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RELIGION AND GREEN: THE DUAL POWER OF ESG AND SHARIAH-COMPLIANT STOCKS IN BRAND VALUES OF MALAYSIA, INDONESIA, AND SAUDI ARABIA

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ABSTRACT

This study examines the differential impact of Environmental, Social, and Governance (ESG) factors and Shariah compliance on brand value and stock returns across Malaysia, Indonesia, and Saudi Arabia using a sample of 1,474 publicly listed Shariah-compliant firms. Using panel data regression, quantile-on-quantile regression, Granger causality, and FGLS methods, we find that ESG factors significantly enhance brand value and stock returns in Malaysia and Indonesia, with stronger effects than conventional stocks, especially under positive investor sentiment. However, in Saudi Arabia, ESG factors are insignificant, and Shariah compliance alone drives financial performance, indicating that alignment with Islamic principles is a prerequisite for market impact in this context. The quantile-on-quantile analysis further shows that ESG and Shariah compliance yield stronger effects at higher quantiles of brand value, benefiting firms with greater brand equity. These results validate the signaling theory, highlighting ESG and Shariah compliance as mechanisms to reduce information asymmetry and enhance investor confidence in Islamic financial markets. For policymakers, this study underscores the need for robust ESG and Shariah compliance standards, advocating transparent reporting to foster market trust and attract sustainable investment, particularly by advancing a Shariah-compliant green economy in Saudi Arabia and beyond.

Keywords: ESG, Shariah compliance, Brand value, Stock returns, Islamic finance.
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I. INTRODUCTION

The integration of Environmental, Social, and Governance (ESG) factors into investment decision-making has become pivotal in modern finance, reflecting the growing consensus that sustainable practices yield both ethical and economic advantages. ESG investing, prioritising firms with strong environmental stewardship, social responsibility, and governance practices, aligns financial returns with societal values (Friede et al., 2015; Giese et al., 2019). As of 2023, global sustainable investments reached $35.3 trillion, accounting for 36% of all professionally managed assets, underscoring the increasing importance of ESG factors in financial markets.

Simultaneously, Shariah-compliant investments rooted in Islamic finance principles embody an ethical framework distinctive from ESG, screening investments based on religious guidelines that prohibit activities such as gambling, alcohol, and interest-based lending while emphasising profit-sharing and socially responsible business operations (Ashraf & Mohammad, 2014; Derigs & Marzban, 2008). The Islamic finance industry, projected to reach $3.69 trillion in assets by 2024, has become a significant sector in global finance, notably in Malaysia, Indonesia, and Saudi Arabia—key Islamic markets where ESG and Shariah compliance interact in unique ways, shaped by distinct cultural, religious, and regulatory dynamics (Abdelsalam et al., 2014).

The convergence of ESG criteria with Shariah-compliant investment principles in these markets provides a unique framework that appeals to investors seeking alignment with contemporary sustainability goals and traditional Islamic values. However, these markets exhibit substantial differences in how ESG and Shariah compliance affect financial outcomes, particularly brand value, a critical intangible asset. In Malaysia, a global leader in Islamic finance, the regulatory environment supports ESG integration, with frameworks such as the Sustainable and Responsible Investment (SRI) Sukuk aligning well with Malaysia's commitment to Islamic finance. Indonesia, while home to the world's largest Muslim population, is emerging in the ESG landscape bolstered by regulatory initiatives from the Indonesian Financial Services Authority to incorporate ESG within the nation's Islamic finance framework. Conversely, Saudi Arabia, the largest economy in the Middle East, presents a distinct case in which Shariah compliance often supersedes ESG, aligning with Vision 2030 objectives of balancing traditional Islamic principles with global sustainability trends. However, compared to Malaysia and Indonesia, Saudi Arabia exhibits more selective ESG integration, focusing predominantly on governance, while environmental and social practices remain secondary (Loang, 2023).

Research indicates that strong ESG performance typically enhances brand value, with firms perceived as more trustworthy and socially responsible, aligning better with investors and consumers' expectations (Aaker, 2020; Fatemi et al., 2018). In Shariah-compliant markets, where ethical and religious considerations are paramount, the role of ESG in shaping brand value requires further examination, especially considering these regional differences. While Malaysian and Indonesian markets are increasingly receptive to ESG criteria, brand value in Saudi Arabia is predominantly shaped by Shariah compliance, with ESG factors playing a secondary role. This highlights a unique dynamic: while ESG

integration strengthens brand equity in Malaysia and Indonesia, adherence to Islamic principles appears to be a more significant driver of brand value in Saudi Arabia, potentially limiting the broader influence of ESG practices.

Existing literature on ESG investing has largely focused on financial metrics, such as stock returns, profitability, and risk (Fatemi et al., 2015), often overlooking its influence on brand value, particularly within Shariah-compliant stocks. Although studies on Shariah-compliant investments provide insights into financial performance metrics, they rarely examine the intersection of ESG and Shariah compliance, especially in contexts in which Islamic cultural values fundamentally shape investor behaviour. As Malaysia, Indonesia, and Saudi Arabia collectively represent over 50% of the global Islamic finance industry's assets, understanding ESG's impact on brand value in these settings is crucial for developing investment strategies that align with both the ESG and Shariah principles (Hassan & Mollah, 2018).

The moderating role of investor sentiment on the ESG-brand value relationship in Shariah-compliant markets also requires greater focus, as sentiment can amplify or dampen the effects of ESG on stock performance (Baker & Wurgler, 2007). This factor is particularly significant in Saudi Arabia, where sentiment is often strongly aligned with religious considerations, influencing how ESG and Shariah compliance interact to impact brand value (Loang, 2023). A nuanced understanding of these interactions is essential, as it allows investors to optimise portfolios by aligning them with both ESG and Shariah principles while providing policymakers with insights to advance sustainable, ethical finance tailored to each market's unique context.

This study aims to address these gaps by investigating the dual impact of ESG and Shariah compliance on brand value in the stock markets of Malaysia, Indonesia, and Saudi Arabia. These markets are among the largest and most influential Islamic financial markets globally, making them ideal settings for exploring the intersection of ESG and the Shariah principles in ethical investing. This research seeks to contribute to the growing body of literature on sustainable and ethical finance in the Islamic context. This study has the potential to influence investment strategies, promote sustainable practices, and support the broader goal of integrating ethical considerations into financial decision-making processes across these key Islamic economies.

The remaining of the paper is structured as follows. The next section reviews existing studies. Section 3 describes data and models followed by presentation and discussion of results in section 4. Finally, section 5 summarises key insights and implications.

II. LITERATURE REVIEW

2.1. Signalling Theory

The Signalling Theory, introduced by Spence (1973), provides a foundational framework for understanding how firms communicate their underlying qualities and intentions to reduce information asymmetry in the market. Within corporate finance, the signalling theory posits that firms use observable actions such as dividend policies, capital structure decisions, and ESG practices to demonstrate

commitment to long-term value creation and ethical conduct (Connelly et al., 2011). In particular, ESG practices act as significant signals to investors, indicating a firm's dedication to sustainability and responsible governance. This is especially relevant in markets in which investors prioritise ethical considerations. By adopting strong ESG practices, firms can reduce perceived risks, enhance their reputation, and attract more investment, potentially leading to improved brand value and financial performance (Wang et al., 2021).

The Signalling theory is particularly pertinent in Shariah-compliant markets such as Malaysia, Indonesia, and Saudi Arabia, where firms must adhere to both ESG principles and Islamic ethical standards to attract Shariah-compliant investors. These investors prioritise ethical and religious compliance along with financial returns, making the signals conveyed through ESG practices critical for differentiating firms within these markets (Girerd-Potin et al., 2014). However, in Saudi Arabia, this alignment has unique dimensions. Unlike Malaysia and Indonesia, which have increasingly integrated ESG into their regulatory environments, Saudi Arabia places a stronger emphasis on Shariah compliance as a primary indicator of a firm's ethical stance. Here, the alignment of a firm's practices with Islamic principles holds a weightier signalling effect than in Malaysia or Indonesia, where ESG forms part of a broader regulatory framework.

Companies that successfully integrate ESG practices with Shariah compliance in Saudi Arabia send strong signals to the market, reinforcing their commitment to ethical governance, environmental stewardship, and social responsibility, all of which align with the values of Shariah-compliant investors. However, there is a risk that if ESG practices are perceived as superficial or symbolic, their signalling effect may be weakened, especially in Saudi Arabia, where religious values are deeply embedded in investment decisions (Hassan & Mollah, 2018). Recent studies have highlighted the importance of examining both cultural and regulatory contexts to understand the unique dynamics of ESG and Shariah compliance across Islamic finance markets (Alqahtani & Boulanouar, 2017; Chebbi & Ammer, 2022). Malaysia and Indonesia, with well-established ESG frameworks and supportive regulatory environments, foster a more integrated approach to ESG and Shariah compliance, reflecting a broader investor base's alignment with both ethical and sustainable practices (Farooq & Tbeur, 2013). In contrast, Saudi Arabia's market prioritises Shariah compliance, with ESG factors considered supplementary unless closely aligned with Islamic principles (Guizani, 2017). This divergence underscores the need for a nuanced analysis, as the interaction between ESG and Shariah compliance can lead to both synergies and conflicts in investor decision-making. Specifically, Shariah-compliant investors may face challenges in balancing ESG guidelines with Islamic ethical standards, particularly in markets where regulatory support for ESG is less robust (Alnori & Alqahtani, 2019).

The signalling mechanism by which ESG and Shariah compliance leads to enhanced brand value and financial performance rests on the idea that investors interpret these signals as indicators of a firm's long-term stability and ethical commitment. Firms that consistently engage in ESG practices aligned with Shariah principles are likely to build a strong brand that resonates with both consumers and investors who value ethical governance (Khan et al., 2016). This alignment reduces information asymmetry between the firm and its stakeholders, fostering greater

trust and confidence in the firm's management and strategic direction (Lins et al., 2017). In Saudi Arabia, where Shariah compliance is seen as a primary signal, ESG efforts are most effective in reinforcing the ethical and religious values embedded in the market. Consequently, firms in Saudi Arabia that robustly integrate ESG practices within a Shariah-compliant framework can achieve superior brand value and financial performance by attracting loyal, ethically conscious investors.

2.2. Synergies Between ESG and Shariah Compliance in Shaping Brand Value

The integration of ESG factors into investment strategies has become a central area of financial research, particularly as it aligns with the rising demand for sustainable and ethically responsible investments. Numerous studies have explored the impact of ESG practices on financial metrics, such as firm value, cost of capital, and market performance, concluding that ESG performance correlates positively with improved financial outcomes (Friede et al., 2015; Khan et al., 2016). In a meta-analysis of over 2,000 empirical studies, Friede et al. (2015) reveal that the majority find a positive relationship between ESG and corporate financial performance. As these studies have largely focused on conventional markets and Western economies, there is a critical gap in understanding how these dynamics unfold in Shariah-compliant stocks in Islamic financial markets (Al Ansari & Alanzarouti, 2020).

This gap is especially pronounced in Saudi Arabia, where Shariah compliance significantly influences the investment dynamics. Unlike Malaysia and Indonesia, where ESG integration closely aligns with regulatory support and investor demand for sustainable finance, Saudi Arabia's financial markets reflect a more complex relationship with ESG factors. Shariah compliance is a primary determinant of brand value and investor trust, with ESG considerations seen as supportive rather than standalone signals of value. As Saudi Arabia pursues its Vision 2030 initiative, aimed at transforming its economy with a focus on sustainability, there is a growing interest in ESG practices. However, the emphasis is on aligning ESG initiatives with Islamic principles, suggesting that ESG is more impactful when it reinforces Shariah compliance rather than acting as an independent value driver. Consequently, the generalisability of ESG's positive impact on brand value across these distinct markets remains uncertain, with Saudi Arabia presenting a unique case in which religious compliance may overshadow the influence of ESG factors on brand perception. Therefore, this study aims to address this gap by hypothesising the following.

Hypothesis 1: *ESG performance has a positive and significant impact on brand value and stock returns in Shariah-compliant stocks in Malaysia and Indonesia but is insignificant in Saudi Arabia.*

Shariah compliance, while extensively studied in Islamic finance, has often been examined separately from broader ESG practices. Studies on Shariah-compliant investments typically focus on financial performance metrics, such as profitability, risk, and liquidity, and the findings frequently indicate that Shariah-compliant firms can perform competitively with or even outperform their conventional counterparts under specific conditions (El-Halaby & Hussainey, 2016; Ansari & Nisar, 2021). However, the literature rarely investigates the impact

of Shariah compliance on intangible assets, such as brand value, which are essential for building investor trust and loyalty. This gap is particularly relevant in Saudi Arabia, where Shariah compliance is deeply integrated into financial and cultural norms, often taking precedence over ESG factors as primary indicators of ethical governance. Unlike Malaysia and Indonesia, where Shariah compliance and ESG are increasingly integrated within regulatory frameworks, Saudi Arabia's approach emphasises Shariah adherence as a standalone signal, with ESG viewed as beneficial when it complements Islamic principles rather than as a necessary component of brand credibility. Few studies have examined the interaction between Shariah compliance and ESG practices, a crucial oversight given the potential for a compounded signalling effect that could enhance brand value and performance more effectively than either practice alone (Naseem et al., 2020; Girerd-Potin et al., 2014). For instance, in Saudi Arabia, Shariah compliance may already differentiate firms, but when ESG practices align with Islamic values, the combined effect on brand equity may be more impactful. This lack of integration suggests that researchers have not fully explored the synergies between these two dimensions of ethical governance, leading to an incomplete understanding of their combined effect on brand equity, especially in Saudi Arabia's unique market context. To address this gap, this study hypothesises the following.

Hypothesis 2*: Shariah compliance has a positive and significant impact on brand value and stock returns across Malaysia, Indonesia, and Saudi Arabia, with the strongest significant impact on Saudi Arabia.*

Hypothesis 3: *The positive and significant impact of ESG performance on brand value and stock returns is stronger in Shariah-compliant stocks than in conventional stocks in Malaysia and Indonesia, whereas ESG's impact remains insignificant in Saudi Arabia.*

Investor sentiment, a well-documented driver of stock market behaviour, significantly influences the effectiveness of various corporate signals, including ESG and Shariah compliance. Prior research consistently shows that positive investor sentiment can amplify the benefits of ESG practices, enhance brand equity, and improve financial performance (Baker et al., 2012; Schmeling, 2009). Baker et al. (2012) find that investor sentiment plays a crucial role in shaping the market's reaction to corporate actions related to ESG, particularly in optimistic markets. Similarly, Schmeling (2009) demonstrates that investor sentiment is a key determinant of stock returns across international markets, suggesting that its influence extends beyond financial outcomes and affects corporate reputation and brand value. However, these studies largely focus on conventional markets, with limited exploration of how investor sentiment interacts with ESG and Shariah compliance in Islamic financial markets, where cultural and religious values significantly shape investment decisions (Ashraf, 2016; Abdul Rahim et al., 2024). This oversight is particularly relevant in Saudi Arabia, where investor sentiment may amplify or diminish the perceived value of ethical signals based on their alignment with Islamic principles. In such contexts, investor sentiment may heighten the impact of Shariah compliance on brand equity, especially when ESG efforts resonate with Islamic values. By not fully addressing this interaction, existing literature may overestimate the standalone effects of ESG and Shariah compliance in these markets (Loang, 2024). To address this critical gap, this study proposes the following:

Hypothesis 4: *Investor sentiment significantly moderates the relationship between ESG performance, brand value, and stock returns, such that the relationship is stronger when investor sentiment is positive in Malaysia, Indonesia, and Saudi Arabia.*
Hypothesis 5: *Investor sentiment significantly moderates the relationship between Shariah compliance, brand value, and stock returns such that the relationship is stronger when investor sentiment is positive in Malaysia, Indonesia, and Saudi Arabia.*

III. METHODOLOGY

3.1. Data and Sampling

This study focuses on Shariah-compliant stocks in Malaysia, Indonesia, and Saudi Arabia. Malaysia, a leader in Islamic finance, accounted for over 28% of global Islamic banking assets in 2023 and has robust regulatory frameworks such as the Malaysian Code on Corporate Governance and the SRI Sukuk framework promoting ESG adoption. Indonesia, with the largest Muslim population globally, saw 24% growth in Islamic banking assets in 2023 and has been actively integrating ESG through regulations from the Indonesian Financial Services Authority. Saudi Arabia, the largest economy in the Middle East, is aligning financial practices with Islamic values and global sustainability goals under Vision 2030, including specific ESG targets. This study covers the period from January 2016 to December 2023, capturing both pre- and post-pandemic dynamics.

Data were sourced from Datastream for financial metrics, with ESG scores obtained from Refinitiv ESG, updated quarterly. This allows for a nuanced understanding of ESG's impact on brand value across these markets. A total of 683 Shariah-compliant stocks are selected from Malaysia (out of 1,014), 593 from Indonesia (out of 903), and 198 from Saudi Arabia (out of 233). Daily financial data, including market capitalisation and brand equity indices, are collected, with missing values addressed through mean imputation and outliers managed via winsorisation. Table 1 presents the key variables used in the study along with their respective data sources. These variables are essential for analysing the impact of ESG performance and Shariah compliance on brand value, investor sentiment, and financial performance across different markets. The 'Sharia' dummy variable is included to indicate the status of Sharia compliance within the sample, where 1 represents Sharia-compliant stocks and 0 represents non-compliant stocks. This variable allows for differentiation in the analysis between fully Sharia-compliant firms and those that do not adhere to Sharia principles.

Table 1.
Variables and Data Sources

Variable	Description	Data Source
Brand Value	Measured through the Brand Value Index (BVI), which is calculated using published posts, comments, and reading numbers on Twitter with specific weights	Twitter Data, Social Media Analytics
Stock Return	Logs of daily stock return.	Datastream
ESG Score	Measure of a company's environmental, social, and governance performance	Refinitiv ESG
Shariah Compliance	Dummy variable where 1 indicates the stock is Shariah-compliant, and 0 indicates the stock is non-Shariah-compliant	National Shariah Boards
Investor Sentiment	A measure of investor happiness using the Hedonometer of Twitter	Hedonometer (Twitter Data)
Market Capitalisation	Total market value of a company's outstanding shares	Datastream
Leverage Ratio	Debt to equity ratio	Datastream
Ownership Concentration	The total shareholding ratio of top30 shareholders	Datastream
Profitability	Return on assets	Datastream
Market Return	Changes in market index return	Datastream

Note: The Brand Value is measured through the Brand Value Index, calculated using Twitter data including published posts, comments, and reading numbers with specific weights. Investor Sentiment is assessed using the Hedonometer, which measures the happiness of investors based on Twitter data, available at https://hedonometer.org. All financial data, including stock returns, market capitalisation, leverage ratio, ownership concentration, profitability, and market returns, are sourced from DataStream. Refinitiv ESG provides ESG scores, while Shariah compliance data is sourced from National Shariah Boards

The investor profiles in Saudi Arabia, Malaysia, and Indonesia reveal distinct dynamics in ESG and Shariah-compliant investment demand. In Saudi Arabia, Shariah compliance is primarily driven by local retail investors, who view it as essential, while institutional interest in ESG is rising under Vision 2030, although it remains secondary to the Shariah alignment. Conversely, Malaysia and Indonesia present a more balanced landscape in which institutional investors, motivated by regulatory frameworks, actively pursue ESG within Shariah-compliant portfolios. International investors play a critical role in shaping ESG adoption, accounting for 20-25% of Malaysia's market, actively pushing for high ESG standards, and around 15-18% in Indonesia, supporting gradual ESG integration. Saudi Arabia, with approximately 12% foreign ownership post-2015 regulatory reforms, sees selective international interest focused on Shariah-compliant assets that exhibit credible ESG integration.

3.2. Brand Value

In this study, Brand Value is quantified using the Brand Value Index, a composite measure designed to capture the attractiveness and impact of a brand on social media platforms, specifically Twitter. The BVI is calculated by aggregating three key metrics: the number of published posts, comments, and readings associated with each company. The weights for these metrics are based on the values suggested by Godes & Mayzlin (2004) and Liu et al. (2024), which are derived from

extensive empirical analysis and expert validation. According to Liu et al. (2024), the weights are set as α_p = 0.6, α_c = 0.3, and α_R = 0.1. The weights are determined through a combination of expert feedback and empirical validation to ensure that they accurately reflect the relative importance of each component when measuring brand attraction. The following formula is employed to calculate the BVI:

$$BVI_{i,t} = In(BAP_{i,t}\ X\ 0.6 + \ BAD_{i,t}\ X\ 0.3 + BAL_{i,t}\ X\ 0.1\ ) \quad (1)$$

where $BVI_{i,t}$ represents the Brand attraction Index for company i at time t, $BAP_{i,t}$ is the published number of posts about company i at time t, $BAD_{i,t}$ is the number of comments about company i at time t, and $BVL_{i,t}$ is the number of readings for company i at time t.

The data for these metrics are collected using the Twitter API documentation tool, which allows for the precise capture of engagement metrics, such as the number of views, likes, retweets, and comments associated with each company.

3.3. Panel Data Model

Panel data regression models are particularly suitable for evaluating how the ESG performance, Shariah compliance, and investor sentiment shape both brand value and stock returns. Panel data models offer several advantages over pooled OLS and ordinary least squares. Panel data models allow for unobservable heterogeneity by accounting for individual-specific effects that may vary across entities but are constant over time or vice versa (Baltagi, 2021; Petersen, 2008). This ability to control unobserved heterogeneity improves the precision of the estimates and provides more robust results. Furthermore, panel data models address endogeneity and omitted variable bias more effectively than simple linear regression models, as they allow for the inclusion of time-invariant and entity-specific variables that may be correlated with the regressors.

The models used in this study are specified as follows:

$$BVI_{i,t} = \alpha_0 + \beta_1 E_{i,t} + \beta_2 S_{i,t} + \beta_3 G_{i,t} + \beta_4 Shariah_{i,t} + \beta_5 Sentiment_{i,t} + \beta_6 (E_{i,t} \times Sentiment_{i,t}) + \beta_7 (S_{i,t} \times Sentiment_{i,t}) + \beta_8 (G_{i,t} \times Sentiment_{i,t}) + \beta_9 (Shariah_{i,t} \times Sentiment_{i,t}) + \beta_{10} MC_{i,t} + \beta_{11} Lev_{i,t} + \beta_{12} OC_{i,t} + \beta_{13} ROA_{i,t} + \beta_{14} MR_{i,t} + \epsilon_{i,t} \quad (2)$$

$$Ret_{i,t} = \alpha_0 + \beta_1 E_{i,t} + \beta_2 S_{i,t} + \beta_3 G_{i,t} + \beta_4 Shariah_{i,t} + \beta_5 Sentiment_{i,t} + \beta_6 (E_{i,t} \times Sentiment_{i,t}) + \beta_7 (S_{i,t} \times Sentiment_{i,t}) + \beta_8 (G_{i,t} \times Sentiment_{i,t}) + \beta_9 (Shariah_{i,t} \times Sentiment_{i,t}) + \beta_{10} MC_{i,t} + \beta_{11} Lev_{i,t} + \beta_{12} OC_{i,t} + \beta_{13} ROA_{i,t} + \beta_{14} MR_{i,t} + \epsilon_{i,t} \quad (3)$$

where, BVI represents the Brand Value Index and Ret represents Stock Return. The key independent variables include the Environmental (E), Social (S), and Governance (G) components of ESG performance, along with Shariah compliance (Shariah), which is a dummy variable (1 for Shariah-compliant, 0 for non-Shariah

compliant). Investor sentiment (Sentiment) is included both as an independent variable and a moderator in interactions with E, S, G, and Shariah. The control variables are Market Capitalization (MC), Leverage Ratio (Lev), Ownership Concentration (OC), Profitability (ROA), and Market Return (MR).

Table 2 presents the Variance Inflation Factor (VIF) analysis of the independent variables included in the regression models. VIF values below 5 indicate that multicollinearity does not exist in this study, allowing for reliable estimation of the regression coefficients.

Table 2.
VIF Analysis

Variable	VIF	1/VIF
Environmental	2.35	0.426
Social	2.48	0.403
Governance	2.52	0.397
Shariah Compliance	1.89	0.529
Sentiment	2.21	0.452
E × Sentiment	2.67	0.374
S × Sentiment	2.70	0.370
G × Sentiment	2.75	0.364
Shariah × Sentiment	2.32	0.431
Market Capitalisation	2.10	0.476
Leverage Ratio	1.92	0.521
Ownership Concentration	2.05	0.488
Profitability	1.98	0.505
Market Return	2.18	0.459

Note: Table 2 provides the VIF and 1/VIF values for the independent variables in the study, indicating that all VIF values were below the commonly accepted threshold of 5. This suggests that multicollinearity among the variables was low, allowing for reliable estimation of the regression coefficients. The corresponding 1/VIF values confirm sufficient tolerance in the data, supporting the robustness of the regression models.

The VIF values for all variables are below the commonly accepted threshold of 5, with the corresponding 1/VIF values ranging from 0.364 to 0.529, indicating low multicollinearity. This confirms that the independent variables, such as environmental scores with a VIF of 2.35 (1/VIF = 0.426), social scores with a VIF of 2.48 (1/VIF = 0.403), and governance scores with a VIF of 2.52 (1/VIF = 0.397), are not excessively correlated with each other. The inclusion of Shariah compliance (VIF = 1.89, 1/VIF = 0.529) and the interaction terms with investor sentiment also demonstrate minimal multicollinearity concerns. Consequently, regression models are expected to produce robust and reliable estimates of the effects on brand value and stock returns.

IV. RESULTS AND ANALYSIS

4.1. Descriptive and Correlation Matrix

Table 3 presents the descriptive statistics for the key variables used in this study. The descriptive statistics in Table 3 reveal that the BVI has a mean of 6.200 and a

standard deviation of 3.353, indicating notable variability across firms with a fairly symmetrical distribution (skewness = 0.092, kurtosis = 2.808). Environmental, Social, and Governance have means of 0.562, 0.578, and 0.589, respectively, with slight right skewness (E = 0.133, S = 0.118, G = 0.094) and moderate kurtosis. Shariah compliance has a mean of 0.680, a negative skewness (-0.764), and low kurtosis (1.584), reflecting a higher proportion of compliant firms. Investor sentiment averages 0.530, with a slightly positive skewness (0.145). Market capitalisation (mean = 8.450) and Ownership Concentration (mean = 9.230) are moderately skewed to the right, whereas profitability (ROA) is nearly symmetrically distributed (mean = 0.085, skewness = 0.060). Market returns and stock returns have means of 0.012 and 0.017, respectively, with minimal skewness, indicating typical market volatility.

Table 3.
Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
BVI	6.200	3.353	0.003	9.482	0.092	2.808
Ret	0.017	0.092	-0.234	0.278	0.063	2.889
E	0.562	0.174	0.210	0.947	0.133	2.573
S	0.578	0.169	0.223	0.921	0.118	2.641
G	0.589	0.165	0.243	0.915	0.094	2.702
Sha	0.680	0.467	0.000	1.000	-0.764	1.584
Sent	0.530	0.183	0.200	0.887	0.145	2.437
MC	8.450	1.270	5.602	12.306	0.452	2.980
Lev	0.470	0.130	0.204	0.849	0.284	2.627
OC	9.230	1.520	6.002	12.975	0.354	2.854
ROA	0.085	0.070	-0.048	0.248	0.060	2.985
MR	0.012	0.080	-0.182	0.243	0.116	2.729

Note: Table 3 presents the descriptive statistics for the study variables, showing that most variables had means and standard deviations within the expected ranges. The skewness and kurtosis values indicate that the distributions of the variables are close to normal, with minor deviations, suggesting slight asymmetries and tails in the data.

Table 4 presents the Pearson correlation coefficients for the key variables in this study. The Environmental, Social, and Governance scores show moderate to strong positive correlations among themselves (E-S: 0.653, E-G: 0.704, S-G: 0.678), indicating that firms performing well in one ESG dimension tend to perform well in others. These ESG components also exhibit positive correlations with the BVI (E: 0.502, S: 0.551, G: 0.579) and Stock Return (Ret) (E: 0.423, S: 0.452, G: 0.499), suggesting that higher ESG performance is associated with enhanced brand value and stock returns. Shariah compliance shows a moderate correlation with BVI (0.349) and Ret (0.301), indicating that Shariah-compliant firms may experience some brand value and return benefits. Investor sentiment also correlates positively with BVI (0.521) and Ret (0.398), highlighting its role in amplifying the impact of other variables on brand value and stock returns. The correlations among market capitalisation, ownership concentration, and BVI (0.479 and 0.548, respectively)

suggest that larger firms with higher market capitalisation tend to have stronger brand values.

4.2. Impact of ESG and Shariah-Compliant on Brand Value

Table 5 presents the results of the panel data regression analysis examining the impact of ESG components, Shariah compliance, and investor sentiment on brand value across Malaysia, Indonesia, and Saudi Arabia using four different models for each country. The fixed-effects model is chosen based on the Hausman test, confirming that the fixed-effects model is more appropriate for addressing unobserved heterogeneity across firms.

In Malaysia, Model 1 shows that ESG components contribute significantly to brand value, with the governance component having the strongest impact (coefficient = 0.071, significant at the 5% level). This finding suggests that firms with strong governance practices are particularly valued in this market. Model 2 introduces Shariah compliance, which also positively impacts brand value (coefficient = 0.032, significant at the 10% level), indicating that alignment with Islamic principles enhances a firm's reputation. Model 3 demonstrates that investor sentiment plays a crucial role (coefficient = 0.075, significant at the 1% level) in amplifying the effects of ESG on brand value. In Model 4, the interaction between ESG components and sentiment further boosts brand value, particularly governance (coefficient = 0.050, significant at the 5% level). This implies that positive market sentiment can significantly enhance the benefits of strong governance, reflecting the dynamic interplay between governance practices and investor perceptions in Malaysia.

In Indonesia, the results follow a similar pattern. Model 1 indicates that ESG components significantly affect brand value, with the Governance component again showing the highest coefficient (0.068, significant at the 5% level). When Shariah compliance is added to Model 2, it positively impacts brand value (coefficient = 0.035, significant at the 10% level), reflecting the cultural importance of Islamic finance. Model 3 highlights the strong effect of investor sentiment (coefficient = 0.072, significant at the 1% level), reinforcing the impact of ESG initiatives. In Model 4, the interaction between Social practices and sentiment stands out (coefficient = 0.048, significant at the 1% level), suggesting that social responsibility is highly valued when market sentiment is favourable. This reflects Indonesia's societal focus on social equity, especially when positive sentiments support it.

The results indicate that ESG components do not have a significant direct effect on brand value across all models in Saudi Arabia. Model 1 shows insignificant impact of the Environmental, Social, or Governance components on brand value. By contrast, Shariah compliance in Model 2 has a modest yet positive effect (coefficient = 0.045, significant at the 5% level), which suggests that adherence to Islamic principles is valued in this market. The investor sentiment in Model 3 also shows a significant impact (coefficient = 0.068, significant at the 1% level), highlighting its importance in driving brand value. Model 4 reveals that, while ESG components remain insignificant, the interaction between Shariah compliance and sentiment significantly enhances brand value (coefficient = 0.046, significant at the 5% level). This indicates that in Saudi Arabia, brand value is particularly

sensitive to Shariah compliance when investor sentiment is favourable rather than to ESG practices alone.

The findings of this study corroborate those of Fatemi et al. (2018) and Friede et al. (2015), which demonstrate that ESG practices significantly enhance brand value. Specifically, this study confirms that governance is a particularly influential component, aligning with the work of Lins et al. (2017), who highlight governance as a key driver of investor trust. The positive effects of Shariah compliance on brand value are consistent with Ashraf & Mohammad (2014), who emphasise the importance of Islamic principles in shaping corporate reputation in Muslim-majority markets.

Table 4.
Pearson Correlation Matrix

Variable	E	S	G	Sha	Sent	MC	Lev	OC	ROA	MR	BVI	Ret
Environmental	1.000											
Social	0.653	1.000										
Governance	0.704	0.678	1.000									
Shariah Compliance	0.351	0.401	0.383	1.000								
Sentiment	0.452	0.424	0.501	0.298	1.000							
Market Capitalisation	0.499	0.548	0.482	0.198	0.353	1.000						
Leverage Ratio	0.254	0.283	0.297	0.103	0.152	0.402	1.000					
Ownership Concentration	0.482	0.501	0.521	0.219	0.398	0.601	0.353	1.000				
Profitability	0.379	0.421	0.402	0.181	0.322	0.451	0.281	0.501	1.000			
Market Return	0.419	0.379	0.448	0.251	0.302	0.498	0.302	0.481	0.451	1.000		
BVI	0.502	0.551	0.579	0.349	0.521	0.479	0.282	0.548	0.503	0.452	1.000	
Stock Return Ret	0.423	0.452	0.499	0.301	0.398	0.448	0.251	0.479	0.422	0.551	0.518	1.000

Note: Table 4 displays the Pearson correlation coefficients, revealing moderate correlations between variables. The relationships between the environmental, social, and governance scores and other variables are generally positive, with some notable correlations between brand value and stock returns. Moderate correlation levels suggest that multicollinearity is not a significant concern, supporting the robustness of the regression models in the subsequent analysis.

Table 5.
Panel Data Regression of Brand Value

Panel Data	Malaysia				Indonesia				Saudi Arab			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect
Constant	1.100	1.070**	1.090*	1.120**	1.110	1.050**	1.080*	1.100**	1.050*	1.050**	1.040	1.110**
	(2.50)	(2.960)	(1.870)	(3.120)	(2.400)	(3.100)	(1.950)	(3.050)	(1.900)	(3.050)	(0.920)	(3.150)
E	0.105**		0.095**	0.110**	0.092**		0.088*	0.110**	0.089		0.075	0.085
	(3.500)		(3.220)	(3.786)	(3.400)		(1.920)	(3.360)	(0.880)		(0.940)	(0.210)
S	0.062*		0.053*	0.065***	0.057**		0.052*	0.065**	0.055		0.048	0.055
	(1.850)		(1.940)	(6.343)	(2.100)		(1.920)	(2.400)	(0.930)		(0.870)	(0.200)
G	0.071**		0.062**	0.078**	0.068**		0.064*	0.078**	0.063		0.055	0.075
	(2.900)		(2.800)	(3.250)	(3.000)		(2.100)	(3.100)	(0.000)		(0.940)	(0.050)
Sha	0.035*	0.032*		0.040**	0.040*	0.035*		0.045**	0.031*	0.029*		0.044**
	(1.920)	(1.950)		(2.150)	(1.950)	(1.980)		(2.200)	(1.870)	(1.910)		(2.250)
Sent	0.070**	0.075***		0.072**	0.078**	0.068***		0.078***	0.068*	0.072**		0.068***
	(2.860)	(5.823)		(2.950)	(3.300)	(7.020)		(5.000)	(1.920)	(3.150)		(6.150)
E × Sent				0.053**				0.053**				0.052**
				(2.970)				(2.980)				(2.960)
S × Sent				0.048***				0.048***				0.047**
				(6.552)				(4.146)				(3.980)
G × Sent				0.050**				0.050**				0.049**
				(2.980)				(3.000)				(2.960)
Sha × Sent				0.046**				0.046*				0.045*
				(2.120)				(2.000)				(2.050)

Table 5.
Panel Data Regression of Brand Value (Continued)

Panel Data	Malaysia				Indonesia				Saudi Arab			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect
Control Variables												
MC	0.060	0.065	0.057	0.065	0.067	0.060	0.055	0.067	0.060	0.058	0.057	0.060
	(1.750)	(1.780)	(1.720)	(1.830)	(1.900)	(1.760)	(1.740)	(1.850)	(1.900)	(1.750)	(1.800)	(1.920)
Lev	0.020	0.018	0.019	0.021	0.019	0.021	0.018	0.021	0.017	0.019	0.018	0.018
	(1.500)	(1.490)	(1.470)	(1.550)	(1.540)	(1.530)	(1.490)	(1.520)	(1.510)	(1.490)	(1.500)	(1.510)
OC	0.048	0.045*	0.048	0.049*	0.048	0.046*	0.045*	0.048*	0.045*	0.044	0.045*	0.046*
	(0.130)	(1.920)	(0.900)	(1.940)	(0.950)	(1.930)	(1.910)	(1.950)	(1.920)	(0.451)	(1.920)	(1.930)
ROA	0.062	0.060*	0.023	0.03	0.035**	0.063	0.076*	0.125**	0.005	0.013*	0.124*	0.132**
	(1.850)	(1.950)	(0.930)	(0.920)	(2.030)	(0.010)	(1.980)	(2.040)	(0.392)	(1.940)	(1.930)	(2.050)
MR	0.033*	0.032*	0.034**	0.032**	0.031**	0.030*	0.030*	0.032**	0.028**	0.029*	0.029*	0.030**
	(1.970)	(1.960)	(1.980)	(2.010)	(2.000)	(1.970)	(1.950)	(1.990)	(1.990)	(1.970)	(1.950)	(2.010)
Specifications												
Adjusted R-Squared	0.439	0.417	0.524	0.740	0.442	0.435	0.535	0.659	0.428	0.411	0.515	0.639
Hausman Test	0.015	0.013	0.012	0.008	0.022	0.017	0.009	0.024	0.026	0.034	0.003	0.037
Chow Test	0.040	0.037	0.039	0.045	0.045	0.040	0.043	0.048	0.038	0.035	0.036	0.041
LM Test	0.142	0.139	0.241	0.345	0.117	0.242	0.144	0.148	0.341	0.137	0.239	0.242
Pesaran Scaled Test	0.432	0.528	0.330	0.434	0.736	0.831	0.233	0.437	0.229	0.525	0.528	0.631
SD dependent var	0.028	0.013	0.005	0.030	0.009	0.024	0.026	0.031	0.025	0.041	0.053	0.006
SE of regression	0.016	0.013	0.015	0.018	0.017	0.014	0.016	0.019	0.015	0.012	0.014	0.017

Table 5.
Panel Data Regression of Brand Value (Continued)

Panel Data	Malaysia				Indonesia				Saudi Arab			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect
Akaike info criterion	1.640	1.550	1.600	1.700	1.670	1.610	1.650	1.750	1.590	1.530	1.570	1.670
Sum squared residuals	0.075	0.068	0.072	0.080	0.077	0.071	0.074	0.085	0.071	0.066	0.069	0.075
Schwarz criterion	1.570	1.500	1.550	2.650	1.600	1.550	1.590	1.690	1.520	1.460	2.538	2.682
Hannan Quinn criterion	1.600	1.520	1.570	1.670	2.620	2.570	1.610	1.710	1.540	2.490	2.520	1.624

Note: Table 5 presents the panel data regression results for brand value in Malaysia, Indonesia, and Saudi Arabia. Data from each country were analysed using four different models. Model (1) includes the ESG components without interaction terms, Model (2) excludes Shariah compliance, and all sentiment moderators, Model (3) excludes all sentiment moderators but includes Shariah compliance, and Model (4) incorporates all variables, including interaction terms between ESG components, Shariah compliance, and investor sentiment. The coefficients indicate the impact of each variable on brand value, with the t-statistics reported in parentheses. The significance levels are denoted by ***p<0.01, **p<0.05, and *p<0.10.

Table 6.
Panel Data Regression of Stock Returns

Panel Data	Malaysia				Indonesia				Saudi Arab			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect	Fixed-Effect
Constant	1.080**	1.050**	1.060*	1.100**	1.070**	1.040**	1.050*	1.090**	1.060**	1.020**	1.030*	1.080**
	(4.351)	(4.300)	(3.970)	(4.420)	(4.284)	(4.150)	(3.950)	(4.330)	(4.180)	(4.109)	(3.910)	(4.304)
E	0.075**		0.070**	0.080**	0.070**		0.068**	0.072**	0.077		0.073	0.079
	(4.451)		(4.304)	(4.553)	(4.309)		(4.281)	(4.440)	(0.364)		(0.251)	(0.475)
S	0.060*		0.055*	0.063**	0.055*		0.053*	0.059**	0.053		0.050	0.057
	(3.903)		(3.853)	(4.083)	(3.889)		(3.804)	(4.020)	(0.876)		(0.748)	(0.052)
G	0.065*		0.060*	0.068**	0.060*		0.058*	0.064**	0.058		0.055	0.062
	(3.048)		(3.952)	(4.060)	(3.950)		(3.909)	(4.043)	(0.934)		(0.855)	(0.003)
Sha		0.035*	0.030*	0.032*		0.040*	0.034*	0.035*		0.045*	0.032*	0.034*
		(3.950)	(3.874)	(3.930)		(3.998)	(3.860)	(3.980)		(3.010)	(3.890)	(3.930)
Sent	0.075**	0.068**		0.072**	0.073**	0.066**		0.070**	0.068	0.061		0.068
	(4.300)	(4.220)		(4.450)	(4.400)	(4.150)		(4.330)	(4.090)	(0.010)		(0.308)
E × Sent				0.053***				0.053**				0.052
				(6.051)				(4.060)				(0.046)
S × Sent				0.048***				0.048***				0.047
				(6.054)				(6.059)				(0.052)
G × Sent				0.050***				0.050***				0.049
				(6.062)				(7.065)				(0.063)
Sha × Sent				0.046***				0.046*				0.045
				(6.995)				(3.998)				(0.990)

Table 6.
Panel Data Regression of Stock Returns (Continued)

Control Variables												
MC	0.023	0.031	0.089	0.009	0.023	0.031	0.023	0.094	0.034	0.035	0.023	0.045
	(1.990)	(1.970)	(1.953)	(2.040)	(2.021)	(1.970)	(1.946)	(2.030)	(1.933)	(1.912)	(1.901)	(1.993)
Lev	0.018	0.020	0.019	0.021	0.019	0.021	0.018*	0.022	0.017	0.019	0.018	0.018
	(1.852)	(1.860)	(1.840)	(1.900)	(1.840)	(1.880)	(2.832)	(1.920)	(1.831)	(1.805)	(1.811)	(1.823)
OC	0.048	0.045	0.046*	0.045	0.049	0.046*	0.045	0.046	0.045*	0.044	0.043*	0.044
	(1.931)	(1.920)	(3.908)	(1.920)	(1.945)	(3.934)	(1.901)	(1.945)	(2.912)	(1.895)	(2.885)	(1.911)
ROA	0.060	0.033	0.034	0.024	0.052	0.089	0.043	0.044	0.015	0.035	0.046	0.052
	(1.930)	(1.924)	(1.912)	(1.941)	(1.923)	(1.902)	(1.890)	(1.921)	(1.902)	(1.881)	(1.875)	(1.920)
MR	0.032**	0.030*	0.031**	0.032*	0.130***	0.068**	0.134**	0.037*	0.129***	0.027*	0.028*	0.029*
	(4.970)	(3.950)	(4.960)	(3.980)	(7.950)	(4.930)	(4.920)	(3.970)	(6.930)	(3.910)	(3.905)	(3.920)
Specifications												
Adjusted R-Squared	0.417	0.435	0.528	0.642	0.411	0.435	0.621	0.640	0.415	0.432	0.523	0.637
Hausman Test	0.018	0.017	0.016	0.022	0.019	0.015	0.017	0.024	0.017	0.016	0.015	0.021
Chow Test	0.037	0.040	0.038	0.045	0.035	0.038	0.036	0.043	0.035	0.037	0.036	0.041
LM Test	0.239	0.244	0.237	0.240	0.142	0.144	0.140	0.149	0.341	0.343	0.342	0.346
Pesaran Scaled Test	0.440	0.445	0.444	0.446	0.531	0.534	0.332	0.543	0.634	0.532	0.631	0.340
SD dependent var	0.024	0.026	0.025	0.026	0.024	0.025	0.024	0.026	0.023	0.025	0.024	0.025
SE of regression	0.013	0.014	0.010	0.012	0.014	0.019	0.014	0.019	0.013	0.018	0.013	0.018
Akaike info criterion	4.550	4.600	4.570	4.650	4.590	4.640	4.610	4.690	4.570	4.620	4.590	4.670
Sum squared residuals	0.068	0.072	0.069	0.088	0.071	0.074	0.072	0.085	0.045	0.069	0.067	0.099

Note: Table 6 summarises the panel data regression results for stock returns across Malaysia, Indonesia, and Saudi Arabia. As in Table 5, the analysis was conducted using four different models for each country. Model (1) includes the ESG components without interaction terms, Model (2) excludes Shariah compliance and all sentiment moderators, Model (3) excludes all sentiment moderators but includes Shariah compliance, and Model (4) incorporates all variables, including interaction terms between ESG components, Shariah compliance, and investor sentiment. The coefficients reflect the impact of these variables on stock returns, with the t-statistics provided in parentheses. The significance levels are denoted as ***p<0.01, **p<0.05, and *p<0.10.

4.3. Impact of ESG and Shariah-Compliant on Stock Return

Table 6 summarises the panel data regression results for stock returns in Malaysia, Indonesia, and Saudi Arabia.

In Malaysia, the regression results show that all ESG components positively affect stock returns across all models, with Environmental and Governance being particularly influential in Model 1 (coefficients = 0.075 and 0.065, respectively, significant at the 5% and 10% levels). Model 2 introduces Shariah compliance, which also positively impacts returns (coefficient = 0.030, significant at the 10% level), while the ESG components remain significant. Model 3 highlights the strong effect of investor sentiment (coefficient = 0.068, significant at the 5% level). In Model 4, the interaction terms reveal that sentiment further amplifies the effects of ESG components, especially governance (interaction coefficient = 0.050, significant at the 1% level). In Indonesia, ESG components and Shariah compliance consistently show positive impacts on stock returns, with social practices notably strengthened by positive sentiment in Model 4 (interaction coefficient = 0.048, significant at the 1% level).

In Saudi Arabia, the regression results reveal that ESG components do not have a significant direct effect on stock returns across any model. Unlike Malaysia and Indonesia, where ESG components positively influence stock returns, ESG components are insignificant in Saudi Arabia. Surprisingly, Shariah compliance positively affected stock returns, particularly in Model 2 (coefficient = 0.034, significant at the 10% level). Investor sentiment in Model 3 also does not have a significant direct impact on stock returns, but Model 4 highlights that there is insignificant interaction between ESG components and sentiment, which contrasts with other markets where such interactions are more prominent. Therefore, in Saudi Arabia, the effect of Shariah compliance is more consistent, while ESG components alone do not drive stock returns, and sentiment does insignificantly moderate their impact in the way it does in other markets.

The results of this study resonate with prior research, such as those by Friede et al. (2015) and Khan et al. (2016), which emphasise the positive impact of ESG on financial performance, particularly in Malaysia and Indonesia, where ESG components significantly boost stock returns. However, the lack of significant ESG effects in Saudi Arabia diverges from these findings, indicating that cultural and market-specific factors, as discussed by Girerd-Potin et al. (2014), may constrain ESG impacts in certain regions. The consistent positive influence of Shariah compliance across all markets aligns with Derigs and Marzban (2008), highlighting the importance of religious conformity in financial outcomes in Islamic markets.

4.4. Shariah vs Conventional Stock Returns in Different Brand Values

Table 7 presents the regression results for stock returns across the low (BV=0) and high (BV=1) brand value groups for both Shariah-compliant and conventional stocks. For Shariah-compliant stocks, ESG components and investor sentiment have a more pronounced impact on stock returns in the high-brand-value group. In high-brand-value Shariah stocks, the governance component has a significant positive effect on stock returns (coefficient = 0.054, significant at the 5% level), and its interaction with sentiment further amplifies this effect (interaction coefficient

= 0.050, significant at the 5% level). The Environmental component also shows a strong positive impact (coefficient = 0.066, significant at the 1% level), especially when combined with sentiment (interaction coefficient = 0.062, significant at the 1% level). By contrast, for low-brand-value Shariah stocks, the ESG components still positively affect stock returns, but their influence is weaker, as seen in the lower coefficients, such as governance (coefficient = 0.048, significant at the 5% level).

For conventional stocks, the effects of ESG components are generally weaker, particularly in the low brand value group, where the Environmental and Social components are insignificant. However, in high-brand-value conventional stocks, the governance component positively impacts stock returns (coefficient = 0.028, significant at the 5% level), and its interaction with sentiment becomes more relevant (interaction coefficient = 0.032, significant at the 5% level), although still less substantial compared to Shariah-compliant stocks. These results suggest that brand value significantly enhances the positive effects of ESG and sentiment on stock returns, particularly for Shariah-compliant stocks, in which the impact is more substantial for higher brand value.

Table 7.
Stock Returns in Different Brand Values

Variable	(BV=0) Model (1)	(BV=1) Model (2)	(BV=0) Model (3)	(BV=1) Model (4)	(BV=0) Model (5)	(BV=1) Model (6)	(BV=0) Model (7)	(BV=1) Model (8)
				Shariah Stocks				
E	0.065**	0.058**			0.063**	0.055**	0.066***	0.058**
	(3.453)	(3.102)			(3.601)	(3.301)	(4.201)	(3.601)
S	0.050**	0.045*			0.052*	0.047*	0.057*	0.050**
	(3.203)	(1.891)			(1.303)	(1.901)	(1.412)	(3.202)
G	0.048**	0.040*			0.050**	0.043*	0.054**	0.047**
	(3.008)	(1.721)			(3.201)	(1.841)	(3.313)	(3.101)
Sentiment			0.007***	0.005***	0.007***	0.005***	0.008***	0.006***
			(5.002)	(4.411)	(4.601)	(4.202)	(5.121)	(4.511)
E × Sentiment							0.062***	0.054**
							(4.002)	(3.421)
S × Sentiment							0.054**	0.047**
							(3.512)	(3.221)
G × Sentiment							0.056**	0.050**
							(2.703)	(2.361)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-Squared	0.614	0.601	0.632	0.612	0.620	0.608	0.640	0.618

Table 7.
Stock Returns in Different Brand Values (Continued)

Variable	(BV=0) Model (1)	(BV=1) Model (2)	(BV=0) Model (3)	(BV=1) Model (4)	(BV=0) Model (5)	(BV=1) Model (6)	(BV=0) Model (7)	(BV=1) Model (8)
Conventional Stocks								
E	0.020	0.015			0.021	0.016	0.023*	0.019
	(1.652)	(1.451)			(1.762)	(1.501)	(1.902)	(1.602)
S	0.015	0.012			0.016	0.013	0.018	0.014
	(1.302)	(1.121)			(1.412)	(1.191)	(1.602)	(1.301)
G	0.025*	0.020			0.026*	0.021	0.028*	0.023
	(2.851)	(1.602)			(3.912)	(1.702)	(2.002)	(1.803)
Sentiment			0.004***	0.003**	0.004***	0.003**	0.005***	0.004**
			(5.723)	(4.812)	(5.623)	(4.913)	(5.832)	(4.923)
E × Sentiment			0.033**	0.028*			0.034**	0.029*
			(2.342)	(2.012)			(2.412)	(2.072)
S × Sentiment			0.028*	0.023*			0.029*	0.024*
			(2.012)	(1.913)			(2.211)	(1.872)
G × Sentiment			0.031**	0.026*			0.032**	0.027*
			(2.223)	(2.003)			(2.323)	(2.092)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-Squared	0.491	0.480	0.512	0.495	0.500	0.488	0.520	0.503

Note: Table 7 shows the regression results for stock returns across the low (BV=0) and high (BV=1) brand value groups for both Shariah-compliant and conventional stocks. The models for Shariah-compliant stocks generally display higher adjusted R-squared values than conventional stocks, indicating a stronger impact of these factors on returns. T-statistics are provided in parentheses, with the significance levels marked as ***p<0.01, **p<0.05, and *p<0.10.

4.5. Quantile-on-Quantile on ESG and Brand Value

Figures 1 (a), (b), and (c) present 3D surface plots showing the relationships between the quantiles of ESG factors from all countries and Brand Value using a quantile-on-quantile regression approach. This method examines how the impact of each ESG component on Brand Value varies across the quantiles.

The results depicted in Figure 1 indicate that the environmental factor (Figure 1a) exhibits a complex, non-linear relationship with brand value, with significant positive effects more pronounced at higher quantiles, particularly in the middle to high quantiles. This finding suggests that firms with stronger environmental practices have a greater impact on brand value as their environmental scores increase. Similarly, the Social factor (Figure 1b) shows a moderate positive relationship with brand value, with significant influence strengthening primarily in the middle quantiles, although the effect is less pronounced compared to environmental. The Governance factor (Figure 1c) displays a consistent positive gradient, with significant impacts observed across all quantiles but particularly strong in the middle and high quantiles, reflecting the crucial role of strong governance in enhancing brand value across various governance scores.

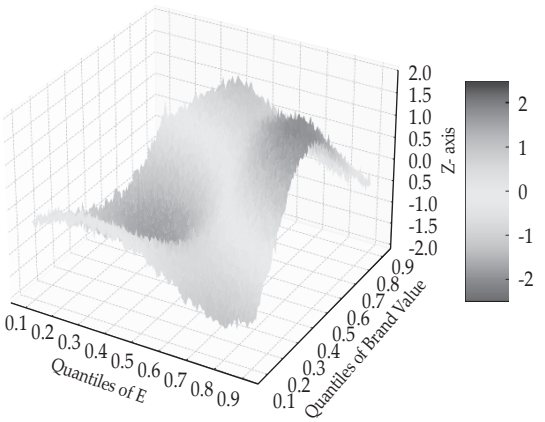

Figure 1(a).
Environmental (E) vs Brand Value

Note: The Environmental factor shows a complex, non-linear relationship with brand value. The positive effects are significant and more pronounced in the middle to high quantiles, indicating that firms with stronger environmental practices experience greater brand value enhancement as their environmental scores increase.

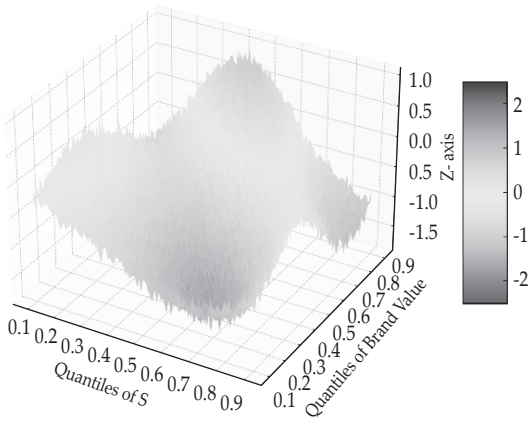

Figure 1(b).
Social (S) vs Brand Value

Note: The Social factor exhibits a moderate positive relationship with brand value. The significant effects are primarily observed in the middle quantiles, suggesting that firms with better social scores see an improved brand value, though the impact is less robust compared to the Environmental factor.

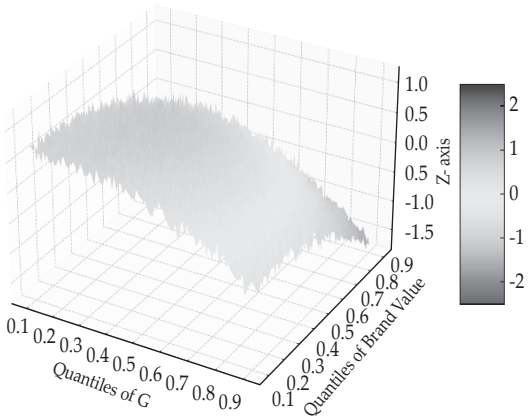

Figure 1(c).
Governance (G) vs Brand Value

Note: The Governance factor shows a consistent positive relationship with brand value. Significant effects are observed across all quantiles, with a particularly strong impact in the middle and high quantiles, highlighting the crucial role of strong governance in consistently enhancing brand value.

These findings are consistent with those of Khan et al. (2016), who highlight the varying impacts of ESG factors based on their materiality. The strong influence of governance aligns with Srairi (2020), who emphasises its role in enhancing firm performance, particularly in Islamic contexts. The nuanced effect of environmental factors reflects Ramli et al. (2022), who note context-dependent effects, especially when combined with halal practices. The variable impact of social factors echoes that of Abdelsalam et al. (2014), indicating that social responsibility outcomes differ based on investor ethics.

4.6. Robustness: Granger Causality and FGLS with Aggregate ESG

Table 8 presents the results of the Granger causality tests, determining whether the past values of one variable can predict another. The results indicate that Environmental (F-statistic = 4.674, p-value = 0.003), Social (F-statistic = 2.983, p-value = 0.045), Governance (F-statistic = 3.509, p-value = 0.034), and Shariah Compliance (F-statistic = 5.215, p-value = 0.001) Granger cause Brand Value, suggesting that these factors significantly predict future changes in brand value. However, reverse causality is not observed, as Brand Value does not Granger cause these variables, indicating one-way causality from ESG components and Shariah compliance to brand value. Additionally, Brand Value Granger causes Investor Sentiment (F-statistic = 3.019, p-value = 0.023), highlighting that changes in brand value can predict investor sentiment. On the financial performance side, Environmental also Granger causes stock returns (F-statistic = 3.025, p-value = 0.003), showing that environmental practices can predict future stock performance, while the reverse does not hold.

Table 8.
Granger Causality Test Results

Causality Direction	F-Statistic	P-Value	Remarks
Environmental → Brand Value	4.674	0.003	Reject null, Environmental Granger causes Brand Value
Brand Value → Environmental	2.117	0.123	Do not reject null, No Granger causality
Social → Brand Value	2.983	0.045	Reject null, Social Granger causes Brand Value
Brand Value → Social	2.507	0.078	Do not reject null, No Granger causality
Governance → Brand Value	3.509	0.034	Reject null, Governance Granger causes Brand Value
Brand Value → Governance	1.786	0.180	Do not reject null, No Granger causality
Shariah Compliance → Brand Value	5.215	0.001	Reject null, Shariah Compliance Granger causes Brand Value
Brand Value → Shariah Compliance	2.002	0.145	Do not reject null, No Granger causality
Investor Sentiment → Brand Value	1.922	0.153	Do not reject null, No Granger causality
Brand Value → Investor Sentiment	3.019	0.023	Reject null, Brand Value Granger causes Investor Sentiment
Environmental → Stock Return	3.025	0.003	Reject null, Environmental Granger causes Stock Return
Stock Return → Environmental	1.983	0.147	Do not reject null, No Granger causality
Social → Stock Return	2.104	0.139	Do not reject null, No Granger causality

Note: Table 8 presents the results of the Granger causality tests. The table indicates whether the past values of one variable can predict another, with significance levels determined by the F-statistic and p-value. A p-value below 0.05 leads to the rejection of the null hypothesis, suggesting Granger causality between the variables.

Table 9 presents the FGLS regression results with an aggregated ESG measure addressing heteroscedasticity and autocorrelation issues. In Malaysia, all individual ESG components significantly impact brand value, with Governance having the strongest effect in high-brand-value firms (BV=1). Investor sentiment amplifies these effects, particularly for Environmental factors (interaction coefficient = 3.115, significant at the 1% level). Similarly, in Indonesia, the Social and Governance components show substantial impacts on high-brand-value stocks, with Shariah compliance enhanced by positive sentiment (interaction coefficient = 3.215, significant at 1%). However, in Saudi Arabia, neither the individual ESG components nor the aggregate ESG variable demonstrates a statistically significant direct effect on brand value, indicating that ESG's influence in this market is limited unless it is closely aligned with Shariah compliance. Shariah compliance itself remains a significant factor in Saudi Arabia, especially in high-brand-value firms, where its impact is strongly reinforced by positive investor sentiment (interaction coefficient = 3.545, significant at the 1% level). These results highlight the crucial role of investor sentiment in amplifying the effects of ESG and Shariah compliance on brand value, with the most pronounced impact observed in Malaysia and Indonesia. In Saudi Arabia, the effects are largely driven by Shariah alignment rather than by ESG factors alone.

Table 9.
Regression Results Using FGLS with Aggregate ESG

Variables	Malaysia (All)	Malaysia (BV=0)	Malaysia (BV=1)	Indonesia (All)	Indonesia (BV=0)	Indonesia (BV=1)	Saudi Arabia (All)	Saudi Arabia (BV=0)	Saudi Arabia (BV=1)
E	0.105**	0.082*	0.120**	0.098*	0.075*	0.113**	0.092	0.060	0.085
	(4.502)	(3.734)	(4.612)	(3.798)	(3.608)	(4.305)	(1.540)	(1.306)	(1.585)
S	0.062*	0.055*	0.065*	0.048*	0.042*	0.059**	0.051	0.035	0.048
	(3.992)	(3.712)	(4.043)	(3.610)	(3.454)	(4.128)	(1.603)	(1.201)	(1.490)
G	0.071**	0.063**	0.078**	0.064**	0.056*	0.072**	0.059	0.040	0.055
	(4.601)	(4.024)	(4.612)	(3.952)	(3.723)	(4.342)	(1.932)	(1.331)	(1.976)
ESG	0.060**	0.048**	0.066**	0.051*	0.056**	0.049	0.060	0.048	0.066
	(4.003)	(3.655)	(4.205)	(3.501)	(3.856)	(1.963)	(4.007)	(3.655)	(4.203)
Sha	0.045**	0.032*	0.054**	0.039*	0.028*	0.049**	0.038**	0.025**	0.042**
	(3.201)	(3.012)	(3.512)	(3.108)	(2.978)	(3.412)	(3.002)	(3.722)	(3.903)
Sentiment	5.070***	4.780***	5.050***	4.650***	4.400***	4.820***	4.520	4.100	4.480
	(6.501)	(5.903)	(5.332)	(5.640)	(5.423)	(5.672)	(3.310)	(3.092)	(3.109)
E × Sentiment	3.115***	2.867**	3.205***	2.989**	2.503*	3.037**	3.352	3.119	3.505
	(5.551)	(4.768)	(5.215)	(4.854)	(4.151)	(4.917)	(3.312)	(3.061)	(3.477)
S × Sentiment	2.045**	1.823*	2.110**	1.934*	1.715*	2.003**	1.910	1.605	2.003
	(4.591)	(3.923)	(4.401)	(4.208)	(3.905)	(4.307)	(2.033)	(1.834)	(2.145)
G × Sentiment	2.821**	2.652**	2.945***	2.703**	2.405*	2.837**	2.940	2.653	2.856
	(5.032)	(4.823)	(5.142)	(4.708)	(4.091)	(4.980)	(2.875)	(2.498)	(3.017)
Sha × Sentiment	3.110***	2.890**	3.215***	3.045**	2.533*	3.050**	3.150**	2.900**	3.545**
	(5.580)	(4.800)	(5.225)	(4.865)	(4.165)	(4.930)	(3.320)	(3.070)	(3.490)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-Squared	0.697	0.544	0.591	0.621	0.524	0.629	0.447	0.462	0.405

Note: This table presents the FGLS regression results, assessing the moderating effects of investor sentiment on the relationships among ESG factors, Shariah compliance, and brand value. Coefficients and t-statistics (in parentheses) are shown with significance levels of $p < 0.1$, $p < 0.05$, and $*p < 0.01$. The results show significant impacts of ESG factors and Shariah compliance in Malaysia and Indonesia, with investor sentiment playing a key moderating role across markets.

V. CONCLUSION

This study examines the impact of ESG factors and Shariah compliance on brand value and stock returns across Malaysia, Indonesia, and Saudi Arabia using a sample of 1,474 publicly listed Shariah-compliant firms using panel data regression, quantile-on-quantile regression methods, Granger causality, and FGLS to address the potential issues of heteroskedasticity and autocorrelation. A comparison analysis between Shariah-compliant and conventional stocks is also examined.

The results confirm the hypotheses with important regional nuances. Hypothesis 1, which posits a positive relationship between ESG performance and brand value in Shariah-compliant stocks, is supported in Malaysia and Indonesia, where governance factors enhance financial outcomes across higher quantiles. However, in Saudi Arabia, ESG's impact is muted, suggesting that it plays a secondary role to Shariah compliance, partially supporting Hypothesis 1, but underscoring the conditional role of ESG in this market. Hypothesis 2, which asserts that Shariah compliance has a positive influence on brand value and stock returns, is upheld across all markets with a pronounced effect in Saudi Arabia, where religious adherence dominates investor trust and brand equity considerations. Hypothesis 3's suggestion that ESG has a stronger relationship with returns in Shariah-compliant versus conventional stocks is confirmed, although its impact remains contingent on alignment with the Shariah principles in Saudi Arabia. Hypotheses 4 and 5 propose that investor sentiment moderates the effects of ESG and Shariah compliance, with sentiment-amplifying ESG impacts in Malaysia and Indonesia; in Saudi Arabia, it strengthens the influence of Shariah compliance, reinforcing its role as a primary driver of the brand value. These findings reflect Saudi Arabia's unique investment context, where Shariah compliance is the predominant signal of financial and ethical integrity, and ESG's role is supportive and effective only when aligned with Islamic principles.

The findings of this study underscore the critical role of signalling theory in Islamic financial markets, where ESG and Shariah compliance serve as powerful signals that can enhance brand value and stock performance through reduced information asymmetry and heightened investor trust. However, the varied regulatory landscapes across Malaysia, Indonesia, and Saudi Arabia suggest that policymakers must adopt market-specific strategies to maximise the efficacy of these signals. In Saudi Arabia, where Shariah compliance serves as a predominant ethical indicator, regulatory efforts could focus on creating incentives for firms to align ESG practices more visibly with Islamic principles, thus strengthening the credibility of ESG without diminishing Shariah compliance. Malaysia and Indonesia, with their more integrated ESG-Shariah frameworks, should emphasise stringent ESG disclosure requirements, enabling investors to evaluate ESG as an authentic material dimension of Shariah-compliant investing. Enhanced disclosure, coupled with investor education on the financial benefits of this dual commitment, could drive the broader adoption of sustainable practices, fostering market stability and resilience.

For investors, this study highlights that ESG and Shariah compliance, while valuable, vary in significance across Islamic markets and require a discernible approach. In Saudi Arabia, where Shariah compliance is culturally ingrained, investors may prioritise firms with robust Shariah credentials, viewing ESG as an ancillary value addition when it aligns with Islamic values. By contrast, Malaysia and Indonesia offer fertile ground for investments that integrate both ESG and Shariah practices, given regulatory support and a diverse investor base increasingly attuned to sustainability. By carefully selecting firms that demonstrate genuine commitment to both ESG and Shariah, investors can position portfolios to capture sustainable returns while aligning with the ethical orientations of these markets. This tailored investment approach, which is sensitive to regional preferences and

regulatory expectations, can optimise the dual benefits of financial performance and societal impacts in these key Islamic financial markets.

This study has several limitations, including its focus on Malaysia, Indonesia, and Saudi Arabia, which may limit the generalisability of the findings to other regions, especially as the Shariah principles gain adoption in global markets. The reliance on social media-based brand value measurement may not fully capture the depth of brand equity, while the analysis of ESG components lacks granularity because it focuses on an aggregate measure rather than individual ESG factors. Additionally, the study's comparative scope with conventional stocks is limited, offering only a general performance contrast rather than a detailed examination of the specific differences in ESG impact. Furthermore, reliance on publicly available data may not fully capture the complexities of ESG practices and Shariah compliance.

Future research could address these gaps by exploring Shariah and ESG integration in diverse regulatory contexts and using advanced methods, such as AI and machine learning, to analyse more granular data sources, such as real-time financial reporting and social media sentiment, for deeper insights and predictive capabilities. Future studies should examine the direct impact of different investor types on the demand for ESG and Shariah-compliant investments, particularly in markets with varying levels of regulatory support and cultural alignment, such as Saudi Arabia, Malaysia, and Indonesia. Exploring how local retail, institutional, and international investors respond to ESG and Shariah signals could provide deeper insight into the effectiveness of these factors in driving brand value and stock performance. Additionally, longitudinal studies could investigate how shifts in investor demographics, such as increasing foreign ownership, influence ESG adoption within the Shariah framework over time. These avenues enhance the understanding of the dynamic interactions between investor preferences and sustainable finance in Islamic markets.

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