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MOTIVATION OF FIRMS TO ISSUE SUKUKS

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ABSTRACT

Our paper critically reviews the different factors that motivate a corporation to issue a Sukuk versus a Conventional Bond. Currently, Sukuk papers are growing, yet the studies are limited compared to Conventional Bond research. Our paper analyzes firm performance and characteristics to demonstrate how this affects choosing between the two securities. We examine these in a time series with the 2008 financial crisis intervention to see how this may have affected the issuance choice through logistic regression. Our study examines 628 Conventional Bonds and 227 Sukuk issuers globally across 12 countries from 2005 – 2017. We find in our research that the performance of companies issuing Sukuks resembles Conventional Bond issuers in financial performance. We confirm that larger companies will enter the Sukuk market as an alternative to the Conventional Bond market when there is a higher demand for capital. We also find that firms with higher financial performance may enter the Sukuk market as a premium where it may not be accessible in the Conventional Bond Market.

INTRODUCTION

The existence of Sukuks historically dates back to the 19th century in response to the demand for shariah-compliant security for investors and issuers as transactional security backed by assets. The financial security design was later developed and improved after the security gained its recognition from the Islamic Fiqa Academy in 1988 and after the first formal issuance by Shell MDS two years later. It was structured as certificates, granting partial ownership of the underlying asset. Ironically, Sukuks gained its governing bodies and standards set by the Accounting and Auditing Organization for Islamic Financial Institutions, AAOIFI, Islamic Financial Services Industry, IFSI, in early 2003, even though this security had entered its introductory phase of its PLC. This security has gained popularity across many international capital markets from Asia, the Middle East, and parts of Europe since the first informal issuance from Shell MDS in 1990, and it is the icon for modern Islamic finance development.

Malaysia is still home to the largest global share of Sukuk issuances by 50.5% in 2019 while setting the example of a dual market with a transparent and regulatory framework to host Sukuk and conventional bond issuances. Alongside Malaysia, Indonesia has recently been the center of attention for its local domestic market for the demand for Islamic Financial products, including retail Sukuks. The need for this security has globally accelerated in Asia and the Middle East, while the UK is the only country in Europe to issue this security. The IIFM (2019) report suggests that the market for sovereign Sukuks has recently been increasing while the corporate market has declined slightly since 2016.

In our study, we want to explore what motivates companies to issue Sukuks over a conventional bond. In our paper, we will explore various factors that affect a corporation's choice between issuing a Sukuk versus a conventional bond from a series of firm characteristics and financial performance metrics. Secondly, we examine what industries are relevant to Sukuk issuers and how the financial crisis of 2008 affect the decision process.

The following section reviews the previous research about Islamic banks, securities, and sukuks in particular. We

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introduce the hypotheses, the motivating factors, and the data and methodology in the Materials and Methods section.

LITERATURE REVIEW

According to Rosman et al. (2014) and Asmild et al. (2018) papers, western banks and the global economy were disarrayed by the financial crisis of 2008. Islamic financial institutions had been proven to be unaffected by the subprime meltdown and remained efficient while global economies fell. Alexakis et al. (2019) suggest that Islamic banks have higher costs associated with the Shariah Supervisory board and with developing their complex shariah-compliant products. Smaoui and Ghouma (2020) paper found that the performance of Islamic banks during the financial crisis was more efficient compared to conventional banks, mainly because the types of portfolios undertaken by Islamic Banks were far less risky than traditional banks.

SPV (Special Purpose Vehicles), third-party companies, and agencies are involved in collateralizing the physical assets for Sukuk issuers. Sukuks are issued as asset-backed, of which investors have partial ownership in the underlying asset. Hahn (1995) paper mentions the SPV Company can securitize the assets by separating the assets from the originator to minimize or eliminate the risk for the assets and cash flow generated from the assets in the event of insolvency from the originator. Characteristics of these "bankruptcy-remote companies" make them act as separate entities in the interests of the originator. In the case of sukuks, banks, financial institutions, or even third-party companies serve as the party to collateralize the assets to buy them from the supplier and supply them to the firm. Depending on the type of contract, the assets can be repurchased at the end of the term. Securing assets has been a tradition in the debt market to secure collateral to access capital when borrowing from the bank becomes difficult, according to the pecking order theory. Lei et al. (2018) suggested that the decline in tangible assets could reduce the firm's debt ratios and increase cash reserves. Their paper also indicated that an example of an imperfect financial market could be linked to firms with more physical assets and cash sensitivity, and firms in industries with less tangible assets experience faster growth. We can use the example of FINTEC industries or tech IPOs. More simply, firms with less tangible assets can operate at a higher efficiency to turn a profit more quickly by reducing the factors of overheads and maintenance in a traditional asset model.

A few notable papers by Nagano (2017); Klein and Weill (2016); Alam et al. (2013); Godlewski et al. (2013) suggest that the density of Sukuk structures increases the risk of asymmetric information and translates to higher transaction costs. Nagano (2017) paper indicated that asymmetric information favors the choice of debt to issue the Sukuk as an alternative to the conventional bond in the event of significantly high demand for capital requirements. Secondly, in an earlier study by Nagano (2016), his paper suggests the Timing theory has a significant effect as a latter effect when the stock price is undervalued, suggesting a firm would issue a Sukuk as opposed to a conventional bond. According to Godlewski et al. (2013), findings from their cumulative abnormal returns test suggested a negative relationship in the market from the Sukuk announcement; meanwhile, the bond market did not affect the stock market.

In addition, according to Hayat et al. (2013), Nagano (2017), and Klein and Weill (2016), different views on information asymmetry exist, which ultimately result in higher transaction costs depending on the quality of information available to investors, creditors, and the stakeholders involved in the Sukuk issue. Information asymmetries can influence the choice of debt and to issue the sukuk depending on whether the bank can secure the demand for capital, according to Nagano (2017). Secondly, Hayat et al. (2013) paper mentioned that investors could expect higher search costs, and depending on the quality of information available about the security, the higher information asymmetry may be mitigated by the *Halal* certificate, but the time and cost to obtain the certificate does not necessarily reduce the transaction cost. Third, Klein and Weill (2016) paper suggest that sukuks with a long term encourage information asymmetries from the unexpected returns that a creditor would anticipate.

The free cash flow theory predicts that proceeds will is used to pay out dividends or reduce debt after accounting for all projects. The agency agreement is between two parties to act in good faith, such as between shareholders and management to invest in positive NPV projects for a return. The agency dilemma, however, is the most common concern for a firm when the administration does not act in the best faith of its shareholders, typically investing in negative NPV projects. The agency costs of free cash flow theory predicted that firms would invest in projects or portfolios that satisfied the interests of management, misaligning with the shareholders' interests. Jensen (1986) mentioned that agency behavior could be mitigated by increasing debt and shifting future free cash flow payments in principle and interest. Halim et al. (2017) study concluded that the agency costs of free cash flow for firms financially constrained would prefer to issue a Sukuk versus a conventional bond.

MATERIALS AND METHODS

In our paper, we wanted to explore the different factors that motivate firms to issue Sukuks. We begin with firm size because companies approaching these markets would need the ability to sustain in a financial environment long-term. Recalling from the pecking order theory, the capital market is a second choice to finance, whereas equity is a last resort because the cost to finance increases after bank denial. This also means that these companies having the motive to raise capital, will approach the debt market in good faith with collateralization in the case of Sukuks. This also is suggestive of one of two scenarios: either the bank could not fulfill the demand for the borrower, or the bond market couldn't fulfill the demand. The Sukuk market is a more viable option to approach than underwriting equity at a higher premium. Finally, we must also consider firm performance as an important factor because while a corporation can be large, having the ability to service debt/equity is important. We test the following hypothesis to examine the Sukuk market.

Hypothesis Development

In our first hypothesis, we devote that the size of a corporation and the number of physical assets the company affects its leveraging policy to choose the Sukuk market as an alternative to the bond market. First, Mohamed et al. (2015) mention that larger firms have easier access to capital and have lesser chances of bankruptcy because of their diversification strategies. The paper also said that firms with more physical assets would have received a better market interest rate from creditors because of their collateralization ability. We hypothesize that large corporations that securitize more physical assets have a better chance to issue a Sukuk over a traditional bond because of their long-term ability to sustain themselves in the debt market.

H_1: Companies large in size with more physical assets have a higher probability to issue a Sukuk.

Our second hypothesis emphasizes companies that issue larger sizes of debt will approach the Sukuk market as an alternative to meet their capital needs. Nagano (2017) concludes that a borrower is more likely to approach to Sukuk market if the demand is too large for a bank to fulfill. Secondly, companies that do not want to increase their debt ratios and firms that need access to capital as an alternative market source would prefer to issue Sukuks. Therefore, we hypothesize that sukuks can be the alternative to conventional bonds when higher capital requirements and sourcing from the bond market becomes challenging. Secondly, Nagano (2017) and Klein and Weill (2016) mention that asymmetric information in higher degrees can encourage private firms to enter the Sukuk market as an alternative to the bond market.

H_2: Companies that issue larger issue size have a higher likelihood to issue a Sukuk.

The pecking order predicts companies will set aside their retained earnings to finance internally and look to the debt market as required while raising equity as a last resort. Vizcaino (2014) and Alexakis et al. (2019) suggested the cost structure issue of a Sukuk is not uniform, and Asian countries such as Malaysia and Indonesia are higher than a conventional bond because of high advisory costs from the involved structures. However, as Vizcaino (2014) says, the profit in sovereign sukuks is much higher as a trade-off. Nagano (2016) findings suggested that the firm is more likely to issue a Sukuk when market forecasts favor the firm in the upcoming fiscal term. Godlewski et al. (2013) paper indicate companies that issue sukuks have greater than 30% debt-to-assets ratios, whereas companies that issue bonds have a 20% debt-to-asset ratio. We hypothesize that profitable companies that have demonstrated high financial performance have a higher chance of issuing a Sukuk over a conventional bond.

H_3: Profitable corporations with high financial performance have a high probability to issue a Sukuk.

Research Design

We employ a logistic regression method to test the hypotheses, as did Klein and Weill (2016) and Nagano (2016). The model will estimate the variables that will be significant for the sample of 227 corporate sukuks and 628 bond issuances from the period of 2005 - 2017. The logit model would allow a binary composition of 1 if a Sukuk were issued otherwise, 0 for a conventional bond as the dependent variable. We will test the effects of the independent variables in different sub-periods to examine how the financial crisis affected the company's decision to issue Sukuk with dummy variables to control for industries relevant to issuers. The model can be written as;

Full Sample 2005 – 2017:

$$Pr(S_i > 0) = Size\beta_{1,i} + Issue\ Size\beta_{2,i} + Debt\ Ratio\beta_{3,i} + Free\ Cashflow\beta_{4,i} + MarketToBook\beta_{5,i} + ROA\beta_{6,i} + Tangibility\beta_{7,i} + Industry\_Dummies\beta_{8,i} \quad (1)$$

Estimating periods 2005 – 2007:

$$Pr(S_i > 0) = Size\beta_{1,i} + Issue\ Size\beta_{2,i} + Debt\ Ratio\beta_{3,i} + Free\ Cashflow\beta_{4,i} + MarketToBook\beta_{5,i} + ROA\beta_{6,i} + Tangibility\beta_{7,i} + Industry\_Dummies\beta_{8,i} \quad (2)$$

Estimating periods 2008 – 2009 (Financial Crisis):

$$Pr(S_i > 0) = Size\beta_{1,i} + Issue\ Size\beta_{2,i} + Debt\ Ratio\beta_{3,i} + Free\ Cashflow\beta_{4,i} + MarketToBook\beta_{5,i} + ROA\beta_{6,i} + Tangibility\beta_{7,i} + Industry\_Dummies\beta_{8,i} \quad (3)$$

Estimating periods 2010 – 2017:

$$Pr(S_i > 0) = Size\beta_{1,i} + Issue\ Size\beta_{2,i} + Debt\ Ratio\beta_{3,i} + Free\ Cashflow\beta_{4,i} + MarketToBook\beta_{5,i} + ROA\beta_{6,i} + Tangibility\beta_{7,i} + Industry\_Dummies\beta_{8,i} \quad (4)$$

S_i is the dependent variable denoted for Sukuks. If S_i equals 1 the company has issued a Sukuk; otherwise, 0 for a bond. The explanatory motivators are as follows; size is measured as the logarithm of total assets. The next independent variable, Issue Size, is a proximation of the logarithm of the issue size. The Debt Ratio is estimated as total debt scaled by total assets. Free Cashflow is approximated as the disposable cash flow at the discretion of management after all projects are accounted for and divided by total revenue. Market-to-Book is estimated as the market value of equity scaled by the book value of equity. ROA, Return on Assets is the proximation of Earnings before Interest Taxes and Depreciation and

Amortization, EBITDA over Total Assets. Tangibility is the ratio of a firm's Tangible Fixed Assets scaled by total assets. Finally, Industry Dummies are the dummy variables for the ten industries sampled; Telecommunications, Cons. Discretionary, Cons. Staples, Energy, Financial, Health, Industrial, Material, Technology, and Public Utilities. Below in Table 1, we can see the descriptive statistics for each of the variables.

Table 1. Descriptive statistics for each explanatory variable

Variables	N	Mean	Minimum	Maximum	Std. Dev
Sukuk Issuances					
1. (Log) Size	3,561	3.912	1.496	9.174	1.088
2. (Log) Issue Size	3,561	7.057	4.829	9.477	0.656
3. Debt Ratio	3,561	33.803	0.316	558.883	17.782
4. Free Cashflow	3,561	295.051	-89.713	103,405	5,472.693
5. Market-to-book	3,561	6,305	-137.257	17,585,272	307,694
6. ROA	3,561	0.053	-0.198	0.624	0.068
7. Tangibility	3,561	0.088	-0.636	0.612	0.111
Bond Issuances					
1. (Log) Size	3,956	4.159	-0.019	9.174	1.271
2. (Log) Issue Size	3,956	7.206	4.521	9.397	0.857
3. Debt Ratio	3,956	36.809	0.196	234.066	21.544
4. Free Cashflow	3,956	1.339	-56.700	1,772	40.536
5. Market-to-book	3,956	91,211	-35,401	44,801,784	1,165,314
6. ROA	3,956	0.082	-0.753	0.482	0.089
7. Tangibility	3,956	0.065	-0.724	0.842	0.087

This table displays the summary statistics for our explanatory variables for the sample of 227 corporate Sukuk and 628 corporate bond issuances for the period of 2005 – 2017.

We check for multicollinearity to confirm that the model's independent variables do not have strong correlations. Table 2 displays the results and shows minimal multicollinearity among the independent variables tested, which confirms the chances for a model error is minimal.

Table 2. Multicollinearity Test

Variables	Log Size	Log Issue Size	Debt Ratio	Free Cash Flow	Market-To-Book	ROA	Tangibility	VIF
1. Log Size	1							1.220
2. Log Issue Size	0.289	1						1.234
3. Debt Ratio	-0.122	0.029	1					1.028
4. Free Cashflow	-0.014	0.017	0.117	1				1.008
5. Market-to-Book	-0.033	0.046	0.048	0.000	1			1.002
6. ROA	0.060	0.018	-0.021	-0.029	0.021	1		1.032
7. Tangibility	-0.036	0.073	-0.079	-0.028	-0.011	-0.057	1	1.012

This table displays the correlation between the explanatory variables used in the models for the sample period of 2005-2017.

Data

We obtained the data from Bloomberg Professional Services for the corporate Sukuk and Bond issuances as time-series data. We examine the companies in countries where companies issue both Sukuk and Bonds. During the data collection process, we eliminated pieces of data for hybrids, agency issuances, dual issuances, defaulted issuances, and junk bonds to maintain a consistent profile of issuances. We exclude those companies that issued both a Sukuk and Conventional bond. The final data collected consists of 227 issuances of corporate Sukuks and 628 issuances of corporate Bond issuances from the period of 2005 - 2017.

Table 3 displays the data spread across the years and types of industries for Sukuk issuances and conventional bond issuances. Table 4 shows the summary statistics for the size of issuances spread across by year while Table 5 exhibits the distribution of the corporations for Sukuk and conventional bond issuances by country. Variables derived from Bloomberg are measured in USD United States Dollars or unless otherwise stated.

Table 3. Sample distribution of issuances

	Bond	Sukuk
Years		
2005	328	239
2006	395	326
2007	279	373
2008	192	416
2009	181	309
2010	103	213
2011	143	174
2012	154	232
2013	246	271
2014	307	160

2015	478	212
2016	442	332
2017	708	302
Industry		
Communications	98	79
Consumer Discretionary	416	602
Consumer Staples	111	317
Energy	127	254
Financial	2,397	622
Health Care	114	61
Industrial	204	938
Material	344	139
Technology	33	184
Utilities	112	365
Total	**3,956**	**3,561**

The following table provides an overview of our sample distribution by year and industry for conventional bonds and Sukuk issuances.

Table 3 shows the majority of issuances for bond issuers are within the financial sector. In contrast, the majority of the Sukuk issuers are in the industrial sector, financial sector, and consumer discretionary. It does suggest that the Sukuk market represents more industries than the bond market.

Table 4. Summary statistics (Sukuks & Bonds)

Year	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***	***2015***	***2016***	***2017***
Sukuks													
N	239	326	373	416	311	213	174	232	271	160	212	332	302
Issue	5,294	5,124	23,301	8,759	10,067	5,144	7,679	13,819	19,110	15,996	11,786	12,415	15,766
Size	0.26	0.55	0.57	0.31	0.27	1.46	1.30	0.98	0.06	1.28	0.53	0.09	0.43
Min	550	799	2,530	1,333	1,866	1,866	999	1,250	1,000	1,500	1,250	1,200	2,999
Max	22.15	15.72	62.47	21.06	32.37	24.15	44.14	59.57	70.52	99.98	55.60	37.40	52.24
Mean	43.32	49.80	253.94	93.49	163.70	129.19	98.71	129.19	166.33	239.45	150.39	116.37	190.73
Std Dev													
Bonds													
N	328	395	279	192	181	103	143	154	246	307	478	442	708
Issue	20,336	27,307	15,918	8,533	10,662	17,251	25,182	24,012	48,407	62,833	41,643	42,006	19,113
Size	0.26	0.03	0.03	0.03	0.04	0.95	0.64	0.16	0.47	0.42	0.34	0.11	0.03
Min	1,297	2,500	1,000	902	1,700	1,250	1,000	2,250	1,250	2,250	2,233	2,000	800
Max	62.00	69.13	57.06	70.52	44.45	167.49	176.10	155.93	196.78	204.67	87.12	95.04	27.00
Mean	147.11	188.78	116.21	181.91	94.40	279.74	247.01	314.24	294.26	383.73	229.84	208.56	64.80
Std Dev													

The following table illustrates the descriptive statistics for sukuks issued by year. Issue Size is denoted as Millions of USD.

Table 4 indicates that the conventional market outweighs the Sukuk market by size; however, during the financial crisis of 2008 for the periods 2008 – 2009, the number of issues for sukuks was significantly more than the number of bond issuances. As per Table 5, Malaysia, as expected, is the largest market for sukuks, with 154 firms. Many previous studies have examined the Malaysian market. Meanwhile, 27 firms from the United Kingdom, the second-largest host and the only one in Europe, issue these financial securities, followed by Saudi Arabia as the third largest, with 16 firms issuing. It does suggest that the UK is an attractive market for companies issuing sukuks after Malaysia.

Table 5. Sample distribution of issuances across countries

	Number of Corporate Issuers	
	Conventional Bonds	Sukuks
Sample Countries		
Asian		
Malaysia	125	154
Indonesia	73	10
Singapore	18	3
Pakistan	1	3
Turkey	81	5
Middle East (GCC)		
UAE	8	3
Saudi Arabia	1	16
Kuwait	5	2
Qatar	0	1
Bahrain	1	1

Oman	1	2
European		
United Kingdom	314	27
Total	**628**	**227**

The following table provides an overview of our sample distribution of corporate issuers by country from 2005 – 2017.

We use the logarithm of total assets for company size, the ratio of tangible fixed assets scaled by total assets to represent tangibility, and the debt-to-assets ratio to represent leverage. We will explore the effect of free cashflow on Sukuk issuance. We use operating income before depreciation, less interest expense, taxes, preferred dividends, and common dividends scaled by sales as free cash variables.

RESULTS

Table 6. Logit regression model results

Dependent Variable: Sukuk				
Model:	Full Sample (1)	2005 – 2007 (2)	2008 – 2009 (3)	2010 – 2017 (4)
Firm Characteristics				
1. Log(Size)	58.831 ***	72.336 ***	7.742 ***	4.539 **
2. Log (Issue Size)	34.129 ***	13.595 ***	1.227	18.196 ***
3. Tangibility	3.626 *	24.877 ***	9.397 ***	0.218
Firm Performance				
1. Debt Ratio	0.009	8.434 ***	8.434 ***	3.662 *
2. Free Cashflow	13.371 ***	3.874 **	57.389 ***	5.833 **
3. Market-to-Book	30.530 ***	14.687 ***	9.499 ***	12.818 ***
4. ROA	158.946 ***	3.689 *	7.930 ***	157.672 ***
Industry Dummies	*Yes*	*Yes*	*Yes*	*Yes*
CONSTANT	6.571 ***	5.960 ***	2.584 ***	11.165 ***
Adjusted R^2	0.3230	0.3046	0.5445	0.3285
P > Chi^2	0.0000	0.0000	0.0000	0.0000
$F_{Statistic}$	6.7442	6.9394	7.4561	7.0521
N	3,561	938	727	1,896

The table displays the estimates reported in F-Values for the sample of 225 sukuk issuances. The dependent variable is 1 if the sukuk was issued; otherwise, 0 for a conventional bond. Significance levels are reported as '***' as 1%, '**' as 5%, and '*' 10%.

Table 6 shows that the firm size estimate in the total sample has the F-value (58.831) and is statistically significant. The result confirms that the significantly large positive F-value indicates a positive correlation of firm size to the dependent variable. The result confirms that the larger a corporation, the higher the likelihood of motivating the issuers' decision to issue a Sukuk for the periods tested from 2005 – 2017.

Issue size has the F-value (34.129) with a positive correlation to the dependent variable and is statistically significant across the whole sample period 2005 – 2017 test. It confirms that the issue size is also an essential determinant of issuers' choices. It suggests that the larger the issue size, the higher probability for a Sukuk to be issued for the periods tested from 2005 – 2017.

The tangibility factor is statistically significant in the total sample model for the periods tested from 2005 – 2017, positively correlated to the dependent variable. The estimate from the financial crisis model confirms that for the periods tested from 2008 – 2009, the estimate (9.397), there is a higher probability that a company with more physical assets will issue a Sukuk. The result suggests we can confirm that firms with large tangible fixed assets issue a Sukuk instead of a bond.

The debt ratio with an estimated F-value (8.434) is statistically significant only for the financial crisis model and positively correlated to the dependent variable for the periods tested from 2008 – 2009. It confirms that firms with a high debt ratio issued sukuks over bonds during the financial crisis of 2008.

Our results confirm that free cashflow is a significant determinant of the Sukuk issuance decision. Free cashflow is a confirmed determinant to motivate the companies to issue sukuk.

The Market-to-Book ratio is statistically significant across all three periods tested and displays the F-value (30.530) in the total sample. It suggests that firms with high market-to-book are more likely to issue a Sukuk. The results indicate that firms with high growth opportunities decide to issue Sukuk. Estimates for ROA have the F-value (158.946) in the total sample. ROA is positively correlated to the dependent variable and is statistically significant across all three periods tested. The result, therefore, confirms that profitable and highly valued companies issue sukuk.

DISCUSSIONS

In Table 6, we displayed the empirical results for corporate Sukuk issuances, which confirms a higher probability of firm characteristics by firm size, tangibility, and issue size having a positive relationship to a Sukuk issue. It, therefore, supports our first hypothesis that companies larger in size with more physical assets would issue a Sukuk versus a conventional bond.

Nagano (2016) findings mentioned that larger firms preferred to issue a Sukuk versus raising debt. Secondly, this also means that these corporations overall are stable and growth-oriented Mohammad et al. (2015) since the market-to-book strong relationship confirms it.

Furthermore, the results also confirm a strong probability that free cashflow, market-to-book, and ROA positively correlate with a corporate Sukuk issue. This means that firm performance matters when companies issue a Sukuk versus approaching the conventional market. According to Klein and Weill (2016), a larger market-to-book ratio and longer maturities encourage information asymmetries from the unexpected returns a creditor would anticipate from a manager. Nagano's (2017) findings indicate that a firm with higher information asymmetries will approach the Sukuk market when the demand for capital is significantly high for a bank as a source.

Our results suggest that firms issuing a Sukuk prefer a higher market-to-book, while 41.7% of the sample Sukuk issuers issue maturities greater than one year. The debt ratio, however, was later confirmed in the financial crisis 2008 model, which proves that Sukuk issuers financed more debt during the financial crisis. Our empirical results show that firms with different degrees of information asymmetries face difficulty sourcing from the conventional market source from the Sukuk market as an alternative, supporting our second hypothesis.

Additionally, our empirical results indicate that free cash flow and ROA positively relate to a Sukuk issue. Both of these measures suggest that by operating performance, a profitable firm will more likely approach the Sukuk market as an alternative to increasing its debt ratio. We can confirm our last hypothesis that profitable corporations will enter the Sukuk market as an alternative to boosting their debt ratio when financial performance is adequate.

Finally, there are specific industries that would prefer to issue a Sukuk over a conventional bond. The results confirm that companies from the financial, materials, and healthcare sectors would more likely issue a Sukuk versus Conventional debt. Because our analysis is accounting for corporate issuances, it differs from expectations from sovereign issuers; for example, these might include companies from the oil and gas sector.

CONCLUSIONS

This paper explored the many factors that determine a company's decision to issue sukuks over bonds for the sample of 227 corporate sukuks and 628 bond issuances from the period of 2005 – 2017 to unravel the motivations of why firms issue sukuks.

In conclusion, higher firm performance affects the decision-making process of companies to issue sukuk over bonds. We conclude that Sukuk issuers are financially capable of meeting their obligations, and large companies with large tangible assets prefer Sukuk over conventional bonds. Our results also find that a firm will choose to issue a Sukuk as an alternative to the traditional market depending on the degree of asymmetric information when sourcing from the conventional bond market becomes challenging. We also find that large companies with more financial strength, especially by operating performance, choose to issue sukuks since these corporations are significantly profitable and growth-oriented firms. This also means; corporations may choose to access the Sukuk market as a financial incentive to raise capital without exhausting the conventional market to possibly reduce transaction costs or otherwise have access to capital because the bond market may need to satisfy the corporation's needs sufficiently. In our study, we focused on the corporate sector, finding that companies from the financial, healthcare, and materials sector have a more substantial probability of issuing the Sukuk over the conventional bond as a corporate issuer.

In this study, we focused on the motivations of corporate issuers; however, sovereign Sukuks is an area of limited papers that can be a focus of future studies incorporating the macroeconomic variables for analysis.

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