

The Effect of Risk Management Committee Characteristics and Risk-Taking Among Islamic Financial Institutions in Bangladesh

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The purpose of the study is to examine the influences of Risk Management Committee (RMC) characteristics on the risk-taking of the Islamic Financial Institutions of (IFIs) in Bangladesh. The study conducts dynamic short panel data regarding the annual report of quated 14 IFIs in Bangladesh during the period 2013-2018. Particularly the study has conducted the first and second lag of dependent variables and applied them under the GMM model in Stata software. Risk-taking is the most prejudicial issue that needed to be justified by findings the hypothesis result of Risk Management Committee characteristics is negative significant that means RMC is essential to reduce risk-taking of IFIs in Bangladesh. The study provides support for the positive result of RMC and financial expertise put in the right place to reduce excessive risk-taking that could be a valuable source of knowledge for reducing risk-taking to the risk committee.

Keywords: Islamic banking, RMC, Bangladesh bank risk guideline

Introduction

In the early 21st century, 2001 through 2010 was an extremely challenging decade for financial institutions. This challenge was not seen only in Islamic Financial Institutions (IFIs) but also by conventional financial institutions in many parts of the world (Risk Guideline, 2012). Although the decade was extremely challenging for Islamic finance, it started to overcome the risk and challenging issue among the Muslim and non-Muslim investors. As a result, they (investors) have also been able to think that, Islamic finance is as much safety paramount as well as a unique character due to prohibits interest, gambling, and speculations that have an influence on reducing the risk (Abu-Tapanjeh, 2009).

In the same way, the financial assets of the Islamic financial institution stood around \$2.1 trillion in 2015. Most of these Islamic finance belongings (78%) are held using Islamic banks placed in Muslim-majority countries of the Organization of Islamic Cooperation (OIC) (IFSB, 2014). Even, about 600 Islamic financial institutions over the 75 countries contribute to extending Islamic finance (IFSB, 2014). Islamic finance has been a concentration on a growing economy (Abu-Tapanjeh, 2009). The amount of Islamic finance is rapidly

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growing, that was 1% of total global finance in 2015; in 2012 its value had doubled to 1.6 trillion USD. However, other statistics have shown that this value may be increased by 6.5 trillion USD in 2020 and an estimated compounded annual growth rate (CAGR) of 24.62% during 2012-2020 (IFSB, 2014).

Islamic finance is growing its operation globally and being considered a viable alternative to conventional mainstream finance. Though Islamic finance has become the central hub of the global economy, it has fortunately experienced some recent worst upheavals such as financial instability along with several relevant issues relating to the alleged unfavorable performance of corporate governance characteristics and governance scandals that lead to the financial crisis. Initially, it started in the conventional financial sectors, gradually it also adhered to Islamic finance in the many parts of the world particularly, in the western market and led to substantial losses as well as consequence failures of the economy (Asim, Qayyum, & Nazir, 2012). The consequence failures play a vital role to occurred credit risk, liquidity risk, operational risk, internal compliance risk, and interest rate risk (Diamond & Dybvig, 1983).

Furthermore, borrowers do not repay their loans on time (Cecchetti & Schoenholtz, 2011), unsatisfied debt and demand with depositors (Dermine, 1986), uneven distribution of liquidity underpincredit and liquidity risk which has become the most concerning issues of IFIs in Bangladesh (Akbar, Kharabsheh, Poletti, & Ali, 2017; Mollah, Hassan, Farooque, & Mobarek, 2017). According to Basel accord (iii) and BD central bank: About 75% of banking failures or scandals occurred due to credit risk. In 2016, a survey was conducted of IFIs in Bangladesh, there were 134 valid respondents, about 87.2% of those respondents gave argument that around 86.3% of risk occurred due to liquidity and credit limitation.

The result of a survey decomposition analysis shows that credit risk in the short term (two months) was mostly affected by own shocks up to 79.30% and by MTC (10.52%) in the long term (12 months) risk are the most concerning issues in a financial sector (Adamgbo, Toby, Momodu, & Imegi, 2019). Previous studies have explored that credit and liquidity risk do not have an economical meaning on reciprocal contemporaneous, but it is being considered as the mainstream of such failures (Stojkovic, 2013; Vazquez, Francisco, Federico, & Pablo, 2015).

In the context of Bangladesh, there are six core risks in financial sectors such as credit risk credit policy 8 (CP8), market risk credit policy 13 (CP13), liquidity risk credit policy 14 (CP14), operational risk credit policy 15 (CP15), and interest rate risk credit policy 16 (CP16) (Bangladesh Bank, 2012). However, there are several studies that have examined on the issues of credit risk which has become the most concerning issue to financial institutions (Bauer & Frijns, 2008; Bauer, Frijns, Otten, & Tourani, 2008; Ratu, 2015). On the other hand, credit and liquidity risk appear to have played a major role in the amplification of IFI's failures. In light of this fact, it cannot be denied the influence of credit and liquidity risk on a sound economic infrastructure of IFIs in Bangladesh.

Ali (2016) found the difference in the operation like IFI's earnings, sharing, lending, and bonds issues of the Islamic financial institutions in Bangladesh as a result, credit and liquidity risk are being figured in such industries (Ullah, Harwood, & Jamali, 2016). Furthermore, the lacking of financial expert, scholars, and sufficient board members of IFIs in Bangladesh also leads to higher risk-taking (Alman, 2012). Mollah, Hassan, Farooque, and Mobarek (2017) have also found a significant linkage between risk and corporate governance.

This study examines the influence of RMC characteristics toward risk taking of IFIs in Bangladesh. The main findings of the study provide the evidence that RMC characteristics negative significant on risk taking

which is consistent with the hypotheses (Mollah et al., 2017; Pearl-Kumah, Sare, & Bernard, 2014). The IFIs have been proactive in addressing negative action of coefficient on risk-taking that is a shortage of financial expertise, insufficient risk committee selection to the right place. It also indicates that RMC is negative significant for risk-taking due to avoiding RMC by Islamic non-banking financial institutions. Hence, accounting and financial expertise in RMC supports the resource dependence theory by providing empirical evidence that RMC can be the source of risk management expertise and risk management information.

The rest of this paper is designed as follows. In Section 2 we briefly discuss previous literature and result of the research hypotheses. Section 3 presents details of research methodology, variable measurements, and estimation methods. Section 4 provides details of the empirical results and related discussions. Finally, Section 5 concludes this paper by presenting a summary of the overall findings, main contributions, and implications of the study. This section also acknowledges the research limitations and outlines avenues for future research.

Literature Review and Development of Hypothesis

Rao and Dula (2017) posited that the structure of committee depends on firm size while large size firm maintains separate committee with a different name. In the committee, the risk management committee (RMC) is significant in acting as supporting-committee that supervises risk taking strategies, policies, and processes. Previous studieshold different level key players in RMC such as non-executive directors, Chief Executive Officer, independent directors with good education background that led to strong governances' activities. Pearl-kumah (2014) argued that putting the key players in RMCs contributes to exceptional effectiveness with an unbiased board that enlarges RMC's vigilant to control the risk taking (Subramaniam, McManus, & Zhang, 2009). RMC with bigger size tends to have higher oversight of controlling the company's risk appetite (Tazilah & Afiq, 2014). The commercial banks should improve loan concentration by diversifying their portfolio management capacity and they should enhance income diversification by relying on non-traditional income sources, and the board sub-committee as risk committee size should be given due emphasis to enhance effective risk proceed (Rao & Dula, 2017).

Risk management Committee regime factors such as the participation of a chief risk officer (CRO) in IFI's executive board and the risk-taking key persons involved with a better progressive on ROE. The most importantly, standard corporate governance is insignificant or even negatively affects risk-taking (Aebi, Sabato, & Schmid, 2012). An audit may also justify about accuracy and add support to a risk manager's request for additional materials (Underwood, 2017). Risk management related to all committee should be executive and board of directors' level to ensure that there is at least three member and at most five members of RMC is considered as optimum divarication of committee that embodied corporate governance (Risk Management Guideline, 2012). A good governance makes sure a premises that impact on risk taking behaviour (Corporate Governance Code, 2004).

The risk management committee related with jurisdiction, executive board, senior level management (Basel, 2008; Walker, 2009). The presence of financial expertise in RMC is considered as complete committee jury. On the other hand, CRO who executive within an organization and more specific measures include either the creation of a dedicated risk committee (Brancato, Tonello, Hexter, & Newman, 2006). Moreover, risk governance framework is the large board as well as regulatory pressure so that the board seriously can control the activities where (1) a devote board-top level risk team, of which (2) a majority should be independent, (3) the CRO portion of the executive board, (4) chief risk officer must be financial expert (Mongiardino & Plath,

2010).

Hypothesis 1 (H1): There is a positive relationship between Risk Management Committee size (RMC) of IFIs and risk-taking.

A multi-compositional board whereas board education quality as well as shariah scholars' impact on risk taking (Alman, 2012). There are a lots of risk in financial institutions to recover this need more to involve directors with a financial expert of RMC so that they can easily find out the analysis the risk proceeds (Subramaniam et al., 2009). A corporation should manage its risk by using the enough key player. Otherwise, suppliers can also both stop extending savings to the company, or even quit doing employer with the business enterprise altogether. However, in applying repeatedly used techniques, an accounting and economic expert have to be aware of the methodologies of risk-taking. Needham (1997) examined that Risk management committee (RMC) is sub-committee of board that put emphasis on risk taking (Rao & Dula, 2017). Risk management committee is at least three members who hold board-level directors and senior management (Underwood, 2017). Board members and key players of board and senior staff of IFIs adhere to the risk control. The key players of RMC should be put the selected place so that they can be sure to reduce risk taking (Pearl-Kumah, 2014). To control risk, need sufficient board where selected directors, the top official should be involved. All members of board are not involving with the Risk Management Committee (RMC) as a result the directors who take part as a striking force of risk-taking, should be financial and accounting expertise (Quttainah, Song, & Wu, 2013). Previous empirical studies argued that separate RMC with experts and offers lower organizational complexity that assist to find out any material of risk proceeds (Subramaniam et al., 2009). In terms of multi-characteristic board (board size, board experience, board educational qualification) and board financial expert that emerge as strong governance and impact on risk-taking behaviour (Alman, 2012). The proposed hypothesis:

Hypothesis 2 (H2): There is a positive relationship between financial expert in RMC characteristics and risk taking of IFIs.

Methodology

Data Sample

The study has used secondary data with a purposive sample to collect data of IFIs' annual reports from 2013 to 2018 and website. The most of the annual report was obtained from the web site of IFSB, GFDR, DSE, and Bank scope. The cross-section data which give cross-sectional records (heterogeneities) and time-series data (autocorrelation) want to be addressed (Gujarati, 2004). Dynamic GMM is the most important to control endogeneity problem in variables (Gujarati, 2004). However, time-invariant correlation between error terms and explanatory variables are key elements for dynamic GMM (Roodman, 2009). The command "xtabond2" module in Stata is conducted in time invariant variable (Arellano & Bover, 1995; Blundell & Bond, 1998). First, OLS ignores the panel structure of the data (Gambin, 2004). Second, a time-invariant parameter cannot be estimated with fixed-effect methods. Third, the CGI does not vary much over time, so the fixed-effect estimation could be inappropriate (Wooldridge, 2002) and could lead to a loss in degree of freedom (Baltagi, 2005, p. 14). Endogeneity is a common problem in studies on finance and accounting related variables (Pindado & Requejo, 2014). In addition, one of the main objectives of this research is to control for endogeneity. To control the endogeneity the study uses the dynamic panel system-GMM for controlling all three types of endogeneity, i.e., simultaneity, unobservable heterogeneity, and dynamic endogeneity (Wintoki,

Linck, & Netter, 2012). The first source stems from simultaneity because corporate risk-taking and some of the financial variables are simultaneously determined. The second endogeneity source comes from unobservable heterogeneity, where other omitted variables could affect the corporate risk that is unobservable, such as, the managers' skills and ability (Hermalin & Weisbach, 2003). The third source of endogeneity may arise in specification dynamic endogeneity (Wintoki et al., 2012). In particular, it also creates a matching equation of the first differences for all of the variables. The GMM estimates the lagged values of the right-hand-side variables. The lag variables eliminate the unobserved heterogeneity and omitted variable bias (Roodman, 2006).

Credit Risk

Credit risk is the future unknown event due to the default of the creditor's reimbursement. The allotment of the credit loan system has importance for the suitable analysis of borrowers' goodwill (Asim et al., 2012). The risk assessment and analysis mechanism lead to reduced risk (Asim et al., 2012). To control the risk, a set of risk management committees is needed with the financial key players (Pearl-Kumah, 2014). It also documented that the investment policies according to compliance that leads to investment assessment, collateral requirements, risk grading, reporting, documentation, legal formalities, and procedures along with up-to-date clean CIB report of the client (Hemmati & Vakilalroaia, 2015). It is highlighted in a previous study that there is a significant relationship between risk management committee and credit risk (Akbar, Kharabsheh, Poletti, & Ali, 2017; Mollah et al., 2017).

Liquidity Risk

The liquidity is a loan to total asset ratio or inability to quickly mobilize funds. Liquidity occurs when loans are less liquid than other assets (Ramzan & Zafar, 2014). CAR is Capital Adequacy Ratio that has relationships with liquidity risk-taking. Nevertheless, the liquidity risk influences the company's policy (Jedidia & Hamza, 2015). Liquidity risk is a time-invariant requirement with sustainability and instability (Ghenimi, Chaibi, & Omri, 2017). Liquidity is a furnish of protracted measurement (Khan & Ahmed, 2001). Liquidity depends on assets (Ali, 2004) that contributes to reducing liquidity manipulate (Ramzan & Zafar, 2014). Liquidity is the access of financial windows to minimum reserve requirement (RR) and financing to deposit ratio (FDR) (Sutrisno, 2016). The advance loan, mortgage portfolio, and sound governance have significant relationships that lead to the liquidity stability of an organization (Rao & Dula, 2017).

IFIs' age

The maturity denotes as an experienced institution that is the most important in the assessment of institution's management, strategy, and its GGG. Firm maturity and age related with experience that impact to reduce the risk (Arvelo, Bell, Novak, Rose, & Venugopal, 2008; Fitch, 2009; S&P, 2007). Age is positively and significantly related to financial risk (Cull, Demirgu[°]ç-Kunt, & Morduch, 2007). There is a significant and negative relationship between age and the size of the average assets (Olivares-Polanco, 2005). The age related to the average firm size (Cull et al., 2007) and workers' capacity to work at a particular age that risk notification methods suited to the specific abilities of workers, including their capacity to acquire knowledge, training conducted in recognition of reduced ability to acquire knowledge and skills that are protected from higher risk-taking (Gorney & Salvendy, 2011).

Empirical Model Design

The study conducts dynamic panel regression analysis to measure the influence of RMC characteristics on the risk-taking of IFIs in Bangladesh. "The regression analysis has used the simultaneous equation of risk-taking = f (risk management committee, accounting and financial expert in RMC) as independent variables and IFI's age as control variable that has an impact on risk-taking, in addition, credit and liquidity risk as dependent variables. The study has examined the credit and liquidity risk by presenting the test of hypothesis model among IFIs.

Risk-Taking: risk-taking is the aggregate risk of Credit risk and liquidity risk (Akbar, Kharabsheh, Poletti-Hughes, & Shah, 2017; Mollah et al., 2017).

$$Risk Taking = Credit \, risk + Liidity \, risk \tag{1}$$

Credit risk is the dependent variable and is measured by using total assets and total liabilities. Credit risk is total loan to total assets (Hawileh, Abu-Obeidah, Abdalla, & AdilAl-Tamimi, 2015).

2. Liquidity risk is the dependent variable and is measured by using the financial gap ato introduce (Saunders & Cornett, 2007). Liquidity gaps = Logarithm of (Assets-Liabilities), on the other hand, liquidity risk is the ratio between liquidity assets to total asset (Alsharif, 2018; Al-Tamimi et al., 2015).

$$Liquiity = \frac{Liquidity \, Assets}{Total \, Assets} \tag{2}$$

the regression models are used in the study to determine both the regression effects of IFIs. Equation (1) is used to estimate the main effects of risk. Corporate Governance Characteristics Index and risk-taking among IFIs.

$$(i)RT_{i,n} = \alpha_0 + k_{in-1} + K_2 Y_{i,n-2} + \beta_1 RMC_{i,n} + EXP_RM_{,n} + \mu_{i,n} + \varepsilon_{i,n}$$
(3)

RMCS R is Management Committee Size, Financial Expert in RMC, β_1 are the positive or negative coefficients of the explanatory variables, $\varepsilon_{i,n}$ is the error term (the time-varying disturbance term is serially uncorrelated with mean error and constant variance), μ_i = unobserved variable. $K_1Y_{in-1} + K_1Y_{in-2}$ = Lag-1 and Lag-2 is proxy of dependent variable.

Discussion and Result

Table 1

Descriptive Statistics of Credit and Liquidity Risk for Overall IFIs

Name of the institution	CR	LR	Risk-taking	Rank
Islamic Bank Bangladesh Ltd	0.919378108	0.121733333	1.041111441	4
ICB Islami Bank Ltd	1.795096669	-1.05875	0.736346669	8
Al Arafa Islami Bank Ltd	0.915770243	0.14665	1.062420243	2
Social Islami Bank Ltd (SIBL) Ltd	0.571588352	0.1211	0.692688352	9
Export-ImportBank (EXIM) Ltd	0.908578313	0.12015	1.028728313	5
First Security Islami Bank Ltd	0.961847703	0.109916667	1.07176437	1
Shahajalal Islami Bank Ltd	0.921549389	0.129866667	1.051416056	3
Union Islami Bank Ltd	0.894143346	0.122033333	1.016176679	6
Islamic Insurance Bangladesh Ltd	0.438580132	0.140661326	0.579241458	10
Takaful Islami Insurance Ltd	0.205634062	0.09631969	0.301953752	11
Fareast Islami Life Insurance Ltd	0.122928088	0.058371276	0.181299364	13
Padma Islami Life Insurance Ltd	0.185644462	0.071824872	0.257469334	12
Prime Islami Life Insurance Ltd	0.088618285	0.058550743	0.147169028	14
Islamic Finance and Investment Ltd	0.836668753	0.009265919	0.845934672	7

The above Table 1 shows the combined risk-taking (CR and LR) of overall IFIs for the period from 2013

to 2018, where first security Islami Bank Ltd shows the highest risk-taking (1.05142) and Prime Islami Life Insurance Company Ltd shows the lowest risk (0.147169028).

	Descriptive statistics				
	Obs	Mean	Std. deviation	Min.	Max.
RMC_size	84	0.1666667	0.374916	0	1
Actg. & F exp. in RMC	84	0.321428	0.469830	0	1
IFI's age	84	0.214286	0.412790	0	1
Lag_1	83	0.741704	0.365137	0.1205	1.091
Lag_2	82	0.739964	0.367038	0.1205	1.091
RT	48	0.743503	0.363351	0.1205	1.091

Descriptive Statistics Risk-Taking Summary

Table 2 shows the mean, std., the minimum and maximum value of risk-taking of IFIs in Bangladesh. The mean score of risk-taking is 0.7435029, while std., min. and max. value are 0.3633051, 0.1205232 and 1.091 respectively. In the same way, the mean of RMC and AFEXP_AC are 0.16667 and 0.321428 respectively and std. while min. and max. scores are 0.374916 and 0.469830 respectively. The maximum and minimum value is 1 and 0.

Table 3 presents the correlation matrix among the variables of this study. The high collinearity among variables influences econometric problems in that condition while the correlation between the variables is 0.80 or higher. Table 3 shows that none of the scores are high enough to cause any potential collinearity problems and it is unlikely to have effect on results (Gujarati, 2004).

Table 3

Correlation Matrix

	RMC	FEX_RMC	Age	Lag_1	Lag_2	CR	LR	RT
RMC	1							
FEX_RMC	0.376192	1						
Age	0.23355	0.386049	1					
Lag_1	0.297131	0.452588	0.144362	1				
Lag_2	0.240202	0.369427	0.088257	0.935885	1			
CR	0.184211	0.434272	0.52613	0.710592	0.681405	1		
LR	0.084184	-0.09544	-0.56401	0.045688	0.013389	-0.60979	1	
RT	0.30241	0.466559	0.189381	0.93601	0.875015	0.747402	0.070799	1

Note. Table 3 presents descriptive statistics among the variables of this study, where AC is Audit committee, AF_AC is Accounting and financial expert in AC, RMC is Risk Management Committee, FEX_RMC is Financial expert in RMC, Lag_1 proxy variable risk taking, RT is Risk Taking, Age is operating year of IFIs.

Table 4

Multip	le Regres	ssion A	Inalysis
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		RTZ test	Std orror	
	β	Z	Sid. erior	
L1. rt	0.5525024***	4.55	0.1420352	
(0.000)				
L2. rt	-0.792207***	-2.22	0.034242	

Table 2

(0.021)			
Age_dmy	-0.0904874	-0.59	0.1546222
(0.558)			
Table 4 to be continued			
RMC_size	0.0260066	4.21	0.0127252
(0.005)			
AFEXP_AC	-0.0256919***	-5.27	0.0066514
(0.000)			
_cons	0.448222***	4.55	0.100702
(0.000)			

Notes. Number of instruments is 14 & Observation (N = 56); p-values in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001.

The study examines the effect of RMC characteristics on risk taking of IFIs in Bangladesh. There are two items involved in RMC characteristics that are RMC size and actg. & financial expertise in RMC. The RMC characteristics are calculated on the basis of 1 or 0 figure where, RMC size is more than sample then 0, otherwise 1, in the same manner the accounting and financial background of RMC is more than 0.20 then 1 or otherwise 0. The 0 or 1 figure of the study contributes to constructing the panel on RMC characteristics. Table 2 shows the mean score of RMC size and actg. & financial expertise is around 0.16667 and 0.321428 respectively that is consistent with previous study. Multiple regressions analysis in Table 3 shows RMC size and risk taking are significantly associated with risk taking at p < 0.005 ($\beta = 0.0260066$, z = 4.21). This finding supports hypothesis 1. Brown, Steen, and Foreman (2009) advocated that RMC is an effective governance mechanism on risk taking. This finding is also consistent with Brown et al. (2009) and Council (2011). The study also shows that there is a significant negative relationship between the accounting and finance expertise among the committee members and risk management (Alkdai & Hanefah, 2012). It may not be the real situation with hypothesis 2. Multiple regressions analysis in Table 3 also shows FEXP_RMC and risk taking is significantly negative associated with risk taking at p < 0.000 ($\beta = -0.0256919$, z = -5.27). This finding is supported by Pearl-Kumah (2014) who advocated that RMC is an effective governance mechanism that is also consistent with risk taking.

Conclusion and Policy Recommendation

This study intends to examine the effects of Risk Management Committee (RMC) characteristics on the risk taking among IFIs in Bangladesh. The study was based on a sample of 14 IFIs (Islamic Financial Institutions) for a period of six years from 2013 to 2018. The results were obtained by using six years panel data estimations; dynamic GMM effects methods to explore the impact of the four (includes lag variables) independent variables of RMC characteristics on risk taking as dependent variable. The results show that in the first hypothesis which examines that the size of the RMC is positively related to risk taking, the findings reveal that there is significant positive relationship between financial experts in RMC size and risk taking, indicating that the larger proportion of financial experts in RMC has an effective impact on risk taking of IFIs in Bangladesh. Thus, further research to examine the relationship between the availability of the independent directors in the RMC and risk-taking practice must be undertaken not only in Bangladesh.

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