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Risk and Return: Comparative Study of Active Sukuk Markets of Nasdaq Hsbc Amanah Sukuk and Nasdaq Dubai Listed Sukuk

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ABSTRACT

This study attempted to identify the different types of risk embedded in the sukuk structure of Nasdaq HSBC Amanah sukuk and Nasdaq Dubai listed sukuk. Data were collected from seven groups of the sukuk market from 2005 to 2015 on a periodic monthly basis. Collected secondary data were undergone descriptive, correlation and multiple regression analysis. The results revealed that Nasdaq HSBC Amanah sukuk and Nasdaq Dubai listed sukuk assured that two models explain 61% to 72% of the variation. While Nasdaq HSBC Amanah sukuk return is 61% exposed to risk, Nasdaq Dubai listed sukuk return is 72% exposed to risk. F statistics shown that the models are significant at the 5% level and all models are acceptable. Analysis of results on the basis of special sectorial indicated that when Nasdaq HSBC Amanah sukuk is compared with Nasdaq Dubai listed sukuk, the risk impact is higher in Nasdaq Dubai listed sukuk. The test results confirmed the significant influence of market risk, credit risk, operational risk and liquidity risk on the sukuk returns in different ways.This study recommends that conducive environment should be given to promote secondary markets for sukuk. In addition to that Government regulators and policy makers should pay attention on these issues periodically. As such sukuk market can be more active.

Keywords: Sukuk market, Performance, Return, Risk, Liquidity.

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1. INTRODUCTION

The growth of the sukuk market in the Islamic financial system has been very robust. According to Al-Amine (2012) the sukuk market has taken a global dimension, and thus bringing new issues and challenges globally. Further, this study expressed that the sukuk market replicates bond market in conventional finance has helped to place Islamic finance industry as a viable industry and an asset class. Dudley (2004) noted that there is very little capital market culture and lack of incentives to raise money through bonds and equities. Therefore, for an active capital market where sukuk can scrutinize the market to dominate in the region, there is a need for an active debt market with the regular issuance of sovereign and corporate bonds. Risk and return has to be studied in depth. Aziz (2007) expressed that the worldwide practice has shown the well-built

bond markets which rely heavily on the banking sector for financing that are vulnerable. It was pointed out that the Islamic financial structure promotes greater transparency and governance. It also promotes stability in the financial market. Strategies to mitigate risk involved integrating risk free activities in the economy.

Jamaldeen (2010) stated that there are some common characteristics of both conventional bonds and sukuk. Both of these types of financial instrument are based on asset ownership, investment criteria, issue unit, issue price, effects of costs and investment rewards and risks. However, sukuk has a few unique features relative to bonds. The first feature is the asset ownership. Bonds do not give the investor a share of ownership in the asset, project, business, or joint venture they support. They are a debt obligation of the issuer to the bond holder. Sukuk give the investor partial ownership in the asset on which the sukuk are based. Once sukuk are owned by investors, they can get confidence about the sukuk. Asset ownership may be instrumental for operational risk. Consumers can be beneficial from the point of view of wealth maximization. Thus, the researcher has to have a deep understanding regarding the consumer confidence.

The second feature is the investment criteria. Generally, bonds can be used to finance any asset, project, business, or joint venture that complies with local legislation. The asset on which sukuk are based must be shari'ah compliant. The investment criteria are linked to operational risk that covers legal & Shari'ah compliance risk. When investors invest in sukuk Shari'ah board clarifies and supervises the operational risk periodically whenever needed. Thus, there is a need to study about the Shari'ah compliance risk in this research. The third feature is the issuing unit. Each bond represents a share of the debt while each sukuk represents a share of the underlying asset. This feature has connection with market risk covering interest, inflation and dollar rate risk. Even when there are changes in interest, inflation and dollar rate risk, investor can retain the value of sukuk until the maturity period without much fluctuation. Due to the increasing fluctuation in the interest rate, inflation rate and the dollar rate, it is argued that the problem related to interest rate, inflation rate and the dollar rate have to be analyzed with the support of the return.

The fourth feature is the issue price. The face value of a bond price is based on the issuer's credit worthiness (including its rating). The face value of sukuk is based on the market value of the underlying asset. This has the relationship with credit risk that incorporates credit and maturity risk. The fifth difference between sukuk and bond is the effect on costs. Bond holders generally are not affected by costs related to the asset, project, business, or joint venture they support. The performance of the underlying asset does not affect investor rewards. Sukuk holders on the contrary are affected by costs related to the underlying asset. Higher asset-related costs may translate into lower investor profits and vice versa. This feature has a connection with liquidity risk and reinvestment risk. The last is related to the investment rewards and risks. Bondholders receive regularly scheduled (and often fixed rate) interest payments for the life of the bond, and their principal is guaranteed to be returned by the bond's maturity date. Sukuk holders, on the other hand, receive a share of profits from the underlying asset (and accept a share of any loss incurred) during the term of the sukuk and asset value upon maturity. The findings from this study will help to manage risk in the sukuk market and hence promote the growth of the sukuk market. As reported in the Islamic Finance Gateway, Thomson Reuters (2013) pointed out that large portions of sukuk in the recent low rate environment will necessarily decline in value, if rates increase in the market. The cost of swapping to variable rate utilizing profit rate swaps is still a new and relatively expensive practice for Islamic financial institutions. As further pointed out in Thomson

Reuters (2013) the supply of international sukuk is limited compared to the high investment demand that expects the paper from an issuer with a solid reputation in the market. Despite such high demand, liquidity remains a major challenge for sukuk investors. On the other hand, sukuk that is placed at the far end of the maturity curve higher speeds or less traded as these are probably held by pension and hedge fund investors who prefer long term investment which generate fixed returns with moderate risk. The development and expansion of the Islamic capital market are integral to the overall development of Islamic finance as well as the broadening and deepening of capital market in general. While there are different products and services that make up the Islamic finance, including stocks, funds, and risk management mechanism, sukuk takes a critically important place. Empirical evidences are used to raise several research questions in this study. However, a proper empirical study has not yet been done to determine the different types of risks embedded in sukuk structure and the intensity or the extent to which different types of risks have an impact on sukuk returns. Therefore, the objective of this study is to examine the impact of different types of risks on the return of sukuk for the specific sukuk structure of Nasdaq HSBC Amanah sukuk and Nasdaq Dubai listed sukuk.

2. METHODOLOGY

This risks is most used in the bond markets as a independent variables, which are suitable to sukuk market too. As such, market risk includes interest rate risk, inflation rate risk and the dollar rate risk. Operational risk includes consumer confidence risk and legal and Shari'ah compliance risk. Credit risk includes credit risk and maturity risk. Liquidity risk includes liquidity and reinvestment risk. In this study change in sukuk return is the dependent variables which are hypothesized to be influenced by four groups of risk factors. This relationship is expected from the literature review process. Data were collected from the secondary source category describes Nasdaq Dubai that sukuk market on the basis of active and popular sukuk market which is further categorized into two, such as HSBC/ NASDAQ Dubai Amanah US Dollar sukuk index HASI (HSBC Amanah) and HSBC/ Nasdaq Dubai US Dollar Nasdaq Dubai Listed sukuk index SKIX (Dubai Listed). And other independent risk factors are obtained from each country which are dominated by sukuk market period from January 2005 to December 2015 on Monthly basis. For this purpose, the ordinary least squares (OLS) analysis is applied for analyzing data.

Table-1. Descriptive Analysis for Nasdaq Dubai Sukuk Return as Dependent Variable

Nasdaq DubaiSukuk Return	Dependent variable	Mean	Standard Deviation	Minimum	Maximum
Specific Sectorial	ΔHASIRf	0.1200	0.0211	-0.0843	0.1538
	ΔSKIXRf	0.1123	0.0143	-0.0889	0.1375
Risk Factor	Independent variable	Mean	Std. Deviation	Minimum	Maximum
Market Risk	ΔIRD	0.0431	0.0111	-0.0118	0.0564
	ΔCPI	0.1089	0.0059	-0.0989	0.1200
	ΔDOR	0.0819	0.0046	-0.0721	0.0927
Operational Risk	ΔCCI	0.0985	0.0096	-0.0749	0.1140
	ΔHQR	0.1096	0.0078	-0.0800	0.1214
Credit Risk	ΔMPR	0.0965	0.0128	-0.0500	0.1170
	ΔSMB	0.1198	0.0142	-0.0989	0.1444
liquidity Risk	ΔRIR	0.1077	0.0117	-0.0705	0.1241

Number of obervations=132

Source: Analysis output

2.1. Data Presentation, Analyses and Discussion of Findings

This study first presents descriptive analyses which have been conducted using descriptive statistics mean and standard deviation for dependent variables into the main data stream of Nasdaq Dubai sukuk index incorporates a specific market based index. Descriptive analysis of independent variables is also presented in this section.

As for the Nasdaq Dubai indices, as presented in Table 1, shows that the mean values of ΔHASIRf and ΔSKIXRf of specific sectorial sukuk returns are 0.1200 and 0.1123 respectively, with the standard deviation of 0.0211and 0.0143. Based on the above descriptive analysis, it is possible to conclude that over the period from 2005 to 2015, the average returns of sukuk have shown a considerable degree of variation. The results of the descriptive analyses of the independent variables. Table 1 presents mean values for ΔIRD, ΔCPI, ΔDOR, ΔCCI, ΔHQR, ΔMPR, ΔSMB, and ΔRIR are 0.0431, 0.1089, 0.0819, 0.0985, 0.1096, 0.0965, 0.1198 and 0.1077 respectively. This refers to that average sukuk return for these variables vary between 0.0431 and 0.1198. They have the standard deviation between 0.0046 and 0.0142.

Table-2. Correlation between Nasdaq Dubai Sukuk Returns and Risk Variables

	ΔHASI RF	**ΔSKIK RF**	**ΔIRD**	**ΔCPI**	**ΔDOR**	**ΔCCI**	**ΔMPR**	**ΔSMB**	**ΔHQR**
ΔHASI RF	1								
ΔSKIK RF	.762**	1							
ΔIRD	.258**	.218*	1						
ΔCPI	.743**	.812**	.084	1					
ΔDOR	-.263**	-.312**	.064	-.335**	1				
ΔCCI	.572**	.657**	-.014	.734**	-.191*	1			
ΔMPR	.749**	.811**	.104	.901**	-.451**	.658**	1		
ΔSMB	.561**	.607**	.307**	.526**	.003	.406**	.540**	1	
ΔHQR	.663**	.751**	.021	.873**	-.465**	.698**	.854**	.509**	1
ΔRIR	.224*	.224*	.555**	.047	-.138	.118	.090	.240*	.060

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

. Source: Analysis output

Table 2 presents the correlation between Nasdaq Dubai sukuk returns and risk variables. The category describes Nasdaq Dubai that sukuk market on the basis of active and popular sukuk market which is further categorized into two, such as HSBC/ NASDAQ Dubai Amanah US Dollar sukuk index HASI (HSBC Amanah) and HSBC/ Nasdaq Dubai US Dollar Nasdaq Dubai Listed sukuk index SKIX (Dubai Listed). Correlation values for variables HASI (HSBC Amanah) vary between -0.263 and 0.749. In case of returns of SKIX (Dubai Listed), correlation values vary between -0.312 and 0.812.

2.2. Reggresion Analysis

Test of autocorrelation, multicollinearity and heteroscedasticity were done to screen the data. TOL varies between 0.123 and 0.600. Further, VIF varies between 1.668 and 8.139. These values reflect that there is no multicollinearity for both sukuk markets.

2.3. Regression Analysis of HASI (HSBC Amanah) Sukuk

The value of Durbin-Watson (d) is 2.098 which mean that data explain no auto correlation. Results of residual analysis white heteroscedasticity test have shown a p value of 0.964 which is more than 0.05. This ensures that the variance of the residual is constant. That means there is no heteroscedasticity issue in the data.

Regression results from the value of R, R square, and adjusted R square indicate that interest rate, inflation rate risk, dollar rate, consumer confidence risk, maturity risk, credit risk, Shari'ah compliance risk and liquidity risk explain 61% to 80 % of the variation in sukuk return. Unexplained variation ranges between 20% and 39%. The value of F statistics in ANOVA test is 22.140 implies that this is a significant model at the 5% level. Table 3 shows the coefficient values for developing the model.

Table-3. OLS Regression Results for HASI (HSBC Amanah) Sukuk Returns and Its Related Independents

	Coefficients				**Multicollinearity**	
	B	Std. Error	t	Sig.	TOL	VIF
Constant	-.166	.049	-3.371	.001		
ΔIRD	.205	.148	1.382	.170	.597	1.675
ΔCPI	1.193	.605	1.972	.051	.123	8.139
ΔDOR	-.010	.372	-.028	.978	.558	1.791
ΔCCI	.148	.209	.707	.481	.402	2.485
ΔMPR	.985	.427	2.306	.023	.146	6.832
ΔSMB	.237	.135	1.753	.083	.540	1.851
ΔHQR	-.103	.213	-.484	.629	.176	5.690
ΔRIR	.140	.140	.996	.322	.600	1.668
R	.801					
R Square	.641					
Adjusted R Square	.612					
F	22.140			.000		

Number of Observation=132; Durbin-Watson (d)=2.098

Source: Analysis output

For HASI (HSBC Amanah), DOR and HQR have the negative relationship with return. IRD, CPI, CCI, MPR, SMB and RIR have a positive relationship with return. While CPI has the highest positiveness RIR has the least positiveness. Since there is the impact of MPR are significant at the 5% level, CPI and SMB are significant at the 10% level.

The other remaining risks are not significant. The results of the regression analysis reveal that inflation rate risk, maturity risk and credit risk impact significantly. As shown in the Table 3, beta values of interest rate risk, inflation rate risk, dollar rate risk, consumer confidence rate risk, maturity risk, credit risk Shari'ah compliance risk and liquidity risk differs.

This is because sukuk are priced based on the credit risk premium required by investors above the risk free rate. In this type of sukuk structure of Amanah HSBC adopted in the Middle East can differ considerably from those adopted in other region of South East Asia for several reasons. For example, the difference in the interpretation of Shari'ah among the Middle East and Asian scholars (Thompson Reuters, 2013).

2.4. Regression Analysis of SKIX (Dubai Listed) Sukuk

The value of Durbin-Watson (d) was found 2.118 in screening the data. Thus, data explain no autocorrelation. Results of residual analysis white heteroscedasticity test have shown a p value of 0.833 which is more than 0.05. This ensures that the variance of the residual is constant. That means there is no heteroscedasticity issue in the data.

Regression analysis results of R, R square, and adjusted R square values indicate that interest rate risk, inflation rate risk, dollar rate risk, consumer confidence risk, maturity risk, credit risk, Shari'ah compliance risk and liquidity risk explain 72% to 86% of the variation in sukuk return. Unexplained variation ranges between 14% and 28%. ANOVA test reveals that the value of F statistics is 37.024 which indicate this is a significant model at the 5% level. Table 4 shows the coefficient values for developing the model.

Table-4. OLS Regression Results for SKIX (Dubai Listed) Sukuk Returns and Its Related Independents

	Coefficients				Multicollinearity	
	B	Std. Error	t	Sig.	TOL	VIF
Constant	-.079	.028	-2.847	.005		
ΔIRD	.077	.084	.921	.359	.597	1.675
ΔCPI	.778	.342	2.279	.025	.123	8.139
ΔDOR	-.092	.210	-.438	.662	.558	1.791
ΔCCI	.182	.118	1.545	.126	.402	2.485
ΔMPR	.561	.241	2.329	.022	.146	6.832
ΔSMB	.196	.076	2.571	.012	.540	1.851
ΔHQR	.009	.121	.074	.941	.176	5.690
ΔRIR	.105	.079	1.330	.187	.600	1.668
R	.866					
R Square	.749					
Adjusted R Square	.729					
F	37.024			.000		

Number of Observation=132; Durbin-Watson (d)=2.118

Source: Analysis output

For SKIX (Dubai Listed), DOR has the negative relationship with return. IRD, CPI, CCI, MPR, SMB, HQR and RIR have a positive relationship with return. Of these positive relationships, while CPI has the highest relationship with return HQR has the lowest relationship with return. However, the impact of CPI, MPR and SMB are significant at the 5% level.

The coefficient values of variables indicate that inflation rate risk, maturity risk, and credit risk impact the SKIX (Dubai Listed) sukuk return significantly. Beta values for different varieties of risks vary in different degrees. There are negative and positive fluctuations in return. Listed sukuk are more liquid, tradable and attractive. Thompson Reuters (2013) report shows that only 25 % of the global sukuk market share has been listed. Out of this, active market represents the Dubai listed sukuk. Thus, unlisted sukuk represent poor liquidity, poor market's ability are less attractive than the listed ones.

3. CONCLUSION AND RECOMMENTATION

The summarizes two regression models which explain 61% to 72 % of the variation. While Nasdaq HSBC Amanah sukuk return is 61% exposed to risk, Nasdaq Dubai listed sukuk return is 72% exposed to risk. F statistics show that models are significant at the 5% level and all the models are acceptable. Nasdaq Dubai listed sukuk market is more exposed to risk than Nasdaq HSBC Amanah sukuk market. Analysis of results on the basis of specific sectorial indicates that when Nasdaq HSBC Amanah sukuk return is compared with Nasdaq Dubai listed sukuk return, the risk impact is higher in Nasdaq Dubai listed sukuk return. This might also be by credit risk. Some of the previous findings support these results (Wilson, 2007; Al-Amine, 2012; Howladar, 2006 and Kokab, 2010). Above research findings confirm the impact of credit risk on return.

This study focuses number of recommendations on the bases of research findings. To encourage a secondary market for sukuk companies which trade sukuk must show significant performance in the financial market. Government of these countries should take necessary measures to provide a conducive environment to promote secondary market for sukuk. Government regulators and policy makers should pay attention on these issues periodically.

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