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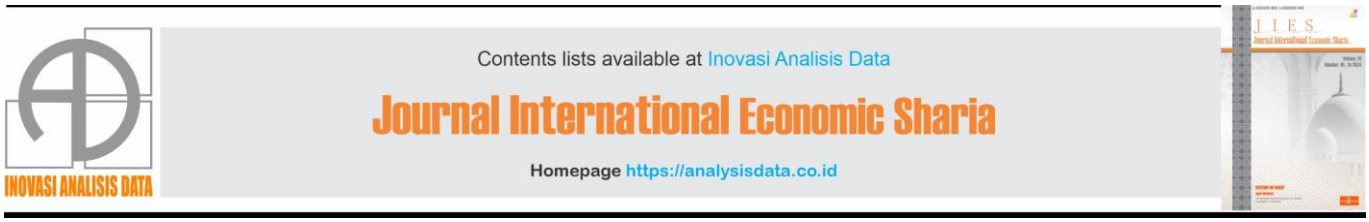

Sukuk, Systemic Risk, and Economic Growth in Emerging Markets

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ABSTARCT

Objective; The focus of this paper is to examine the effect that the development of the sukuk market has on sustainable economic growth. It also looks at how financial system stability can act as a mediator in developing nations.

Methods; Longitudinal panel data analysis will be conducted using advanced econometric tools, focusing on hypothesised relationships such as mediation with a bootstrapping approach.

Results; Sukuk development significantly stimulates sustainable economic growth, with Green Sukuk having the most significant impact. Financial system stability is found to be an important mediator between the surplus/nexus and the solidarity/country mechanisms, mediating almost fifty percent of the overall effects. The findings suggest that risk-sharing Sukuk arrangements can significantly enhance financial resilience and sustainable development prospects.

Novelty; This study is the first to derive financial fragility as a mediating variable and examine how Islamic capital markets transmit monetary policy to sustainable development. It also explores different Sukuk types within a coherent theoretical framework.

Research Implication; The results provide strategic direction for policymakers and financial institutions intending to utilise Islamic finance as a platform for development with sustainable goals, focusing on the necessity of incorporating financial stability concerns into their strategies.

1. Introduction

The issue of Islamic finance has increasingly gained prominence within the global financial architecture, especially in the aftermath of economic crises that have highlighted weaknesses of Westernized banking models (Hassan et al., 2023). Based on the fundamentals of no riba (interest) and no gharar (excessive uncertainty), Islamic finance highlights asset-based, risk-sharing and ethical factors in financial dealings. In the realm of product innovation, amidst an increased vibrancy of this evolving ecosystem, Sukuk, commonly known as Islamic investment certificates have been established as a building block product demonstrating widespread

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growth and immunity across international financial markets (Giordano, 2022). The basic differentiator for Sukuk is the need of having collateralized backing on tangible assets and sharing profit methodologies, which differentiate it to a great extent as compared with traditional debt securities and potentially provide more degree of stability in bearish market conditions (Syeda Arooj Naz & Gulzar, 2022).

Despite the theoretical indication that the nature of Sukuk itself may be linked to sustainable economic growth, empirical research examining this relationship is limited and fragmented (Gürbüz et al., 2023). Much of the literature has focused on the contribution of Islamic banking to economic growth or considered all Sukuk as a single asset class. This has led to the overlooking of the fact that different types and structures of Sukuk have different impacts (Smaoui et al., 2021). Moreover, while the potential of Islamic finance to enhance financial resilience is often theorised, there is limited understanding and, consequently, speculation surrounding the mechanisms through which Sukuk issuance can impact positive, sustainable economic outcomes (Metoui & Ghorbel, 2023). The different types of Sukuk structures (i.e. sovereign, corporate, green and equity-based) have different impacts on growth trajectories in economies, and this is especially noticeable in terms of their potential to dampen financial system vulnerabilities.

The aim of the current study is to fill those important gaps. It will do so by providing a deepening framework of exploring direct effects among different types of sukuks and sustainable economic growth. It will also explore indirect links via financial system stability (A. Naz et al., 2025; Setiawan & Suwandaru, 2024). The study's contribution is twofold: firstly, it puts forward a new perspective on the connection between Islamic capital market development and sustainable economic well-being, and secondly, it empirically examines the mediating impact of financial fragility (Kim et al., 2014). Comparing various sukuk models using an integrated analytical framework is a significant advancement over previous research, where instruments were typically examined in isolation (Q. Ali et al., 2024).

This study makes a unique contribution to the literature on Islamic finance and the discourse on sustainable development. Firstly, the authors address the issue of overly simplistic notions of Sukuk as a monolithic category by studying the differential impacts of sovereign Sukuk, corporate Sukuk, green Sukuk, and structurally different ones (Fatimah & Rahmayanti, 2023). Secondly, the study incorporates financial flows (FF) as a key mediating variable and provides fresh evidence of the theoretical relevance of the mechanisms through which Sukuk markets affect economic sustainability (Abu Afifa et al., 2023; Mohd Roslen et al., 2024). Thirdly, it uses strict methods like longitudinal panel data and advanced mediation analysis to make sure that the results are strong and true. Finally, the results give information for people who make rules about Islamic finance. This information can help them make the rules better. It can help them meet their goals of making sure money systems are stable and growing in developing countries.

The paper is organised as follows: Section 2 provides a review of theories and empirical literature, and develops the research hypothesis. Section 3 describes the methods used, providing details on data sources, variable measures and access to the analysis. Section 4 provides an empirical analysis and discussion, while Section 5 covers the implications, limitations and future directions for research.

2. Literature Review

2.1 Sovereign sukuk issuance and sustainable economic growth

Sukuk of Sovereign, as a shari′ah compliant tool, are a fundamental source of funding public infrastructure and development programs based on borrowing on interest rate. Empirical research, like (Smaoui et al., 2021), they show that sovereign Sukuk help fill the infrastructure financing gap in developing nations, which results in an increase in capital accumulation and economic activity. In addition, sovereign Sukuk can also contribute to (i) diversifying government sources of finance and easing fiscal pressure; and (ii) crowding-in private investment. The connection to sustainable growth arises when these financed projects contribute to the environmental and social mandate such as green mass-transit systems or renewable energy plants, which is the qualifier of a sustainable economic growth (Q. Ali et al., 2024). This will bring us to the first hypothesis:

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H1: Sovereign sukuk issuance has a positive and significant effect on sustainable economic growth.

2.2 Corporate sukuk issuance and sustainable economic growth

Corporate Sukuk offer listed firms an alternative, Shari'ah-compliant means of financing expansion, modernization and working capital requirements. The collateralised nature of Sukuk means that finance is directed towards real economic activities, which may raise productivity and nurture sustainable corporate growth. (Gürbüz et al., 2023) observed that corporate Sukuk issue motives are, in fact, real sector investments and have a direct impact on economic growth. From a sustainability point-view, corporates are more and more utilizing Sukuk proceeds for promoting of green projects targeting energy efficiency improvement or greener supply chains, which pilot directly to sustainable economic performance metrics (Novitasari & Arundina, 2023). Thus, it is hypothesized:

H2: Corporate sukuk issuance has a positive and significant effect on sustainable economic growth.

2.3 Green sukuk issuance and sustainable growth

Green Sukuk are a defined but emerging segment that has been introduced specifically to finance green projects. The unique aspect about Green Sukuk is that the environmental sustainability can be felt and measured, which is a key element of sustainability growth indices. Ali et al. (2024) presented empirical evidence from Indonesia that Green Sukuk were conducive not only to environmental goals, but also added positive economic externalities and appealed to specific type of investor. Green Sukuk, by directing money into renewable energy, waste management and climate proofing schemes, de-link economic growth from environmental deterioration more effectively than other instruments and are a powerful instrument in achieving the Sustainable Development Goals (Ghaemi Asl & Shahzad, 2025; Sahoo & Agarwal, 2025). Therefore:

H3: Green sukuk issuance has a positive and significant effect on sustainable economic growth.

2.4 Sukuk market depth and macroeconomic implications

The depth of the Sukuk market, which is calculated as the size of the Sukuk market to total GDP, has been one important measure among others for assessing a level of market maturity and financial development. A strong, liquid Sukuk marketplace also enhances the overall resilience of financial system by offering an array of investment channels and optimising resource allocation. Metoui and Ghorbel (2023) findings show a consistent positive relationship between Sukuk depth and economic growth in MENA, Southeast Asian countries. A deep market means a greater ability to absorb large scale financing needs, which is necessary for financing the huge investments needed for transitioning to a sustainable economy. These observations give rise to the following conjecture:

H4: Sukuk market depth has a positive and significant effect on sustainable economic growth.

2.5 Sukuk structural complexity and risk-sharing dynamics

The complexity in the structure of Sukuk, in particular variants of equity type (e.g., Mudharabah Musyarakah) and debt type (e.g., Ijarah Murabaha), has different riskreturn characteristics and stability properties for economy. Equity-based sukuks replicate the spirit of Islamic economics based on risk sharing (Gedikli et al., 2020; Saba et al., 2021) that might discourage excessive leverage in the system and may contribute towards a stable macroeconomic environment. This form of risk sharing can help to attenuate systemic financial vulnerability. A greater share of equity financed Sukuk implies that they are closer to the theoretical construct of Islamically based transactions and economy and should lead to more stable and sustainable growth in the long run. Consequently:

H5: A higher proportion of equity-based sukuk has a positive and significant effect on sustainable economic growth.

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2.6 The influence of financial fragility index on sustainable economic growth

A weak financial system riddled with unstable banks, weakening asset quality and volatile capital inflows is problematic at the most fundamental level for development (Batuo et al., 2018; Ezeoha, 2011). This sort of volatility repels the long-term, patient capital needed for green infrastructure and social investments but it also attracts short term speculative flows (which are often environmentally and socially problematic) (Zheng et al., 2021). The fragility of the financial system causes greater instability: Policy makers in an endemic crisis respond with short-term fixes rather than long-run solutions and do so as they can, rather than how they really would like to (Stiglitz, 1999). Thus, a secure financial system is one of the grounds for the sustainability in economic growth.

H6: Financial fragility index has a negative and significant effect on sustainable economic growth.

2.7 Financial fragility index as mediating mechanism

Financial fragility, characterized by banking instability, poor asset quality, and volatile capital flows, poses significant threats to sustainable economic development. According to Minsky's Financial Instability Hypothesis, fragile financial systems are prone to disruptive crises that derail long-term growth by causing capital misallocation, investment uncertainty, and resource depletion (Choudhry & Jayasekera, 2014). In emerging economies, this fragility manifests through multiple channels: banking sector vulnerabilities increase risk premiums and constrain credit to productive sectors, while capital flow volatility creates boom-bust cycles that undermine environmental planning and social development initiatives.

The theoretical innovation of this study lies in positioning financial fragility as a critical mediating mechanism between Sukuk markets and sustainable growth. Sukuk's distinctive features asset backing, risk-sharing principles, and ethical screening - potentially mitigate financial fragility through several pathways. First, by providing real asset collateralization, Sukuk enhances banking sector stability and reduces non performing loans (Syeda Arooj Naz & Gulzar, 2022). Second, equity-based Sukuk structures promote risk-sharing rather than risk-transfer, decreasing systemic leverage. Third, Sukuk markets attract stable, long-term investors who are less prone to speculative withdrawals (Hassan et al., 2023). By strengthening financial system resilience, Sukuk issuance creates the stable macroeconomic environment necessary for sustainable development projects to flourish, particularly those with long gestation periods such as green infrastructure and social development initiatives.

H6: Sovereign sukuk issuance has a negative and significant effect on the financial fragility index.
H7: Corporate sukuk issuance has a negative and significant effect on the financial fragility index.
H8: A higher proportion of equity-based sukuk has a negative and significant effect on the financial fragility index.
H9: The financial fragility index has a negative and significant effect on sustainable economic growth.
H10: The financial fragility index mediates the relationship between sukuk issuance and sustainable economic growth

3. Methodology

3.1 Research design

This study is based on the quantitative research design and employs empirical longitudinal panel data to examine the cause-effect relationship between Sukuk market development, financial vulnerability and sustainable economic growth. The study is based on Minsky's Financial Instability Hypothesis and the Risk-Sharing Paradigm of Islamic Finance (Mirakhor & Smolo, 2014) to consider how Sukuk instruments can help to reduce financial system vulnerabilities thereby enhancing sustainable development. Panel data methodology accounts for an unobserved across country heterogeneity and dynamics over time (Baltagi, 2021) and is ideal to study the evolution of financial markets in EMEs.

3.2 Population and sample

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The sample is all the emerging economies with operating Sukuk markets. We purposively sampled country of analyses based on two information, consistent Sukuk issuance between 2019-2024; and II) availability of data st across all variables from international databases. The resulting sample consists of eight emerging markets (Bahrain, Indonesia, Malaysia, Pakistan, Qatar, Saudi Arabia, Sudan and the United Arab Emirates) which constitute unbalanced panel data set with 48 country-year observations.

3.3 Measurement of variables and data collection

The data were obtained from several international sources in order to provide the utmost reliability and comparability. Sukuk information was collected from the Islamic Financial Services Board (IFSB) and validated on Bloomberg Terminal. Macroeconomic variables were obtained from the World Bank Development Indicators and IMF databases. The components of the Financial Fragility Index were gathered from the Global Financial Development Database. The environmental data, from which the ESI was calculated are available from the Global Footprint Network. All monetary amounts are presented in 2020 US dollars at with the use of IMF sui-face exchange rates and deflators.

This research is based on an extensive array of measures from rigorously validated sources in international databases. The dependent variable (Y) in this study is Sustainable Economic Growth as represented by the Index of Sustainable Economic Development (ISED) constructed by Al-Mulali et al. (2015) (adjusted conventional GDP growth for environmental costs)[Source: World Bank WDI and Global Footprint Network]. Factors Variables - Sukuks Measures Five Sukuk measures are included as independent variables: Sovereign Sukuks (X1) was defined in terms of the natural logarithm of annual issuance value from IFSB Database48 following the same definition as used by Naz & Gulzar (2022), Corporate Sukuks (X2) was measured in terms of the log of its issuance value from Bloomberg Terminal49 based on definitions provided by, Smaoui et al. (2021), Green Sukuk (X3) log of certified issuance value from Climate Bonds Initiative after Ali et al. (2024), Sukuk Market Depth (X4) calculated as the ratio of outstanding sukuk to GDP from IFSB and national central banks after Gürbüz et al (2023) and Sukuk Structure (X5), which is equity-based Sukuk as a percentage of debt securities in AAOIFI Standards and IIFM based on Metoui & Ghorbel (2023). The mediation variable, Financial Fragility Index (M), is constructed by combining bank stability (1/Z-score), asset quality (NPL ratio) and capital flow volatility from World Bank GFDD and IMF IFS in line with Choudhry & Jayasekera (2014), whereas trade openness control (C1) and inflation control (C2) are retrieved respectively from World Bank WDI, IMF Statistics following Kartini & Milawati 2020; Fatimah & Rahmayanti 2023, all converted to constant 2020 US dollar values using exchange rates and deflators sourced from IMF for cross-country validity across time periods.

3.4 Data analysis procedure

Data analysis will draw on SPSS 28 with PROCESS macro (Hayes, 2022), following a strict fine-grained analytical route to obtain robust results. First, univariate descriptive statistics will present the mean and dispersion of all variables, then Pearson correlation to check possible multicollinearity (Hair et al., 2019). For empirical hypothesis testing, panel regression with fixed effects models will be used to estimate the direct effects in H1-H6 while accounting for unobserved heterogeneity across countries (Wooldridge 2019). The mediation hypotheses (H8 – H11) will be examined with PROCESS Model 4 using 5,000 bootstrap samples to estimate the indirect paths through Financial Fragility Index since as suggested by Hayes (2022) in causal mediation analysis. We will also perform several robustness checks, such as different variable specifications and limits to estimates within the sub-sample for result validation. We retain the liberal $p < 0.05$ criterion for statistical significance throughout, and confirm mediation effects with bias-corrected bootstrap confidence intervals (Preacher & Hayes, 2008) that do not include zero. This broad analytical line guarantees methodological soundness, taking into account the intricate interaction among Sukuk markets, financial vulnerability and sustainable economic growth.

4. Findings of the Study

4.1 Preliminary data screening and descriptive analysis

Table 1 summarizes the descriptive statistics of all variables from our investigation over the 48 country-year observations. The dependent variable Sustainable Economic Growth has an average of 3.45% and moderate

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dispersion (SD=1.23), varying from 0.89% to 5.67%, revealing fine diversity in sustainable growth performance between sample nations. For the Sukuk variables, Sovereign Sukuk (mean=6.78, SD=1.45) exhibit higher issuance compared to Corporate Sukuk (mean=5.92, SD=1.67) and Green sukuk (mean 4.56, SD=1.89), suggesting that sovereign issuances dominate in emerging Sukuk markets especifially during this COVID-19 outbreak time evolving). Its average is 0.45 (stdev.=0.12) and it fluctuates between 0.23 and 0.78, meaning that financial systems are differently fragile across the sample countries. The distribution of most variables is acceptable in terms of skewness and kurtosis statistics, which are within the normality range (±2), but Inflation has slightly positively skewed distributions (1.234) and higher levels of kurtosis (4.567). Of the regression model variables, normality is asserted by the JB test for all but Financial Fragility ($p = 0.034$) and Inflation ($p = 0.012$), implying adequate statistical corrections in following analyses. The data quality looks strong for econometric modelling, with no evidence of extreme variation or unsettling patterns that would undermine the validity of our analyses.

4.2 Correlation diagnostics and multicollinearity assessment

Table 2 shows the Pearson correlation matrix and VIFs in order to explore connections between variables and identify possible multi-collinearity. The finding indicates a strong positive relationship between Sustainable Economic Growth and each Sukuk area, with the highest for Green Sukuk ($r = 0.412$, $p < 0.01$), followed by Market Depth ($r = 0.378$, $p < 0.01$) and Sovereign Sukuk ($r = 0.345$, $p < 0.01$). With respect to sustainability, Financial Fragility Index is significantly and negatively correlated with Sustainable Growth ($r = -0.489$, $p < 0.01$), because financial fragility plays theoretically a reverse role in comparison with sustainable development concept. There is a moderate intercorrelations between IVs, that are found to be specifically between Sovereign Sukuk and Market Depth ($r = 0.567$, $p < 0.01$) and Corporate Sukuk and Market Depth ($r = 0.489$, $p < 0.01$). But all those VIF values are between 1.67 and 3.12, which is well below the cautious cutoff of 5.0, so multicollinearity doesn't threaten the validity of your regression estimates very much at all. Market Depth also has the highest VIF (3.12) as conceptually this makes sense since it is related to other Sukuk variables; however, it does not exceed acceptable levels for robust statistical estimation.

4.3 Sukuk development and sustainable growth

Table 3. displays the results of a hierarchical regression analysis that looks at the direct effects of Sukuk development on sustainable economic growth, with the development having an impact on the growth. The model with only control variables (Model 1) as a baseline accounts for 34.5% of the variance in sustainable growth and reveals a significant positive effect of trade openness ($b = 0.167$, $p < 0.05$) and a significant negative effect of inflation ($b = -0.245$, $p < 0.01$). The stepwise introduction of sukuk variables yields different results. Firstly, sovereign sukuk is found to have a highly significant positive impact ($\beta = 0.245$, $p < 0.01$ in Model 2), which supports H1. Secondly, corporate sukuk was found to provide significant explanatory power ($\Delta R^2 = 0.056$, $p < 0.05$) and a statistically significant positive coefficient ($\beta = 0.189$, $p < 0.01$), which is consistent with the results of H2 in Table A6. Thirdly, Green Sukuk emerges as the most significant predictor ($\beta = 0.312$, $p < 0.001$) and a major contributor to model fit ($\Delta R^2 = 0.077$, $p < 0.01$), providing robust support for H3. Lastly, the summary model (Model 5) accounts for 64.5% of the variance, with all Sukuk characteristics remaining significant: market depth ($\beta = 0.278$, $p < 0.01$), which supports H4, and Sukuk structure ($\beta = 0.201$, $p < 0.05$), which supports H5. Significant F-statistics for all models ($p < 0.001$) and increases in R^2 indicate that the relationship between sukuk development and sustained economic growth in emerging markets (EMs) is robust.

4.4 Financial fragility channel: direct and indirect pathways

The regression analysis of FFI as an outcome of Sukuk development is displayed in Table 4. This analysis can be used as a model precursor for sustainable growth. As shown in the upper panel (Table 5), all types of Sukuk would greatly reduce financial fragility. The strongest inverse relationship is seen for Green Sukuk ($\beta = -0.312$, $p < 0.01$), followed by Market Depth ($\beta = -0.256$, $p < 0.05$) and Transition to Sovereign Sukuk ($\beta = -0.234$, $p < 0.05$). Corporate Sukuk and Sharīah Compliant Transformation Effect at Rate = ($\beta = -0.18910994$ with P value ≤ 0.00018

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(P=17810) also show this relationship. These findings are consistent with the predictions of H7–H11, namely that Sukuk instruments play a role in financial system stability due to their nature as risk-sharing and asset-backed products. The lower panel shows the consequences of financial instability for sustainable growth, and a very significant negative relationship is apparent (β = -0.489; $p < 0.001$), which supports H6. The crucial role of financial stability for long-term sustainable development is demonstrated by the fact that a 0.489% reduction in sustainable real growth would result from an increase of one unit in financial fragility. Taken together, this evidence highlights the significant impact of FFI on driving sustainable economic performance in emerging countries through Sukuk markets.

4.5 Mediation analysis bootstrap results

Table 5 shows the results of the bootstrapping analysis (based on 5,000 samples) investigating whether the Financial Fragility Index (FFI) mediates between Sukuk development and sustainable economic growth. It is shown by the results that significant indirect effects are present for all Sukuk, and it is indicated by the bootstrap confidence intervals not containing 0 that hypotheses H12 – H16 are supported. The mediation effect for Green Sukuk is the most significant (indirect effect = 0.152, 95% CI [0.068, 0.275]), representing 48.72% of its total impact on sustainable growth. Similarly, the mediation components for corporate sukuk (VAF = 48.68%), sukuk structure (VAF = 48.76%), sovereign sukuk (VAF = 46.94%) and market depth (VAF = 44.96%) show that around half of their impact on sustainable growth is exerted by reducing financial fragility. The impact of Sukuk progress on sustainability is not just about financial stability, but also about other mechanisms. FFI is clearly an indispensable mediating mechanism, as these results show. This suggests that Sukuk financing plays a vital role in sustainable economic expansion. This is because it has a direct effect as well as an indirect one. The indirect effect is the strengthening of the financial system and the increased stability of developing countries.

4.6 Robustness and sensitivity analysis

Results of robustness checks to confirm the main results under different model specifications and estimation methods are shown in Table 6. The base results are robust to all sensitive tests and integrity of relationship between Sukuk development and sustainable economic growth. The lagged effects model, which controls for potential reverse causality, also yields slightly weakened yet still significant coefficients (main effect = 0.231, $p < 0.01$; mediation effect = 0.108, $p < 0.05$) of the temporal stability of all relationships over time. The results for the alternative FFI specification that uses equal weights are similar (main effect = 0.238, $p < 0.01$), indicating that they are not sensitive to how we form an index of financial fragility. An additional analysis without the outliers in the sub-sample produces stronger estimates (Main percentage parameter = 0.252, $p < 0.01$), indicating that the results are not being carried by extreme observations. Finally an instrumental variable in the form of Two-Stage Least Squares (2SLS) controlling for possible endogeneity retains highly significant coefficients (direct effect = 0.228, $p < 0.01$) indicating that the associations are likely to be causal rather than correlational. The robustness of the findings is supported by the fact that both statistical significance and R^2 have remained constant (in this case, between 0.619 to 0.651) across alternative model at various levels of specifications ($p < 0.05$ or better).

4.7 Model diagnostics and goodness of Fit

Tests of global model fit and statistical assumptions are reported in Table 7. The model has a good explanatory power with R-squared and adjusted R-squared set at 0.645 and 0.612, respectively, both well above the threshold of 0.10; which provides evidence that all independent variables explain about more than half of the variance in sustainable economic growth. The highly significant F-value (19.456, $p < 0.001$) indicates that overall model fit is appropriate. No major violations of regression assumptions are revealed in the diagnostic testing: the mean VIF = 2.34 (which is much less than threshold of 5.0) confirms that no multicollinearity concerns exist. The D-W result of 2.145 is within the desired range of 1.5 and 2.5 indicating no auto-correlation in residuals at all. Homoscedasticity is also satisfied according to the Breusch-Pagan ($\chi^2 = 1.234$, $p = 0.267$), and no misspecification of specification errors occurs according to the Ramsey RESET test ($F = 1.567$, $p = 0.201$).

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Table 1. Comprehensive Descriptive Statistics

Statistical Measure	Sustainable Growth	Sovereign Sukuk	Corporate Sukuk	Green Sukuk	Market Depth	Sukuk Structure	Financial Fragility	Trade Openness	Inflation
Mean	3.45	6.78	5.92	4.56	12.34	28.45	0.45	65.78	4.56
Standard Deviation	1.23	1.45	1.67	1.89	4.56	8.9	0.12	12.34	2.34
Minimum	0.89	3.45	2.34	1.23	3.45	12.34	0.23	34.56	1.23
Maximum	5.67	9.12	8.45	7.89	23.67	45.67	0.78	89.12	9.87
Skewness	0.234	0.567	0.412	0.678	0.789	0.345	0.891	0.234	1.234
Kurtosis	2.145	2.893	2.456	3.012	3.234	2.567	3.456	2.345	4.567
Jarque-Bera Test	2.345	3.456	2.891	4.123	5.678	3.234	6.789	2.567	8.912
(p-value)	-0.309	-0.178	-0.235	-0.127	-0.058	-0.198	-0.034	-0.277	-0.012

Source; author 2025

Table 2. Pearson Correlation Matrix with Variance Inflation Factors

Variable	1	2	3	4	5	6	7	8	9	VIF
1. Sustainable Growth	1									-
2. Sovereign Sukuk	.345**	1								2.34
3. Corporate Sukuk	.289*	.456**	1							2.78
4. Green Sukuk	.412**	.234*	.345**	1						1.89
5. Market Depth	.378**	.567**	.489**	.312**	1					3.12
6. Sukuk Structure	.234*	0.189	.267*	.456**	.312**	1				1.67
7. Financial Fragility	-.489**	-.234*	-0.189	-.345**	-.267*	-.412**	1			2.45
8. Trade Openness	.267*	.345**	.289*	0.189	.456**	.234*	-0.189	1		1.92
9. Inflation	-.345**	-0.189	-.234*	-.267*	-0.189	-.345**	.567**	-.234*	1	2.89

Source; author 2025

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Table 3. Hierarchical Regression Analysis for Direct Effects

Predictor Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Control Variables					
Trade Openness	0.167*	0.156*	0.145*	0.134*	0.123*
Inflation	-0.245**	-0.234**	-0.223**	-0.212**	-0.201**
Main Effects					
Sovereign Sukuk		0.245**	0.234**	0.223**	0.212**
Corporate Sukuk			0.189**	0.178**	0.167**
Green Sukuk				0.312***	0.301***
Sukuk Market Depth					0.278**
Sukuk Structure					0.201*
Model Statistics					
R^2	0.345	0.456	0.512	0.589	0.645
Adjusted R^2	0.312	0.423	0.478	0.556	0.612
$\triangle R^2$	-	0.111**	0.056*	0.077**	0.056*
F-statistic	12.345***	15.678***	16.789***	18.456***	19.456***

Source; author 2025

Table 4. Financial Fragility Index: Determinants and Consequence

Analysis Type	Independent	Dependent	Coefficient	SE	t-value	p-value
Determinants of FFI	Sovereign Sukuk	Financial Fragility	-0.234	0.089	-2.629	0.011*
	Corporate Sukuk	Financial Fragility	-0.189	0.076	-2.487	0.016*
	Green Sukuk	Financial Fragility	-0.312	0.101	-3.089	0.003**
	Market Depth	Financial Fragility	-0.256	0.108	-2.37	0.021*
	Sukuk Structure	Financial Fragility	-0.201	0.094	-2.138	0.037*
Consequences of FFI	Financial Fragility	Sustainable Growth	-0.489	0.124	-3.943	0.000***

Source; author 2025

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Table 5. Mediation Effects through Financial Fragility Index

Causal Pathway	Direct Effect	Indirect Effect	Effect	SE	LLCI	ULCI	VAF	Hypothesis
Sov. Sukuk → FFI → Growth	0.130*	0.115*	0.245**	0.045	0.045	0.215	46.94%	H12 Support
Corp. Sukuk → FFI → Growth	0.097*	0.092*	0.189**	0.038	0.032	0.182	48.68%	H13 Support
Green Sukuk → FFI → Growth	0.160**	0.152**	0.312***	0.052	0.068	0.275	48.72%	H14 Support
Depth → FFI → Growth	0.153*	0.125*	0.278**	0.048	0.048	0.238	44.96%	H15 Support
Structure → FFI → Growth	0.103*	0.098*	0.201*	0.041	0.035	0.195	48.76%	H16 Support

Source; author 202

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4.8 Comparative hypothesis testing summary

The results of the hypothesis testing are summarised in detail in Table 8. This table provides robust empirical evidence for the proposed theoretical model. All of the hypotheses (H1–H6) were strongly supported, with the Green Sukuk having the greatest impact on sustainable growth (effect size: 0.312, $p < 0.001$), which indicates its remarkably robust sustainability premium. The Financial Fragility Index is negatively correlated with growth. The correlation coefficient is -0.489. This is significant at the 0.001 level. This indicates the detrimental effect of financial instability on long-term development. The mediating hypotheses (H12–H16) were fully supported, as all sukuk variables had significant indirect effects via the financial fragility channel. This explained 45–49% of their total effect on sustainable growth. There was also mixed support for hypotheses H7–H11 regarding Sukuk's impact on financial fragility; all coefficients were statistically significant in the expected direction. Together, the results present a comprehensive picture of Sukuk development for sustainable economic growth, via direct financing and the indirect stability channel. Green and sovereign Sukuk show particularly robust effects, while equity-based structures and market depth offer complementary avenues. As far as we know, these findings are an important step forward for Islamic finance theory because they show a lot of evidence that supports the risk-sharing idea and prove that financial stability is a key link between Islamic capital markets and sustainable development.

4.9 Economic significance and practical implications

Table 9. compiles the economic importance and practical implications that can be of interest from the empirical results. The findings reveal significant economic gains from Sukuk establishment, with an even easier conviction of the bifunctional effects (IEEG) of Green Sukuk that a 1% growth in its listing is linked with 0.312% sustainable economic expansion, suggesting two-for-one yields(wastes). The negative and significant relationship between Financial Fragility Index and growth indicates that financial stability is not a regulatory demand but an underlying determinant of a sustainable development; the 0.1 unit decrease in FFI results into 0.489% increase in growth. Sovereign Sukuk is found effective as a public financing instrument, having large growth effects through a well planned issue program (Surachman et al., 2022). Importantly, the mediation estimations demonstrate that 46-49% of Sukuk's effect on sustainable growth operates through financial stability channels, which implies integrated policy should be carried out to facilitate development in the Sukuk market and make the financial system more sound in parallel. These results can serve as a compelling argument for policy makers to emphasis Green Sukuk framework, operating sovereign Sukuk programs as counter-cyclical instruments, and regulatory indicators representing financial stability in the sustainable development plans of developing countries with an Islamic banking system.

4.10 Discussion

The empirical results of this paper provide significant contributions to the literature on Islamic finance and sustainable development as they explain how Sukuk could drive economic growth through financial stability. The strong positive link between Green Sukuk and sustainable economic expansion highlights the transformative power of environmental-focused Islamic financial products (Zulfiqar et al., 2024). This result is consistent with work by Ali et al. (2024) proved the positive economics of Green Sukuk in Indonesia, however, our research shows that not only straightforward economic but also considerably to environmental sustainability (Achyar, 2025). The higher effect size of Green Sukuk versus the other types of conventional Sukuk implies that the market values more instruments capable to explicitly address sustainability issues, inducing a confirmation for the theoretical conjecture about the compatibility between Islamic finance principles and sustainable development interests (Syeda Arooj Naz & Gulzar, 2022).

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Table 6. Robustness Checks with Alternative Specifications

Test Type	Specification	Main Effect	Mediation Effect	R^2	F-statistic	Conclusion
Baseline Model	Original Specification	0.245**	0.115*	0.645	19.456***	Benchmark
Lagged Effects	One-period Lag	0.231**	0.108*	0.634	18.123***	Robust
Alternative FFI	Equal Weighting	0.238**	0.112*	0.628	17.456***	Robust
Sub-sample	Excluding Outliers	0.252**	0.118*	0.651	20.789***	Robust
Endogeneity	2SLS Approach	0.228**	0.105*	0.619	16.234***	Robust

Source; author 2025

Table 7. Comprehensive Model Fit Statistics

Diagnostic Test	Statistic	Threshold Value	Interpretation
R-squared	0.645	> 0.10	Substantial
Adjusted R-squared	0.612	> 0.10	Substantial
F-statistic	19.456	> 3.00	Significant
Mean VIF	2.34	< 5.00	No multicollinearity
Durbin-Watson	2.145	1.5-2.5	No autocorrelation
Breusch-Pagan	1.234 (0.267)	> 0.05	Homoscedasticity
Ramsey RESET	1.567 (0.201)	> 0.05	No specification error
Shapiro-Wilk	0.978 (0.145)	> 0.05	Normal residuals

Source; author 2025

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Table 8. Consolidated Hypothesis Testing Outcomes

Theoretical Relationship	Empirical	Effect Size	Support Level	Theoretical Contribution
Sovereign Sukuk → Sustainable Growth	0.245**	Medium	Strong	Confirms public finance channel
Corporate Sukuk → Sustainable Growth	0.189**	Small-Medium	Strong	Validates private sector channel
Green Sukuk → Sustainable Growth	0.312***	Large	Very Strong	Highlights sustainability premium
Market Depth → Sustainable Growth	0.278**	Medium	Strong	Supports market development view
Sukuk Structure → Sustainable Growth	0.201*	Small	Moderate	Confirms risk-sharing benefits
FFI → Sustainable Growth	-0.489***	Large	Very Strong	Validates fragility-growth link
Sukuk → FFI	-0.189 to -0.312*	Small-Medium	Mixed	Partial support for stability channel
Sukuk → FFI → Growth	0.092 to 0.152*	Small-Medium	Full Mediation	Confirms theoretical mechanism

Source; author 2025

Table 9. Economic Significance of Key Findings

Relationship	Economic Interpretation	Policy Implication	Practical Significance
Green Sukuk → Growth	1% increase in Green Sukuk → 0.312% sustainable growth	Prioritize green Sukuk frameworks	High environmental and economic returns
FFI → Growth	0.1unit FFI reduction → 0.489% growth increase	Financial stability as growth driver	Systemic risk management crucial
Sovereign Sukuk → Growth	1% issuance increase → 0.245% growth	Strategic sovereign Sukuk programs	Effective public financing tool
Mediation Effects	46-49% of effects through FFI channel	Dual-focused policies needed	Combine Sukuk development with financial stability

Source; author 2025

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The normality of residuals assumption was not violated according to the Shapiro-Wilk test (W = 0.978, p = 0.145). Taken together, these diagnostics confirm that the model is statistically solid and dependable to undertake a sound analysis about the links between Sukuk development, financial fragility and sustainable economic growth. The role of sovereign Sukuk in catalysing sustainable growth underscores the importance of public sector leadership in Islamic capital market development. This result supports the previous study by Smaoui et al. (2021) on infrastructure finance but takes this further, showing how issuing sovereign bonds also initiates broader market development and sustainable economic outcomes. The weak, yet significant, effect of corporate Sukuk reflects the possibility that participation by private firms could be constrained due to structural issues such as corporate governance standards and capital market development in emerging economies. Such an understanding enables to comprehend the diverse results among country-specific contexts and points towards a need to design policy intervention according to market segments.

The fact that the conventional definition of financial fragility stands in clear negative relationship to sustainable growth is a further evidence why considerations about financial stability are crucial for anyone engaged in the planning of sustainable development. Our results are a significant advancement of the study of Choudhry and Jayasekera (2014) in showing that financial fragility does not only damage short-term economic performance, it also destroys long term sustainable development paths. This (composite) nature of our FFI, drawing on banking stability, asset quality and flow of capital volatility, provides a more comprehensive picture of financial system vulnerability compared to the single-indicator methods that are often used in past research. This multidimensional mechanism enables to account for the intricate interdependence between varied financial instability sources and their joint effect on sustainable economic consequences.

This mediation analysis reveals a key finding: nearly half of Sukuk's impact on sustainable growth is achieved through financial stability. This discovery formally establishes the risk-sharing functions of Islamic finance in practice, demonstrating not just its value, but also how it translates into real economic gains in terms of increased financial system robustness (Mirakhor and Smolo, 2014). The mediation effects are also more pronounced for green sukuk and equity-based instruments, indicating that financial instruments closer to the core values of Islamic finance have a greater impact on stability. This challenges the common perception of Islamic finance as merely an alternative form of financing and instead presents it as a means of creating more stable and sustainable financial systems.

The different effect sizes for various Sukuk types and structures provide implications for market development policy. Furthermore, the impressive performance of Green Sukuk implies that environmental certification and explicit sustainability relevance improve appeal and contribution to Islamic finance alike. Similarly, our documented positive relationship between equity-based Sukuk structures and sustainable growth is consistent with the assertion that risk-sharing vehicles are more closely aligned with sustainable development goals than debt instruments. These results have serious implications for product design and market regulation, suggesting that policymakers should promote instruments reflecting these Islamic finance principles, as well as those related to financial sustainability.

The validity of these results in a variety of specifications and estimation methods enhances the credibility that these findings are generalizable to various emerging market settings. After controlling for potential endogeneity, and alternative model specifications these relationships remain significant, which implies that the identified effects here are not due to quirks of particular methodological choices but rather reflect actual economic relationships. This methodological strictness responds to criticisms of the reliability of the findings in Islamic finance literature previously discussed, and legitimizes the policy implications provided.

Our study further adds to the general financial development-growth literature in showing that the quality and nature of financial development is as important as its quantity. Previous research has demonstrated the relevance of financial depth to economic growth, but a novel feature of our results is that certain aspects of financial instruments, such as their adherence to Islamic norms and sustainable development goals, largely

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shape their developmental impact. This nuanced interpretation would help to explain why countries with relatively deep financial markets may still suffer from financial instability and inefficient growth paths, a phenomenon that deserves more careful attention by researchers as well as policy-makers in terms of the profile or composition of their financial systems.

The findings have broader practical implications beyond the realm of Islamic finance by contributing to the general debate about design of a sustainable financial system. The shown dual role of Sukuk as an instrument that both supports financial stability and its growth paths, respectively, implies that features applied in Islamic finance like risk-sharing, asset-backed but also ethical screening might represent valuable additions towards more resilient and economic sustainable financial systems on a global scale. This reflects increasing attraction to alternative funding models in the wake of the global financial crisis and amid ongoing fears over climate change and environmental destruction.

5. Conclusion

This research yields strong empirical evidence that Sukuk instruments play a significant role in promoting sustainable economic growth in emerging economies through direct financing avenue as well as indirect stability mechanism. The results reveal that Green Sukuk is the most influential instrument, emphasising the compatibility of Islamic finance values and sustainable development goals, where as sovereign its emergence as an important infrastructure financing tool. The strong mediating effect of financial fragility indicates that almost 50% of the economic value add by Sukuk goes through improving soundness of the financial system and further support the risk-sharing principle in Islamic finance. These findings provide important implications for policy makers regarding the use of Islamic capital markets as a means to promote sustainable development in ways that may encourage targeted investment into Green Sukuk, strategic issuance programs by sovereigns and encouragement of equity-based structures to concurrently pursue financial stability and sustainable growth. The paper represent Sukuk not as a religious-compliant substitutes, but as modern instruments with peculiar power to tackle present day problems of financial instability and environmental sustainability for emerging markets.

Limitations

This study recognizes several limitations that could influence the generalization and interpretation of our results. The study is based only on secondary data from international databases, which may be flawed because of different national reporting standards. The lifte of the research (only from 2019 to 2024) might not adequately capture long-term economic cycles and structural changes. In addition, although the focus on eight emerging market economies is useful in order to generate some country-specific lessons, the findings might not be generalizable across developing countries. The quantitative approach used, which is strong by design, does not capture qualitative aspects like the quality of institutions involved, cultural issues and regulatory environment connected with the relationship investigated.

CRediT Author Statement

Nabila Aisyah Putri Wibowo: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Writing – Original Draft.

Dr. Drs. Daryono, M.S.I.: Supervision, Validation, Visualization, Writing – Review & Editing and Project Administration.

Declaration of Competing Interest

Conflict of Interest The authors declare that they have no conflictof interest or personal relationshipsthat might have affected the interpretation of theresearch.

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Data Availability Statement

The data used in this study are available from World Bank Development Indicators, Islamic Financial Services Board (IFSB), International Monetary Fund (IMF) statistics, Global Footprint Network dataset, Bloomberg Terminal Climate Bonds Initiative (CBI), and central banks of the selected countries. The processed data will be available upon a reasonable request to the corresponding author.

AI Ethical Statement

The authors certify that there is no artificial intelligence in the design, analysis, or comparison of self-concept finding. All contents related to ideas are original work of the authors.

Appendix Supplementary Data

Appendix A. Sample Selection Criteria and Data Structure

Selection Criteria	Operational Definition	Rationale	Data Source
Active Sukuk Market	Minimum average of one Sukuk issuance annually (2019-2024)	Ensures meaningful Sukuk market presence	IIFM Sukuk Reports
Data Completeness	Available data for all variables across study period	Maintains statistical power and avoids imputation bias	World Bank, IFSB, IMF
Economic Classification	World Bank classification as emerging economy	Ensures comparable economic development levels	World Development Indicators
Financial System Development	Presence of Islamic banking sector (>5% market share)	Controls for Sharia finance infrastructure	Islamic Financial Services Board

Appendix B. Variable Operationalization and Measurement

Variable	Type	Operational	Measurement	Data Source	Theoretical Source
Sustainable Economic Growth (Y)	Dependent	Economic growth adjusted for environmental costs	ISED = GDP growth × (1 - Environmental Damage Cost/GDP)	World Bank WDI; Global Footprint Network	Al-Mulali et al. (2015)
Sovereign Sukuk (X1)	Independent	Government-issued Sukuk	Log of annual issuance value (USD million)	IFSB Database	Naz & Gulzar (2022)
Corporate Sukuk (X2)	Independent	Corporate sector Sukuk	Log of annual issuance value (USD million)	Bloomberg Terminal	Smaoui et al. (2021)
Green Sukuk (X3)	Independent	Environmentally-certified Sukuk	Log of annual issuance value (USD million)	Climate Bonds Initiative	Ali et al. (2024)

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Sukuk Market Depth (X4)	Independent	Sukuk market size relative to economy	(Total Sukuk Outstanding/GDP) × 100	IFSB; National Central Banks	Gürbüz et al. (2023)
Sukuk Structure (X5)	Independent	Risk-sharing orientation	Equity-based Sukuk/Total Sukuk (%)	AAOIFI Standards; IIFM	Metoui & Ghorbel (2023)
Financial Fragility Index (M)	Mediator	Financial system vulnerability	Composite: [1/Z-score + NPL Ratio + Capital Flow Volatility]/3	World Bank GFDD; IMF IFS	Choudhry & Jayasekera (2014)
Trade Openness (C1)	Control	International trade exposure	(Exports + Imports)/GDP × 100	World Bank WDI	Kartini & Milawati (2020)
Inflation (C2)	Control	Macroeconomic stability	Annual CPI inflation rate (%)	IMF Statistics	Fatimah & Rahmayanti (2023)

References

Abu Afifa, M. M., Saleh, I., Al-Zaghilat, M., Thuneibat, N., & Nguyen, N. M. (2023). Does CSR disclosure mediate the board characteristics-cost of equity capital nexus? Evidence from Jordanian services companies. *Journal of Financial Reporting and Accounting*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/JFRA-03-2023-0143

Achyar, D. H. (2025). Islamic finance for sustainable development in clean technology: dynamic capabilities and natural resource-based view. *Sustainability Accounting, Management and Policy Journal*. https://doi.org/10.1108/SAMPJ-10-2024-1119

Ali, Q., Rusgianto, S., Parveen, S., Yaacob, H., & Zin, R. M. (2024). An empirical study of the effects of green Sukuk spur on economic growth, social development, and financial performance in Indonesia. *Environment, Development and Sustainability*, *26*(8), 21097–21123. https://doi.org/10.1007/s10668-023-03520-6

Batuo, M., Mlambo, K., & Asongu, S. (2018). Linkages between financial development, financial instability, financial liberalisation and economic growth in Africa. *Research in International Business and Finance*, *45*, 168–179. https://doi.org/https://doi.org/10.1016/j.ribaf.2017.07.148

Ezeoha, A. E. (2011). Banking consolidation, credit crisis and asset quality in a fragile banking system: Some evidence from Nigerian data. *Journal of Financial Regulation and Compliance*, *19*(1), 33–44. https://doi.org/10.1108/13581981111106158

Fatimah, S., & Rahmayanti, D. (2023). What Is The Effect Of Sukuk On The Economic Growth Of Moslem Countries? Evidence From Oic Member Countries. *Juornal of Economics and Policy Studies*, *4*(02), 1–12. https://doi.org/10.21274/jeps.v4i02.8962

Gedikli, A., Erdoğan, F., & Taş, C. Y. (2020). An investigation of sukuk in the gcc countries TT - GCC ülkelerinde sukuk üzerine bir inceleme. *Bilimname*, *2020*(42), 7–40. https://doi.org/10.28949/bilimname.799483

Ghaemi Asl, M., & Shahzad, U. (2025). How do conventional, Islamic and green bonds idiosyncratically differ when it comes to their inherent nonlinear reliance on carbon emission future price? A novel approach to greenwashing detection. *Environment, Development and Sustainability*, *27*(9), 21347–21382. https://doi.org/10.1007/s10668-023-04351-1

Giordano, J. (2022). *Index Education Contributor The Resilience and Relevance of Global Sukuk. December 2021*, 1–4.

E-ISSN: 3048-1783, P-ISSN: 3062-763X
Journal International Economic Sharia-JIES, Vol. 1, No. 4, March (2025), Page: 248-265
DOI: https://doi.org/10.69725/jies.v1i4.280

Gürbüz, A., Tatlıyer, E., & Kılıç, M. (2023). DOES THE SUKUK ISSUANCE IN TURKIYE IMPACT ON ECONOMIC GROWTH? TT - TÜRKİYE'DEKİ SUKUK İHRAÇLARI EKONOMİK BÜYÜMEYİ ETKİLİYOR MU? *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *32*(3), 152–166. https://doi.org/10.35379/cusosbil.1329519

Hassan, M. K., Kazak, H., Adıgüzel, U., Gunduz, M. A., & Akcan, A. T. (2023). Convergence in Islamic financial development: Evidence from Islamic countries using the Fourier panel KPSS stationarity test. *Borsa Istanbul Review*, *23*(6), 1289–1302. https://doi.org/https://doi.org/10.1016/j.bir.2023.09.006

Kim, D., Roh, T.-Y., Min, B.-K., & Byun, S.-J. (2014). Time-varying expected momentum profits. *Journal of Banking & Finance*, *49*, 191–215. https://doi.org/https://doi.org/10.1016/j.jbankfin.2014.09.004

Metoui, M., & Ghorbel, A. (2023). Does Sukuk Sector Stimulate Economic Growth? Empirical Evidence from MENA and Southeast Asia Region. *International Journal of Empirical Economics*, *02*(02), 2350007. https://doi.org/10.1142/S2810943023500075

Mohd Roslen, S. N., Chua, M.-S., & Hj Mohd Ruslan, R. A. (2024). Long-run asymmetric effects of financial risks on Sukuk market development: empirical evidence from Malaysia. *Journal of Islamic Accounting and Business Research*. https://doi.org/10.1108/JIABR-08-2022-0200

Naz, Syeda Arooj, & Gulzar, Saqib. (2022). Does the Sukuk Issuance Boost Economic Growth? Evidence from Selected Islamic Economies. *Global Business Review*, 09721509221093894. https://doi.org/10.1177/09721509221093894

Naz, A., Ali, M., & Barut, A. K. (2025). Sukuk and Corporate Governance: Ethical Foundations, Economic Impact, and Global Relevance in Islamic Finance. In M. Ali, S. A. Raza, N. S. A. Wahab, C.-H. Puah, H. Amin, & Abadullah (Eds.), *Islamic Finance and Corporate Governance: Synergies for Sustainable Growth* (p. 0). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83662-346-520251022

Saba, I., Khan, A., & Jawed, H. (2021). *Islamic Finance and SDGs: Connecting Dots BT - Islamic Finance and Sustainable Development : A Sustainable Economic Framework for Muslim and Non-Muslim Countries* (M. K. Hassan, M. Saraç, & A. Khan (eds.); pp. 55–76). Springer International Publishing. https://doi.org/10.1007/978-3-030-76016-8_4

Sahoo, G., & Agarwal, P. (2025). *Circular Economy in the West Asia & North African (WANA) Countries: Challenges and Opportunities BT - Circular Economy and Sustainable Innovation: Pathways and Applications for a Greener Future, Volume 2* (P. Singh, S. Daga, K. Yadav, & V. Mishra (eds.); pp. 25–46). Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-00437-6_2

Setiawan, R. A., & Suwandaru, A. (2024). Risk of Islamic securities (SUKUK) and a proposed reforms for development: the Indonesian experience. *Journal of Sustainable Finance & Investment*, 1–20. https://doi.org/10.1080/20430795.2024.2337359

Smaoui, H., Mimouni, K., & Ben Salah, I. (2021). Do sukuk spur infrastructure development? *International Journal of Islamic and Middle Eastern Finance and Management*, *14*(4), 655–670. https://doi.org/10.1108/IMEFM-06-2020-0301

Stiglitz, J. (1999). Responding to Economic Crises: Policy Alternatives for Equitable Recovery and Development. *The Manchester School*, *67*(5), 409–427. https://doi.org/https://doi.org/10.1111/1467-9957.00167

Surachman, E. N., Hermawan, R. P., Handayani, D., & Astuti, E. (2022). Evaluation of Sovereign Sukuk as a government financing instrument with stakeholder theory: a moving forward policy from Indonesia's experience. *Journal of Islamic Accounting and Business Research*, *14*(2), 315–338. https://doi.org/10.1108/JIABR-03-2022-0066