COMPARATIVE ANALYSIS OF SUKUK STRUCTURES, RATINGS AND YIELDS: EVIDENCE FROM MALAYSIA AND INDONESIA

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Abstract: *Despite the significant growth of sukuk markets in Southeast Asia, the influence of sukuk structures on credit ratings and yields remains underexplored—particularly from a comparative perspective. Given that different sukuk structures embody varying degrees of risk-sharing, asset-backing, and legal enforceability, they may influence investor perception and pricing mechanisms differently across jurisdictions. This study provides a comparative analysis of sukuk characteristics in Malaysia and Indonesia, focusing on 1. structural composition, 2. credit ratings, 3. yields, and 4. issuance features. Drawing on a cross-sectional dataset comprising 207 Malaysian and 293 Indonesian corporate sukuk issued between 2003 and 2024, the analysis employs descriptive statistics, correlation analysis, independent t-tests, and Cohen's d effect sizes to examine inter-country differences. The findings reveal statistically significant differences (p < 0.001) in all key variables, including sukuk structure, rating, yield, coupon rate, maturity and issuance size (in million USD). Malaysian sukuk are associated with lower yields, higher credit ratings, larger issuance sizes, and longer maturities. Conversely, Indonesian sukuk offer higher returns, shorter tenors, smaller volumes, and more diverse structural types. Correlation patterns suggest that yield is positively associated with coupon rate and negatively with credit rating, with stronger relationships observed in Malaysia. Cohen's* d *indicates large practical differences. These findings offer valuable insights for investors, regulators, and scholars exploring cross-border sukuk investment and policy design.*

Keywords: Sukuk Structures, Ratings. Yield, Malaysia and Indonesia

1.   Introduction

The global sukuk or Islamic bond market has witnessed substantial expansion, with annual issuance reaching approximately USD180 billion in 2024, and the outstanding volume

projected to approach USD 1 trillion in the coming years (Coyle, 2025). Based Figure 1, total global issuance (long term and short term) has grown significantly from USD53.1 billion in 2010 to USD212 billion in 2023, which confirms the leading position of sukuk as the key financing instrument. The issuance volume during 2023 was mainly due to sovereign sukuk issuances from Asia, Gulf Countries Cooperation (GCC), Africa and certain other jurisdictions. Malaysia continues to dominate the overall sukuk market while the issuances from Saudi Arabia and Indonesia maintained its upward trend and increased with good volume. The sukuk issuances from certain other countries such as Bahrain, Türkiye, African region, also regularly issued sukuk (International Islamic Financial Market (IIFM), 2024).
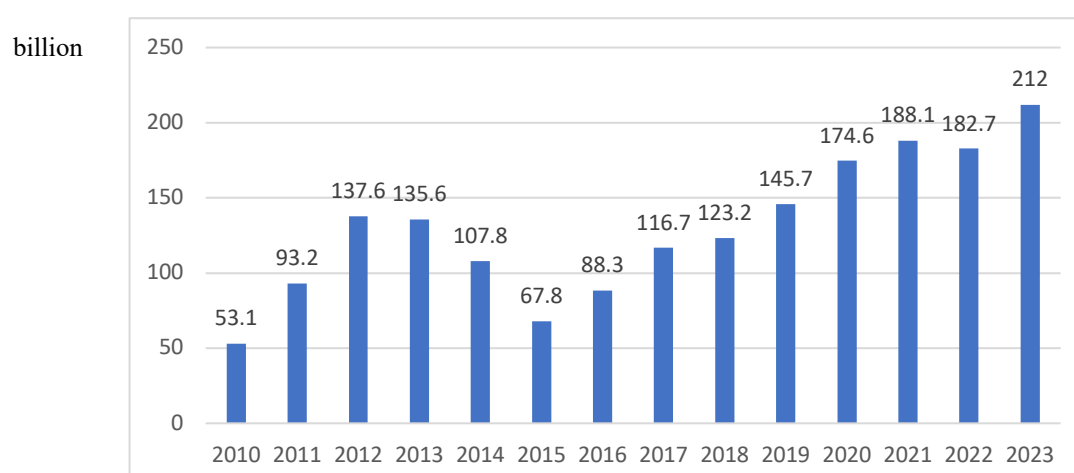

Figure 1 Total Global Sukuk Issuance USD 2.00 Trillion (Jan 2010 – Dec 2023)
Source: International Islamic Financial Market (IIFM) Sukuk Database

Southeast Asia, led by Malaysia and Indonesia, is central to this growth. Both markets accounts for 57% of this market, with regional Islamic assets expected to reach USD3 trillion by 2029. Malaysia alone contributed approximately two-thirds of sukuk issuance in the past decade. While sovereign green sukuk are gaining importance (eg. Indonesia's 2018 issuance), comparative analysis of pricing, rate and structural differences between regionals remain limited.

Malaysia has emerged as a leading hub for sukuk issuance, accounting for a substantial portion of global sukuk issuances. As of mid-2024, Malaysia accounted for around 60% of the ringgit-denominated Debt Capital Markets (DCM), underscoring its dominance in the sukuk sector (Securities Commission Malaysia, 2024). The issuance of corporate bonds and sukuk in Malaysia totalled RM 42.41 billion in the second quarter of 2024, reflecting a 24.59% increase from the previous quarter (Bloomberg, 2024). This substantial growth is indicative of the continued trust and confidence investors place in the stability and performance of Malaysian sukuk.

Malaysia's well-developed Islamic finance infrastructure, coupled with supportive government policies, has propelled her to the forefront of the global sukuk market. In May 2024, Malaysia introduced a new sukuk structure that integrates Wakalah (agency) and Khadamat (services) principles. This innovative approach aims to enhance the appeal of Malaysian sukuk to international investors, particularly those adhering to AAOIFI standards, who have previously found the traditional Government Investment Issues (GII) less attractive

due to trading restrictions with debt sales. This shift is expected to broaden the investor base and improve liquidity in the sukuk market.

While the sukuk market has experienced significant growth, the critical questions remain about the implications of sukuk structures on financial outcomes, such as yields and ratings. Existing literature emphasizes the role of sukuk structures in shaping investor perceptions, risk profiles, and financial outcomes. Studies such as Muhamed et al. (2022) and Al Homsi et al. (2022) highlight how sukuk structure impacts yields and ratings but lack a comprehensive analysis of structural diversity and its distinct effects within specific jurisdictions like Malaysia. Similarly, Alhammadi et al. (2024) points to the risk differentials across sukuk structures but does not delve into their interactions with firm-level characteristics or macroeconomic conditions. These gaps hinder the ability to develop a holistic understanding of sukuk market dynamics.

Thus, this study addresses these gaps by empirically analyzing how sukuk structure, issuance characteristics, and country context affect credit rating and yield outcomes, using a cross-sectional dataset from Malaysia and Indonesia. By applying both statistical significance (t-tests) and practical significance (Cohen's *d*), this paper contributes to a deeper understanding of how investor expectations, risk assessments, and structural preferences differ across jurisdictions.

Addressing these research questions is essential for both academic and practitioners to enhance the efficiency and resilience of the sukuk market. The study bridges the gap and contributes to the academic discourse on Islamic finance while offering actionable insights for industry practitioners and policymakers. It lays the groundwork for further research into the evolving dynamics of sukuk markets. This paper is structured as follows. The literature review and hypothesis development are presented in Section 2. Section 3 provides some details on the sample and methodology. The results are presented in Section 4, and Section 5 concludes the paper.

2.   Literature Review

Sukuk, as Shariah-compliant financial instruments, have garnered significant academic and regulatory attention due to their growing role in Islamic capital markets. A central theme in the literature is the influence of sukuk structures on investor perceptions and market outcomes. Grassa and Miniaoui (2018) emphasize that structural choice between sukuk and conventional bonds is shaped by governance environments and regulatory clarity. Structural forms such as Ijarah, Murabahah, and Wakalah not only differ in legal complexity but also influence the perception of asset-backing and default risk (Radzi and Lewis, 2015).

Another key concern in the sukuk market is default and credit risk. Kalimullina and Hassan (2022) identify default risk as a major constraint in emerging sukuk markets, especially in jurisdictions where legal frameworks for investor protection are underdeveloped. This is supported by Alam et al. (2018), who show that sukuk defaults are heavily influenced by both structural features and country-specific macroeconomic conditions.

From a pricing perspective, Ariff et al. (2018) examine the yields of equivalently rated sukuk and conventional bonds, finding that sukuk often requires yield premiums due to

perceived complexity and limited liquidity. Ayturk et al. (2017) extend this view, identifying significant variations in primary market pricing based on issuer nationality, contract type, and investor demand. Sukuk yields have also been linked to governance mechanisms (Sulistiani & Tjahjadi, 2022) and institutional investors (Saa et al., 2019), highlighting the multi-dimensional nature of sukuk pricing dynamics.

While much of the literature has addressed factors affecting sukuk yield and default, limited empirical work directly compares how these factors behave across different national settings. For example, the structural, legal, and investor environments of Malaysia and Indonesia differ substantially, yet few studies have examined how these differences manifest in observable metrics such as credit ratings and yields.

Despite the growing body of literature on sukuk pricing and risk, comparative cross-country studies on sukuk structure, credit rating, and yield are still scarce, particularly between leading markets like Malaysia and Indonesia. Most existing research either focuses on a single country or examines general determinants of sukuk pricing without explicitly controlling for structural forms or jurisdictional context (e.g., Ariff et al., 2018; Ayturk et al., 2017). Furthermore, studies that consider structure as a categorical variable influencing yield and creditworthiness remain limited.

This study addresses these gaps by empirically analyzing how sukuk structure, issuance characteristics, and country context affect credit rating and yield outcomes, using a cross-sectional dataset from Malaysia and Indonesia. By applying both statistical significance (t-tests) and practical significance (Cohen's *d*), this paper contributes to a deeper understanding of how investor expectations, risk assessments, and structural preferences differ across jurisdictions.

3.   Sample and Methodology

The study uses cross-sectional, descriptive analysis to examine differences in sukuk characteristics between Malaysia and Indonesia. The sample data consists of 500 corporate sukuk issuances, 207 from Malaysia and 293 from Indonesia, issued from 2003 to 2024. Key variables include sukuk yield, sukuk credit ratings (numerical scale), coupon rate, maturity (years) issuance size (converted to million USD) and sukuk structure (categorical variable coded 1-6).

Descriptive statistics are used to summarize central tendencies and dispersion for both countries. Pearson correlation analysis identifies associations between key variables. To determine whether observed differences are statistically significant across the two countries, independent two-sample t-tests are conducted, applying Welch's adjustment for unequal variances. Cohen's *d* effect sizes are also calculated to assess the magnitude of practical differences.

There are two rating agencies in Malaysia which are RAM and MARC. These rating agencies issue ratings based in the overall quality of the firm's outstanding debt, either public or private (RAM< MARC). This rating is available from rating agencies on an annual basis starting from the time the sukuk is issued in Malaysia. In transforming the S&P rating into

conventional numerical scores, AAA takes on the value of 6 and D takes on the value of 1. A higher numerical score corresponds to a lower credit rating or higher credit risk.

Following Al Homsi et al. (2022), Muhammed et al. (2022), Han et al. (2013) and Fairchild et al. (2015), the numerical score for each rating for this study is as per Table 1 below:

Table 1 Sukuk rating categories and distribution

Sukuk ratings	Code	All	%	Malaysia	%	Indonesia	%	Risk
AAA	6	255	47.75	139	57.68	116	39.59	Least
AA1, AA2, AA3, AA+, AA, AA-	5	134	25.09	102	42.32	32	10.92	
A1, A2, A3, A+, A, A-	4	130	24.34	–		130	44.37	
BBB1, BBB2, BBB3, BBB+, BBB, BBB- BB1, BB2, BB3, BB+, BB, BB-	3	15	2.81	–		15	5.12	
B1, B2, B3, B+, B, B-	2			–		–		
C1, C2, C3, C+, C, C-, D	1			–		–		Highest
Total		534		241		293		

The second variable (sukuk yield) refers to the rate of return anticipated on a sukuk if it is held until the maturity date which is considered a long-term sukuk yield expressed as an annual rate. Yield to maturity (YTM) is a financial metric used to estimate the annual return an investor will earn from a sukuk if it is held to maturity. For the dependent variable (sukuk yield), this study obtained data from BNM Bond Info Hub where there are enough sources for data on sukuk yield and other sukuk information.

Sukuk are issued in several different forms and structures, each with salient risk. Thus, the rating agency cannot generalize the approach by using general financial risk alone (Arundina et al., 2015). Since sukuk comes in different types and structures depending on its purpose, it would carry a different degree of risk as well as potential return and influence the decision on sukuk structuring. Therefore, it is expected that the sukuk structure plays a role to determine and affect the sukuk rating and yield.

The sukuk structure encompasses six different types of sukuk: murabaha, wakala bil istithmar, ijarah, hybrid, mudharabah, and musyarakah, as issued by listed firms in Bursa Malaysia during the period of March 2023 to April 2024. Thus, the sukuk structure measured with six categorical variables: murabaha (1), wakala bil istithmar (2), ijarah (3), hybrid (4), mudharabah (5), and musyarakah (6). This categorical also structures based on 1 of least risk to 6 as highest risk. This paper tests the assertion that the sukuk structure (SS) has a significant relationship with sukuk rating and yield (Hypothesis 1 and Hypothesis 2 respectively) with the measurement of the sukuk structure variable in two different ways. Following Arundina et al. (2015), the first way measures the sukuk structure as a numerical coding variable taking numbers 1–6 for the six different types of sukuk structure. The second way represents the sukuk structure as a dummy variable taking the value of one of the structures that the company has issued, otherwise, zero value is given. The rest of the sukuk structure is treated with the same method.

The sukuk structures are categorized into six distinct types based on their underlying contractual agreements as per Table 2 below: Murabaha (1), Wakala bil istithmar (2), Ijarah (3), Hybrid (4), Mudharabah (5), and Musyarakah (6). This categorization is informed by their

relative risk profiles and compliance with Shariah principles, as documented in prior literature (Arundina et al., 2015).

Table 2 Sukuk structure

Sukuk Structure	Code	All	%	Malaysia	%	Indonesia	%	Risk
Murabahah	1	78	14.23	78	32.50	–		Least
Wakala bil istithmar	2	33	6.02	15	6.25	18	6.14	
Ijarah	3	140	25.55	–		140	47.78	
Hybrid	4	129	23.54	129	53.75	–		
Mudharabah	5	140	25.55	9	3.75	131	44.71	
Musyarakah	6	13	2.37	9	3.75	4	1.37	Highest
Total		534		240		293		

Prior research has documented a number of independent variables that affect bond/sukuk rating and yield (Arundina et al., 2015; Grassa, 2016). This study uses a set of variables that have been employed in previous studies, which are (1) coupon rate, (2) sukuk maturity, (3) issuance size, and (4) sukuk yield and sukuk rating (if dependent variable is sukuk rating and sukuk yield, respectively).

a.   Method and Specification

This study employs a quantitative approach to investigate the relationship between sukuk structure and sukuk ratings and yields. The data were obtained from 240 and 293 of corporate sukuk issuances in Malaysia and Indonesia, respectively.

The study uses descriptive analysis, correlation analysis and t-test to analyse the character of sukuk structure, sukuk ratings and sukuk yields in both countries and in subgroup Malaysia and Indonesia.

4.   Results and Discussion
a.   Descriptive Statistics

This section presents the descriptive statistics of the key variables in the study, including sukuk yield, sukuk rating, coupon rate, maturity, amount issued (size), and sukuk structure. The statistics are reported for the full sample, as well as separately for Malaysia and Indonesia.

Full Sample
The full sample consists of a total of 534 sukuk issuances. The mean sukuk yield is approximately 13.3%, with a standard deviation of 11.8%, indicating substantial variation in yields across issuances. The minimum yield is 0.00%, and the maximum is 83.87%, suggesting a wide range of risk-return profiles. The average coupon rate is 6.89%, while the average maturity is approximately 6.63 years. The average issuance size is RM/IDR 98.2 billion, with a maximum issuance size of 1.7 trillion and a minimum of 10 million. The sukuk rating, scaled numerically for analysis, ranges from 3 to 6, with a mean of 5.15, reflecting generally moderate to high credit quality. The average structure score is 3.49, based on the assigned values for different sukuk structures.

Malaysia Sample

For the Malaysian subsample (n = 241), the mean sukuk yield is 3.94%, with relatively low variation (standard deviation = 0.48%). The coupon rate averages 4.54%, while the mean maturity is 8.02 years, longer than the overall average. The average amount issued is approximately RM 461 million, and sukuk ratings are mostly concentrated at the higher end (mean = 5.58, SD = 0.50), indicating strong creditworthiness. The sukuk structure variable has a mean of 3.01, with structures ranging from 1 to 6, indicating moderate structural diversity among Malaysian sukuk issuances.

Indonesia Sample
In contrast, the Indonesian subsample (n = 293) shows substantially higher yields, with a mean of 20.51% and standard deviation of 5.46%, indicating a higher risk premium associated with these instruments. The average coupon rate is also higher at 8.65%, while the mean maturity is slightly shorter at 5.61 years. Issuance sizes are significantly larger, with a mean size of IDR 209.8 billion, and values ranging up to 1.7 trillion. The sukuk rating is slightly lower (mean = 4.85), and the structure score is higher (mean = 3.87), reflecting a different distribution of structural preferences in Indonesia.

The descriptive statistics reveal notable differences between Malaysian and Indonesian sukuk. Malaysian sukuk tend to have lower yields and coupon rates, longer maturities, and smaller issuance sizes, with generally higher credit ratings. In contrast, Indonesian sukuk exhibit higher yields and coupon rates, shorter tenors, and larger issuance sizes, with lower average ratings. These patterns likely reflect country-specific market conditions, investor risk perceptions, and regulatory environments.

Table 3 Descriptive statistics

Variable	Mean	Median	Max.	Min.	Std. Dev.	Obs.
All Sample						
Sukuk Yield	0.1365	0.1710	0.8387	0.0918	0.0918	500
Sukuk Rating	5.1779	5.0000	6.0000	0.8962	0.8962	534
Coupon Rate	0.0679	0.0650	0.1200	0.0243	0.0243	534
Maturity	6.6948	5.0000	25.0000	4.4353	4.4353	534
Size Issuance (USD million)	56.2	23.4	3.4	720.0	90.4	534
Sukuk Structure	3.4859	4.0000	6.0000	1.3882	1.3882	533
Malaysia						
Sukuk Yield	0.0394	0.0390	0.0555	0.0000	0.0048	207
Sukuk Rating	5.5768	6.0000	6.0000	5.0000	0.4951	241
Coupon Rate	0.0454	0.0436	0.0685	0.0267	0.0089	241
Maturity	8.0166	9.0000	25.0000	1.0000	4.6332	241
Size Issuance (USD million)	115.3	72.0	720.0	13.2	115.8	241
Sukuk Structure	3.0125	4.0000	6.0000	1.0000	1.5483	240
Indonesia						
Sukuk Yield	0.2051	0.2046	0.8387	0.0947	0.0546	293
Sukuk Rating	4.8498	5.0000	6.0000	3.0000	1.0126	293
Coupon Rate	0.0865	0.0875	0.1200	0.0525	0.0157	293
Maturity	5.6100	5.0000	22.0000	1.0000	3.9500	293
Size Issuance (USD million)	14.5	8.8	117.3	0.0034	17.0	293
Sukuk Structure	3.8700	3.0000	6.0000	2.0000	1.1000	293

b.   Correlation Analysis

The correlation analysis presented in Sukuk *structure* 1 = Mudarabah; 2 = Ijarah; 3 = Wakalah; 4= Hybrid; 5 = Mudarabah and 6 = Musyarakah
Sukuk ratings C1, C2, C3, C+, C, C-=1; B1, B2, B3, B+, B, B-=2; BBB1, BBB2, BBB3, BBB+, BBB, BBB-=3; A1, A2, A3, A+, A, A-=4; AA1, AA2, AA3, AA+, AA, AA-=5 AAA=6

reveals significant relationships between various sukuk-related variables, providing insights into how structural and financial elements interact. This section discusses the pairwise correlation coefficients among the key variables: sukuk yield, sukuk rating, coupon rate, maturity, amount issued (size), and sukuk structure. The analysis was performed for the entire sample, as well as separately for Malaysia and Indonesia.

Full Sample
In the full sample, sukuk yield is positively correlated with coupon rate ($r = 0.43$) and maturity ($r = 0.28$), suggesting that longer-term sukuk and those with higher coupon rates are generally associated with higher yields. This finding aligns with conventional bond pricing theory, where longer maturities and higher coupons often compensate for increased risk or inflation expectations.

Sukuk yield is negatively correlated with sukuk rating ($r = -0.36$), indicating that higher-rated sukuk (which are lower risk) tend to offer lower yields. This inverse relationship is expected in fixed-income markets where investors demand higher returns for lower-rated instruments.

Interestingly, amount issued shows only a very weak correlation with sukuk yield ($r \approx 0.01$), implying that issuance size is not a strong determinant of yield in the pooled sample. Meanwhile, sukuk structure is only weakly associated with other variables, though a slight negative relationship with yield ($r = -0.02$) is observed, suggesting structure type alone may not directly influence return levels.

Malaysia Sample
Within the Malaysian sample, the positive correlation between sukuk yield and coupon rate remains strong ($r = 0.42$), and a modest positive correlation also exists between sukuk yield and maturity ($r = 0.23$). These findings are consistent with the full sample, indicating that Malaysian issuers tend to offer higher yields on longer-duration and higher-coupon sukuk.

However, unlike in the full sample, the correlation between sukuk yield and sukuk rating is weaker in Malaysia ($r = -0.14$), suggesting that the relationship between credit quality and yield is less pronounced—possibly due to narrower rating dispersion or a well-developed domestic market where rating differences are less influential on pricing.

Additionally, sukuk yield is negatively correlated with amount issued ($r = -0.11$), indicating that larger sukuk issues may be associated with lower yields, potentially due to greater liquidity or investor confidence in larger, more established issuers.

The correlation between coupon rate and sukuk rating is negative ($r = -0.38$), and coupon rate is also negatively correlated with sukuk structure ($r = -0.35$), suggesting that more complex sukuk structures may be linked to lower coupons in Malaysia.

Indonesia Sample

In the Indonesian sample, the correlation patterns are more pronounced. sukuk yield is strongly positively correlated with coupon rate ($r = 0.43$) and maturity ($r = 0.28$), and strongly negatively correlated with sukuk rating ($r = -0.36$). These values are closely aligned with those observed in the full sample, reflecting a risk-return relationship that is more evident in Indonesia.

Unlike Malaysia, sukuk rating is more strongly associated with coupon rate ($r = -0.60$) and sukuk structure ($r = 0.28$), suggesting that credit quality plays a more substantial role in influencing both the pricing and the structuring of sukuk in the Indonesian market.

The correlation between sukuk yield and amount issued is negligible ($r = 0.01$), similar to the full sample. sukuk structure shows very weak correlations with all variables, reinforcing the notion that structural type alone does not drive yield or size in the Indonesian context.

The correlation analysis reveals several consistent patterns across samples: sukuk yield is positively associated with coupon rate and maturity, and negatively with sukuk rating, confirming theoretical expectations. In Malaysia, the relationship between rating and yield is weaker, while issuance size appears to have a modest inverse relationship with yield. In Indonesia, correlations are generally stronger, suggesting that investors more closely price sukuk based on coupon, maturity, and credit rating.

These differences may reflect variations in market maturity, investor base, or regulatory frameworks across the two countries. The findings provide preliminary insights for further regression analysis on the determinants of sukuk yields.

Table 4 Correlation

Variables	Sukuk Yield	Sukuk Rating	Coupon Rate	Maturity	Size Issuance	Sukuk Structure
All sample						
Sukuk Yield	1.0000					
Sukuk Rating	-0.4193	1.0000				
Coupon Rate	0.8440	-0.5470	1.0000			
Maturity	-0.1316	0.2492	-0.0299	1.0000		
Size Issuance	-0.4966	0.2965	-0.5225	0.2322	1.0000	
Sukuk Structure	0.1703	-0.1079	0.1114	-0.2870	-0.1306	1.0000
Malaysia						
Sukuk Yield	1.0000					
Sukuk Rating	-0.3588	1.0000				
Coupon Rate	0.4261	-0.6026	1.0000			
Maturity	0.2818	-0.2914	0.5498	1.0000		
Size Issuance	0.0099	0.2560	-0.2176	0.2129	1.0000	
Sukuk Structure	**-0.0221**	**0.2012**	**0.0690**	**-0.1747**	**-0.0112**	1.0000
Indonesia						

Sukuk Yield	1.0000				
Sukuk Rating	-0.1442	1.0000			
Coupon Rate	0.4227	-0.3823	1.0000		
Maturity	0.2260	0.3906	0.2243	1.0000	
Size Issuance	-0.1146	0.0131	-0.2582	-0.1871	1.0000
Sukuk Structure	**-0.1771**	**-0.1030**	**-0.3504**	**-0.3204**	**0.1485**	1.0000

Sukuk structure 1 = Mudarabah; 2 = Ijarah; 3 = Wakalah; 4= Hybrid; 5 = Mudarabah and 6 = Musyarakah
Sukuk ratings C1, C2, C3, C+, C, C-=1; B1, B2, B3, B+, B, B-=2; BBB1, BBB2, BBB3, BBB+, BBB, BBB-=3; A1, A2, A3, A+, A, A-=4; AA1, AA2, AA3, AA+, AA, AA-=5 AAA=6

c. Independent T-test

Table 5 presents the results of independent t-tests comparing key sukuk variables between Malaysia and Indonesia. The analysis reveals statistically significant differences ($p < 0.001$) across all six dimensions. Notably, sukuk yields and coupon rates are substantially higher in Indonesia (0.2051 and 0.0865, respectively) compared to Malaysia (0.0394 and 0.0447). These findings suggest that Indonesian sukuk offer higher returns, potentially reflecting higher risk profiles, lower credit ratings, or differing market expectations. In line with this, sukuk ratings are significantly higher in Malaysia (mean = 5.599) than in Indonesia (mean = 4.849), indicating stronger credit quality among Malaysian issuers.

The test results also indicate significant differences in issuance size, maturity, and structure. Malaysian sukuk tend to have longer maturities (mean = 7.72 years) and are issued in larger volumes (mean = USD 115.3 million) compared to their Indonesian counterparts (mean maturity = 5.61 years, mean size = USD 14.48 million). The difference in sukuk structure, as reflected in the mean structure codes (Malaysia = 3.21, Indonesia = 3.87), suggests a distinct preference or regulatory influence over structural forms in each market. Collectively, these statistically significant differences point to structural, regulatory, and market-driven divergences in the design and issuance of sukuk across the two countries.

Table 5 Independent T-test

Variable	Malaysia	Indonesia	t-Statistic	p-Value
Sukuk Yield	0.0394	0.2051	-51.6754	< 0.001
Sukuk Rating	5.5990	4.8498	10.9688	< 0.001
Coupon Rate	0.0447	0.0865	-37.4413	< 0.001
Maturity	7.7198	5.6075	5.1885	< 0.001
Size Issuance (USD million)	115.3426	14.4759	12.4370	< 0.001
Sukuk Structure	3.2126	3.8737	-5.5132	< 0.001

Based on the Cohen's *d* values reported in Table 6, the study identifies substantial practical differences between sukuk issued in Malaysia and Indonesia. Notably, sukuk yield (d = -3.9534) and coupon rate (d = -3.1243) exhibit extremely large negative effect sizes, indicating that Indonesian sukuk yield and coupon rates are significantly higher than those of Malaysian sukuk. Conversely, size of issuance in USD (d = 1.3340) shows a large positive effect, suggesting Malaysian sukuk are issued in much larger amounts compared to Indonesia. Sukuk rating (d = 0.8948) and maturity (d = 0.4873) reveal moderate to large effect sizes, with Malaysian sukuk generally having higher ratings and longer maturities. Meanwhile, sukuk structure (d = -0.5246) also shows a moderate effect, indicating a notable difference in structural preferences between the two markets. Overall, these effect sizes reinforce the

statistical significance observed in earlier tests and highlight meaningful disparities in sukuk design and investor risk-return expectations across Malaysia and Indonesia.

Table 6 Cohen's d

Variable	Cohen's d
Sukuk Yield	-3.9534
Sukuk Rating	0.8948
Coupon Rate	-3.1243
Maturity	0.4873
Size Issuance (USD million)	1.3340
Sukuk Structure	-0.5246

5. Discussion

The comparative analysis of sukuk issued in Malaysia and Indonesia reveals statistically and practically significant differences across all six examined variables—yield, rating, coupon rate, maturity, issuance size, and structure. Notably, Indonesian sukuk exhibit substantially higher yields and coupon rates than Malaysian sukuk. This aligns with prior findings by Ariff et al. (2018), who reported that Indonesian sukuk offer higher risk premiums due to weaker investor protections and less mature legal frameworks. Higher yields in Indonesia may also reflect heightened credit and sovereign risks, as noted by Kalimullina & Hassan (2022), who emphasized default risk as a persistent barrier in developing sukuk markets.

Conversely, Malaysian sukuk are characterized by higher credit ratings, larger issuance sizes, and longer maturities. These results are consistent with the work of Grassa and Miniaoui (2018), who attribute Malaysia's structural advantage to its well-established regulatory and governance ecosystem. The higher ratings are reflective of stronger institutional frameworks, tax neutrality incentives, and more diversified investor bases. Furthermore, Malaysian issuers tend to favour Ijarah and Wakalah-based sukuk, which are perceived as lower-risk and more transparent—explaining the moderate effect size observed in sukuk structure differences. The findings also confirm that structural preferences differ significantly between markets, echoing the observations of Ayturk et al. (2017) that legal and regulatory contexts are key determinants of sukuk pricing and design.

These results carry important implications for investors and policymakers. For cross-border investors, the clear distinctions in yield and risk characteristics between Malaysian and Indonesian sukuk provide opportunities for portfolio diversification but also signal the need for enhanced risk due diligence. From a policy perspective, the findings underscore the importance of institutional development and structural harmonisation in enhancing sukuk market credibility and performance in emerging economies.

6. Conclusion

This study provides a comparative assessment of sukuk issued in Malaysia and Indonesia by examining key characteristics such as yield, credit rating, coupon rate, maturity, issuance size, and structural composition. By employing descriptive analysis, correlation matrices, independent t-tests, and Cohen's *d* effect sizes on a dataset of 500 sukuk issued between 2003

and 2024, the study uncovers statistically significant and practically meaningful differences across the two markets.

Malaysian sukuk exhibit lower yields, higher credit ratings, longer maturities, and larger issuance volumes—attributes consistent with a more developed and regulated Islamic capital market. In contrast, Indonesian sukuk are associated with higher yields and more diverse structural forms, reflecting a growing but relatively riskier sukuk environment. These differences are not only statistically significant but also economically substantial, as evidenced by large Cohen's *d* values, particularly in yield, coupon, and size.

The findings underscore the importance of institutional infrastructure, legal certainty, and regulatory harmonisation in shaping sukuk outcomes. For investors and policymakers, the results highlight the value of comparative insights in managing risk, enhancing sukuk design, and deepening Islamic capital markets. Future research may extend this study by incorporating time-series analyses or exploring the impact of macroeconomic and geopolitical factors on sukuk performance across jurisdictions.

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