

Unveiling the Impact: How Specific Bank and Macroeconomic Factors Influence on Sustainability Report

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Received: December,2, 2024 | Revised: December,18, 2024 | Accepted: December,20, 2024

Abstract. This research examines the influence of bank-specific and macroeconomic factors on the sustainability reporting of Islamic banks in Indonesia. Using quantitative methods and data from 44 observations, this study evaluates the influence of independent board of commissioners (BC_IND), size, growth, age, leverage, BOPO ratio, GDP, and inflation on sustainability reporting as measured by the Global Reporting Initiative (GRI) G4 index. The results indicate that growth, BOPO ratio and macroeconomic faktors have no significant effect on sustainability reporting. In contrast, size, age, have a positive effect while the size of the board of independent commissioners (BC_IND) has a negative effect on sustainability reports. These results suggest that a larger number of independent commissioners contributes significantly to lower sustainability reporting. This highlights the importance of age and size in improving sustainability performance in Islamic banks. Increasing assets and maintaining business sustainability can enhance performance in sustainability reporting. This research provides valuable insights for policy makers and bank management in the Islamic financial sector in Indonesia and highlights the need for further exploration of asset size in Islamic banks and the impact on sustainability.

Keywords. Sustainability Report; GRI-G4; Bank-Specific Factor; Macroeconomic

INTRODUCTION

The development of Islamic banking in Indonesia shows interesting dynamics in the context of sustainability reporting. Based on data from the Financial Services Authority in 2022, the number of Islamic Commercial Banks in Indonesia reached 21 banks, with total assets reaching IDR 354,2 trillion, experiencing significant growth compared to the previous year. Islamic banking has demonstrated post covid-19 resilient, with profitability growth exceeding pra-pandemic level by up to 85% through strategic financing aligned with the Sustainable Development Goals (Kurniawan et al., 2024). The role of Islamic banks in financing micro, small, and medium enterprises (MSMEs) has become very important in Indonesia's economic recovery, significantly contributing to GDP growth (Dharmayanti et al., 2024)

Despite the growth potential, Islamic banks face challenges related to financial literacy and inclusion, which hinder the broader adoption and understanding of Islamic banking principles (Abedeem & Salman, 2024; Kantabutra & Ketprapakorn, 2020). The level of disclosure and implementation of sustainability reports in Islamic banking is still not optimal. Although, the regulator has issued OJK regulation number 51/POJK.03/2017 on the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies, encouraging financial institutions, including Islamic banks, to be more transparent in reporting environmental and social impacts. This is in line with the results of the OJK survey in 2020, which found that only 54.5% of Islamic banks had published

sustainability reports. This shows a gap between actual practices and stakeholder expectations.

Research on sustainability reporting in the context of Islamic banking has evolved with diverse approaches. Previous studies can be categorized into two main groups: research focusing on internal bank factors and research exploring the influence of macroeconomic variables.

Sustainability reporting allows Islamic banks to communicate their commitments, performance, and impact on economic, social, and environmental aspects to all stakeholders. These differences are likely influenced by various factors, both internal and external.

Previous research approaches predominantly used quantitative methods with regression analysis techniques, showing that factors such as bank size, profitability, and corporate governance have a significant correlation with the extent of sustainability reporting. The work of (Nilasakti & Falikhatun, 2020; Wiyawan et al., 2024) demonstrates that Islamic banks with larger assets tend to produce more comprehensive sustainability reports; however, the research is still limited in terms of variable references, measurements, and study periods.

Facing fundamental limitations in previous research—fragmented analysis, limited samples, and minimal contextual integration—this study aims to develop a comprehensive analytical model. This research uses a broader and more representative sample, designs a methodological framework that connects bank-specific factors with macroeconomic variables, and produces a predictive model capable of explaining the complex mechanisms behind the formation of sustainability reporting practices of Islamic banks in Indonesia.

By understanding the important determinants that can encourage or hinder sustainability reporting practices in the Islamic banking industry, it is hoped that this research can provide valuable insights for banks, regulators, and other stakeholders in their efforts to enhance transparency and accountability in the sustainability performance of the Islamic banking sector in Indonesia.

METHOD

This research begins with a fundamental limitation in understanding the dynamics of sustainability reporting in Islamic banks, which is explored through the lens of two main theories. The Legitimacy Theory, introduced by Dowling and Pfeffer (1975), explains how organizations strive to gain social recognition through disclosure practices that are responsive to societal expectations. In the context of Islamic banking, this theory reveals the mechanism by which financial institutions use sustainability reports as instruments to build and maintain their social legitimacy.

Stakeholder Theory, developed by Freeman (1984), complements the perspective by emphasizing the importance of meeting the interests of various groups, including investors, regulators, society, and the environment. This theory articulates that sustainability disclosure is not merely a reporting obligation, but rather a strategic mechanism for managing relationships with diverse stakeholders.

Although both theories provide a strong conceptual foundation, previous research has faced a number of significant limitations. The majority of previous studies tend to focus exclusively on internal bank factors. This partial approach overlooks the complexity of external dynamics that simultaneously influence reporting practices. Researchers view these factors separately, without investigating how the interaction between micro and macro dimensions shapes sustainability disclosure strategies. The specific context of Islamic

banking in Indonesia has not been fully explored. Most studies are cross-country or focused on the context of conventional banking, neglecting the unique ecosystem and fundamental values of Islamic banking.

This research aims to bridge the existing research gap by adopting an explanatory quantitative approach. The panel data research design to investigate the factors influencing the sustainability reporting of Islamic banks in Indonesia. The selection of this methodology aligns with the recommendation (Creswell, 2014) which emphasizes the importance of a multidimensional approach in complex financial field research.

The research population consists of 14 Islamic banks operating in Indonesia during the period 2010-2022. The purposive sampling technique was used to select samples with specific criteria. The type of data is unbalanced panel data with a total of 44 observations sourced from annual reports of Islamic banks, sustainability reports, banking statistical data from OJK, and macroeconomic indicators from Bank Indonesia. The measurement is conducted by comparing the number of items disclosed by the bank with the number of items expected/required to be disclosed.

The dependent variable in this study is the Sustainability Reporting Index (SRI), measured using the Global Reporting Initiative Standards G4 framework. The measurement approach adapts the methodology developed by Reverte (2009) and refined by contemporary researchers in the field of sustainability disclosure.

Independent variables are divided into two main categories: bank-specific factors and macroeconomic factors. Bank-specific factors include: 1) independent board of commissioners, which is the number of independent commissioners divided by the total number of commissioners in the bank (Nugraheni & Khasanah, 2019; Widnyana et al., 2021); 2) size measured by the natural logarithm of the bank's total assets (Wijethilake et al., 2015); 3) bank growth, measured by looking at the trend of total assets, which is the total assets of this year minus the total assets of the previous year, then divided by the total assets of the previous year (Wu, 2023); 4) the leverage used is the Debt to Asset Ratio (DAR), which compares the total debt with the total assets of the bank (Muttakin et al., 2015). 5) age, which is the difference between the year of observation and the year since the bank started operating (Alshehri, 2016); last 6) the ratio of operational expenses to operational income is denoted as BOPO. Meanwhile, the macroeconomic factors consist of Indonesia's national GDP growth in 2022 and Indonesia's inflation at the end of 2022.

This study uses a regression model to investigate the factors affecting the sustainability report performance of Islamic banks in Indonesia. The selection of panel data regression was made because this method allows for comprehensive analysis by combining cross-section and time-series dimensions. The research equation model is designed as follows:

$$SR_{it} = \alpha + \beta_1 BC_IND_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \beta_5 AGE_{it} + \beta_6 BOPO_{it} + \beta_7 RGDP_{it} + \beta_8 INFLAS_{it} + \epsilon_{it}$$

Keterangan:

SRI : Sustainability Reporting Index
 i : Individual bank
 t : Time period
 α : Constant
 β : Regression coefficient
 ϵ : Error term

Random Effect Model, as the chosen model, was first introduced by Cornwell and Rudd (1978), assuming that individual-specific effects are random and uncorrelated with the independent variables. According to (Gujarati & Porter, 2009), REM uses the Generalized Least Square (GLS) method to address heteroskedasticity and autocorrelation in panel data. The Random Effect Model provides a robust analytical framework to investigate the factors influencing the performance of sustainability reports, taking into account the complexity of variations between banks and time periods.

RESULTS AND DISCUSSION

The results of the tests using panel data regression are presented in Table 1, including the autocorrelation test found in Table 2.

Table 1: Correlation of independent variables with the sustainability report

- Xtreg SR BC_IND SIZE GROWTH LEV AGE BOPO RGDPG INFLASI, re						
Random-effects GLS regression						
Group variable: ID			Number of obs		= 44	
R-square:			Number of group		= 14	
within	= 0.4531				min	= 1
between	= 0.5557				avg	= 3.1
overall	= 0.6151				max	= 6
Corr(u _i , x) = 0 (assumed)					Wald chiz (s)	= 32.73
					Prob > chiz	= 0.0001
SR	Coefficient	Std. Err	z	P > z	[95% conf. Interval]	
BC_IND	-.1381179	.0559865	-.247	0.014	-.2478494	-.0283864.
SIZE	.0738944	.0352559	2.10	0.036	.0047941	.1429947
GROWTH	.0264032	.0308436	0.86	0.392	-.0340492	.0868555
LEV	-.1389105	.1119228	-.1.24	0.215	-.3582752	.0804542
AGE	.0061656	.0030241	2.04	0.041	.0002385	.0120926
BOPO	.0210125	.0195734	1.07	0.283	-.0173507	.0593757
RGDPG	.0015886	.0022119	0.72	0.473	-.0027466	.0059238
INFLASI	.003442	.0043413	0.79	0.428	-.0050667	0119507
_cons	-.2927054	.2621717	-1.12	0.264	-.8065524	.2211417
Sigma_u	.07190262					
Sigma_e	.03012763					
rho	.85065406	(fraction of variance due to u _i)				

Table 2: Testing autocorrelation between independent variables

Corr BC_IND SIZE GROWTH LEV AGE BOPO RGDPG INFLASI								
	BC_IN D	SIZE	GROWTH	LEV	AGE	BOP O	RGDP G	INFLAS I
BC_IND	1.0000							
SIZE	- 0.1477	1.000 0						
GROWTH	0.0493	- 0.073 1	1.0000					
LEV	- 0.1276	0.320 1	0.3001	1.000 0				
AGE	0.0424	0.311 8	-0.1044	0.098 7	1.0000			
BOPO	0.0652	- 0.384 2	0.4154	- 0.169 7	0.0132	1.0 000		
RGDPG	- 0.0289	0.052 7	0.0167	- 0.252 7	0.0820	0.0 937	1.0000	
INFLASI	- 0.0142	0.021 1	0.1787	- 0.084 2	0.0923	- 0.0 066	0.6589	1.0000

The results of the data processing show an interesting significant pattern. The study conducted by Fama and Jensen (1983) in agency theory explains that an independent board of commissioners should be able to enhance the quality of oversight and the transparency of company reports. However, in the context of Islamic banks, empirical research shows a different phenomenon. The independent board of commissioners has a significant influence with a negative relationship direction towards the disclosure of sustainability reports. These findings indicate that an excessively large composition of independent commissioners can reduce the effectiveness of strategic decision-making. According to the research (Amidjaya et al., 2023), the more independent commissioners there are, the more complex the internal coordination process becomes. This has the potential to reduce the quality and depth of the sustainability reports produced, as complex coordination can hinder transparency and the depth of information disclosure. The negative relationship between the number of independent commissioners and the quality of Islamic bank sustainability reports is caused by coordination complexity, limited understanding, and difficulties in achieving comprehensive information disclosure depth. Future research is advised to focus more on the quality and competence of independent commissioners, rather than just their quantity (Imansyah & Andesto, 2024; Rashid & Hossain, 2022).

Second, the variable of company size has a significant influence on sustainability reporting with a positive relationship, so the larger the size of a bank, the better its sustainability reporting will be. The positive relationship between bank size and the quality

of sustainability reporting in Islamic banks is based on resource capability, organizational complexity, stakeholder pressure, and higher investment capacity. The size of a bank is not merely an indicator of business scale, but rather a reflection of institutional capability in developing comprehensive and meaningful sustainable reporting practices (Rayhan & Tubastuvi, 2024; Taufiq, 2024; Wiyawan et al., 2024)

Third, the insignificant relationship between bank growth and the quality of Islamic banks' sustainability reports is based on the complexity of the Islamic business model, the holistic approach to performance assessment, and the prioritization of ethical and social responsibility aspects. Bank growth rate is not a single indicator that determines the quality of disclosures, but only one of the various factors that influence the transparency and accountability of Islamic banks.

Fourth, leverage has a negative and insignificant relationship with the quality of sustainability reports of Islamic banks, based on the complexity of funding structures, unique governance mechanisms, and the priority of Sharia compliance. The debt ratio is not a single indicator that determines the quality of disclosure, but rather one of several factors that influence the transparency and accountability of Islamic banks (Fani Apriliyani et al., 2022; Nioko & Hendrani, 2024; Taufiq, 2024).

Fifth. The age of the company significantly influences sustainability reports with a positive relationship flow. longer experience allows for a comprehensive understanding of social responsibility and sustainability. This is based on the depth of institutional experience, adaptability, governance sophistication, and organizational learning mechanisms. The age of a bank is not merely an indicator of the duration of its operations, but rather a reflection of its institutional capacity to develop meaningful and comprehensive sustainable reporting practices (Abedeem & Salman, 2024; Muhamad et al., 2022; Suryono, 2023).

Sixth, the BOPO ratio, which does not have a significant impact, shows a positive relationship with sustainability reporting. This relationship is based on the complexity of the sharia business model, a holistic approach to performance assessment, and a priority on ethical aspects and social responsibility. The operational efficiency ratio is not the sole indicator that determines the quality of disclosure, but rather one of several factors that influence the transparency and accountability of Islamic banks (Anggraini et al., 2023; Siregar et al., 2024).

Ketujuh, pertumbuhan GDP dan inflasi yang memiliki hubungan positif namun tidak signifikan dengan laporan keberlanjutan. Fenomena ini terjadi sebab model bisnis syariah, pendekatan holistik dalam penilaian kinerja, dan prioritas pada aspek etika serta tanggung jawab sosial. Kualitas laporan keberlanjutan lebih ditentukan oleh faktor strategis internal dan komitmen jangka panjang daripada fluktuasi ekonomi jangka pendek. Variabel makroekonomi bukanlah prediktor utama kualitas pengungkapan, melainkan hanya salah satu dari berbagai faktor yang mempengaruhi transparansi dan akuntabilitas bank syariah (Hidayat, 2024; Rohmah, 2024).

Simultaneous testing between independent variables (bank-specific factors and macroeconomic factors) on the dependent variable (sustainability report) is stated to have a significant influence with a value of 0.6151 or 61%, while the remainder is influenced by other factors not tested in this research.

CONCLUSION

The research results indicate that the sustainability reports of Islamic banks are influenced by a number of complex factors, with key findings including a significant negative

relationship between the independent board of commissioners and report quality, as well as a significant positive relationship between company size and age and sustainability disclosure. Specifically, the more independent commissioners there are, the more they tend to reduce the effectiveness of the reports, while larger banks with longer experience are able to produce more comprehensive reports. Variables such as leverage, BOPO, GDP growth, and inflation do not show significant influence, indicating that strategic internal factors and long-term commitment are more determining of report quality. Statistical analysis reveals that the independent variables studied are able to explain 61% of the variation in sustainability reports, with recommendations for future research to focus more on the quality and competence of independent commissioners rather than just their quantity, and to consider internal strategic factors that have not yet been identified in this study.

REFERENCES

- Abedeem, Z. A., & Salman, S. A. (2024). Factors Affecting Islamic Banking Sustainability: An Empirical Analysis. In S. A. Salman & A. Bhaumik (Eds.), *Advances in Business Strategy and Competitive Advantage* (pp. 137–156). IGI Global. <https://doi.org/10.4018/979-8-3693-5426-1.ch007>
- Alshehri, A. F. (2016). An Examination of the Relationship between Size, Age and Financial Performance in Islamic Banks: Evidence from around the World. *Journal of Islamic Economics Banking and Finance*, 12(4), 155–178. <https://doi.org/10.12816/0050984>
- Amidjaya, P. G., Yau, J. T. H., & Cheuk, S. C. S. (2023). Board Diversity and Sustainability Reporting: Empirical Evidence from Indonesian Listed Banks. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 13(2), Pages 1161-1178. <https://doi.org/10.6007/IJARAFMS/v13-i2/17795>
- Anggraini, D., Ahmadi Bi Rahmani, N., & Ikhsan Harahap, M. (2023). The Effect of Capital Adequacy Ratio (CAR), Operating Expenses and Operating Income (BOPO), and Net Core Operating Margin (NCOM) on Financial Sustainability Ratio (FSR) in Islamic Banking in Indonesia for the 2017-2021 Period. *PKM-P*, 7(2), 290. <https://doi.org/10.32832/jurma.v7i2.2111>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE.
- Dharmayanti, D., Abdul Aziz, Suhariyanto, J., & Setyadi, Y. (2024). The Role of Sharia Banks in Sustainable Development During Indonesia's Economic Recovery Post-Covid-19. *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah*, 8(2), 354–372. <https://doi.org/10.29313/amwaluna.v8i2.3569>
- Fani Apriliyani, Dirvi Surya Abbas, Imam Hidayat, & Imas Kismanah. (2022). PENGARUH UKURAN PERUSAHAAN, AKTIVITAS PERUSAHAAN, PRODUKTIVITAS DAN LEVERAGE TERHADAP PENGUNGKAPAN SUSTAINABILITY REPORT. *OPTIMAL Jurnal Ekonomi Dan Manajemen*, 2(4), 201–217. <https://doi.org/10.55606/optimal.v2i4.722>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed). McGraw-Hill Irwin.

- Hidayat, M. (2024). The Effect of Economic Growth and Inflation on Liquidity in “Bank Syariah Indonesia.” *Economics Studies and Banking Journal (DEMAND)*, 1(1), 17–25. <https://doi.org/10.62207/4fx1yr50>
- Imansyah, A., & Andesto, R. (2024). The Effect of Independent Commissioners, Audit Committee Competence, and Firm Size on the Degree of Sustainability Report and its Effect on Enterprise Value. *International Journal of Innovative Science and Research Technology (IJISRT)*, 1419–1434. <https://doi.org/10.38124/ijisrt/IJISRT24SEP672>
- Kantabutra, S., & Ketprapakorn, N. (2020). Toward a theory of corporate sustainability: A theoretical integration and exploration. *Journal of Cleaner Production*, 270, 122292. <https://doi.org/10.1016/j.jclepro.2020.122292>
- Kurniawan, A., Choiruddin, A., & Iriawan, N. (2024). Indonesian Islamic Banks’ Post-Pandemic Profitability Alignment with Sustainability Goals. *International Journal of Islamic Finance and Sustainable Development*, 16(3). <https://doi.org/10.55188/ijifsd.v16i3.904>
- Muhamad, S. F., Zain, F. A. M., Samad, N. S. A., Ab. Rahman, A. H., & Yasoa’, M. R. (2022). Measuring Sustainable Performance of Islamic Banks: Integrating the principles of Environmental, Social and Governance (ESG) and Maqasid Shari’ah. *IOP Conference Series: Earth and Environmental Science*, 1102(1), 012080. <https://doi.org/10.1088/1755-1315/1102/1/012080>
- Muttakin, M. B., Khan, A., & Subramaniam, N. (2015). Firm characteristics, board diversity and corporate social responsibility: Evidence from Bangladesh. *Pacific Accounting Review*, 27(3), 353–372. <https://doi.org/10.1108/PAR-01-2013-0007>
- Nilasakti, A. O., & Falikhatun, F. (2020). Determinants of Sustainability Reporting of Islamic Banks in Emerging Countries. *Muqtasid: Jurnal Ekonomi Dan Perbankan Syariah*, 11(2), 149–161. <https://doi.org/10.18326/muqtasid.v11i2.149-161>
- Nioko, R., & Hendrani, A. (2024). Pengaruh Profitabilitas, Aktivitas, Leverage, Ukuran Perusahaan, Dewan Direksi Dan Komite Audit Terhadap Pengungkapan Sustainability Report. *Journal of Economic, Bussines and Accounting (COSTING)*, 7(3), 5780–5801. <https://doi.org/10.31539/costing.v7i3.9262>
- 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>
- Rashid, Md. H. U., & Hossain, S. Z. (2022). Does board independence moderate the effect of politician directors on CSR disclosure? Evidence from the publicly listed banks in Bangladesh. *Social Responsibility Journal*, 18(5), 935–950. <https://doi.org/10.1108/SRJ-08-2020-0320>
- Rayhan, A. P., & Tubastuvi, N. (2024). Factors That Encourage Disclosure of Social Responsibility of Sharia Commercial Banks: A Comprehensive Analysis. *International Journal of Management Science and Information Technology*, 4(2), 194–201. <https://doi.org/10.35870/ijmsit.v4i2.2766>

- Rohmah, N. A. (2024). *Pengaruh Inflasi dan GDP terhadap Tingkat Kesehatan Bank Syariah dengan Size sebagai Pembeda*. 4(2).
- Siregar, R. A., Arif, S., & Kartika, T. (2024). MAXIMIZING PROFITABILITY: ANALYZING THE IMPACT OF OPERATIONAL EFFICIENCY AND CAPITAL STRENGTH ON BANK BJB SYARIAH'S FINANCIAL PERFORMANCE. *Al-Infaq: Jurnal Ekonomi Islam*, 1(1), 209. <https://doi.org/10.32507/ajei.v1i1.2409>
- Suryono, A. (2023). TATA KELOLA PERBANKAN SYARIAH YANG BERKELANJUTAN: ANALISIS TERHADAP KESATBILAN EKONOMI BERDASARKAN PRINSIP SYARIAH (Menelusuri Dampak Positif Tata Kelola Perbankan Syariah terhadap Stabilitas Ekonomi Global dan Penerapannya). *Jurnal Al Wadiah*, 1(1), 31–43. <https://doi.org/10.62214/jaw.v1i1.100>
- Taufiq, M. (2024). Analysis Of Financial Ratios and Company Size As Determining Factors For Islamic Social Reporting Disclosure In Sharia Banks In Indonesia (Period 2015-2020). *Economics, Business and Management Science Journal*, 4(2), 46–54. <https://doi.org/10.34007/ebmsj.v4i2.553>
- Widnyana, I. W., Wiksuana, I. G. B., Artini, L. G. S., & Sedana, I. B. P. (2021). Influence of financial architecture, intangible assets on financial performance and corporate value in the Indonesian capital market. *International Journal of Productivity and Performance Management*, 70(7), 1837–1864. <https://doi.org/10.1108/IJPPM-06-2019-0307>
- Wijethilake, C., Ekanayake, A., & Perera, S. (2015). Board involvement in corporate performance: Evidence from a developing country. *Journal of Accounting in Emerging Economies*, 5(3), 250–268. <https://doi.org/10.1108/JAEE-12-2012-0050>
- Wiyawan, D., Hendrawati, H., Burda, A., Merliyana, M., & Saefurahman, A. (2024). Syariah Bank Fundamental, Maqashid and Financial Sustainability: Unraveling the Dynamics. *Research of Islamic Economics*, 1(2), 58–71. <https://doi.org/10.58777/rie.v1i2.174>
- Wu, Y. (2023). The Impact of Asset Growth on Stock Returns. *Proceedings of the 2nd International Conference on Mathematical Statistics and Economic Analysis, MSEA 2023, May 26–28, 2023, Nanjing, China*. Proceedings of the 2nd International Conference on Mathematical Statistics and Economic Analysis, MSEA 2023, May 26–28, 2023, Nanjing, China, Nanjing, People's Republic of China. <https://doi.org/10.4108/eai.26-5-2023.2334276>