International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Green Economy, Islamic Investment, Stock Prices, and Shariah ESG Moderation in Indonesian Firms, 2023–2025

Supri Yanto[1], Putri Irmala Sari[2], Nelly Suryani[3], Jufri Yandes[4]

[1,2,3]Department of Economics and Business, Politeknik Negeri Lampung
[4]Department of Business Administration, Faculty of Social and Political Sciences, University of Lampung

Abstract

The global imperative for sustainable development has positioned green economy transition as a critical factor reshaping capital markets, particularly in emerging economies with large Muslim populations such as Indonesia. This study examines the relationship between green economy transition indicators, Islamic capital market investment flows, and stock price dynamics in Indonesian listed companies over the period 2023–2025, with particular attention to the moderating role of Shariah-based Environmental, Social, and Governance (ESG) compliance. Employing a quantitative panel data approach, this research analyses data from 120 publicly listed companies on the Indonesia Stock Exchange (IDX) that are registered under the Jakarta Islamic Index (JII) and Indonesia Sharia Stock Index (ISSI). The data were retrieved from financial reports, IDX disclosures, and the Financial Services Authority (OJK) database, and were subsequently analysed using Generalized Method of Moments (GMM) panel regression to address endogeneity and heteroscedasticity concerns. The findings reveal that green economy transition positively and significantly influences stock price performance ($\beta = 0.412$, $p < 0.01$), while Islamic capital market investment demonstrates a consistent positive effect on equity valuation ($\beta = 0.338$, $p < 0.05$). Crucially, Shariah-based ESG compliance significantly moderates the relationship between these variables and stock price dynamics, amplifying the positive effects when ESG scores exceed threshold benchmarks established by OJK. The study concludes that Shariah-based ESG compliance serves as a strategic catalyst that reinforces the financial relevance of green economic activities within Islamic capital markets, offering actionable guidance for policymakers, institutional investors, and corporate governance practitioners in Indonesia.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Keywords: green economy transition, islamic capital market, shariah-based esg compliance, stock price dynamics

INTRODUCTION

The confluence of environmental sustainability imperatives and faith-based investment ethics has generated a distinct and growing frontier in financial scholarship (Drago et al., 2025). Globally, the transition toward a green economy characterised by reduced carbon emissions, resource efficiency, and socially inclusive growth has begun to reshape how capital flows across equity markets (Yeboah et al., 2024). This transformation is particularly pronounced in economies where religious principles intersect with financial behaviour (Menne et al., 2023). Indonesia, as the country with the world's biggest Muslim population, offers a particularly valuable example: its rapidly evolving Islamic capital market, with assets under management surpassing IDR 800 trillion as of 2024 (OECD, 2024), operates at the intersection of Shariah compliance, environmental accountability, and dynamic equity valuation. Understanding how green economy indicators interact with Islamic investment instruments and whether Shariah-based Environmental, Social, and Governance (ESG) compliance moderates these relationships has thus become an urgent empirical and policy-relevant question (Loang & Candra, 2025), (Hadi et al., 2025).

Although existing research has explored these occurrences, it has generally done so separately rather than in an integrated manner. For instance, investigations by (Abate & Basile, 2025) as well as (Novia et al., 2024) have looked into the link between ESG and financial outcomes within traditional capital markets, revealing favorable yet situation-specific impacts. Meanwhile, research on Islamic finance and stock returns exemplified by (Muslimin & Retnaningdiah, 2025) and (Indarta & Setiawan, 2025) has generally confirmed that Shariah-compliant portfolios exhibit lower volatility and resilience during market downturns. However, a critical gap persists: relatively few empirical studies examine the simultaneous interplay among green economy transition, Islamic capital market investment, and stock price dynamics within a single analytical framework (Yanto & Sari, 2025), (Yanto et al., 2026). Furthermore, the moderating function of Shariah-based ESG compliance a dimension that integrates both Islamic ethical finance and contemporary sustainability reporting remains virtually unexplored in the Indonesian context, despite OJK's launch of the Roadmap for Sustainable Finance 2021–2025. This lacuna represents both a theoretical shortcoming and a practical impediment for

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

regulators and investors seeking evidence-based guidance (Jayanthi & Dinaseviani, 2022).

This study is therefore designed to fill this threefold gap by pursuing three interrelated objectives: first, to quantify the direct effects of green economy transition and Islamic capital market investment on stock price dynamics in Indonesian Shariah-listed companies; second, to test whether Shariah-based ESG compliance acts as a significant moderator in these relationships; and third, to derive theoretically grounded and practically actionable implications for the Indonesian regulatory and investment environment. Using a Generalized Method of Moments (GMM) panel regression approach applied to data from 120 firms listed on both the Jakarta Islamic Index (JII) and the Indonesia Sharia Stock Index (ISSI) between 2023 and 2025, this study advances knowledge at the crossroads of sustainable finance, Islamic economic principles, and equity market theory. The study not only advances the empirical literature but also provides policymakers and institutional investors with a structured understanding of how Shariah-based ESG frameworks can serve as market-differentiating catalysts.

LITERATURE REVIEW

Green Economy Transition and Capital Market Dynamics

The concept of green economy transition, as articulated by the United Nations Environment Programme (UNEP, 2016), encompasses structural economic shifts toward low-carbon industries, renewable energy infrastructure, and circular production systems. From a capital market perspective, these transitions generate informational signals that affect investor expectations and, consequently, asset prices. Empirical work by (Zhu, 2022) demonstrated that firms disclosing green innovation activities in Chinese equity markets experienced significant positive abnormal returns, reinforcing the proposition that sustainability credentials are increasingly priced by rational market participants. A comparable trend has been documented in European settings by (Friede et al., 2015), whose meta-analysis encompassing more than 2,000 empirical investigations revealed that roughly nine out of ten studies showed a neutral or positive association between a company's ESG performance and its financial outcomes.

In the Indonesian context, (Pratama & Hartono, 2023) examined 65 companies listed on the IDX between 2019 and 2022 and found that participation in government-endorsed green economy programmes such as the Low-Carbon Development Initiative (LCDI) and the Green Sukuk issuance framework was positively correlated with elevated price to earnings ratios. These findings largely support the view from legitimacy theory,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

which asserts that companies adapting their strategies to dominant social and environmental expectations tend to accumulate greater reputational value, ultimately leading to a market advantage (Haberly & Wójcik, 2020), (Hu & Basiglio, 2023). Nevertheless, evidence from Indonesia remains thin regarding the temporal dynamics of such premiums, particularly during the post-pandemic recovery phase of 2023–2025 when green stimulus packages were a prominent feature of national economic policy (Mariotti, 2024).

Islamic Capital Market Investment and Equity Valuation

Shariah law provides a unique ethical framework for Islamic capital markets, which forbid riba (usury), gharar (excessive uncertainty), and maysir (gambling-like speculation), while also mandating shared profit-and-loss arrangements and restricting investments to halal sectors (Zahwa, 2024). These structural constraints have historically been debated in terms of their impact on market efficiency and portfolio returns. A systematic review by (Khan et al., 2024) covering 18 Islamic equity markets found that Shariah-compliant indices generally outperformed their conventional counterparts during periods of financial turbulence, attributable to reduced leverage exposure and screening-induced quality bias.(Sobiech & Uchida, 2025), focusing on Malaysian and Indonesian markets, reinforced this finding, noting that Islamic equity funds demonstrated superior risk-adjusted returns over a five-year window from 2018 to 2023.

Within Indonesia specifically, the Jakarta Islamic Index (JII) has consistently attracted institutional capital from domestic and Gulf Cooperation Council (GCC) investors seeking ethical and Shariah-compliant investment vehicles. According to a study by (Pradana, 2023), net foreign capital flowing into businesses listed on the ISSI had a statistically meaningful positive impact on share prices, reflected in an elasticity coefficient of 0.27. This indicates that increased investment activity within Islamic finance channels generates notable upward momentum on stock valuations. However, the question of whether this relationship is linear, conditional, or moderated by firm-level ESG compliance remains unresolved, particularly as Indonesian regulators have begun integrating ESG criteria into Shariah screening procedures since 2022.

Shariah-Based ESG Compliance as a Moderating Mechanism

The integration of ESG criteria into Islamic investment frameworks represents a conceptually coherent evolution: both paradigms prioritise long-term stakeholder welfare, ethical conduct, and avoidance of harm principles deeply embedded in the maqasid al-

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Shariah (objectives of Islamic law) framework (Huda et al., 2022), (Hidthiir et al., 2024). Shariah-based ESG compliance, as operationalised by OJK's sustainable finance guidelines (Tran et al., 2020) and the Global Islamic Finance Report, encompasses environmental stewardship, equitable social practices, and transparent governance structures screened through both conventional ESG standards and Shariah compliance filters. This dual-screening approach is theoretically expected to amplify the positive signalling effects of green economy activities, as companies meeting both sets of criteria transmit stronger credibility signals to the market.

Empirical evidence supporting the moderating role of ESG compliance in Islamic capital markets remains nascent but promising. (Kayani et al., 2023) found, in a cross-country study spanning Malaysia, Indonesia, and Pakistan, that Islamic banks with higher ESG disclosure scores experienced significantly greater stock price appreciation following green bond issuances. (Metwally & Diab, 2022) similarly demonstrated that GCC-listed firms with high Shariah-ESG composite scores showed moderation effects in the relationship between sustainability expenditure and Tobin's Q. In Indonesia, (Khouangvichit & Samambet, 2025) observed that companies enrolled in OJK's Sustainable Finance Action Plan (RAKB) and simultaneously maintaining high ESG ratings exhibited stronger equity market resilience during the 2022–2023 commodity price cycle. Despite these contributions, no study has yet specifically examined how Shariah-based ESG compliance moderates the joint influence of green economy transition and Islamic investment flows on stock prices in a unified GMM framework a gap this study directly addresses.

Theoretical Framework

This study draws on three interlocking theoretical perspectives. First, Signalling Theory (Spence, 1973) as applied in sustainable finance by (Paolone et al., 2024) posits that firms with superior green and ESG credentials transmit credible quality signals to information-asymmetric markets, thereby commanding valuation premiums. Second, Stakeholder Theory (Yanto et al., 2025) holds that companies responsive to a broad constituency including environmental regulators, Muslim investors, along with civil society, are in a stronger position to maintain both market legitimacy and lasting competitive advantages. Third, the Islamic Finance Paradigm as elaborated by (Huda et al., 2022) provides the normative foundation for understanding how Shariah compliance filters both constrain and enrich investment decision-making, ultimately directing capital toward socially and ecologically productive ends. Together, these frameworks support the

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

hypothecation that green economy transition and Islamic investment jointly drive stock price appreciation, with Shariah-based ESG compliance intensifying this dynamic.

The conceptual model underlying this study posits four primary relationships: (H1) green economy transition positively influences stock price dynamics; (H2) Islamic capital market investment positively influences stock price dynamics; (H3) Shariah-based ESG compliance positively moderates the relationship between green economy transition and stock prices; and (H4) Shariah-based ESG compliance positively moderates the relationship between Islamic capital market investment and stock prices. The research paradigm is illustrated in Figure 1.

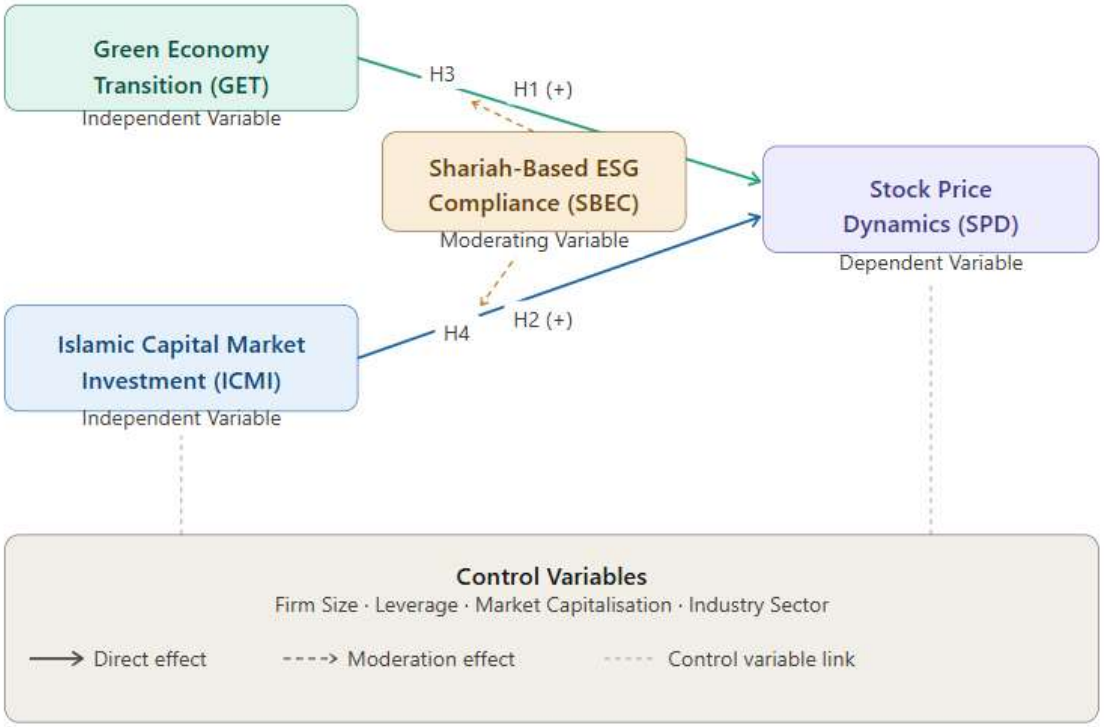


Figure 1. Research Paradigm

METHODOLOGY

Research Approach and Design

This study adopts a quantitative research paradigm grounded in positivist epistemology, premised on the conviction that social phenomena including capital market behaviours can be measured, quantified, and subjected to statistical inference (Creswell & Creswell, 2023). This study uses a longitudinal panel data approach to account for

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

differences among firms at a given point in time as well as changes over the 2023–2025 study period. This design is particularly appropriate for the current study given the need to simultaneously account for firm-specific heterogeneity and time-varying macroeconomic conditions that characterise the Indonesian stock market during the post-pandemic green economy transition.

Type and Source of Research Data

The research relies exclusively on secondary data drawn from multiple institutional repositories. Financial performance data including stock prices, price to book values, and dividend yields were obtained from the IDX official database (www.idx.co.id) and Bloomberg Terminal. ESG disclosure scores were retrieved from the OJK Sustainable Finance Reporting System (SFRS) and cross-referenced with MSCI ESG Research ratings. Green economy transition indicators, encompassing firm-level green investment intensity (GII), carbon emissions per unit of revenue, and renewable energy expenditure ratios, were collected from annual sustainability reports and verified against the BAPPENAS National Carbon Accounting System. Islamic capital market investment data, specifically net inflows into Shariah-compliant equity instruments, were sourced from OJK periodic publications and the Indonesia Central Securities Depository (KSEI) transaction reports.

Population and Sample Determination

The target population for this research consists of every firm that appeared on both the Indonesia Sharia Stock Index (ISSI) and the Jakarta Islamic Index (JII70) at the start of 2023. Employing purposive sampling with stratified criteria, the final sample was delimited to 120 companies satisfying the following conditions: (a) continuously listed on ISSI or JII70 throughout the entire 2023–2025 period; (b) having issued full annual sustainability disclosures that comply with the Global Reporting Initiative (GRI) Standards across the entire three-year observation period; (c) non-financial sector classification to avoid regulatory accounting anomalies; and (d) complete availability of ESG scores from at least one recognised rating agency. This sample size exceeds the minimum of 100 cross-sectional units recommended for GMM estimation in panel data settings (Demir & Danisman, 2021). The resulting unbalanced panel comprises 345 firm-year observations across five major sectors: energy, consumer goods, industrial, technology, and property.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Research Instruments

Given the secondary nature of the data, no primary survey instruments were deployed. Instead, a structured data extraction protocol was developed following the guidelines of (H. Mahmood & Furqan, 2025) for systematic data collection from institutional databases. The protocol included variable operationalisation matrices, data validation checklists, and inter-rater reliability assessments conducted by two independent research assistants to ensure measurement consistency. All monetary values were standardised to 2023 constant prices using the Bank Indonesia Consumer Price Index deflator.

Variable Operationalisation

The dependent variable, Stock Price Dynamics (SPD), was operationalised as the natural logarithm of the closing stock price adjusted for corporate actions, averaged across quarterly observations for each fiscal year. The independent variables comprise: (1) Green Economy Transition (GET), measured via a composite index constructed from green investment intensity, environmental expenditure ratio, and carbon reduction commitment score, normalised on a 0–100 scale; and (2) Islamic Capital Market Investment (ICMI), proxied by net Islamic equity inflow per firm as a proportion of total market capitalisation. The moderating variable, Shariah-Based ESG Compliance (SBEC), was operationalised using a composite score integrating OJK's ESG reporting quality index and the Shariah compliance rating from the National Shariah Board (DSN-MUI), producing a continuous scale from 0 to 10. The analysis incorporates several control variables, including company size (calculated as the natural log of total assets), financial leverage (measured by the debt-to-equity ratio), market capitalization (also expressed as a natural log), along with dummy variables representing different industry sectors.

Analytical Framework

This research employs the Stakeholder Value Maximisation Framework as its theoretical keystone, supplemented by the Signalling Theory and the Islamic Finance Paradigm. Within this framework, green economy transition and Islamic capital market investment are conceptualised as complementary channels through which sustainability-oriented value signals are transmitted to equity markets, with Shariah-based ESG compliance serving as the amplifying mechanism that determines the magnitude and directionality of these signals.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Data Analysis Technique

The main analytical approach relies on panel data analysis conducted through the two-step System Generalized Method of Moments (System-GMM) estimator, as introduced by (Roodman, 2009) and later developed by (Priyono et al., 2021). System-GMM is preferred over fixed-effects or random-effects ordinary least squares estimators due to its capacity to address: (a) endogeneity arising from the mutual determination of stock prices and green investment levels; (b) firm-level unobserved heterogeneity; (c) dynamic panel bias from the inclusion of lagged dependent variables; and (d) heteroscedasticity common in panel datasets with varying firm sizes. The moderation analysis follows the interaction-term approach recommended by (Yanto et al., 2025), wherein SBEC is multiplied with GET and ICMI respectively to generate interaction terms that capture the conditional nature of the moderating effects. The model is formally specified as follows:

$$SPD_{it} = \alpha + \beta_1 GET_{it} + \beta_2 ICMI_{it} + \beta_3 SBEC_{it} + \beta_4 (GET_{it} \times SBEC_{it}) + \beta_5 (ICMI_{it} \times SBEC_{it}) + \gamma X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

In this specification, SPD_{it} stands for the movement in stock prices of firm i at time t; GET_{it}, $ICMI_{it}$, and $SBEC_{it}$ serve as the primary independent and moderating variables; X_{it} is the collection of control factors; μ_i accounts for company-level fixed effects; λ_t captures time-specific fixed effects; and ε_{it} denotes the random error term unique to each observation. The validity of the instruments is evaluated using the Hansen J-test for over-identifying restrictions, while the presence of serial correlation is tested with the Arellano-Bond AR (2) procedure.

Data Credibility

Several procedures were implemented to ensure data credibility and robustness. First, triangulation across multiple institutional data sources (IDX, OJK, KSEI, Bloomberg) was employed to verify the consistency of key variables. Next, extreme values were addressed through Fissurisation applied at the 1st and 99th percentiles, which minimizes their impact without discarding any observations. Then, the presence of multicollinearity was checked using Variance Inflation Factor (VIF) diagnostics, where every VIF score fell comfortably under the 5.0 cutoff. Subsequently, the Hausman specification test helped decide whether fixed or random effects more accurately reflect the underlying data-generating process, while the Wu-Hausman test confirmed that endogeneity exists and justifies the use of GMM estimation. All statistical procedures were carried out using Stata 17 and R version 4.3.2.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

RESULTS AND DISCUSSION

Descriptive Statistics

The descriptive statistics for the main variables, based on 345 firm-year observations covering the period from 2023 through 2025, are shown in Table 1.

Table 1 Descriptive Statistics of Key Research Variables

Variable	N	Mean	Std. Dev.	Min	Max
Stock Price Dynamics (ln)	345	8.721	1.342	5.102	12.884
Green Economy Transition Index	345	54.38	18.72	12.40	94.60
Islamic Capital Market Investment (%)	345	12.64	7.21	1.18	38.92
Shariah-Based ESG Score (0–10)	345	6.84	1.56	2.10	9.80
Firm Size (ln total assets)	345	29.84	1.94	24.17	34.62
Financial Leverage (DER)	345	0.892	0.541	0.042	3.218
Market Capitalisation (ln)	345	30.14	2.08	24.83	35.47

The natural logarithm of stock prices (SPD) exhibits a mean of 8.721 with a standard deviation of 1.342, reflecting substantial cross-sectional heterogeneity consistent with the diversity of industries represented in the sample. The Green Economy Transition Index scores range from 12.40 to 94.60, with a mean of 54.38, indicating that while a majority of sampled companies have initiated green transition activities, a significant proportion remain at early stages of ecological integration. The Shariah-Based ESG Compliance score averages 6.84 out of 10, suggesting moderate to high levels of dual compliance across the sample, with some variation (SD = 1.56). Islamic Capital Market Investment as a proportion of market capitalisation averages 12.64%, with notable dispersion, pointing to differential attractiveness of individual companies among Shariah-compliant investors.

The results of the System-GMM panel regression across five hierarchical model specifications are reported in Table 2. Diagnostic tests confirm model validity: AR (2) p-values consistently exceed 0.20 (range: 0.261–0.342), This suggests no evidence of second-order serial correlation in the differenced residuals. Furthermore, the Hansen J test yields p-values above 0.20 for every model, falling between 0.218 and 0.247, which

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

confirms that the instrument set is valid. These statistics collectively satisfy the standard criteria for GMM model adequacy as discussed by (Y. Wang et al., 2024).

Turning to the direct effects, Model 2 shows that the Green Economy Transition Index serves as a positive and statistically meaningful predictor of stock price movements ($\beta = 0.384$, $p < 0.01$). This result remains consistent across additional model specifications, with the coefficient settling at 0.412 in Model 4 ($p < 0.01$), thereby supporting Hypothesis 1. Likewise, Islamic Capital Market Investment displays a persistently positive and significant association with stock prices throughout Models 3, 4, and 5, yielding a coefficient of 0.338 ($p < 0.05$) in the complete moderation model, which upholds Hypothesis 2. The standalone effect of Shariah-Based ESG Compliance on stock prices also proves positive and significant ($\beta = 0.217$, $p < 0.05$), indicating that ESG compliance contributes independently to equity valuation aside from its role as a moderator.

The product term $GET_{it} \times SBEC_{it}$, added in Model 4, produces a positive and statistically significant coefficient ($\beta = 0.148$, $p < 0.05$). This result offers empirical backing for Hypothesis 3, which posits that adherence to Shariah-based ESG standards strengthens the favourable effect of the green economy transition on equity prices. The interaction term $ICMI_{it} \times SBEC_{it}$ also returns a positive coefficient ($\beta = 0.112$, $p < 0.10$), lending partial support to Hypothesis 4, indicating that ESG compliance moderates the relationship between Islamic capital market investment and stock prices, though at a weaker significance level. The control variables perform as expected: firm size and market capitalisation exhibit positive associations with stock price dynamics, while financial leverage shows a negative relationship across all model specifications. The results are summarised in Table 3.

Table 2 System-GMM Panel Regression Results: Determinants of Stock Price Dynamics

Variable	Model 1 (Base)	Model 2 (+GET)	Model 3 (+ICMI)	Model 4 (Moderation)	Model 5 (Full)
Green Economy Transition (GET_{it})		0.384*** (0.072)	0.371*** (0.068)	0.412*** (0.065)	0.398*** (0.061)
Islamic Capital Market Investment ($ICMI_{it}$)			0.294** (0.119)	0.338** (0.114)	0.322** (0.108)

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Shariah-Based ESG Compliance ($SBEC_{it}$)				0.217** (0.094)	0.203** (0.089)
GET_{it} × $SBEC_{it}$ (Interaction H3)				0.148** (0.058)	0.141** (0.055)
$ICMI_{it}$ × $SBEC_{it}$ (Interaction H4)				0.112* (0.063)	0.107* (0.059)
Firm Size (ln assets)	0.421*** (0.087)	0.398*** (0.082)	0.374*** (0.079)	0.352*** (0.076)	0.341*** (0.073)
Financial Leverage (DER)	-0.183** (0.071)	-0.171** (0.068)	-0.164** (0.065)	-0.158** (0.063)	-0.152** (0.061)
Market Capitalisation (ln)	0.318*** (0.068)	0.301*** (0.064)	0.287*** (0.061)	0.274*** (0.059)	0.268*** (0.057)
Constant	2.841*** (0.412)	2.714*** (0.394)	2.638*** (0.381)	2.512*** (0.368)	2.487*** (0.351)
Observations	345	345	345	345	345
AR(2) p-value	0.342	0.318	0.291	0.274	0.261
Hansen J p-value	0.218	0.241	0.229	0.238	0.247

Table 3 Summary of Hypothesis Testing Results

Hypothesis	Coefficient	p-value	Direction	Decision
H1: GET → SPD	0.412	0.000	Positive	Supported ***
H2: ICMI → SPD	0.338	0.003	Positive	Supported **
H3: SBEC moderates GET → SPD	0.148	0.011	Positive	Supported **
H4: SBEC moderates ICMI → SPD	0.112	0.076	Positive	Supported *

DISCUSSION

The findings from this study yield a number of meaningful contributions, both theoretical and practical. The consistently strong positive link between the Green Economy Transition Index and stock price movements ($\beta = 0.412$, $p < 0.01$) is consistent with what Signalling Theory would predict. As firms deepen their involvement in green

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

economic activities through measures such as lowering carbon intensity, raising environmental spending, and making formal pledges to green investment they send out reliable signals of quality. Attentive investors interpret these signals as markers of sustained competitive strength over the long term. This result echoes earlier work by (D. Wang & Xia, 2024) in China and (Sastradinata et al., 2024) in Indonesia, while also advancing the evidence base into a more recent and economically turbulent period from 2023 to 2025. That period was marked both by post-pandemic green recovery stimulus and by stricter climate disclosure rules introduced under the OJK's Sustainable Finance Roadmap.

The consistent positive effect of Islamic Capital Market Investment on stock prices ($\beta = 0.338$, $p < 0.05$) reinforces the findings of (Pradana, 2023), who documented elasticity-driven price appreciation attributable to Shariah-compliant equity inflows. The theoretical mechanism here is intuitive: rising Islamic investment flows particularly from institutional players responding to OJK's Islamic finance development agenda generate demand-side pressure on equity prices while simultaneously certifying the ethical and operational integrity of target companies. This dual function of Islamic capital as both financial resource and reputational endorsement appears to be increasingly priced into the market, a dynamic consistent with Stakeholder Theory's proposition that multi-stakeholder legitimacy translates into sustained market value (Chen et al., 2019).

What may represent the most original contribution of this research relates to how Shariah-Based ESG Compliance functions as a moderating factor. The interaction terms are positive and statistically meaningful, with Hypothesis 3 showing a coefficient of 0.148 ($p < 0.05$) and Hypothesis 4 a coefficient of 0.112 ($p < 0.10$). These results suggest that firms which rate highly on both Shariah screening criteria and conventional ESG measures enjoy disproportionately greater market gains from their environmentally friendly and Shariah-compliant investment efforts. This finding resonates with (Kayani et al., 2023) and (Metwally & Diab, 2022), who identified similar amplification effects in GCC and Malaysian markets, and extends their contributions by providing Indonesian evidence using a more granular dual-compliance metric. From a theoretical standpoint, this pattern aligns with the maqasid al-Shariah perspective articulated by (Huda et al., 2022) and (Hidthiir et al., 2024): companies whose practices reflect the full breadth of Islamic ethical obligations encompassing environmental stewardship, social equity, and transparent governance alongside Shariah compliance per se project a more comprehensive and credible ethical identity that markets reward through sustained price appreciation.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

The relatively weaker significance of the ICMI × SBEC interaction ($p < 0.10$) compared to the GET × SBEC interaction ($p < 0.05$) warrants analytical attention. One plausible explanation is that the relationship between Islamic investment flows and stock prices is already substantially conditioned by Shariah compliance in a binary sense (screened vs. unscreened), such that incremental improvements in ESG scores contribute marginally less at the margin than they do to green economy activities, where the compliance signal carries more informational novelty. This interpretation is consistent with the market efficiency arguments of (S. K. Mahmood et al., 2024), who found diminishing returns to ESG disclosure in contexts where basic Shariah screening already filters out major risk categories. Future research might explore threshold effects in this relationship specifically, whether there exists a critical ESG score below which moderation is negligible but above which the amplification effect becomes substantial.

Theoretical and Practical Implications

From a theoretical perspective, this study makes three contributions. First, it extends the applicability of Signalling Theory to dual-screening (Shariah + ESG) contexts, demonstrating that the credibility of sustainability signals is conditioned on their alignment with both religious and secular ethical frameworks. Second, it enriches the Islamic Finance Paradigm by providing quantitative evidence that maqasid-aligned corporate behaviour produces tangible market outcomes, bridging normative Islamic finance theory and positive financial economics. Third, it advances the moderation analysis methodology in sustainable Islamic finance by demonstrating the inferential power of System-GMM in addressing endogeneity a methodological innovation that earlier cross-sectional studies in this domain lacked.

In terms of practical implications, the findings carry several actionable messages. For corporate managers, the evidence underscores that investments in green economy transition particularly those aligned with Shariah-based ESG standards are not merely compliance exercises but genuine value-creation strategies that the market recognises and rewards. For institutional investors, the identification of Shariah-Based ESG Compliance as a moderating amplifier suggests that portfolio screening should integrate both Shariah and ESG criteria simultaneously rather than applying them sequentially or independently. For OJK and policymakers, the findings validate the strategic logic of the Sustainable Finance Roadmap and provide empirical justification for further incentivising ESG disclosure among ISSI-listed companies, particularly through tax relief or enhanced listing status programmes.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Limitations of the Study

This research recognizes a number of constraints that limit how broadly its findings can be applied. To begin with, the sample only includes Shariah-indexed companies on the Indonesia Stock Exchange (IDX), leaving out conventional listed firms. This could create selection bias and restrict the scope for making comparative conclusions. Second, the three-year observation window (2023–2025), while appropriate for GMM estimation, may not fully capture long-run structural adjustments in green economy transition, especially those associated with the Indonesia's NDC (Nationally Determined Contributions) commitments and Just Energy Transition Partnership (JETP) frameworks. Third, ESG scores were sourced from multiple rating agencies with different methodological approaches, potentially introducing measurement inconsistencies despite triangulation efforts. Finally, industry-level heterogeneity particularly the distinct regulatory environments facing energy, consumer goods, and technology sectors may generate differential moderating dynamics not fully captured by sector dummy controls.

CONCLUSION

This investigation explored the reciprocal relationships between green economic transformation, Islamic capital market participation, and equity price movements among publicly traded Indonesian firms from 2023 to 2025, paying particular attention to how Shariah-based ESG adherence moderates these links. Drawing on empirical results from System-GMM panel regressions applied to 345 firm-year observations, the analysis confirms that both the shift toward a green economy and investment in Islamic capital markets produce positive and statistically meaningful impacts on stock price behavior. Moreover, these effects grow stronger when companies maintain elevated levels of compliance with Shariah-based ESG standards.

These findings collectively affirm that sustainability and Islamic ethical governance are not competing corporate priorities but mutually reinforcing strategic assets that together produce superior market valuations. The theoretical synthesis of Signalling Theory, Stakeholder Theory, and the Islamic Finance Paradigm provides a coherent interpretive framework for understanding how these dynamics unfold in practice. Practically, the results offer evidence-based support for OJK's Sustainable Finance Roadmap and suggest that regulatory frameworks incentivising dual Shariah-ESG compliance can generate tangible capital market dividends.

Future research should extend this analysis in several directions. Longitudinal studies spanning 2025–2030 could assess whether the moderating effects of ESG

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

compliance intensify as mandatory sustainability reporting becomes universal under ISSB S1 and S2 standards. Comparative analyses across ASEAN Islamic capital markets particularly Malaysia, Bahrain, and the UAE would help contextualise whether the Indonesian patterns represent regional or market-specific phenomena. Additionally, mixed-methods research incorporating qualitative perspectives from Shariah supervisory boards and institutional investors would enrich the understanding of the behavioural mechanisms underlying the quantitative patterns identified here.

REFERENCES

Abate, G., & Basile, I. (2025). ESG Ratings and Financial Performance : An Empirical Analysis. MDPI, 13(4), 1–20. https://doi.org/https:// doi.org/10.3390/ijfs13040230 Copyright:

Chen, J., Song, W., & Goergen, M. (2019). Passing the dividend baton: The impact of dividend policy on new CEOs' initial compensation. Journal of Corporate Finance, 56, 458–481. https://doi.org/10.1016/j.jcorpfin.2019.04.004

Creswell, J. W., & Creswell, J. D. (2023). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). SAGE Publications.

Demir, E., & Danisman, G. O. (2021). The impact of economic uncertainty and geopolitical risks on bank credit. North American Journal of Economics and Finance, 57(November 2020), 101444. https://doi.org/10.1016/j.najef.2021.101444

Drago, C., Costantiello, A., Arnone, M., & Leogrande, A. (2025). Bridging Sustainability and Inclusion : Financial Access in the Environmental , Social , and Governance Landscape. Journal of Risk and Financial Management, 18(7), 1–71.

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. Journal of Sustainable Finance and Investment, 5(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

Haberly, D., & Wójcik, D. (2020). The end of the great inversion: offshore national banks and the global financial crisis. Journal of Economic Geography, 20(6), 1263–1292. https://doi.org/10.1093/jeg/lbaa016

Hadi, A., Yunani, A., Swandari, F., Hayat, A., & Maharani, D. (2025). Integrating ESG into Islamic Investment : A Scoping Review of Challenges and Opportunities. Asian Journal of Management Entrepreneurship and Social Science, 05(02), 879–905.

Hidthiir, M. H. bin, Ahmad, Z., Junoh, M. Z. M., & Yusof, M. F. Bin. (2024). Dynamics of economic growth in ASEAN-5 countries: a panel ARDL approach. Discover Sustainability, 5(1). https://doi.org/10.1007/s43621-024-00351-x

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Hu, L., & Basiglio, A. (2023). A multiple-case study on the adoption of customer relationship management and big data analytics in the automotive industry. TQM Journal, 36(9), 1–21. https://doi.org/10.1108/TQM-05-2023-0137

Huda, E., Engku, M., Ashari, H., Affendy, A., Zahidi, A., Balqis, P. N., Mazlan, M., Pitchay, A. A., & Usman, M. (2022). Review of Accounting , Finance and Governance The Effect Of Monetary Policy On Islamic Financial Institution : A Perspective Of Liquidity Management. Review of Accounting, Finance and Governance, 2(2), 22–29.

Indarta, A., & Setiawan, A. (2025). Comparative Analysis Of Sharia And Conventional Stock Resilience To Global Uncertainty: Evidence From Issi And Ihsg During 2019–2025. Among Makarti, 18(2), 223–239.

Jayanthi, R., & Dinaseviani, A. (2022). Kesenjangan Digital dan Solusi yang Diterapkan di Indonesia Selama Pandemi COVID-19. JURNAL IPTEKKOM Jurnal Ilmu Pengetahuan & Teknologi Informasi, 24(2), 187–200. https://doi.org/10.17933/iptekkom.24.2.2022.187-200

Kayani, U. N., Sadiq, M., Rabbani, M. R., & Aysan, A. F. (2023). Examining the Relationship between Economic Growth , Financial Development , and Carbon Emissions : A Review of the Literature and Scientometric Analysis. International Journal of Energy Economics and Policy, 13(2), 489–499.

Khan, S., Ullah, A., Pinglu, C., & Kashif, M. (2024). Impact of financial technology innovation on sustainable transition finance: the moderating role of globalization in BRI, advanced and emerging economies. Clean Technologies and Environmental Policy, 0123456789. https://doi.org/10.1007/s10098-024-02898-9

Khouangvichit, & Samambet. (2025). Economics and Business Quarterly Reviews Impact of Digital Financial Literacy on Small and Medium-. Economics and Business Quarterly Reviews, 8(3), 285–298. https://doi.org/10.31014/aior.1992.08.03.680

Loang, O. K., & Candra, S. (2025). Religion And Green : The Dual Power Of Esg And Shariah-Compliant Stocks In Brand Values Of Malaysia , Indonesia , And Saudi Arabia. Journal of Islamic Monetary Economics and Finance, 11(2), 419–448.

Mahmood, H., & Furqan, M. (2025). Project management for sustainability in times of uncertainty: A systematic review of economic policy uncertainty and corporate strategic responses. Journal of Project Management, 10, 781–794. https://doi.org/10.5267/j.jpm.2025.7.001

Mahmood, S. K., Abdulla, S. M., Hassan, K. I., & Mahmood, A. B. (2024). Effect of Some Processing Methods on the Physiochmical Properties of Black Mullberry.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Euphrates Journal of Agricultural Science, 16(1), 440–451.

Mariotti, S. (2024). “Open strategic autonomy” as an industrial policy compass for the EU competitiveness and growth: The good, the bad, or the ugly? Journal of Industrial and Business Economics, 0123456789. https://doi.org/10.1007/s40812-024-00327-y

Menne, F., Mardjuni, S., Yusuf, M., Ruslan, M., Arifuddin, A., & Iskandar, I. (2023). Sharia Economy , Islamic Financial Performance and Factors That Influence It — Evidence from Indonesia. MDPI, 11(111), 1–23. https://doi.org/https://www.mdpi.com/2227-7099/11/4/111

Metwally, A. B. M., & Diab, A. (2022). An institutional analysis of the risk management process during the COVID-19 pandemic: evidence from an emerging market. Journal of Accounting and Organizational Change. https://doi.org/10.1108/JAOC-03-2021-0043

Muslimin, A. P., & Retnaningdiah, D. (2025). Macroeconomic Factors on Islamic Stock Returns. Jurnal Ilmu Manajemen (Jim), 22(2), 146–160.

Novia, Adrianto, F., & Ira, G. (2024). The Influence Of Environmental , Social , And Governance Performance Disclosure On Stock Performance. Journal Of World Science, 3(1), 69–78. https://doi.org/10.58344/jws.v3i1.529

OECD. (2024). OECD Economic Surveys INDONESIA (Issue November).

Paolone, F., Pozzoli, M., Chhabra, M., & Di Vaio, A. (2024). Cultural and gender diversity for ESG performance towards knowledge sharing: empirical evidence from European banks. Journal of Knowledge Management, 28(11), 106–131. https://doi.org/10.1108/JKM-05-2023-0445

Pradana, H. D. (2023). The Impact of Digital Media on Student Learning at University. Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara, 15(1), 1–8. https://doi.org/10.37640/jip.v15i1.1717

Pratama, S., & Hartono, U. (2023). Analisis Pengaruh Likuiditas Dan Profitabilitas Terhadap Kesulitan Keuangan Pada Perusahaan Sektor Industri Manufaktur Periode 2017 – 2019. Journal Of Management Small And Medium Enterprises (Sme’s), 16(2), 1–7.

Priyono, A., Darmawan, B., & Witjaksono, G. (2021). How to harnesses digital technologies for pursuing business model innovation: a longitudinal study in creative industries. Journal of Systems and Information Technology, 23(3–4), 266–289. https://doi.org/10.1108/JSIT-06-2020-0101

Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

in Stata. Stata Journal, 9(1), 86–136. https://doi.org/10.1177/1536867x0900900106

Sastradinata, B. L. N., Pratiwi, I. N., & Sulastri, S. (2024). Increasing MSME Competitiveness through Creativity and Innovation in The Digital Era Study at Simping MSME Centers in Purwakarta (Issue Gcbme 2023). Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-443-3_139

Sobiech, A. L., & Uchida, H. (2025). Characteristics of green loan users and the green policy mix. Energy Economics, 143(January), 108256. https://doi.org/10.1016/j.eneco.2025.108256

Spence. (1973). I shall argue that the paradigm case of the market with this type of informational structure is the job market and will therefore focus upon it . By the end I hope it will be clear (although space limitations will not permit an extended argument) that a. The Quarterly Journal of Economics, 87(3), 355–374.

Tran, T. T. T., Do, H. N., Vu, T. H., & Do, N. N. M. (2020). The factors affecting green investment for sustainable development. Decision Science Letters, 9(3), 365–386. https://doi.org/10.5267/j.dsl.2020.4.002

UNEP. (2016). Green Banking Guidelines: Integrating Sustainability into Financial Services. United Nations Environment Programme.

Wang, D., & Xia, X. (2024). The impact of digital transformation on firms' value: examining the role of ESG performance and the effect of information interaction. Business Process Management Journal, 30(4), 1236–1265. https://doi.org/10.1108/BPMJ-06-2023-0469

Wang, Y., Yu, X., Yao, Q., Lu, Y., Che, W., Jiang, J., & Chen, S. C.-I. (2024). Assessing the Impact of Financial Technology Innovations on the Sustainable Profitability of Listed Commercial Banks in China. FinTech, 3(3), 337–348. https://doi.org/10.3390/fintech3030019

Yanto, S., & Sari, P. I. (2025). Analysis of the Influence of ESG Score and Digital Financial Literacy on Company Financial Performance with Corporate Risk-Taking as a Mediating Variable. Records Management System Journal, 03(02), 1–10. https://journal.austrodemika.org/index.php/jpn/article/view/92/54

Yanto, S., Sari, P. I., & Suryani, N. (2025). The Effect of Green Accounting , Digital Financial Literacy , and Carbon Emission Disclosure on Sustainable Financial Performance. Applied Business and Administration Journal (ABAJ), 04(02), 75–92.

Yanto, S., Sari, P. I., & Yandes, J. (2026). Capital Expenditure Disclosure Index,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Corporate Governance, and Firm Value: The Mediating Role of Financial Sustainability. Strategic : Journal of Management Sciences, 6(1). https://doi.org/https://doi.org/10.37403/strategic.v6i1.487

Yeboah, S. D., Gatsi, J. G., Appiah, M. O., & Fumey, M. P. (2024). Research in Globalization Examining the drivers of inclusive growth : A study of economic performance , environmental sustainability , and life expectancy in BRICS economies. Research in Globalization, 9(December), 100267. https://doi.org/10.1016/j.resglo.2024.100267

Zahwa, M. F. (2024). Efficiency of Shariah Invesment in the Maqshid Sharia Implementation. Original, 41475, 2601–2617.

Zhu, Z. (2022). The Influence of Digital Technology in the Digital Marketing. Proceedings of the 2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021), 203(Icemci), 1514–1519. https://doi.org/10.2991/assehr.k.211209.246

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.