and Financial Performance in Islamic Banks

In today's era of intense global competition, ISR has emerged as a crucial strategy for Islamic banks. Built upon the principles of justice, equity, and ethical conduct, ISR emphasizes the critical balance between wealth accumulation and social welfare within Islamic financial institutions (Zafar & Sulaiman, 2019), contributing to their competitive edge (Hosseini et al., 2018).

This study delves into the relationship between ISR and financial performance in Islamic banks, while specifically exploring the potential mediating or moderating influence of governance factors. It aims to address two key research questions: (1) How does ISR impact the financial performance of Islamic banks? (2) How do governance factors mediate or moderate the ISR-financial performance relationship? The findings from this research are intended to contribute to both academic literature and the practical management of Islamic banks.

In an increasingly competitive banking industry, Islamic banks face numerous challenges. In this landscape, strategies that balance stakeholder responsiveness with financial performance gain precedence (Barney & Wright, 1998; Buzzavo, 2012). By emphasizing ISR strategies, these banks can demonstrate their commitment to Islamic principles, maintaining their reputation, and legitimacy amongst stakeholders. The effective implementation of ISR activities, without compromising financial viability is a prerequisite for the thriving of Islamic banks (Elhoussein, 2018; Franzoni & Allali, 2018).

The theoretical framework for understanding the dynamics between ISR and financial performance is informed by the Stakeholder Theory and the Resource-Based View. The former suggests that satisfying a broad array of stakeholders, affected by a bank's actions, mitigates reputational and financial risks (Freeman, 1984, 2010; Freeman et al., 2010). The latter theory argues that ISR activities are strategic resources contributing to a bank's competitive advantage and financial performance (Barney & Wright, 1998; Buzzavo, 2012).

Empirical studies examining the relationship between ISR and financial performance within Islamic banks. Some studies have found a positive correlation (Elgattani & Hussainey, 2021; Orlitzky et al., 2003; Probahudono et al., 2021; Sarea & Salami, 2021; Waddock & Graves, 1997), while others find no significant relationship (Bangun, 2019; Abdallah & Bahloul, 2022; Griffin & Mahon, 1997; Putri et al., 2019; Susbiyani et al., 2023; Yuliana & Sartika, 2020). Such discrepancies may arise from the differing measures of ISR and financial performance, the diverse study contexts, and the potential influence of other variables.

Given the inconsistent findings in the existing literature, this study seeks to provide clarity to bridge the gap in the literature by examining how governance factors—ownership concentration, bank size, board independence composition, and leverage—mediate or moderate the ISR-financial performance

relationship. Although these governance factors have been investigated individually, their combined mediating and moderating effects on the ISR-financial performance relationship remain unexplored. This is especially relevant to Islamic banks operating within a context defined by faith-based principles and societal responsibility.

Corporate governance factors such as ownership concentration, bank size, board independence composition, and leverage, could potentially influence the ISR-financial performance relationship within Islamic banks. Ownership concentration, which refers to the proportion of shares held by a limited number of large shareholders, can have both positive and negative effects. On one hand, it can foster efficient resource allocation and decision-making. On the other hand, it can give rise to conflicts of interest (Godos-Díez et al., 2014; Guluma, 2021; Jensen, 1986; Jensen & Meckling, 1976; Pandey et al., 2021; Zhang, 2022).

The size of a bank can affect the relationship between ISR practices and financial performance as larger banks possess greater capabilities for effective ISR implementation (Andhari et al., 2022; Bangun, 2019; Udayasankar, 2008). They may benefit from economies of scale and scope, risk diversification, and improved access to capital markets (Laeven & Levine, 2009; Laeven et al., 2014). However, it is important to consider that the advantages of size might be offset by organizational complexity, and bureaucracy in larger banks might counteract these advantages (Altunbas et al., 2011).

The composition of board independence, measured by the proportion of independent non-executive directors, has the potential to enhance monitoring, control, and decision-making processes, leading to improved ISR implementation and financial performance (Fama & Jensen, 1983; Mahrani & Soewarno, 2018; Susbiyani et al., 2023). However, the effectiveness of independent directors may depend on other factors, such as their skills and experience, and the quality of board processes (Chaganti & Damanpour, 1991; Lanouar & Elmarzougui, 2011; Utama & Utama, 2019; Zulfikar et al., 2017).

Lastly, leverage, defined as the proportion of debt in a company's capital structure, may either increase the risk and cost of capital, negatively affecting financial performance or act as a disciplinary mechanism, enhancing financial performance (Berger & DeYoung, 1997; Chen, 2020; Koke & Renneboog, 2005; Sami et al., 2011; Dinh & Pham, 2020; Vicente-Lorente, 2001).

In summary, this study aims to enhance our understanding of the relationship between ISR and financial performance in Islamic banks. It is specifically focused on investigating the mediating and moderating effects exerted by important governance factors. This exploration aspires to furnish valuable insights, enriching the overarching academic discourse and facilitating the effective management of Islamic banks.

Hypotheses Development

The theoretical foundation of ISR and its potential impact on the financial performance of Islamic banks requires a comprehensive examination, with stakeholder theory serving as a fundamental basis. According to this theory, attending to a wide range of stakeholders can enhance an organization's reputation, manage risk, and consequently improve financial performance (Freeman, 1984). These theoretical principles align with prior empirical studies indicating a positive correlation between corporate social responsibility endeavours and financial performance (Elgattani & Hussainey, 2021; Orlitzky et al., 2003; Probohudono et al., 2021; Sarea & Salami, 2021; Waddock & Graves, 1997). Therefore, the study proposes the following hypothesis:

Hypothesis 1 (H1): ISR exerts a positive effect on the financial performance of Islamic banks.

Similarly, it is important to consider the role of other organizational variables within this relationship warrants attention. For instance, the degree of ownership concentration within an Islamic bank might significantly influence how ISR practices relate to the bank's financial performance. Higher ownership concentration has the potential to streamline decision-making processes, improve accountability, and consequently increase the effectiveness of ISR implementation (Zhang, 2022). Based on this, the study proposes:

Hypothesis 2a (H2a): Ownership concentration mediates the effect of ISR on the financial performance of Islamic banks.

Furthermore, the size of an Islamic bank can potentially serve as a mediating factor in the relationship between ISR and financial performance. Larger banks with greater resources and capabilities may implement ISR practices more effectively, thereby improving financial performance (Andhari et al., 2022; Bangun, 2019; Udayasankar, 2008). Hence, the study presents:

Hypothesis 2b (H2b): Bank size mediates the effect of ISR on the financial performance of Islamic banks.

Additionally, the composition of a bank's board in terms of its independence may have a moderating impact on the relationship between ISR and the bank's financial performance. A board populated with a higher proportion of independent directors can enhance the monitoring and decision-making processes, potentially amplifying the positive effects of ISR practices on financial performance (Fama & Jensen, 1983; Mahrani & Soewarno, 2018; Susbiyani et al., 2023). Thus, the study proposes:

Hypothesis 2c (H2c): Board independence composition moderates the effect of ISR on the financial performance of Islamic banks.

Finally, the leverage within an Islamic bank can also influence the relationship between ISR and the bank's financial performance. Higher leverage may increase the risk and cost of capital, potentially diminishing the positive effect of ISR on financial performance (Chen, 2020; Dinh & Pham, 2020). However, it could also serve as a disciplinary mechanism, promoting better productivity, resource allocation, and monitoring, and hence intensifying the positive effect of ISR on financial performance (Berger & DeYoung, 1997; Koke & Renneboog, 2005; Sami et al., 2011; Vicente-Lorente, 2001). Accordingly, the study presents:

Hypothesis 2d (H2d): Leverage moderates the effect of ISR on the financial performance of Islamic banks.

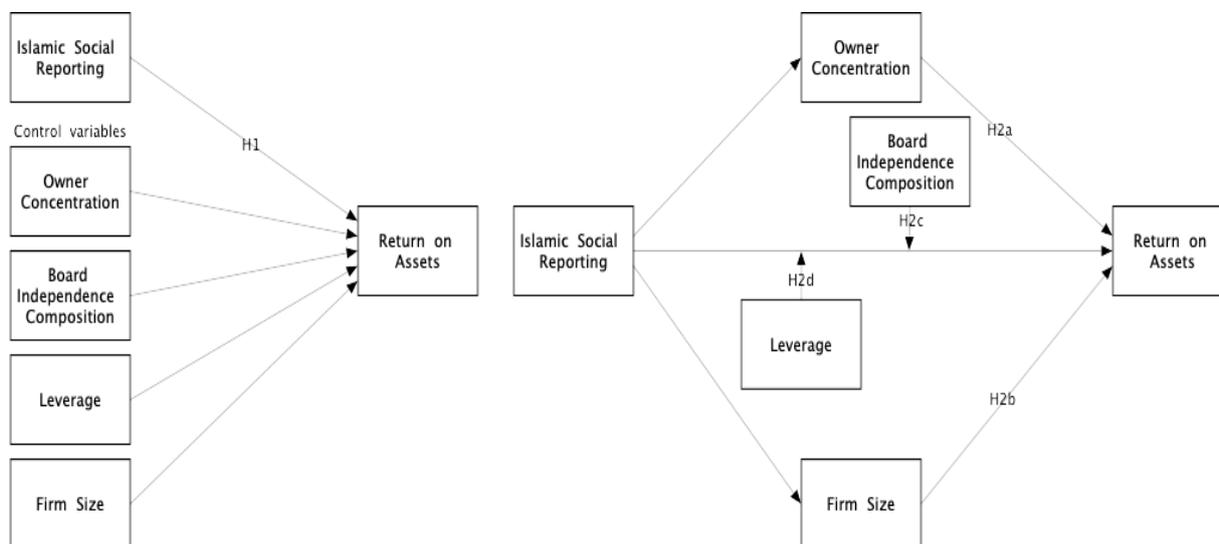


Figure 1. Conceptual Framework

Research Design

The population of this study consists of all Indonesian Islamic commercial banks officially registered on the Indonesian Financial Services Authority (OJK) website between 2017 and 2020. The sample was selected using a purposive sampling method based on specific criteria, including Islamic commercial banks and Sharia business units registered on the official OJK website from 2017 to 2020, as well as Islamic commercial banks that present their social responsibility reports in their respective annual reports. Consequently, the final sample included 10 Islamic commercial banks in Indonesia, with a total of 40 observations spanning from 2017 to 2020.

The dependent variable of this study is ROA, which indicates the company's ability to generate profit. ROA is calculated by dividing earnings after tax by total assets and then multiplying the result by 100. The independent variables include ISR index disclosures, Firm Size, BIC, OC, and Leverage.

ISR index disclosures are calculated using six themes, consisting of 43 disclosure items presented in the appendix (Susbiyani et al., 2023). The total ISR score is measured by evaluating each bank's ISR through content analysis, assigning a value of 1 if the component is disclosed and 0 if not disclosed. Firm size is represented by the natural logarithm of total assets, while BIC is measured as the proportion of independent commissioners to the total number of board members. OC is determined by the percentage of shares owned by the largest shareholder, and Leverage is measured by the debt-to-equity ratio.

Panel Data Regression

The objective of this study is to explore the role of governance factors as a channel in the relationship between ISR and firm performance, extending beyond examination of direct and indirect relationship. To test the first hypothesis, several panel data approaches were considered, including pooled least squares, fixed effects, and random effects, depending on the data's nature and the research question addressed (Wooldridge, 2010). The panel data regression is used to estimate the relationship among return on assets (ROA), ISR, and control variables (FirmSize, BIC, OC, and Leverage).

$$ROA_{it} = \beta_0 + \beta_1 ISR_{it} + \sum_{j=1}^4 \theta_j Z_{it} + \varepsilon_{it} \quad 1$$

where ROA_{it} is the return on assets for bank i at time t , ISR_{it} is the Islamic social reporting index disclosures, Z_{it} are the control variables including FirmSize, BIC, OC, and Leverage, and ε_{it} is the error term.

Fixed effects or random effects models were employed to address unobserved heterogeneity across banks (Baltagi, 2021). The fixed effects model includes bank-specific intercepts, while the random effects model includes both time-invariant and time-varying unobserved heterogeneity. The fixed effects model can be expressed as:

$$ROA_{it} = \beta_0 + \beta_1 ISR_{it} + \sum_{j=1}^4 \theta_j Z_{it} + \alpha_i + \varepsilon_{it} \quad 2$$

where α_i is the bank fixed effect. The random effects model can be expressed as:

$$ROA_{it} = \beta_0 + \beta_1 ISR_{it} + \sum_{j=1}^4 \theta_j Z_{it} + \alpha_i + u_{it} \quad 3$$

where α_i is the time-invariant bank-specific random effect and u_{it} is the time-varying bank-specific random effect.

The study employed a panel data regression approach to estimate three models and assess the validity of the findings. Several statistical tests were conducted, including t-tests to assess variable significance (Gujarati et al., 2012), VIF tests to check for multicollinearity (Belsley et al., 1980), Breusch-Pagan tests to identify heteroscedasticity (Breusch & Pagan, 1979), and Durbin-Watson tests to examine autocorrelation (Wooldridge, 2010). The choice of panel data approach was determined by the data's nature and research question. Utilizing panel data regression analysis and consideration of different panel data approaches provided a thorough and transparent method for estimating the impact of Islamic social reporting on bank performance.

Structural Analysis - Multiple Models Approach

To probe the mediation and moderation effects, this research employed a Structural Equation Modelling (SEM) strategy with a Maximum Likelihood estimator (Gunzler et al., 2013; Hayes, 2013; Little et al., 2007; Sardeshmukh & Vandenberg, 2016). This approach considered the correlations among the error terms in different equations, as illustrated in Figure 2.

In SEM model 1, the path model investigates the interconnections between ISR and several factors influencing ROA, such as OC, the logarithm of bank/firm size (LnFS), Leverage, and BIC.

Additionally, the relationships between ISR and OC, LnFS, LEV, and BIC are also examined (Figure 2). This model incorporates six covariance terms amid the error terms of the variables (Hair et al., 2021).

SEM model 2 explores the relationship between ISR, OC, Ó, LEV, and BIC to ROA. This model specifically examines the direct connection between ISR and OC, as well as LnFS, are scrutinized (Figure 2). SEM model 2 includes a single covariance term between the error terms of LnFS and OC (Kline, 2022). Subsequently, in SEM model 3 (Figure 2), the path model explores the relationships between ISR, OC, LnFS, LEV*ISR (interaction between Leverage and ISR), BIC*ISR (interaction between BIC and ISR), LEV, and BIC on ROA (Fama & Jensen, 1983; Jensen, 1986). This model also investigates the direct relationships between ISR and OC, as well as LnFS (Haniffa, 2002). SEM model 3 incorporates just one covariance term between the error terms of LnFS and OC. The adequacy of all three models was assessed by calculating the goodness-of-fit statistics, including CFI, TLI, RMSEA, SRMR (Hu & Bentler, 1999).

Building on Figure 2, the equations representing the three models are formulated as follows:

1) SEM Model 1 4

$$\begin{aligned} ROA &= \beta_3 ISR + \beta_6 BIC + \beta_7 lnFS + \beta_8 OC + \beta_9 LEV + \varepsilon_5 \\ BIC &= \beta_1 ISR + \varepsilon_4 \\ LnFS &= \beta_2 ISR + \varepsilon_3 \\ OC &= \beta_4 ISR + \varepsilon_2 \\ LEV &= \beta_5 ISR + \varepsilon_1 \\ Cov_{\varepsilon_1, \varepsilon_2} &= \psi_1 \\ Cov_{\varepsilon_1, \varepsilon_3} &= \psi_2 \\ Cov_{\varepsilon_1, \varepsilon_4} &= \psi_3 \\ Cov_{\varepsilon_2, \varepsilon_3} &= \psi_4 \\ Cov_{\varepsilon_2, \varepsilon_4} &= \psi_5 \\ Cov_{\varepsilon_3, \varepsilon_4} &= \psi_6 \end{aligned}$$

2) SEM Model 2 5

$$\begin{aligned} ROA &= \beta_2 ISR + \beta_4 BIC + \beta_5 lnFS + \beta_6 OC + \beta_7 LEV + \varepsilon_3 \\ LnFS &= \beta_1 ISR + \varepsilon_2 \\ OC &= \beta_3 ISR + \varepsilon_1 \\ Cov_{\varepsilon_1, \varepsilon_2} &= \psi_1 \end{aligned}$$

3) SEM Model 3 6

$$\begin{aligned} ROA &= \beta_2 ISR + \beta_4 BIC + \beta_5 lnFS + \beta_6 OC + \beta_7 LEV + \beta_8 BIC * ISR + \beta_9 LEV * ISR + \varepsilon_3 \\ LnFS &= \beta_1 ISR + \varepsilon_2 \\ OC &= \beta_3 ISR + \varepsilon_1 \\ Cov_{\varepsilon_1, \varepsilon_2} &= \psi_1 \end{aligned}$$

In the context of this research, mediation analysis is employed to investigate the underlying mechanisms through which ISR influences ROA, considering mediating variables such as Ownership Concentration, Firm Size (LnFS), Leverage, and Board Independence Composition (Hayes, 2013). This analytical approach provides insight into the intricate interconnections between these variables by examining the indirect effects ISR on ROA through the selected mediators. The "medsem" command in Stata is utilized to calculate the full structural model, which includes both direct and indirect pathways (Mehmetoglu, 2018). This command plays a crucial role in determining the indirect effects of ISR on ROA via the mediators, and in assessing the statistical significance of these effects (Preacher & Hayes, 2008).

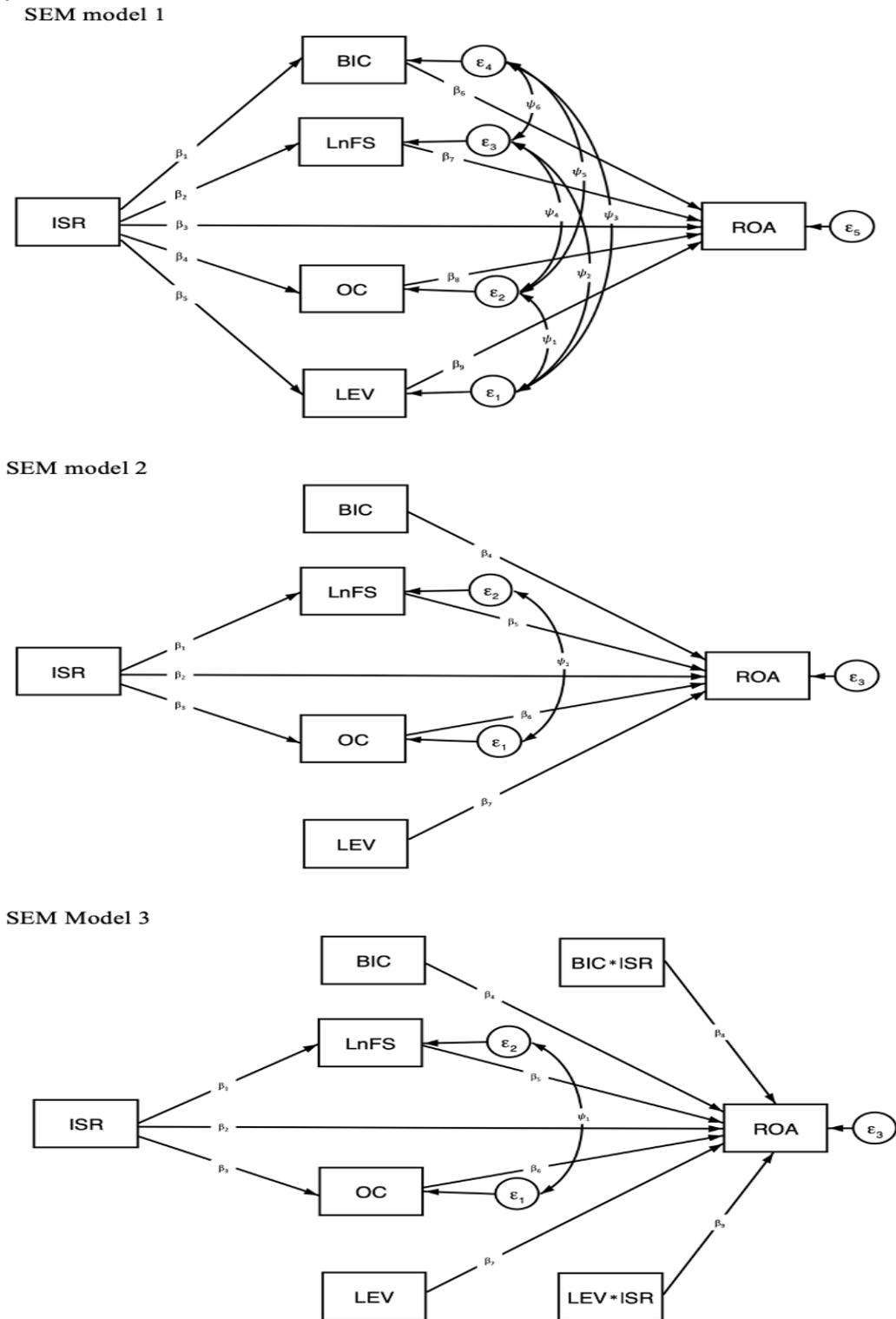


Figure 2. Structural Equation Model Diagrams

The mediation model is estimated through a systematic process that begins by defining the hypothesized interrelations among the variables, based on the existing literature. Subsequently, the indirect effects and their statistical significance are evaluated. The "medsem" command output presents both the standardized and unstandardized indirect effects, along with their standard errors, z-values, and p-values (Mehmetoglu, 2018). In addition to the indirect effects, the study also reports goodness-of-fit

statistics such as CFI, TLI, RMSEA, SRMR, to evaluate the sufficiency of the mediation model (Hu & Bentler, 1999). A well-fitting model is indicative of the data's support for the proposed relationships among the variables.

The study also investigates the moderation effects of BIC and Leverage on the association between ISR and ROA. The path model includes interaction terms to assess the potential moderating role of BIC and Leverage. The significance of path coefficients is evaluated to the presence of moderation effects. If the interaction terms are found significant, it suggests that BIC and Leverage serve as moderators in the ISR-ROA relationship. These moderation effects are further illustrated through graphical representation, showing the interaction effects at various levels of BIC and Leverage. This incorporation of moderation analysis into the study enables an exploration of how the ISR-ROA relationship fluctuates depending on the levels of BIC and Leverage. Ultimately, this approach provides a comprehensive understanding of the complex factors that shape the influence of Islamic Social Reporting on a firm's financial performance.

Results

Summary Statistics and Correlation Matrix

Table 1 provides a comprehensive statistical analysis, including Pearson correlation, based on a set of 40 Indonesian Islamic banks. The table is divided into two sections. Table Section A presents descriptive statistics for multiple variables, namely ROA, ISR, FS, LEV, OC, and board independence composition (BIC). The statistics reveal an average ROA of 2.62%, with a significant standard deviation of 0.0948, indicating a significant fluctuation in their performance. The mean ISR stands at 0.6585, indicating a prevalent Islamic social reporting among these banks. The average FS is 17.7007 billion IDR, with a moderate level of fluctuation. The average leverage ratio is 1.98%, with a high level of ownership concentration, averaging at 58.536%. The average BIC is 0.56, implying a fairly independent board composition.

Table 1. Descriptive Statistics and Pearson Correlation

Section A: Descriptive Statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	40	0.0262	0.0948	0.0010	0.5820
ISR	40	0.6585	0.0545	0.5420	0.7500
FS	40	17.7007	1.7309	15.6010	23.1480
LEV	40	1.9802	1.7006	0.0300	7.3400
OC	40	58.5360	24.4603	17.2500	99.9900
BIC	40	0.5600	0.1155	0.3300	0.7500
Section B: Pearson Correlation					
Variable	ROA	ISR	LnFS	LEV	OC
ROA					
ISR	0.2300				
LnFS	0.0571	0.3439			
LEV	-0.2053	0.2780	0.1852		
OC	0.0668	-0.5964	0.0280	-0.2334	
BIC	-0.4001	-0.1220	-0.2835	-0.2942	0.0495

Note: ROA = return on assets (in %), ISR = Islamic social reporting (index score), FS = firm (bank) size (in billions IDR), LnFS = natural logarithm of total assets, LEV = leverage (in %), OC = ownership concentration (in %), and BIC = board independence composition (in %).

Table 1 Section B presents the result of Pearson correlation analysis between the variables. The analysis reveals a positive relationship between ISR and ROA (0.2300), implying that superior Islamic social reporting tends to correlate with better financial performance. A negative correlation is observed between LEV and ROA (-0.2053), suggesting that higher leverage ratios generally correspond to lower financial performance. FS shows a weak positive correlation with both ISR (0.3439) and ROA (0.0571). On the other hand, a negative correlation is seen between OC and ISR (-0.5964), indicating that higher

ownership concentration generally correlates with lower levels of Islamic social reporting. Finally, BIC shows a negative correlation with ROA (-0.4001), indicating that greater board independence may correlate with lower financial performance.

In summary, Table 1 provides valuable insights into the characteristics and interrelationships of the variables for Islamic banks in Indonesia. The prevalence of Islamic social reporting and high ownership concentration suggests that these elements may play a significant impact on the performance of Islamic banks in Indonesia. The negative correlation between ROA and both leverage and board independence composition suggests these factors may have a negative influence on financial performance. These findings have implications for banking sector policymakers and regulators, as well as for investors and researchers with an interest in Islamic finance.

Main Empirical Results

Results of Regression Models and Their Findings

To address the first research question and Hypothesis 1 (H1), this study employed a range of panel data regression models. H1 proposed a positive relationship between ISR and the financial performance (i.e., ROA) of Islamic banks. The methodologies examined included pooled Ordinary Least Squares (OLS) (Equation 1), fixed effects (Equation 2), and random effects (Equation 3) models. These models were adjusted to include firm size, leverage, OC, and BIC as controlling variables, ensuring a robust analysis (Wang & Bansal, 2012).

Nonetheless, each model presented unique challenges during the analysis, making them unsuitable for the context of this research. For instance, the pooled OLS model (Equation 1) was excluded due to the omission of the PT PANIN DUBAI Syariah variable, which displayed signs of collinearity. Collinearity—when two or more explanatory variables in a multiple regression model exhibit a high degree of linear relation—may lead to unstable and inaccurate estimates of regression coefficients (Hair et al., 2014).

The fixed effects model (Equation 2) was also rejected due to the exclusion of the OC variable which was affected of collinearity. This exclusion could lead to a bias from omitted variables, which occurs when a variable, correlated with both the dependent variable and one or more independent variables, is left out of the model. This may cause the model inaccurately compensating for the omitted variable by over or underestimating the effects of other variables (Wooldridge, 2010). Additionally, the random effects model (Equation 3) was further disregarded because it assumes that individual-specific effects are unrelated to explanatory variables—an assumption not upheld in the context of the current dataset.

After a thorough examination of classical assumption tests, the Cross-section Time-series Generalized Least Squares (xtGLS) model was finally adopted for examining H1 due to its superior congruity with the research data and context (Greene, 2017). The xtGLS model¹ addresses the correlation between the individual-specific effects and the explanatory variables—a rational supposition in the context of this research. The decision to use this model highlights the importance of selecting an appropriate model that facilitates detailed data interpretations, particularly in scenarios where the assumptions of other models may not be valid.

The outcomes of the xtGLS model, as set out in Table 2, support H1, indicating that ISR significantly impacts the financial performance of Islamic banks, as denoted by ROA. The coefficient for ISR is statistically significant coefficient of 0.9543 at the 0.001 level, the xtGLS model reveals a strong relationship. The standard error of 0.2943, it implies that a unit increase in ISR would lead to about a

¹ The xtGLS model was formulated as follows:

$$ROA_{it} = \beta_0 + \beta_1 ISR_{it} + \beta_2 LnFS_{it} + \beta_3 BIC_{it} + \beta_4 OC_{it} + \beta_5 LEV_{it} + u_{it} \quad 7$$

Where ROA is the dependent variable, measured at time t for each individual i. The independent variables ISR, LnFS, BIC, OC, and LEV are all measured at time t for each individual i. The β_i are the coefficients of the independent variables ISR, LnFS, BIC, OC, and LEV, respectively, providing a quantifiable measure of the change in the dependent variable for each unit change in the corresponding independent variable. The error term for each individual i at time t is represented by u_{it} , which captures the variability in ROA that cannot be explained by the independent variables in the model.

0.95 unit increase in ROA, given all other variables remain constant (Hair et al., 2014). This finding highlights the crucial role ISR plays in the profitability of Islamic banks.

The coefficients of the control variables in the xtGLS model offer additional insights. The BIC coefficient is -0.4312, which is statistically significant at the 0.01 level, with a standard error of 0.1062. This negative coefficient suggests that as board independence increases, ROA tends to decrease, implying a potential negative impact of increased board independence on the financial performance of Islamic banks. However, it is important to interpret this finding cautiously, as the relationship might not be causal and could be influenced by other unobserved factors.

The coefficient for LEV is -0.0221, which is statistically significant at the 0.01 level. With a standard error of 0.0073. The negative coefficient implies that an increase in leverage correlates with a decrease in ROA. This suggests that banks with high leverage may experience a decline in financial performance. This finding aligns with existing literature, which suggests that higher leverage can lead to increased financial risk and potential decline in profitability (Frank & Goyal, 2009).

On the other hand, the coefficients for FS and OC are not statistically significant at standard levels. The LnFS coefficient, -0.2127, with a standard error of 0.1425, suggests that larger banks might experience lower ROA compared to smaller banks. The OC coefficient, 0.0013, significant at the 0.05 level with a standard error of 0.0006, indicates a weak but significant positive relationship between ownership concentration and ROA.

In conclusion, these findings provide valuable insights into the relationships between various banking attributes and the financial performance of Islamic banks in Indonesia. By employing the xtGLS model, this research highlights the positive impact of ISR on ROA, thereby stressing the importance of social responsibility in the Islamic banking sector.

Evaluation of SEM Models and Outcomes

To address the second research question and Hypothesis 2 (H2a, H2b, H2c, and H2d), a comprehensive methodology was employed, involving four distinct models: the initial model, the model without interaction, the model with interaction, and the modified model based on modification indices suggested by model's post estimation tests (Acock, 2013; Cain, 2021; Sörbom, 1989). By employing comprehensive models, this allowed for a thorough exploration of the correlations among the variables and enabled a comparison of model fit. This method assisted the researcher in pinpointing the most fitting model for the study, taking into account the goodness-of-fit measures and the hypotheses under examination.

Table 3 presents a comparative analysis of the four models, based on their post-estimation test results, namely the initial model, the model without interaction, the model with interaction, and the modified model. The evaluation of these models was carried out using various statistical measures such as the Likelihood Ratio (LR) test, the Akaike Information Criterion (AIC), the Bayesian Information Criterion (BIC), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR) (Table 3 Panel B).

The LR test was utilized to compare the likelihoods of the estimated model with both a saturated and a base model. The results indicate that the modified model demonstrated superior fit compared to both the saturated and base models, with a p-value of 0.800 for LR mod vs sat and 0.000 for base vs sat, indicating a significant enhancement from the Initial Model, which generated a p-value of 0.000 for both tests, signifying an inferior fit. The AIC and BIC, which take into account both models fit and complexity, also favored the modified model. This model had the lowest AIC and BIC values of -241.501 and -212.790, respectively. These values indicate that the modified models achieve the best equilibrium between data fitting and complexity minimization. This is a substantial reduction from the Initial Model's AIC and BIC values of 179.970 and 222.192, respectively.

The CFI and TLI, which compare the proposed model with a null model, yielded values of 0.984 and 0.963, respectively, for the modified model, indicating a good fit. In contrast, the Initial Model had CFI and TLI values of 1.000, suggesting an overfitted model. The RMSEA (pclose), which measures the discrepancy between the observed and predicted covariance matrices, also supported the modified model. It registered an RMSEA value of 0.000, indicative of a reasonable error of approximation, and

a pclose value of 0.839, implying a good fit. The Initial Model, however, had an RMSEA value of 0.000, suggesting an overfitted model.

Table 2. Panel Regression Results

Model	Pooled OLS (Eq. 1)	Fixed Effects (Eq. 2)	Random Effects (Eq. 3)	xtGLS Model (Eq. 7)
ISR	1.3465*** (0.5861)	1.3465*** (0.5861)	1.0132*** (0.3539)	0.9543*** (0.2943)
LnFS	-0.0056 (0.3742)	-0.0056 (0.3742)	-0.1972 (0.1772)	-0.2127 (0.1425)
BIC	-0.4820** (0.2121)	-0.4820** (0.2121)	-0.4312*** (0.1282)	-0.4312*** (0.1062)
OC	-0.0024 (0.0097)	Omitted	0.0014* (0.0008)	0.0013** (0.0006)
LEV	-0.0069 (0.0240)	-0.0069 (0.0240)	-0.0217** (0.0092)	-0.0221*** (0.0073)
Constant	-0.3899 (0.5907)	-0.5607 (0.9438)	0,8944 (0.4759)	1,5097 (0.3863)
R ²	3,9542	2,2882	-	-
Adj R ²	2,4597	-	-	-
F	2.65**	3.19**	-	-
Prob > F	0,1167	0,2028	-	-
Wald chi2	-	-	21.54***	29.62***
Prob > chi2	-	-	0.0006	0.0000
Hausman test: Chi ² (Prob)			2.14 (0.7098)	
F restricted (Chow test)		0.2424		
LM test: Chi ² (Prob)			0.33 (0.2840)	
Mean VIF	58.07			
B-P/C-W test: Chi ² (Prob)	87.53 (0.000)			
Wooldridge test: F (Prob)	3.552 (0.0921)			

Notes:

- Standard errors in parentheses.
- Significance levels: * p<0.1; ** p<0.05; *** p<0.01
- M1 is an OLS regression, M2 is a fixed effects (FE) regression, M3 is a random effects (RE) regression, and M5 is a xtGLS (Generalized Least Squares) regression.
- In Equation (1), the PT PANIN DUBAI Syariah variable is omitted due to collinearity.
- Equation (2), the OC variable is omitted due to collinearity.
- Model 5 (xtGLS Model) is selected based on classical assumption tests results.
- B-P/C-W test: Breusch-Pagan / Cook-Weisberg test

The SRMR, which measure the difference between observed and predicted covariance matrices, was highest in the modified model at 0.430. Although this value indicates a higher residual, it is deemed within acceptable limits. In summation, the result of the post-estimation test results suggest that the modified model outperforms the other models in terms of striking a balance between model fit and complexity. Its superior performance in LR, AIC, BIC, CFI, TLI, RMSEA, and SRMR statistics led to its selection as the most suitable model for this study.

Table 3 Panel A delineates the results of the SEM Path relationships. This model provides a comprehensive analysis of the relationships between various corporate governance variables and the financial performance of Indonesian Islamic Banks. The variables considered ISR, BIC, OC, and the natural logarithm of Bank Size (LnFS) (Figure 3).

As shown in Table 3 Panel A, the analysis of the association of these variables and ROA reveals certain findings. The coefficient for OC is 0.0007, suggesting its statistical insignificance. This indicates that alterations in ownership concentration do not significantly affect ROA in these banks. Similarly, the coefficients for LnFS and LEV, which are -0.1443 and -0.01196 respectively, also lack statistical

significance, suggesting that neither firm size nor leverage significantly affects ROA. In contrast, BIC demonstrates a significant negative relationship with ROA, as evidenced by a coefficient of -0.3876 ($p < 0.001$), indicating a correlation between increased board independence and decreased ROA. Intriguingly, ISR exhibits a significant positive coefficient of 0.8246 ($p < 0.01$), suggesting that Islamic Social Reporting practices may enhance these banks' financial performance, as reflected by ROA.

Table 3. SEM Path Relationships' Results

	Initial model ²	Model without Interaction ³	Model with interaction ⁴	Modified model
	Coef. (z, P>z)			
Panel A				
ROA <- OC	0.0013 (2.10, *)	0.0013 (2.10, *)	0.0007 (1.25, n.s.)	0.0007 (1.25, n.s.)
<- LnFS	-0.2127 (-1.49, n.s.)	-0.2127 (-1.49, n.s.)	-0.1443 (-1.22, n.s.)	-0.1443 (-1.22, n.s.)
<- LEV	-0.0221 (-3.03, **)	-0.0221 (-3.03, **)	-0.01196 (-1.57, n.s.)	-0.01196 (-1.57, n.s.)
<- BIC	-0.4312 (-4.06, ***)	-0.4312 (-4.06, ***)	-0.3876 (-4.33, ***)	-0.3876 (-4.33, ***)
<- ISR	0.9543 (3.24, **)	0.9543 (3.24, **)	0.8246 (3.32, **)	0.8246 (3.32, **)
<- LEV*ISR	-	-	-0.3088 (-2.41, *)	-0.3088 (-2.41, *)
<- BIC*ISR	-	-	-6.6854 (-4.23, ***)	-6.6854 (-4.23, ***)
OC <- ISR	-267.6437 (-4.70, ***)	-267.6437 (-4.70, ***)	-267.6437 (-4.70, ***)	-264.9689 (-4.90, ***)
<- BIC*ISR	-	-	-	-995.0154 (-2.33, ***)
LnFS <- ISR	0.6037 (2.38, *)	0.6037 (2.38, *)	0.6037 (2.38, *)	0.6037 (2.38, *)
Panel B				
-LR mod vs sat	0.000	3.470	8.925	3.818
p > chi2	(0.000)	0.482	0.349	0.800
base vs sat	59.688	52.773	74.329	74.329
p > chi2	0.000	0.000	0.000	0.000
- AIC	179.970	161.440	-238.394	-241.501
- BIC	222.192	185.085	-211.372	-212.790
- CFI	1.000	1.000	0.984	1.000
- TLI	1.000	1.039	0.963	1.145
- RMSEA (pclose)	0.000 (1.000)	0.000 (0.533)	0.054 (1.000)	0.000 (0.839)
- SRMR	0.000	0.056	0.423	0.043

Notes: Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, n.s. (not significant)

The modified model introduces interaction terms, LEV*ISR and BIC*ISR, adding depth to the interpretation. The coefficient of LEV*ISR, -0.3088 ($p < 0.05$), indicates that the positive effect of ISR on ROA, this effect may be somewhat offset by higher leverage levels. Notably, the coefficient of the BIC*ISR term is -6.6854 ($p < 0.001$), suggests that the combined influence of board independence and Islamic Social Reporting may have a substantial negative impact on ROA.

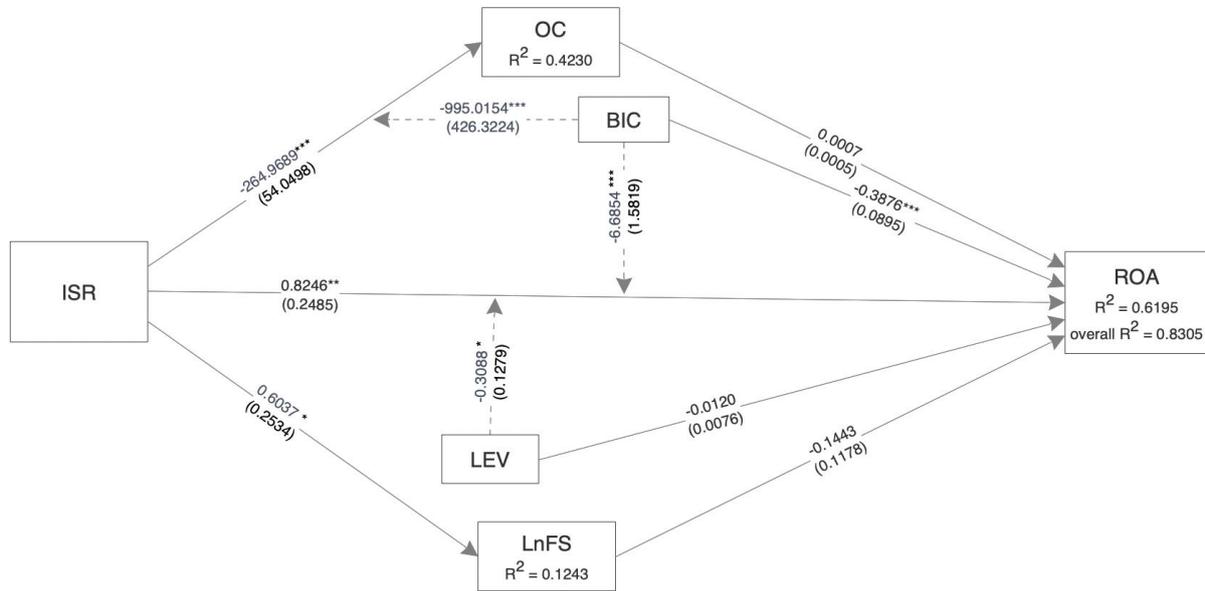
The model further investigates the effect of OC on ISR and BIC*ISR. In this context, OC displays a significant negative relationship with ISR and BIC*ISR, as evidenced by the coefficients of -264.9689

² See Eq. 4 or Figure 2: SEM model 1.

³ See Eq. 5 or Figure 2: SEM model 2.

⁴ See Eq. 6 or Figure 2: SEM model 3.

($p < 0.001$) and -995.0154 ($p < 0.01$). This suggest that as Islamic Social Reporting or the interaction between Board Independence and Islamic Social Reporting increases, ownership concentration tend to decrease.



Notes: Significance levels: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure 3. SEM Path Analysis Results

Lastly, the relationship between LnFS and ISR is examined. The positive coefficient of 0.6037 ($p < 0.05$) indicates a link between increased Islamic Social Reporting and firm size. This implies that banks that enhance their Islamic Social Reporting practices may also experience growth. Overall, the significance levels and coefficients of the final model provide valuable insights into the interplay between these variables, contributing to a more profound understanding of corporate governance and financial performance within the context of Indonesian Islamic Banks.

Table 4, comprising of Panel A and Panel B, serves as a comprehensive analytical platform that capture the complex relationships between the variables in this study. Panel A provides a detailed breakdown of the impact and interaction of each exogenous variable on the endogenous variables, specifically the direct, indirect, and total effects. The analysis begins by considering OC and its direct effect on ROA, showing an insignificant relationship with a coefficient of 0.0007 , z-score of 1.25 , and a p-value of 0.210 . In this respect, OC does not have a direct impact on a bank's profitability. Similarly, the LnFS also demonstrates a similar trend of insignificance, not directly influencing ROA with a coefficient of -0.1443 , a z-score of -1.22 , and a p-value of 0.221 .

In contrast to OC and LnFS, ISR indicates a significant direct effect on ROA, demonstrating its impact on bank profitability with coefficient of 0.8246 , a z-score of 3.32 , and a p-value of 0.001 . However, an interesting dynamic emerges when considering the indirect effect of ISR via its interaction with Leverage and BIC. The interaction of ISR with these variables decreases its direct impact on ROA, as indicated by a coefficient of -0.2658 , a z-score of -1.44 , and a p-value of 0.151 . This scenario highlights the delicate balance and interplay of these variables and how their interaction can influence profitability.

Panel B furthers the depth of the analysis by elaborating on the model's goodness-of-fit measures. It includes the variance of fitted and predicted values, the residual variance, R-squared, multiple correlation (mc), and the Bentler-Raykov squared multiple correlation coefficient (mc2) (Bentler & Raykov, 2000). An examination of these measures reveals that the variance of fitted and predicted values for ROA to be 0.0088 and 0.0055 , respectively, with a residual variance of 0.0034 . These

statistics translate to an R-squared value of 0.6195, implying that the model explains about 62% of the variance in ROA. Furthermore, the model demonstrates its robustness through an overall multiple correlation (mc) of 0.8305, which validates the model's effectiveness in portraying the nuanced relationships among OC, LnFS, LEV, BIC, ISR, and ROA within Islamic banking.

Table 4. Summary of Effects between Endogenous and Exogenous, and the Goodness of Fits

Panel A: Effects									
Endogenous	Direct:	Indirect:	Total:						
<- Exogenous	Coef.	z-score	P-value	Coef.	z-score	P-value	Coef.	z-score	P-value
Panel A: Direct									
ROA									
<- OC	0.0007	1.2500	0.2100	0.0000	(no path)	(no path)	0.0007	1.2500	0.2100
<- LnFS	-0.1443	-1.2200	0.2210	0.0000	(no path)	(no path)	-0.1443	-1.2200	0.2210
<- ISR	0.8246	3.3200	0.0010	-0.2658	-1.4400	0.1510	0.5588	3.0400	0.0020
<- LEV*ISR	-0.3088	-2.4100	0.0160	0.0000	(no path)	(no path)	-0.3088	-2.4100	0.0160
<- BIC*ISR	-6.6854	-4.2300	0.0000	-0.6710	-1.1000	0.2700	-7.3564	-4.8200	0.0000
<- LEV	-0.0120	-1.5700	0.1170	0.0000	(no path)	(no path)	-0.0120	-1.5700	0.1170
<- BIC	-0.3876	-4.3300	0.0000	0.0000	(no path)	(no path)	-0.3876	-4.3300	0.0000
OC									
<- ISR	-264.9689	-4.9000	0.0000	0.0000	(no path)	(no path)	-264.9689	-4.9000	0.0000
<- BIC*ISR	-995.0154	-2.3300	0.0200	0.0000	(no path)	(no path)	-995.0154	-2.3300	0.0200
LnFS									
<- ISR	0.6037	2.3800	0.0170	0.0000	(no path)	(no path)	0.6037	2.3800	0.0170
Panel B: Goodness of fit									
	Variance	R-squared	mc	mc2					
Dependents	fitted	predicted	residual						
ROA	0.0088	0.0055	0.0034	0.6195	0.7871	0.6195			
OC	586.4170	248.0747	338.3423	0.4230	0.6504	0.4230			
LnFS	0.0085	0.0011	0.0074	0.1243	0.3525	0.1243			
overall				0.8305					

Discussion

The primary objective of this study was to investigate the complex dynamics of ISR and how it affects the financial performance of Islamic banks. To accomplish this, several key variables were explored, including ownership concentration, bank size, board independence composition, and leverage.

The first hypothesis (H1), which asserts that ISR has a positive impact on the financial performance of Islamic banks, is strongly supported by the findings of this study. The results indicate a direct and positive correlation between ISR and financial performance. This implies that higher levels of ISR correspond with improved financial outcomes, highlighting the pivotal role of social responsibility in determining financial success within the realm of Islamic banking.

This support for H1 resonates with a substantial body of existing empirical research. Prior studies, such as those conducted by Farook et al. (2011), Haniffa and Hudaib (2007) and more recent works by Salman (2023) and Wahyuni and Wafiroh (2023), have argued convincingly for the positive influence of effective ISR practices on the financial performance of Islamic banks. Through their investigations, these scholars have demonstrated how a meticulously planned and executed ISR strategy can boost the financial performance of Islamic banks, thereby establishing a compelling precedent for the findings of this study.

Nevertheless, it is critical to emphasize that, although the results of this study provide strong support for H1, the relationship between ISR and financial performance is multi-dimensional and influenced by various factor. Elements such as bank size, market competition, regulatory environments, and overall economic conditions all contribute in shaping the relationship between ISR and financial performance. Therefore, while the support for H1 is clear, it also emphasizes the nuanced and multifaceted nature of this relationship. The interpretation of these results calls for an appreciation of these complexities, underscoring the importance of ISR within broader financial strategies of Islamic banks.

Hypothesis H2a applies the principles of Agency Theory to propose that OC could serve as a mediator between ISR and the financial performance of Islamic banks. According to this theory, when

ownership is concentrated, stronger corporate governance mechanisms could be established, leading to improved financial performance. This perspective is supported by empirical research conducted by [Godos-Díez et al. \(2014\)](#), which found a positive relationship between ownership concentration and CSR disclosure. However, this hypothesis faces a challenge in the context of this study. It is revealed that high levels of ownership concentration might actually create a barrier to effectively integrating ISR practices, potentially resulting in a negative impact on the financial performance of Islamic banks.

Hypothesis [H2b](#) utilizes the Resource-Based View to propose that the size of a bank could mediate the relationship between ISR and financial performance. This proposition banks on the idea that larger institutions typically have more resources, which can enable them to effectively implement ISR activities, potentially translating into enhanced financial performance. This view aligns with empirical findings from various studies, such as [Andhari et al. \(2022\)](#), [Bangun \(2019\)](#), and [Hussain et al. \(2020\)](#). However, it also raises questions around the potential limitations of smaller institutions in realizing the benefits of ISR. Nevertheless, this hypothesis finds support in this study, as larger Islamic banks were indeed observed to leverage their size advantage to convert ISR activities into improved performance.

Hypothesis [H2c](#), based on the works of [Fama and Jensen \(1983\)](#) and [Mahrani and Soewarno \(2018\)](#), suggests that BIC could serve as a moderating factor in the relationship between ISR and financial performance. The argument is that boards with a higher proportion of independent directors could enhance the effectiveness of ISR by improving monitoring, control, and decision-making processes. Empirical support for this assertion is provided by [Susbiyani et al. \(2023\)](#), who find a positive influence of independent boards on ISR disclosure. However, potential drawbacks of having too high a proportion of independent directors, such as lack of industry knowledge or familiarity with the company, should be considered. Nevertheless, the study aligns with the hypothesis, demonstrating that Islamic banks with more independent directors can amplify the positive influence of ISR on financial performance.

Finally, Hypothesis [H2d](#) suggests that leverage could act as a moderating factor in the relationship between ISR and financial performance. According to financial management theory, high leverage could have mixed impacts on financial performance. It could either negatively affect performance due to increased risk and cost of capital or positively impact it by encouraging better productivity, resource allocation, and monitoring. Empirical studies by [Chen \(2020\)](#) and [Dinh and Pham \(2020\)](#) support this view. However, the study reveals that high leverage may actually have a negative moderating effect on the relationship between ISR and financial performance, underscoring the importance of careful financial management when leveraging.

Each hypothesis of [H2](#) highlight on distinct aspect of the relationship between ISR and financial performance, incorporating both corroborative and conflicting empirical evidence from previous studies. This complexity further emphasizes the importance of these considerations in exploring the role and impact of ISR in Islamic banks.

Conclusion

This research was undertaken to comprehensively examine the complex relationship between ISR and its consequential influence on the financial performance of Islamic banks. Numerous variables that contribute to this dynamic, including ownership concentration, bank size, board independence, and leverage, were evaluated. The results of this investigation strongly support [Hypothesis 1](#), amplifying the imperative role that ISR plays in spurring financial prosperity within Islamic banking institutions.

Parallel to earlier studies such as those by [Farook et al. \(2011\)](#), [Haniffa and Hudaib \(2007\)](#), [Salman \(2023\)](#) and [Wahyuni and Wafiroh \(2023\)](#), this research substantiates the positive linkage between robust ISR practices and the financial well-being of Islamic banks. However, the study also highlights that ISR is a significant factor but not the only determinant of financial performance. Factors such as bank size, ownership concentration, board independence, and leverage, which were specifically investigated in this research, also play essential roles in shaping this relationship. This intricate interaction underscores the multi-faceted nature of the link between ISR and financial performance.

The research also evaluated [Hypotheses 2 \(H2a, H2b, H2c, and H2d\)](#), providing more depth on how different elements could mediate or moderate the relationship between ISR and financial performance. The findings from this aspect of the investigation offer a comprehensive depiction, occasionally affirming and at times contradicting prior empirical evidence. It raises questions about the effectiveness

of high ownership concentration for executing ISR practices while concurrently reinforcing that larger Islamic banks are effectively leveraging their size to translate ISR activities into improved financial performance.

Moreover, the research indicates that a balanced board composition, in terms of independence, could augment the positive influence of ISR on financial performance. However, the study also underscores potential drawbacks linked to an overly independent board. Additionally, the research reveals that elevated leverage may diminish the positive effect between ISR and financial performance, thereby underlining the necessity for prudent financial management in situations of high leverage. These insights offer a valuable lens into the complex relationship between ISR and financial performance, emphasizing the need for a comprehensive understanding of these dynamics in the context of Islamic banking. As the field of Islamic banking continues to rapidly evolve, these insights serve as a strong foundation for strategic decision-making and the formulation of effective ISR strategies.

Implications for Theory and Practice

The findings from this investigation significantly contribute to the understanding of the relationship between ISR and financial performance within Islamic banking. The study strengthens theoretical perspectives by affirming and occasionally challenging established theories, thereby extending the discourse beyond conventional frameworks. It strengthens the theoretical foundation of the positive relationship between ISR and financial performance while acknowledging the multifaceted influences impacting this relationship.

The study sheds light on the role of significance concentration, bank size, board independence, and leverage, urging further exploration and dialogue in these areas. The findings serve as a wake-up call to corporate governance, highlighting the potential drawbacks of high ownership concentration in the effective deployment of ISR practices. Additionally, the study calls for a balanced board composition that marries the unbiased approach of independent directors with the practical know-how of insider directors to optimize the impact of ISR on financial performance.

This research serves as a guide for practitioners, emphasizing that robust ISR practices can enhance financial performance, justifying investments in social responsibility initiatives. It also encourages larger Islamic banks to utilize their size advantage to execute ISR activities effectively. For smaller banks, it suggests developing innovative strategies to implement effective ISR practices despite resource limitations. Moreover, the study raises awareness about the potential risks associated with high leverage due to its potential to negatively influence the relationship between ISR and financial performance.

Future Research Directions

While this research contributes significantly to the understanding of ISR in Islamic banking, there are several recommendations for future studies. Expanding the geographical scope, involving diverse economic and regulatory environments, would allow for the generalizability of the findings. Additionally, conducting cross-sectoral comparisons between Islamic banking and other industry sectors could offer interesting perspectives on how the relationship between ISR and financial performance might differ across industries.

Further investigation into the relationship between board independence and ISR could provide insights into achieving an optimal balance between independent and insider directors. Additionally, investigating alternative mediation and moderation models, beyond ownership concentration, bank size, board independence, and leverage, would be beneficial. For instance, examining the potential mediating role of factors such as corporate culture or employee engagement could prove valuable insights into the dynamics between ISR and financial performance.

Additionally, conducting qualitative research, including case studies and interviews, could be conducted to uncover the practical challenges faced by Islamic banks in implementing ISR practices. This approach could provide a more nuanced understanding of the practical considerations of ISR in Islamic banking. Furthermore, future studies could examine the long-term impact of ISR practices on financial performance, providing valuable in guiding strategic planning within Islamic banking sector.

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Appendix

Islamic disclosure themes and items (adopted from (Susbiyani et al., 2023))

Disclosure Themes	Point Ref.	Source
A Financing and Investment Themes		
1 Activities containing usury, such as interest and interest income.	1	Haniffa (2002); Othman et al. (2009)
2 Gharar related activities, hedging, future non-delivery trading, margin trading, arbitrage, short selling, pure swap, warrant and the like	1	Haniffa (2002); Othman et al. (2009)

Disclosure Themes	Point Ref.	Source
3 Zakat includes disclosure of methods used, sources, amount and recipients of zakat	1	Haniffa (2002); Othman et al. (2009)
4 Policies for dealing with late payment of insolvent clients	1	Othman et al. (2009)
5 Value-added statement of the company	1	Othman et al. (2009)
B Products and Services Themes		
6 Environment-friendly products and operating activities	1	Othman et al. (2009)
7 Halal or syariah status in products	1	
8 Product safety and quality	1	Othman et al. (2009)
9 Customer's complaints or events occurring from company's disobedience to the applicable rules	1	Othman et al. (2009)
C Employees Themes		
10 Job characteristics including working hours, holidays and other benefits	1	Haniffa (2002); Othman et al. (2009)
11 Remuneration	1	Haniffa (2002); Othman et al. (2009)
12 Education and job training in relation to human resources development	1	Haniffa (2002); Othman et al. (2009)
13 Equality of rights between men and women	1	Haniffa (2002); Othman et al. (2009)
14 Employee's involvement at management discussions in the process of decision-making	1	Haniffa (2002); Othman et al. (2009)
15 Occupational safety and health	1	Haniffa (2002); Othman et al. (2009)
16 Work environment	1	Maali et al. (2006); Othman et al. (2009)
17 Employees of specific groups, such as physically disabled, ex-convict, former drug addict and the like	1	Othman et al. (2009)
18 The high-level employees performing religious worship with the mid- and lower-level employees	1	Othman et al. (2009)
19 Muslim employees allowed to perform their religious worship at times for prayers and to fast during the month of Ramadan	1	Othman et al. (2009)
20 Representative prayer's room	1	Othman et al. (2009)
D Society Themes		
21 Alms, donation or charity	1	Haniffa (2002); Othman et al. (2009)
22 Wakaf	1	Haniffa (2002); Othman et al. (2009)
23 Qard Hassan	1	Haniffa (2002); Othman et al. (2009)
24 Volunteers from employees	1	Othman et al. (2009)
25 Providing scholarships	1	Othman et al. (2009)
26 Empowering graduates from high schools or colleges, such as in the form of internships or field work	1	Othman et al. (2009)
27 Youth development	1	Othman et al. (2009)
28 Improving life quality of the poor	1	Othman et al. (2009)
29 Children caring	1	Othman et al. (2009)
30 Charity or social programs intended for different occasions, such as charity for natural disasters, providing blood donors, circumcisions, building public infrastructures and the like	1	Othman et al. (2009)
31 Giving charity to programs related to healthcare, entertainment, sports, education and religion.	1	Othman et al. (2009)
E Environment Themes		
32 Environment conservation	1	Haniffa (2002); Othman et al. (2009)
33 Acts for reducing global warming effects, such as activities which support minimizing pollutions, waste management, clean water management and the like	1	Othman et al. (2009)
34 Environment education	1	Othman et al. (2009)

Disclosure Themes	Point Ref.	Source
35 Stating independent verification or environmental audits	1	Othman et al. (2009)
36 Environment management system	1	Othman et al. (2009)
F Corporation Management Themes		Othman et al. (2009)
37 Compliance to syariah	1	Othman et al. (2009)
38 Share ownership structure	1	Othman et al. (2009)
39 Disclosure about whether the company has undergone monopoly practices	1	Othman et al. (2009)
40 Disclosure about whether the company carries out the practice of hoarding basic necessities	1	Othman et al. (2009)
41 Disclosure about whether the company practices price manipulation	1	Othman et al. (2009)
42 Disclosure about any legal case is raised	1	Othman et al. (2009)
43 Anti-corruption policy, such as code of conduct, whistleblowing system and the like	1	Othman et al. (2009)
Total	43	