DETERMINANTS OF RISK AND RETURN PERFORMANCE WITH SPECIAL REFERENCE TO GCC SUKUK MARKET STRUCTURE

Ahamed Lebbe Abdul Rauf,
Ph.D. Research Scholar, Utara University Malaysia, Malaysia.

Yusnidah bt Ibrahim,
Professor, School of Economics & Finance,Utara University Malaysia,
Malaysia.

ABSTRACT: *The research study focusing on determinants of return and risk performance in the GCC sukuk market structure is sparse. Therefore, present study attempts to identify different types of risks embedded in sukuk structure, to determine the impact of different types of risks on return of sukuk and to explore and analyze the relationship between market risk, credit risk, operational risk, liquidity risk and sukuk returns in GCC market. This research covers nine years sample period beginning from January 2005 to June 2013. The 2282 daily observations of adjusted closed values of each index has downloaded from websites of Nasdaq Dubai sukuk market. This study used various methods o analyze the data. Results of this study reveal that Nasdaq sukuk index sectorial basis in GCC found that 91% of the GCC sukuk returs were explains by GSKI, 92% of the GCC sukuk returns were explained by GSKC and 93% of the GCC corporate sukuk returns were explained by GSKF. This variance are due to maturity risk, Shari'ah compliance risk , liquidity risk, reinvestment risk , interest rate risk, credit risk, inflation risk and dollar rate risk. Thereby the objectives set in this study proved the relationship between total return and different type of risks. The implications of this study, limitations and areas for further research are also discussed.*

KEYWORDS*: Market, Performance, Return, Risk, Sukuk, Structure.*

INTRODUCTION

One of the most remarkable growths in the Islamic finance is the development and growth of its capital market product known as the sukuk. Luxemburg Tax Authorities has defined sukuk as "debt instrument whose income and capital return depend on the performance of underlying assets. Assets must be corporeal assets or the usufruct thereof" (Rabia & Dascotte, 2010). The growth of sukuk market in the Islamic financial system has been very robust. According to Al-Amine (2012) the sukuk market has taken global dimension, and thus bringing new issues and challenges globally. Further he expressed the sukuk market which replicates bond market in conventional finance helped to place Islamic finance industry as a viable industry and an asset class.

Rafique (2008) stated that overall, economies across Muslim countries have been experiencing a high boom, leading to demand for infrastructure to boost productivity and improve living standard. Many of these infrastructure projects require large amount of investment on long term

basis. It is expected the major part of this capital would be raised through the Islamic capital market and sukuk instruments. In this way more than US$ 3 tn infrastructure investments are underway. It is believed that within the next few years this amount could be double. sukuk play vital role in sukuk in GCC countries. The GCC countries are a group of countries in the Arabian Peninsula that includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia (KSA) and the United Arab Emirates (UAE). GCC is an acronym for Gulf Cooperation Council. For the GCC countries, sukuk can play an important role in financing some of the ambitious large-scale infrastructure projects that are planned (Dawson, 2013). The reason for the upsurge in the market is due to the availability of liquidity in the middle east brought by surplus oil income and returning of bn of dollars in investment in the West since September 11, 2004 even in the USA. In the middle east region the capital market is dominated by equities and bank assets 94.4%, while debt securities made up just 5.6%. Therefore, the debt market needs to develop international best practices for the sustainable growth in the regional financial market. The development of sukuk market as an alternative to the conventional debt market is expressed to be the main force for securing fund to finance infrastructure in the Muslim world and outside.

Ameinfo (2008) expressed that despite uncertainty in the world financial market, the capital market in the middle east keeps growing. According to a report by Ernst & Young the total capital raised by Initial Public offering (IPO's) in the first partial of 2008 was US$ 8.69 bn compared to US$ 4.83 bn during the same period of 2007. At the same securities such as sukuk in the capital market for funding. The bond market in the Arab region is still in their developing stages. Problems exist both in the primary and in the time the trend in GCC economies is privatization with an aim to encourage Public Private Partnership (PPP). As such, both private and public sector will be looking for long term secondary markets. In the secondary market, bonds are illiquid because the buy-and-hold culture is still there. Investors (banks), social security and insurance companies usually hold bond until the maturity as observed by Azzam (2004). Even though situation improved recently, the market is not liquid enough to allow real secondary market transactions.

Sukuk market has emerged during the past decade. A number of empirical evidences support this. Studies have been conducted in Europe, Malaysia and middle east. Studies brought several benefits and emerging opportunities from an active Islamic capital market needs instruments that meet international standard as well as qualified expertise. It also needs to engage in continuous research focused on Islamic capital market issues, product standardized and harmonization. In addition, legal and regulatory dimensions should also be developed and established. Realising this fact, number of researchers have analysed sukuk market. The economic reforms in 2010 and development in the GCC financial market demand the presence of institutional investors and investment banks that leads to the development of capital market that includes both debt and equity. In the absence of debt market, there would be no major acquisition or private equity activity to support.

The lesson learnt from the Asian crisis in 1997 stresses the need to have a domestic bond market in order to reduce dependence on banking sector for financing and dependence on the US Dollar. In the aftershock of the crisis, some countries took great efforts in establishing a local asset-backed security (ABS) market. For a similar effort in the GCC countries to develop a bond and

sukuk market, it requires a government sovereign bond market with the corporate bond and sukuk market. A developed sukuk and sovereign bond market will enable the conduct of monetary policy and provide for benchmarking for pricing corporate bonds as stated by Woertz (2006)

Islamic banking assets represent 40%, 20%, and 20% in 2010 for GCC, UAE and Malaysia. This was tripled when compared with 2005. Sukuk market of GCC, UAE and Malaysia contributes significantly. Reason for this is awareness of capital market culture and incentives to raise money through bonds and equities are higher in GCC rather than UAE and Malaysia. Therefore, those have to be increased in UAE and Malaysia. This notion has been highlighted by number of studies.

This research study might give awareness to promote sukuk issue among GCC and Malaysia. It is felt there is a need for universally applicable Shari'ah interpretation on sukuk issuance. It becomes clear now that the sukuk default in future restructuring will change the way sukuk are structured and marketed. A number of studies emphasized market structure of sukuk. For instance, Al-Amine (2012) states that, with regard to default or mortgage, sometime the assets are scattered in multiple jurisdictions. Further Al-Amine (2012) expresses that, another common issue related to the sukuk default is about documentation. When sukuk were first formulated about seven years ago, they included provision about what would happen in the event of default. When sukuk are documented as unsecured, they would be treated just as conventional bonds, thus the same legal solution can be sought as in the case of conventional bond issues. Without clear provisions, it is very much possible that multiple creditors claim on a company asset after a default. On the other hand, many sukuk sold has been more secure than conventional bonds as they were asset based. In case of sukuk defaults, it would be exposed as to how the court interprets the legal documentation of the sukuk. The underlying issue here is whether the mortgage assets have been truly transferred to investors or not. The issue can be made more complicated with different Shari'ah scholars and lawyers interpreting the issues in different ways. Experts in the finance sector maintained that most sukuk are structured as asset based instrument, rather than assets backed securitization.

Empirical Evidence

Identifying the risks related with sukuk is largely considered as the vital for the future development of that particular market. And it is also most important for managing such market in a better way (Haral, 2010). As such identifying the risks related with sukuk and to identify the significant impact of various risks is felt necessary. Al-Amine (2012) pointed out that, sukuk also involes a number of risks like other financial instruments. These risks include the country risk, the sector and assets risks.These risks can be studied from different angles such as market risk, credit risks, operational risks, liquidity risk, legal risks, taxation risks and the liquidity risks.

The question whether the sukuk are riskier than bond or are they safer than bond is common in the financial market. Nanaeva (2010) predicted that sukuk and bonds should have similar level of risk. But the findings confirmed that their predictions were incorrect. Firoozye (2012) emphasized that sukuk is associated with a range of risks in its structure. Furthermore, Al-Awsat

(2008) emphasized that sukuk risks differ according to the structure of the sak and these risks also vary depending on the underlying assets of these sukuk. Investors get confusion regarding this issue, and they cannot clearly say which is right and which is wrong. This is like in case of the article of Taqi Usmani which opens a new discussion (Razaq & Cheema, 2010). "Liquidity risk is also a great problem for the investors" (Cheema, 2010). On the other hand some respondents said "Like the traditional bond the sukuk also have some market risks for example in case of fixed rate asset based sukuk the interest rate and credit risk emerges" (Haral, 2010).\

According to Khan (2012) structure is also an important risk associated with sukuk. Structure risk is the risk of losing investment value because of the ambiguity between the exposure to price risk of the sukuk assets as an equity stake, and the credit risk of the originator because of the expectation for performance of the investment within the maturity time of the sukuk as in a conventional bond. Tariq & Dar (2007) pointed out that the Shari'ah does not see financial options as a form of wealth, and therefore, options cannot be traded (Usmani, 2002; Vogel & Hayes III, 1998). They also further suggest that adequate risk management techniques will encourage the growth of sukuk market. This may in turn result from the satisfaction of a greater variety of investment needs. So then managers and investors in sukuk market may become able to protect themselves from different types of risks associated with sukuk.

Furthermore, Standard & Poor's Ratings Services summarizes some of its major findings in assessing the risks of corporate sukuk. The recent surge in sukuk issuance emphasises that both issuers' and investors' show growing interest in Islamic finance. Demand is likely to be met in the Gulf Cooperation Council. Since the rates are benchmarked against LIBOR(detail) rates some of the sukuk issuances are exposed to interest rate risks (Tariq, 2004. A fall in the fixed income from sukuk was observed as a result of rising market rates . This also may lead to investment risks, especially in a condition if the asset is not liquid as the zero non tradable sukuk. However, this types of research has not been conducted in the GCC market. The above empirical evidences and contradict argument among various authours motivated the researcher to raise the research questions that, what are the different types of risks embedded in sukuk structure? and to what extent, different types of risks impact on return of sukuk?. So as to answer the research questions, the objectives are set that, to identify different types of risks embedded in sukuk structure and to determine the impact of different types of risks on return of sukuk in the GCC market.

RESEARCH METHODOLOGY

It is very important to view sukuk in terms of their risk and return like all other investments. Sukuk returns are dependent on many variables such as diverse risks, which are interest rate risk, inflation risk, foreign exchange risk, legal risk, Shari'ah compliance risk, credit risk, default risk, maturity risk, liquidity risk, and reinvestment risk.The researcher analyze the data from the developed sukuk markets indices: HSBC/ NASDAQ Dubai sukuk indices. This research covers nine years sample period beginning from January 2005 to June 2013. The 2282 daily observations of adjusted closed values of each index has downloaded from websites of respective sukuk market.

Constructs various models was used to explain variability of excess returns on sukuk with different sectors. The model is employed to determine the excess return variability of the sukuk return index. Researcher developed the following model. To test the conceptual model of this study and hypotheses the present study employs well known statistical techniques of Ordinary Least Squares (OLS) Multiple Regression Model. It is developed as follows:

$$R_s = \alpha_8 + \gamma_1 \Delta IRD_t + \gamma_2 \Delta CPI_t + \gamma_3 \Delta DOR + \gamma_4 \Delta CCI_t + \gamma_5 \Delta MPI_t + \gamma_6 HOR_t + \gamma_7 \Delta SMB_t + \gamma_8 \Delta RII_t + {} + \varepsilon_t. \ldots\ldots$$
$$\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..Model\ (1)$$

Many researchers have studied about different index for studying bond market. For instance. IRD_t is used to measure interest rate risk, CPI_t is used to measure inflation risk, DOR is used to measure dollar rate risk, CCIt is used to measure consumer confidence rate risk, MPI_t is used to measure maturity risk, HQRt is used to measure operational risk, SMB_t is used to measure credit risk, and RIIt is the reinvestment risk used to measure liquidity risk.

NASDAQ Dubai sukuk market categorizes on the sectorial basis of GCC sukuk market which is categorized into three such as HSBC/ NASDAQ Dubai GCC US Dollar sukuk index abbreviated as GSKI – GCC, HSBC/ NASDAQ Dubai GCC Corporate US Dollar sukuk index abbreviated as GSKC – GCC Corporate and HSBC/ NASDAQ Dubai GCC financial services US Dollar sukuk index abbreviated as GSKF–GCC Financial.

Table 1: **Descriptions and Sources of Data**

Variable	Description	Source	Time Horizon	# of Observation
ΔIRD	Change in interest rate	www.fedprimerate.com	2005-2013	2282
ΔCPI	Change in inflation rate	www.tradingeconomics.com	2005-2013	2282
ΔDOR	change in dollar rate	www.treasury.gov	2005-2013	2282
ΔCCI	change in consumer confidence rate	www.tradingeconomics.com	2005-2013	2282
ΔMPR	change in maturity risk	BloombergTicker DJSUK10T	2005-2013	2282
ΔHOR	change in operational risk	Bloomberg Ticker DJSHKT	2005-2013	2282
Δ SMB	change in credit risk	Bloomberg Ticker DJSUK3BT	2005-2013	2282
ΔRIR	change in liquidity rate	Bloomberg Ticker DJSUKTXR	2005-2013	2282
Rf	Risk free rate	www.treasury.gov	2005-2013	2282
GSKI	HSBC/ NASDAQ Dubai GCC US Dollar Sukuk Index (GSKI)	Bloomberg GCC (GSKI)	2005-2013	2282
GSKC	HSBC/ NASDAQ Dubai GCC Corporate US Dollar Sukuk Index (GSKC)	Bloomberg GCC Corporates (GSKC)	2005-2013	2282
GSKF	HSBC/ NASDAQ Dubai GCC Financial Services US Dollar Sukuk Index (GSKF)	Bloomberg GCC Financial Services (GSKF)	2005-2013	2282

Source: Secondary data

RESULTS AND FINDINGS

Variation and fluctuation in both dependent variable - Nasdaq Dubai GCC sukuk return (GSKI) and independent variables - interest rate risk, inflation risk, dollar rate risk, consumer confidence rate, maturity risk, operational risk, credit risk and liquidity risk are presented using line charts. This study presents the variation between Nasdaq Dubai GCC sukuk return (GSKI) and its related risks.
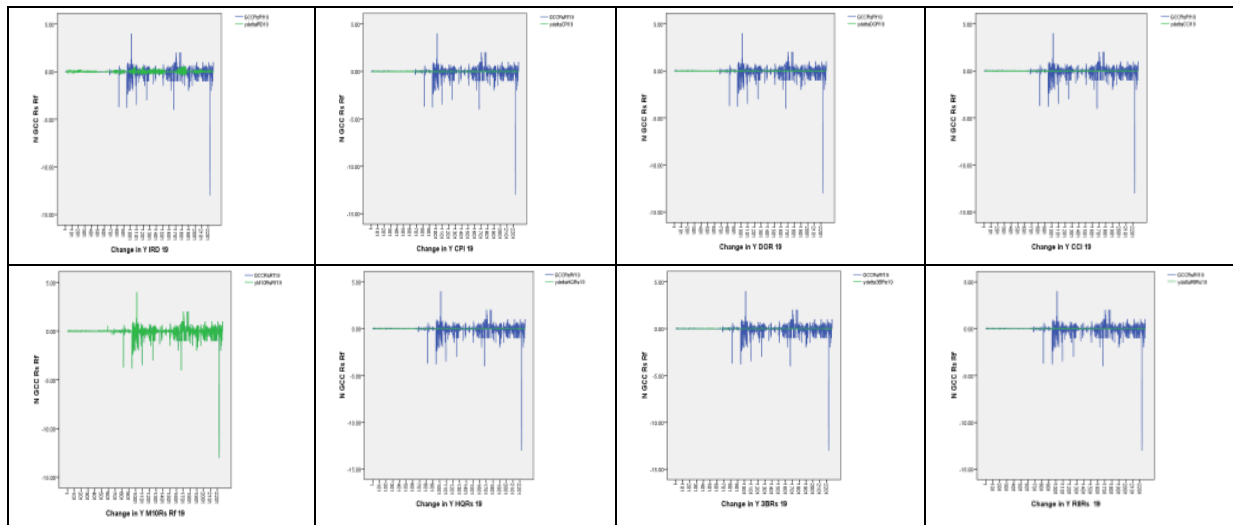

Figure 1: Fluctuation between Nasdaq Dubai GCC sukuk return (GSKI) and its related risks
Source: Analysis output

Descriptive Analyses have been conducted using descriptive statistics such as mean and standard deviation for variables. Nasdaq Dubai return of GCC sukuk (GSKI) abbreviated as GSKIRf, Nasdaq Dubai return of GCC corporate sukuk (GSKC) abbreviated as GSKCRf, and Nasdaq Dubai return of GCC financial sukuk (GSKF) abbreviated as GSKFRf are considered for descriptive analysis.

Table 2:   Descriptive Analysis for GCC Sukuk market

Dependent variable	Mean	Std. Deviation	Number of observation
GSKIRf	0.0386	0.47017	2281
GSKCRf	0.0376	0.47034	2281
GSKFRf	0.0336	0.47012	2281

Source: Analysis output

Table 2 shows that mean values for GSKIRf, GSKCRf and GSKFRf are 0.0386, 0.0376 and 0.0336. This refers to that average Sukuk return for GSKFRf and GSKIRf vary between 0.0336 and 0.0386. They have the range of standard deviation between 0.47012 to 0.47034. This refers to that there is higher variation among these variables.

In all the variables such as GSKI– GCC sukuk return, GSKC–GCC corporate sukuk return and GSKF–GCC financial sukuk return have the highest correlation in maturity risk, that vary between 0.088 to 0.099. Reason for this could be explained owing to maturity period of long term. For instance, once the maturity period goes higher and higher its influence on total return will be worst. Second reason of this is the fixed return rate that is longer than shorter or medium terms.

GSKC–GCC corporate sukuk return has the correlation values of 0.005 to 0.028. Although values of consumer price rate risk (market risk) and reinvestment rate risks are higher than all other risks. Reasons for the higher consumer price rate risk and reinvestment rate risk are continuous fluctuations in the financial market. In detail, this could be due to frequent fluctuation of i.e. conditions of gulf financial market. Inflation rate and interest rate also fluctuate dynamically in external environment. Other variables such as interest rate, dollar rate, consumer confidence rate risk, operational risk and credit risks are influencing at a minimal level. This could be owing to that the government ensures its security over the sukuk.

Correlation values of total returns of GSKF–GCC financial sukuk return and its independents vary between 0.001 to 0.026. Both consumer price rate risk and reinvestment risk reflect the somewhat similar values. However, their influences are higher than other variables. This may be due to the negative effects of traditional monetary crises over financial sector in Islamic sukuk market. Other variables such as interest rate, dollar rate, consumer confidence and credit risks influence lower than the previous two types of risks. When comparing with GSKC–GCC corporate sukuk return, there is minor variation in GSKF–GCC financial sukuk return which are shown in table 3.

Table 3: Correlation between GCC Sukuk Return, GCC Corporate Sukuk Return and GCC Financial Sukuk Return and Its Related Independents

IDVs	GSKI-GCC	GSKC–GCC Corporate	GSKF–GCC Financial
ΔIRD	0.006	0.008	0.006
ΔCPI	0.026	0.028	0.026
ΔDOR	0.007	0.009	0.007
ΔCCI	0.001	0.004	0.001
ΔMPR	0.099	0.098	0.088
ΔHQR	0.003	0.005	0.003
ΔSMB	0.011	0.014	0.012
ΔRIR	0.023	0.026	0.023

Source: Analysis output

Correlation for GSKI–GCC sukuk return is found on total basis incorporating GSK–GCC corporate sukuk return and GSKF–GCC financial sukuk return. When observing the total results, correlation vales vary between 0.001 to 0.026.The highest influence lies on consumer price rate risk and reinvestment risk. Reasons for this higher influence could be change in interest rate and declining conditions of financial market throughout the world that stems from the global financial crisis. Further, liquidity market also fluctuates due to the tendency of businesses and

investors who have lack of confidence so that they can be to liquidity their financial market instruments for the last couple of years. Statistics are shown in the above table 3.

Regression between Total Returns of GSKI–GCC Sukuk and Its Related Independents
Model summary table 4 reveal that value of R, R square, and adjusted R square indicates that interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk, credit risk, and consumer confidence risk explain 91% to 95% of the variation on sukuk return. Unexplained variation ranges between 05% to 09%. Results are presented in model summary table 4.

Table 4: Model summary for total returns of GSKI–GCC and its related independents

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.958ª	.918	.908	.01994

a.Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD
Source: Analysis output

Table 5 of ANOVA table illustrates the portion of SS Regression and SS Residual. Portion of SS Regression is 503.120. That of SS residual is 0.903. In total, value is 504.023. 8 and 2272 have been denoted as Df regression and Df residual. MS Regression is 62.890. MS Residual is 0.000. Value of F statistics is 1.582 that has a significant model. Statistics are shown in table 5.

Table 5: Anovaᵇ for Total Returns of GSKI–GCC and Its Related Independents

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	503.120	8	62.890	1.582	.000ª
	Residual	.903	2272	.000		
	Total	504.023	2280			

a. Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD

b. Dependent Variable: GSKIRf

Source: Analysis output

Researcher has set his alternative hypothesis as that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk credit risk, and consumer confidence risk and return. Since Sig. value is less than 0.05. Researcher rejects null and accepts alternative hypothesis. Accepting alternative hypothesis refers to that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk , liquidity risk credit risk, and consumer confidence risk and return. Table 6 shows the related statistics.

Table 6 shows the coefficient values for developing the model. Generated model is shown in equation 2. Sukuk activity has been most concentrated in two regions such as South East Asia and Middle East (GCC). Sukuk in Middle East has been mainly limited to the GCC. Post Arab

Spring and number of North African countries are expected to push Islamic Finance forward in the region. Most GCC currencies are pegged to the green pack due to global oil sales translated in the dollar. In the last couple of years, many GCC borrowers have turned to the Ringgit market as a strategic step to diversify their funding avenues away from political unrest in the Middle East and European debt and Euro zone crises.

Table 6: Coefficients[a] for Total Returns of GSKI–GCC and Its Related Independents

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.000	.000		-.763	.446
	ΔIRD	-.002	.004	.000	-.530	.596
	ΔCPI	-.007	.068	.000	-.097	.923
	ΔDOR	-.022	.034	.000	-.646	.518
	ΔCCI	-.035	.034	.000	-1.044	.297
	ΔMPR	.109	.001	.009	1.124	.000
	ΔHQR	-.169	.310	-.003	-3.447	.001
	ΔSMB	-.123	.064	-.006	-6.616	.000
	ΔRIR	-.119	.081	-.001	-1.465	.143

a. Dependent Variable: GSKIRf

Source: Analysis output

GSKIRf = 0.000 +(-.002*IRD)+(-.007*CPI)+(-.022*DOR)+(-.035*CCI)+(.109*MPR)
            +(-.169*HQR)+(-.123*SMB)+(-
.119*RIR)…….……………………………...Equation (2)

Regression between Total Returns of GSKC–GCC Corporate and Its Related Independent
Model summary table 7 reveal that value of R, R square, and adjusted R square indicates that interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk, credit risk, and consumer confidence risk explain 92% to 96% of the variation on sukuk return. Unexplained variation ranges between 04% to 08%. Results are presented in model summary table 7.

Table 7: Model summary for total returns of GSKC–GCC corporate and its related independent

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.963[a]	.928	.921	.02026

a.Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD

Source: Analysis output

Table 8 of ANOVA table illustrates the portion of SS Regression and SS Residual. Portion of SS Regression is 503.225. That of SS residual is 0.932. In total, value is 504.158. 8 and 2272 have been denoted as Df regression and Df residual. MS Regression is 62.903. MS Residual is 0.000. Value of F statistics is 1.532 that has a significant model. Statistics are shown in table 8.

Table 8: Anova[b] for Total Returns of GSKC–GCC Corporate and Its Related Independent

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	503.225	8	62.903	1.532	.000[a]
	Residual	.932	2271	.000		
	Total	504.158	2279			

Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD

b. Dependent Variable: GSKCRf

Source: Analysis output

Alternative hypothesis is stated as that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk credit risk, and consumer confidence risk and return. Since Sig. value is less than 0.05. Researcher rejects null and accepts alternative hypothesis.

Table 9: Coefficients[a] for Total Returns of GSKC–GCC Corporate and Its Related Independent

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.000	.000		-.771	.441
	ΔIRD	-.001	.004	.000	-.375	.708
	ΔCPI	-.016	.069	.000	-.235	.814
	ΔDOR	-.027	.034	.000	-.775	.439
	ΔCCI	-.036	.034	.000	-1.044	.297
	ΔMPR	.119	.001	.008	1.106	.000
	ΔHQR	-.160	.315	-.003	-3.363	.001
	ΔSMB	-.029	.065	-.006	-6.594	.000
	ΔRIR	-.081	.083	.000	-.984	.325

a. Dependent Variable: GSKCRf

Source: Analysis output

Accepting alternative hypothesis refers to that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk credit risk,

and consumer confidence risk and return. Table 9 shows the coefficient values for developing the model. Generated model is shown in equation 3.

GSKCRf = 0.000+ (-.001*IRD)+(-.016*CPI)+(-.027*DOR)+(-.036*CCI)+(.119*MPR) +(-.160*HQR)+(-.029*SMB)+(-.081*RIR……………......................................Equation (3)

Beta vales are varying for several reasons. There may be a number of reasons for varying beta values. This could be due to the fact that amidst instability in the MENA region, brought on by the Arab Spring and sukuk entered in a new era up to now enjoying an exceptional price favouring related to conventional bonds. The lower cost of using sukuk has been attributed to a wider range of investors looking to diversity away from Euro zone crisis. GCC corporate sector played a role in the GCC countries. Most investors prefer asset- backed sukuk with strong demand from GCC corporate sector to avoid the default risk.

Regression between Total Returns of GSKF–GCC Financial and Its Related Independents
Model summary table 10 reveal that value of R, R square, and adjusted R square indicates that interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk, credit risk, and consumer confidence risk explain 93% to 96% of the variation on sukuk return. Unexplained variation ranges between 04% to 07%. Results are presented in model summary table 10.

Table 10:Model summary for total returns of GSKF–GCC financial and its related independents

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.968[a]	.938	.930	.01988

a.Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD
Source: Analysis output

Table 11 of ANOVA table illustrates the portion of SS Regression and SS Residual. Portion of SS Regression is 503.016. That of SS residual is 0.898. In total, value is 503.914. 8 and 2272 have been denoted as Df regression and Df residual. MS Regression is 62.877. MS Residual is 0.000. Value of F statistics is 1.532 that has a significant model. Statistics are shown in table 11.

Table 11: Anova[b] For Total Returns of GSKF–GCC Financial And Its Related Independents

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	503.016	8	62.877	1.592	.000[a]
	Residual	.898	2272	.000		
	Total	503.914	2280			

Predictors: (Constant), ΔRIR, ΔCPI, ΔDOR, ΔCCI, ΔMPR, ΔSMB , ΔHQR, ΔIRD

b. Dependent Variable: GSKFRf

Source: Analysis output

Alternative hypothesis is stated as that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk, liquidity risk credit risk, and consumer confidence risk and return. Since Sig. value is less than 0.05. Researcher rejects null and accepts alternative hypothesis. Accepting alternative hypothesis refers to that there is relationship between interest rate risk, consumer price rate risk, dollar rate risk, maturity risk, high quality risk and liquidity risk & operational risk and return. Table 12shows the coefficient values for developing the model. Generated model is shown in equation 4.

Table 12:Coefficients[a] for Total Returns of GSKF–GCC Financial and Its Related Independents

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.000	.000		-.699	.485
	ΔIRD	-.002	.004	.000	-.626	.531
	ΔCPI	-.003	.068	.000	-.037	.970
	ΔDOR	-.018	.034	.000	-.542	.588
	ΔCCI	-.032	.034	.000	-.943	.346
	ΔMPR	.108	.001	.009	1.128	.000
	ΔHQR	-.135	.309	-.003	-3.347	.001
	ΔSMB	-.102	.064	-.006	-6.306	.000
	ΔRIIR	-.117	.081	-.001	-1.440	.150

a. Dependent Variable: GSKFRf

Source: Analysis output

GSKFRf = 0.000+(-.002*IRD)+(-.003*CPI)+(-.018*DOR)+(-.032*CCI)+(.108*MPR)
+(-.135*HQR)+(-.102*SMB)+(-
.117*RIR)………………………………...Equation (4)

Beta values of variables differ in terms of different degrees. It could be argued that the dominated issuers are the dominant financial sukuk issuers in Gulf region. Financial institutions hold majority of Islamic wealth 85% and are chasing a limited pool of instruments. It leads to latent liquidity and tighter pricing.

Table 13 summarizes four regression models. three models explain 91% to 93 % of variation. F statistics shows that models are significant and all are models are acceptable.

Table 13: Regression Models of NASDAQ Sukuk Index Incorporates GCC Sectorial Basis

Regression Model	R	R Square	Adjusted R Square	F	Sig.	Model accepted
Regression between total returns of GSKI – GCC and its related independents	.958[a]	.918	.908	1.582	.000[a]	√
Regression between total returns of GSKC – GCC corporate and its related independent	.963[a]	.928	.921	1.532	.000[a]	√
Regression between total returns of GSKF – GCC financial and its related independents	.968[a]	.938	.930	1.592	.000[a]	√

Source: Analysis output

CONCLUSIONS AND RECOMMENDATIONS

NASDAQ GCC sukuk index sectorial basis ensured that three models explain 91% to 93 % of variation. As such GSKI – GCC sukuk return is 91%, GSKC – GCC corporate sukuk return is 92%, GSKF – GCC financial sukuk return is 93%. This would be due to operational risk i.e Shari'ah compliance risk. It has been stated that there are many risks which are associated with sukuk for example risk regarding the poor regulations of the sukuk mechanism, the sukuk is not commonly tradable in the secondary market so there is risk of liquidity and off course the most important is the Shari'ah compliance risk (Mehmood, Razaq & Haral 2010). As the sukuk age grows and it expands to the world its risks are coming to emerge. Sukuk market is the legal risk and it needs to be dealt urgently otherwise it will be very bad for the growth of sukuk market (Razaq, 2010). All these research findings confirm motives of operational risk i.e Shari'ah compliance risk.

At last, since all Sig. values of all the models are less than 0.05. All the F statistics of these model prove that models are significant and all are models are acceptable. This study achieved all these primary and secondary objectives using regression analyses with the support of F statistics. From the findings, it could be found that stated that market risk (interest rate risk, inflation rate risk and dollar rate risk), operational risk (Shari'ah compliance risk and consumer confidence risk), credit risk (default risk and maturity risk) and liquidity risk (liquidity risk and reinvestment risk) has explained significant variation on total return of sukuk.

NASDAQ GCC sukuk index sectorial basis ensured that three models explain 91% to 93 % of variation. Operational risk is the reason for this achievement of result. Operational risk is very important for the development of sukuk market. So, sharia should be adopted. Different scholars give different views for sukuk investment. Thus, it is recommended that   explanation for sukuk investment should be similar. This can be avoided by formulating a common sharia board internationally. Sukuk market has influenced not only in Islamic countries but also in non-muslim countries. From the findings, it could be recommended that market risk covering interest

rate risk, inflation rate risk and dollar rate risk; operational risk embracing Shari'ah compliance risk and consumer confidence risk; credit risk incorporating default risk and maturity risk and liquidity risk engulfing liquidity risk and reinvestment risk should be focused for understanding the variation on total return of sukuk.

This study did not consider non-traded and unlisted sukuk., structural sukuk index have not been included in this study due to unavailability of information at market. Thus, researcher of this study allows himself or other researchers to further investigate this study by removing these limitations. Findings of this study will promote sukuk market and different risks involved in such as market risk, operational risk, credit risk and liquidity risk. Future investors or business people may get awareness about these risks for secure sukuk investment and transactions. This study helps to provide a remedy for global financial crisis in conventional market.

REFERENCES

Al-Amine, M. A. M. (2012). *Global Sukuk and Islamic Securitization Market, Financial Engineering and product Innovation*, Brill, Leiden, Boston, pp 343-373.

Al-Awsat, A. (2008). London, February 5, 2008. The article originally appeared in Arabic, and excerpts from the article were translated by the staff of http://www.memrieconomicblog.org/ www.qfinance.com.

Ameinfo, (2008). Assessing the Future of the Middle East's Exchange. September 16, 2008.

Azzam, H .T. (2004). Deepening the Region Corporate Bond Market. *Arab News*, February 9.

Cheema, A.M.(2010). Research Analyst in Islamic banking and finance. University of Bedfordshire, England.[Telephonic, 20 March 2010] http://umu.diva-portal.org/smash/get/diva2:415709/FULLTEXT01, Retrieved 24.10.2013

Dawson,F.(2013).Sukuk Islamic bonds, a Growing GCC Investment Opportunity,http://pathfinderbuzz.com/sukuk-islamic-bonds-a-growing-gcc-investment-opportunity/editorial@pathfinderbusiness.com, Retrieved 27.08.2013

Firooze, N.(2012) . Managing uncertainty: Sukuk from a secular investor's perspective , Thomson Reuters Zawya Sukuk Perceptions and Forecast Study 2013, *Islamic Finance Gateway*. Thomson Reuters.

Haral,T.A. (2010). Regional Head North, Senior Vice President, Arif Habib Investments Ltd. Pakistan.[Telephonic,23 April 2010] http://mcbah.com/downloads/report/Presentations/MarketingPresentation_files/PALMS%20Presentation%20June%202013.pdf, Retrieved 24.10.2013

Khan, T. (2012). The Challenge of Sukuk Structure Risks. *Thomson Reuters Zawya Sukuk Perceptions and Forecast Study 2013, Islamic Finance Gateway*. Thomson Reuters. pp 81-84 market report, Vol 7 Issue 6 , www.islamicfi nancenews.com ,

Nanaeva,Z,K. (2010) How risky Sukuk are: comparative analysis of risks associated with Sukuk and conventional bonds,Dissertation submitted in partial fulfillment of the degree of MSc in Finance and Banking, Faculty of Business, The British University in Dubai. http://bspace.buid.ac.ae/handle/1234/29, Retrieved 24.10.2013

Rabia, S., & Dascotte,J.L,(2010). Luxembourg's Tax Treatment of Islamic Finance market report, Vol 7 Issue 6 , www.islamicfi nancenews.com ,

http://aibim.com/dmdocuments/ifn/2010/V7i6. Retrieved 28.06.2013

Rafique, M .(2008) . GDP of GCC reaches $735 billion, *Arab News*, August 4.

Razaq, A. (2010). Finance Manager, Sultan Group Health care member of Sultana Group Investment, Dubai.[Telephonic,10 March 2010] http://umu.diva-portal.org/smash/get/diva2:415709/FULLTEXT01, Retrieved 24.10.2013

Tariq, A. A. (2004). Managing Risks of Sukuk Structures, *unpublished MA Dissertation, submitted in partial fulfilment of the requirements for the degree of Masters of Science at Loughborough University*, UK.September, , p. 44.

Tariq, A. A.& Dar, H. (2007)Risks of Sukuk Structures: Implications for Resource Mobilization, *Thunderbird International Business Review,* 49(2) 203–223 • March–April 2007 Published online in *Wiley Inter Science* , © 2007 Wiley Periodicals, Inc (www.interscience.wiley.com).

Woertz, E. (2006).Towards a GCC Bond Market: Lessons from Asia, *www.ameifo ■ com,* April 23.

http://www.tradingeconomics.com/bahrain/inflation-cpi , retrieved 25.10.2013.

http://www.fedprimerate.com/libor/libor_rates_history.htm, retrieved 10.10.2013.

http://www.tradingeconomics.com/bahrain/risk-premium-on-lending-prime-rate-minus-treasury-bill- rate-percent-wb-data.html, retrieved 15.10.2013.

 http://data.worldbank.org/indicator/FR.INR.RISK, retrieved 17.09.2013.

http://www.djindexes.com/mdsidx/downloads/rulebooks/Dow_Jones_Sukuk_Index_Rulebook.pdf, retrieved 19.10.2013.

http://www.djindexes.com/investable-products, retrieved 05.10.2013.

http://www.treasury.gov/resource-center/data-chart-center/interest rates/Pages/TextView.aspx?data=billrates , retrieved 25.09.2013.

http://www.nasdaqdubai.com/trading/historical-prices, retrieved 10.09.2013.

http://www.nasdaqdubai.com/products/islamic-securities, retrieved 12.09.2013.

http://www.nasdaqdubai.com/marketdata/#/sukuks, retrieved 18.09.2013.