IMPACT OF SUKUK ANNOUNCEMENT ON STOCK MARKET REACTION IN GULF COOPERATION COUNCIL

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Information of Article	ABSTRACT
	The stock market reaction varied among the reported previous studies discussed within the literature review section of this study. These variations are attributed to the stock market structure, time horizon, sector, economic situation, and macroeconomic indicators. In the case of GCC, the negative reaction disappeared in twelve days; the market slowly absorbed the negative news. The slow absorption from the stock market can be linked to other financial events' interactions. These events found with a negative effect on the stock market, such as dividends, CEO turnover, change in interest rate, which interfered with the Sukuk announcement.

1. Introduction

Several previous studies have addressed different reactions from the stock market, which varies due to many economic drivers (e.g., inflation, interest rate, taxation policy, and so on) and financial drivers (e.g., corporate governance regulation, accounting rules, bank system). Therefore, stock market participants seek to understand the behaviour of Sukuk at the announcement stage, which allows them to adopt optimal dynamic strategies for Sukuk issuance assessment. In this regard, Sukuk has very distinctive characteristics that must be considered when analysing the stock market reaction to the Sukuk announcement. First, Sukuk undergoes a screening process to ensure Shari'ah compliance by Shari'ah advisors. These instruments must notably be free from prohibitive elements by Shari'ah like riba (interest), gharar (uncertainty), maysir (gambling), which are prohibited activities. This certification is important to potential buyers of Sukuk, such as Islamic banks, to ensure that they are compliant with Shari'ah. Hence, the approval of the Shari'ah audit can influence the stock market reaction to Sukuk issues as a better quality can favour the ability to sell the current and future issued Sukuk. The "religious certification" granted by Shari'ah scholars is a critical element in differentiating between conventional finance and Islamic finance. Second, Sukuk structures can take different forms. The first category includes those based on profit-and-loss sharing, such as Musharaka and Mudaraba. They are defined as partnership contracts where the investor and the borrower share the return. The second category includes debt-based instruments like Ijara (rental/lease agreement) and Murabaha (cost-plus sale). A predetermined rate of return is paid to the investors; this category of Sukuk structure is permissible under Shari'ah because it does not contain interest in the strict sense.

2. Literature Review

Earlier studies on the capital structure formed the base for scholars to investigate the optimal capital structure and its role in maximising shareholders' value extensively. Specifically, the work of Modigliani and Miller (1958), one of the earlier studies, discussed the way firms finance their investments. These authors assumed that firms pay attention to how their capital is invested because the cost of capital influences shareholders' wealth. They built their model based on the assumption of a perfect capital market, which neglects the taxes, trading, and bankruptcy costs and the information asymmetry (Loncarski, Ter Horst, & Veld, 2005). Further, several authors have documented that uncertainty regarding social, political, or economic conditions significantly influences investments, and considerable empirical evidence suggests that most financial assets are attributed to fundamental information flow (Silassie, Dahalan, & Muhammad, 2021). Modigliani and Miller, in this assumption, have highlighted the perfection of the stock market in providing valuable information that clarifies the financial performance of the firm. This information mitigates the asymmetric knowledge of investors, which enables them to assess the level of investment risk and return.

The earlier discussion of Modigliani and Miller (1958) raised an argument about stock market reactions to the capital restructure, which formed a basis for scholars to investigate the proposed assumptions profoundly. The theorem states

that, under a given market, in the absence of taxes, bankruptcy costs, and asymmetric information, that is, in an efficient market, the value of a company is not affected by how the company is financed. It does not matter if the company's capital is obtained through the issuance of shares or debt, nor does it matter its dividend policy. Therefore, the Modigliani-Miller Theorem is also often called the irrelevance principle of capital structure. The appearance of corporate taxes undoes that irrelevance in the financing structure since the cost of debt is reduced since it is an expense-paid before the income tax. Along with the proposition of Modigliani and Miller (1958), Masulis (1978) identified three situations of capital changes in which a firm has the right to increase its capital through issuing common stock, preferred stock, and debt. Masulis (1978) expanded the capital structure by including preferred stock as a new source of financing for the firm capital. The proposition of Modigliani and Miller (1958) assumes the symmetry of information held by the firm and investors. Therefore, a firm that suffers financial problems, such as covering expected losses from operations, would avoid any financial decision for restructuring the capital that may affect the firm value, considering that investors hold sufficient information about the purpose of the capital structure. Instead, the firm should adopt internal financial reforms to achieve two objectives; first, to avoid any adverse reaction from the investors, which results from aggravating the problem by maximising the expected losses with the cost of financing. Second, obtaining a positive or neutral response from internal financing instead of issuing risky debt (Smith, 1986). Hence, the firm in this situation should reconstruct its capital structure by relying on the internal financing source.

The capital structure is defined as the specific combination of debt and equity that a company uses to finance its operations (Abor, 2008). According to Andrés, Arce, and Thomas (2017), there is a belief that "moderate" use of indebtedness allows the cost of the total capital of the company to be reduced to achieve an increase in the value of the shares. Despite this, by increasing the proportion of debt, the risk of insolvency will increase, which is reflected in a decrease in the value of the shares. There should therefore be an optimal level of indebtedness that achieves a minimum capital cost and, at the same time, maximises the value of the company. Therefore, the firm should only succeed with the proper mix of debt and equity. Since the proposal of the irrelevance of the debt by Modigliani and Miller (1958), financial economists have advanced several theories to explain the variation in the debt ratio between different firms. In the pecking order theory, the existence of taxes and bankruptcy costs justify the relevance of the debt (Myers & Majluf, 1984). In the signalling theory, the relevance is due to the information asymmetry since managers have information that investors do not have (Ross, 1977). A third relevant theory is the agency theory proposed by Jensen and Meckling (1976), derived from the conflict between corporate managers, external shareholders, and bondholders. In the absence of costs and benefits, that is, in perfect capital markets, the firm's market value is independent of its capital structure, as the Modigliani-Miller theorem demonstrates.

In reality, market imperfections that have been presented as determinants of the firm's optimal capital structure can be placed in the category of taxes, bankruptcy costs, and agency costs. The general result of these extensions is that the combination of leverage-related expenses (such as bankruptcy and agency costs) and a fiscal advantage of debt produces an optimal capital structure from a level of debt financing since the tax advantage contrasts with the probability of incurring costs. Thus, in addition to the theory of Modigliani and Miller (1958), several essential theories are used to explain the decisions of the capital structure. These are based on tax benefits associated with the use of debt, bankruptcy costs, agency costs, and asymmetric information. An alternative approach is related to the theory of different preferences for alternative funding sources (Pecking Order Theory). Firms seek to issue Sukuk for many reasons, of which gaining the benefit of high leverage is one. As the external debt gives tax savings or a "tax shield", it is a tax benefit that companies use to reduce the weighted average cost of capital through indebtedness. The cost of issuing debt (the interest rate) is always cheaper than the return expected by the company's shareholders. Investors buy issue capital with a higher level of risk as a target of higher returns. Another reason a company decides to issue debt is that the shareholder benefit can also be derived from the repurchase of their shares and dividends. For the case of Sukuk, issuing Sukuk for a firm is an alternative to obtaining financing, as indicated above. However, it is not the same in that Sukuk is used to pay more debt constantly than if that money is used to reinforce the company's investments. Furthermore, the type of industry plays a vital role in determining the purpose of the Sukuk issuing.

The event of an announcement for issuing Sukuk by the firm can be interpreted differently by investors. In other words, the weak financial situation of the firm will be construed negatively by shareholders, such as the potential investors, as an indicator of the severe position of the firm within the stock market. Taking into consideration that increasing the level of firm leverage calls both shareholders and potential investors to revise their decisions towards holding the firm shares (i.e. shareholders) or investing in risky debt issuances (i.e. investors) (Eckbo, Masulis, & Norli, 2007; Parsons & Titman, 2007). Previous related studies (L. Y. Dann & W. H. Mikkelson, 1984; Eckbo, 1986; Jen, Choi, & Lee, 1997; Long & Sefcik, 1990; Marquardt & Wiedman, 2005) have identified significantly negative reactions from the stock market. The adverse market reaction should be viewed as a cost of issuing the security. Management's choice of bond financing may function as a "signal" to investors that management is highly confident about the firm's future, thus allowing the issuer to avoid much of the negative information costs that attend conventional bond announcements. But, if the market response to the bond is hostile, on average, there is also a good deal of variation in that response, with quite a few cases of zero or even positive returns. Also, it is attributed to activities in the market's reaction to different kinds of bond issuers. In

general, most previous studies find adverse reactions by the stock market to the issuance announcements of debt. In contrast, a few studies have shown significant positive responses from the stock market (Rahim, Goodacre, & Veld, 2014). The dominance of an adverse reaction from the stock market can be interpreted as the asymmetry of the information between the firm managers and the investors, contrary to the assumption of symmetry information of Modigliani and Miller (1958). The argument for this conflict is attributed to the fact that investors perceive those managers decide to issue debt if the firm stock is undervalued. As with the undervalued price of stocks, the firm burdens extra cost of financing, which results from the difference between the intrinsic and the market value. As demonstrated by researchers, negative reactions are not necessarily systematically related to the purpose of issuance only (L. Y. Dann & W. H. J. J. o. F. E. Mikkelson, 1984). Instead, it could be linked to other reasons, either to large debt securities size that targets new investments or to serve the current firm debt. The stock market prospectus has sufficient information to judge and assess the firm's financial position, which works to direct the investor's decisions. In this debate, later studies than Dann and Mikkelson (1984), such as Fields and Maisis (1991), investigated the US market and commented that the US stock market denounced the neglect of the issuance nature and purposes. Furthermore, Fields and Maisis (1991) attributed stock price reactions to three determinants: the owner's structure effect, tax shield, and market information. The previous work of Modigliani and Miller (1963) attributed the tax shield as one of the leading reasons or factors behind the increasing stock price. Thus considering that a tax shield represents a leverage attraction advantage, which is expected to increase the return of the stock in case of straight debt (Fields & Mais, 1991; Modigliani & Miller, 1963). Firms that report recurring and growing profits may be tempted to issue fixed-income instruments that reduce the payment of the income tax rate.

3. Methodology

The announcement dates were sourced from the Thomson Reuters Eikon 4.0, from Q1/2001 to Q3/2016; selecting this range of data is to balance between the period before and post the global financial crisis, which helps to reduce the variation effect resulting from the economic recession over the global financial crisis. The announcement dates were obtained from the same source. For estimating market beta, the estimation period for the market model is 171 days, starting at day 180 until day ten before the announcement date (-180, -10). The estimation period for the market model is 171 days, starting at day 180 until day ten before the announcement date (-180, -10), taking into consideration the off-trading days that are probably equal to a minimum of 48 days during six months. The estimation period between 150 to 30 days earlier than the announcement day gives similar results (Godlewski, Turk-Ariss, & Weill, 2013). The test period is assigned from five days before the announcement until 15 days after the announcement date (-5, +15); five certain event windows have been assigned. Following Godlewski, Turk-Ariss, Weill (2013), and Maskara and Mullineaux (2011) three symmetric event windows (0,0), (-1,1), (-2,2), and two asymmetric event windows (-1,2), (-2,1). As the investors need more time to be more familiar with the issuance of security (Anderson, 2017), seven more event windows are added to cover two weeks later from the date of issuance, which is (-5,+4), (-5,+15), (-1,+14), (0,3), (-1,+5), (0,+12), (0,+7). The packaged announcements will be removed from the issuance announcements; the main purpose is to avoid the side effects of the associated announcements, such as dividends, earnings, acquiring, and merging. The thesis sample will focus on the corporate Sukuk issuance announcements (Q1/2001 to Q3/2016). The corporate Sukuk issuance announcements list will be downloaded from the Thomson Reuters Eikon 4.0. According to Student (1992) and De Winter (2013) a sample size can be substantially small if the assumptions hold. The five-day cumulative abnormal returns of the event window (-2, +2) are used in this study as the dependent variable. While the event date or announcement date is defined as t=0, taking two days before and after the announcement date allows for any possibility of a news leakage or delay.

4. Findings

As shown in Table 1 for GCC countries, the descriptive statistics indicate that the average (mean) time-lapse of corporate Sukuk issuance announcement is 2.78 days, and the average (mean) amount of corporate Sukuk issuance announcement is USD467.07 million. In contrast, the market capitalisation's average (mean) shares are USD2560.57. Within the tenor criteria of corporate Sukuk issuance announcements, the tenor's average (mean) years is 7.89 years. In contrast, the average ratio of coupon rate of corporate Sukuk issuance announcement is 3.78%.

Table: 1 Descriptive Statistics of Corporate Sukuk Issuances

Factors	n*	Minimum	Maximum	Mean	Std. Dev.	UM**
Time-lapse	37	0.00	29.00	2.78	7.01	Days
Amount	37	0.026	1,866.27	467.07	1.04	USD/million
Market cap	37	12.59	19423.05	2560.57	3102.34	USD/million
Tenor	37	0.00	40.00	7.89	6.58	Years
Coupon rate	37	0.00	13.95	3.78	2.49	Ratio

As shown in Table 2 for the GCC stock market, four-event windows were found with a negative and significant reaction (-1, +14), (0,3), (-1, +5), (0, +7), and one event window with a positive and significant reaction (-5,4). For the Saudi Arabia stock market, one event window was found with a negative and significant reaction (-2,2), and five event windows with a positive and significant reaction (-5,4), (-5, +15), (-1, +14), (-1, +5), (0, +7). For both stock markets, it can be noted that no event window was found with a significant abnormal return for the UAE and Qatar.

Table: 2 Cumulative Average Abnormal Returns

Event windows	CAAR GCC	t-test
(0,0)	-0.16	(0.97)
(-1, +1)	0.05	0.91
(-2, +2)	-0.17	(0.78)
(-1, +2)	-0.11	(0.50)
(-2, +1)	0.06	0.25
(-5, +4)	0.47**	2.38
(-5, +15)	-0.15	(0.49)
(-1, +14)	-14.21**	(27.49)
(0, +3)	-29.10**	(36.71)
(-1, +5)	-28.86**	(26.31)
(0, +12)	0.126	0.65
(0, +7)	-0.41**	(2.20)

The negative reaction from the GCCcstock market is consistent with previous studies, such as Godlewski et al. (2013), Alam et al. (2013), and Mohamed, Yahya, and Ishak (2017). This result is consistent with the pecking order theory of Myers and Majluf (1984), which contended that issuing external financing sends a negative signal to the investors that hypothesised a significant reaction from the stock market to the debt issuance announcements. Ross (1977) considered that this reaction from the stock market is due to the political, financial, and regulation changes within the stock market. Therefore, a positive reaction from the stock market was directed more emotionally instead of assessing the relative risk and return. Meanwhile, some previous studies, such as Khartabiel, Abu-Alkheil, Ahmad, and Khan (2019) found a significant and positive stock market reaction to the Sukuk announcements post-crisis period, while the study of Elian and Young Taft (2014) revealed a significantly positive market reaction for the day [14], with average announcement period abnormal returns of 1.6%, which is attributed to the market participants' new look, awareness, and increased demand for Sukuk.

Figure 1 plots the frequency distributions stability test of the GCC, where the X-axis represents the observations during the period Q1/2001 to Q3/2016 and the Y-axis represents the statistics. The effects of the estimated theoretical model results of cumulative abnormal returns. It can be seen that the structural changes of the model over time for both stock markets were within the expected range of the model, which indicates stable models.
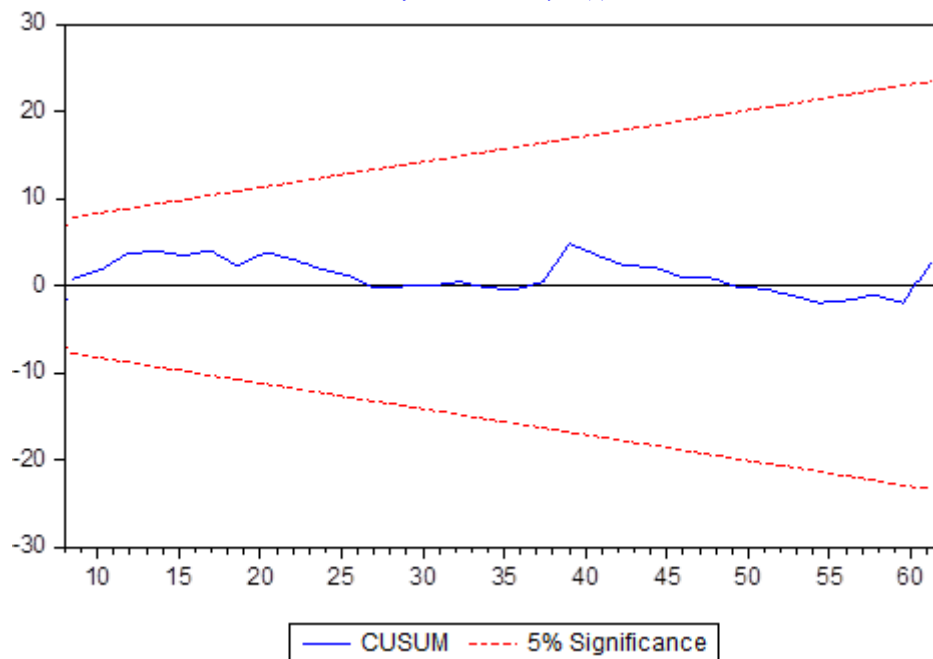
Figure: 1 Stability Test of GCC stock market

To test the predicted CAAR obtained from the GCC stock market on the Sukuk announcement, Table 3 provides the results of the regression test of five determinants: (1) time-lapse, (2) market capitalisation, (3) tenor, (4) amount, and (5) coupon rate. Four of the estimated coefficients that amount, coupon, time-lapse, and market capitalisation found with a significant impact on CAAR of the stock market reaction have the expected sign and are significant at the 0.01 level or 0.05. The results indicated that the determinants of the corporate Sukuk issuance announcements of GCC – amount and time-lapse – are positively related to the cumulative average abnormal return of the stock market while negatively associated with coupon rate and market capitalisation. The benchmark model yields an Adjusted R-squared of 0.973, which is significant at the significant level of 0.01 and has an R-squared of 0.977. the result is consistent with cumulative abnormal return literature (Araya & Miras, 2015). The results indicated that CAAR is positively related to amount at (β=0.007, t= 17.570, p= 0.000), negatively with coupon rate at (β=-0.001, t= -2.634, p= 0.013), and positively with time-lapse at (β=0.001, t= 2.761, p= 0.010), and negatively with market capitalization at (β=-0.001, t= -3.054, p= 0.005). The estimated theoretical equation (5.7), which was used by the study of Godlewski et al. (2013), is set as follows:

$$CAAR_{t1,t2} = \alpha + lapse_{it} + Cap_{it} + Tenor_{it} + Am_{it} + Cp_{it} + e_{it}$$

where:
 a = model intercept
CAAR = cumulative abnormal return over the event window t1 and t2
Lapse = the interval time between announcement and the actual date of issuance
Cap = market value for all relevant issue-level share types
Tenor = accrual issuance period
Am = amount of issuance
Cp = coupon rate

The regression equation is:
CAARGCC (-2, +2) = -0.141 + 0.007*Am + (0.001) *Cp + 0.001*lapse + (.001) Cap + 0.000004 * Tenor
This model fits the data well (F = 261.5, p < 0.05 and R-squared = 0.977).
The obtained results from the GCC market are interpreted as these two criteria of Sukuk announcement (i.e., the amount and time-lapse) affect the CAAR of the stock market positively, where the higher amount of issuance estimates the cumulative average abnormal return positively. This impact is interpreted as investors holding more confidence in issuances with a higher amount, which indicates the better financial position of the issuer. Meanwhile, the time-lapse gives more time to investors to investigate the issuance status, purpose, and financial position of the issuer.

Table: 3 Regression Tests

Variable	Coefficient	Std. Error	t-Statistic	Prob	Robust t- Statistic
Constant	-.141	.006	-24.801	.000	-22.108

Amount	.007***	.000	17.570	.000	17.005
Coupon	-.001**	.000	-2.634	.013	-2.349
Tenor	.000	.000	1.398	.172	1.182
Time-lapse	.001**	.000	2.761	.010	2.573
Market cap	-.001***	.000	-3.054	.005	-3.010
R-squared	0.977	Adjusted R-squared			0.973
F-statistic	261.50				

** significant at 5% level, *** significant at 1% level.
Dependent Variable: CAAR

5. Conclusion

The stock market reaction varied among the previously reported studies discussed in this study's literature review section. These variations are attributed to the stock market structure, time horizon, sector, economic situation, and macroeconomic indicators. In the case of GCC, the negative reaction disappeared in twelve days; the market slowly absorbed the negative news. The slow absorption from the stock market can be linked to other financial events' interactions. These events found with a negative effect on the stock market, such as dividends, CEO turnover, change in interest rate, which interfered with the Sukuk announcement.

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