



## The effect of audit committee characteristics and risk-taking among islamic financial institutions in Bangladesh

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### Abstract

The purpose of the study is to examine whether audit committee characteristics influence the risk taking of the Islamic financial institutions (IFIs) in Bangladesh. The study conducts dynamic short panel data regarding annual report of quoted 14 IFIs in Bangladesh during the period 2013–2018. Particularly the studies examined with first and second lag of dependent variables are applied under GMM model in Stata software. Risk taking is the most concerning issues and to measure it the study findings reveal that the audit committee size is significant positive effect on risk taking and it also documented that accounting and financial expertise in AC is significant negative relationship with risk taking. The results of the study add a new dimension to the research that could be a valuable source of knowledge for policy makers and regulators in private commercial banks in Bangladesh. However, other audit elements in committee characteristics, such as, ACs' attendance in meeting and owners' identity, are not covered in this measurement. Future studies could extend the analyses by including these and other personal characteristics of directors to provide additional useful insights to this line of literature.

**Keywords:** audit committee characteristics, credit risk, liquidity risk

### Introduction

Islamic finance is growing its operation in globally and being considered as a viable alternative to conventional mainstream finance. Though Islamic finance has become as central hub of global economy but, it has fortunately been experienced some recent worst upheavals such as financial instability along with a number of relevant issues relating to the alleged unfavourable performance of audit committee with comparatively less expert in AC that leads to the risk taking. In previous study, the audit committee characteristics reveal the audit committee size and independent director's attendance in AC meeting that influence on risk taking (Karwowski & Salvendy, 2011) [26]. The present study investigate that is to examine the audit committee characteristics with accounting and financial background in AC concentration which effects risk taking of IFIs in the Bangladesh. In this endeavour, the study focuses on risk taking in the complete annual report of 14 Islamic financial institutions using dynamic GMM model analysis for the purpose of the effect of AC characteristics on risk taking.

Risk is the importance concerning issues of Islamic finance that fall into three categories such as financial and non-financial risks. Financial risks divided into two types of risk: financial risks and non-financial risk, while financial risks are related to IFI's overall business processes (Steinberg, 2011) [37]. The inconsistency events of the business operation are taken part with unfavourable business deeds (Asim, Qayyum, & Nazir, 2012) [6]. The consequence failures that play a vital role to occurred credit risk, liquidity risk, operational risk, internal compliance risk and interest rate risk (Diamond & Dybvig, 1983). Furthermore,

borrowers not repay their loans on time (Cecchetti & Schoenholtz, 2011a, 2011b) [11, 12], unsatisfied debt and demand with depositors (Dermine, 1986) [16], uneven distribute of liquidity underpin credit and Liquidity risk which has become the most concerning issues of IFIs in Bangladesh (Mollah, Hassan, Farooque, & Mobarek, 2017) [27].

According to Basel accord (iii) and BD central bank: About 75% of banking failures or scandal is 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 % risk is occurred due to liquidity and credit limitation. A survey of result decomposition analysis shows that credit risk in the short term (2 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) [1]. Previous some studies have explored that credit and liquidity risk do not have an economically meaningful on reciprocal contemporaneous, but it is being considered as the main stream of such failures (Stojkovic, 2013; Vazquez, Francisco, Federico, & Pablo, 2015) [38, 40].

In the context of Bangladesh, there are six core risk 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) (BB risk guideline, 2012). However, there are several studies have examined on the issues of credit risk which has become the most concerning issues to the financial institutions (Bauer & Frijns, 2008; Bauer, Frijns, Otten, & Tourani, 2008; Ratu,

2015) [8, 9, 31]. 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 denying the influence of credit and liquidity risk on a sound economic infrastructure of IFIs in Bangladesh.

Yasin Ali (2016) [43], has found the difference in the operation like of IFI's earnings, sharing, lending and bonds issues of the Islamic financial institutions in Bangladesh as a result, credit and liquidity risk are being figure in such industries (Ullah, Harwood, & Jamali, 2016) [39]. Furthermore, the lacking of financial expert, scholars and sufficient audit members of IFIs in Bangladesh also lead to higher risk taking (Alman, 2012b) [3].

In the same way firm extending debt-equity and overall cost of capital (Ozgulbas, Koyuncugil, & Yilmaz, 2006) [29]. In contrary, limited with sufficiency time, human resources, knowledge with key person and scales of operation that impact on risk taking (Shanthi & Bierly, 2006) [36]. In addition, along with audit committee, there are some other factors such as business size and its volume are also important causes of risk issues. To minimize these risks the study has examined the audit committee characteristics of IFIs in Bangladesh.

### Literature Review and Development of Hypotheses

Large board has greater reputational requirement than small board. To maintain large board is needed different committee. The large board has maintained poor coordination that disreect their reputation (Salancik, 1977) [34]. The study theoretically shows that large size firm executes both internal and external audit committee whereas, small board not maintain separately audit committee (Seyram Pearl-Kumah, Sare, & Bernard, 2014) [35]. Large size firm ultimately conducted more complexity and lack of co-ordinance that impact on risk. Large size firm lead to large board with greater experience, expertise, reputation, commitment, and willingness better performance (Alman, 2012a) [2]. Thus, firm size contributes to audit committee facilities that impact on risk.

It is burning issues of an auditor to identify the materiality. The materiality in financial statement that leads to imbalance position. To identify the imbalance an effective audit committee is needed. The audit committee's efficiency and quality that lead to experience of audit committee. Today, it is more accepted that financial experts have notably knowledge, skills and experience in financial and accounting issues. The abilities that are able to understand accounting techniques and financial instruments, which are technically complicated, and that without accounting expertise members are not easily able to understand (Dhaliwal, Naiker, & Navissi, 2010) [17]. The benefits from accounting expertise that have ability to oversee financial reporting, thus preventing possible reporting failures, litigation and scrutiny from policy makers. Thus, large size IFIs gathering of large committee with financial expertise specially accounting background.

The organization operates an audit Committee that is a sub-committee of the Board. The audit committee holds minimal one impartial (Independent) director and remains senior official (Corporate Governance Code, 2004) [13]. An audit Committee justifies the authenticity of financial statements and makes report about present financial condition of an organization. Again, audit size impact on cost and this cost is opposite direction to revenue that impact on insolvency of

an organization. Therefore, audit committee size impact on risk taking (García-Sánchez, García-Meca, & Cuadrado-Ballesteros, 2017) [21].

Hypothesis 1 (H1): Audit Committee (AC) characteristics influence on risk taking of IFIs in Bangladesh.

Audit committee has to maintain minimum an independent director for fair view opinion on audit report because an independent director expresses his/her opinion without any biasness. Therefore, independent director play utmost role on fair justification, accountability and transparency that impact on company solvency related risk. Hence, independent directors try to maintain neutral opinion without subordinate's pressure basically; independent directors enjoy much freedom to express fairness opinion that impact on risk taking (Arthur Young, 1984) [5]. There are five main indicators to arise risk that Self-interest threat, self-review threat, advocacy threat, Familiarity or trust threat, Intimidation threat this threat may reduce by independent auditor (ICAEW, 2001) [25]. An independent audit committee needs monitoring ability with freedom opinion. Usually, independent audit improves job performance due to free and fair view that contribute to increase fair view of an organization that is the most importance elements of a firm (Fiedler, 1970) [19]. However, fair view and relevant knowledge of audit committee impact on company's objective (Herz & Schultz, 1999) [24]. Relevant Knowledge and experience contribute to open fair view image and it likely to increase firm facilities. Since audit are more informed than others directors, their monitoring effectiveness may depend on the usefulness of information they can receive.

Hypothesis 2 (H2): Accounting and financial expertise in Audit Committee (AC) characteristics influence on risk taking of IFIs in Bangladesh.

### Methodology

#### Data Sample

The study has used secondary data with purposive sample to collect data from annual reports of IFIs from 2013 to 2018. The study find data for 14 Islamic financial institutions and filter by keeping only those having codes C1, C2...C14 because IFIs with these codes publish consolidated financial statements from annual report was obtained from the web site of IFSB, GFDR, DSE and Bank scope. The cross-section data which given cross-sectional records (heterogeneities) and (autocorrelation) time series data (Gujarati, 2006) [22] and time series data (Damodar Gujarati, 2004) [15] is the most importance (Damodar Gujarati, 2004) [15]. However, in term of time invariant variables, correlation between error term and explanatory variables are key elements for Dynamic GMM (Roodman, 2009) [33]. xtabond2 module in Stata is conducted in time invariant variable (Arellano & Bover, 1995; Blundell & Bond, 1998) [4, 10] and given priority about GMM for several causes: First, an OLS ignores the panel structure of the data (Gambin, 2004) [20]. 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) [42] and could lead to a loss in degrees of freedom (Baltagi, 2005, P.14) [7]. Fourth, Endogeneity is a common problem in studies on finance and accounting (Pindado & Requejo, 2014) [30].

GMM apply three types of endogeneity, i.e., simultaneity,

unobservable heterogeneity and dynamic endogeneity (Wintoki, Linck, & Netter, 2012) [41]. First the simultaneity source. The second endogeneity source comes from unobservable heterogeneity, where other omitted variables could affect corporate risk that is unobservable, such as, the managers' skills and ability. A firms have managers with high skills then fewer independent directors would be required because the board monitoring function would be decreased (Hermalin & Weisbach, 2003) [23]. The third, this type of endogeneity is usually ignored in most governance studies which generally lead to mixed and inconsistent results (Wintoki *et al.*, 2012) [41]. In particular, it also creates a matching equation of the first differences for all of the variables. The GMM estimates the lag value eliminate to reduce unobserved heterogeneity and omitted variable bias (Roodman, 2006) [32].

**Variable Measurement and Empirical Design of Model**

(i) Liquidity risk =  $\frac{\text{Total liquid assets}}{\text{Total Assets}}$

(1.1) (Al-Tamimi, 2017)

(ii) Credit risk=  $\frac{\text{Total debt}}{\text{Total Assets}}$

(1.2) (Asim Abdullah, 2012)

(iii) Risk taking= Liquidity risk + Credit risk

$Y = \alpha_1 + K_1 Y_{it-1} + K_2 Y_{it-2} + \beta_1 ACS_{i,t} + \beta_2 AFEXPAC_{i,t} + IFI'sage_{i,t} + \mu_i + \epsilon_{it} \dots (1.3)$

ACS=Audit Committee Size,  $\beta_1$ =are the positive or negative coefficients the explanatory variables,  $\epsilon_{i,t}$ =is the error term (the time-varying disturbance term is serially uncorrelated with mean zero and constant variance).  $\mu_i$ = unobserved variable. AFEXAC=Accounting and Financial Expert in AC.  $K_1 Y_{it-1} + K_2 Y_{it-2}$  = Lag-1 and Lag-2 Variable.

**Discussion**

**Table 1:** Descriptive Statistics of Credit and Liquidity risk for overall IFIs

| Name of the Institution            | Credit risk | Liquidity risk | Total risk  | 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)      | 0.571588352 | 0.1211         | 0.692688352 | 9    |
| Export Import bank (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 Banglades Ltd    | 0.438580132 | 0.140661326    | 0.579241458 | 10   |
| Takaful Islami Insurance Ltd       | 0.205634062 | 0.09631969     | 0.301953752 | 11   |
| Fareast Islami Life                | 0.122928088 | 0.058371276    | 0.181299364 | 13   |
| Padma Islami Life                  | 0.185644462 | 0.071824872    | 0.257469334 | 12   |
| Prime Islami Life                  | 0.088618285 | 0.058550743    | 0.147169028 | 14   |
| Islamic Finance and Investment Ltd | 0.836668753 | 0.009265919    | 0.845934672 | 7    |

The above table 4.1 shows the combinedly 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 (0.1471690).

**Table 2:** Descriptive Statistics of Risk-taking summary

|                       | Descriptive Statistics |          |                |       |       |
|-----------------------|------------------------|----------|----------------|-------|-------|
|                       | Obs                    | Mean     | Std. Deviation | Min   | Max   |
| AC_size               | 84                     | .369048  | .48545         | 0     | 1     |
| Actg. & F exp. In RMC | 84                     | .392857  | .491319        | 0     | 1     |
| IFI's Age             | 84                     | .214286  | .412790        | 0     | 1     |
| Lag_1                 | 83                     | .741704  | .365137        | .1205 | 1.091 |
| Lag_2                 | 82                     | 0.739964 | .367038        | .1205 | 1.091 |
| RT                    | 48                     | .743503  | .363351        | .1205 | 1.091 |

Table 4.2: shows mean, minimum and maximum value of risk taking of IFIs in Bangladesh. The mean score of risk taking is 0.743503, while Std. Min and Max. value are 0.3633051, .1205232 and 1.091 respectively. In same way the mean of AC and AFEXP\_AC are 0.369048 and 0.392857 respectively and std. while min and max score are 0.491319, 0 and 1 respectively.

Table 4.3 presents the correlation matrix among the variables of this study. The high collinearity among variables influences on econometric problems in those condition while the correlation between the variables is 0.77 or higher. The table 4.3 shows that none of the score are high enough to cause any potential collinearity problems and it is unlikely to effect on results (Damodar, 2003) [14]

**Table 3:** Corelation Matrix

|       | AC       | AF_AC    | Lag_1    | Lag_2    | CR       | LR       | RT |
|-------|----------|----------|----------|----------|----------|----------|----|
| AC    | 1        |          |          |          |          |          |    |
| AF_AC | 0.041494 | 1        |          |          |          |          |    |
| Lag_1 | 0.003786 | 0.598025 | 1        |          |          |          |    |
| Lag_2 | 0.019047 | 0.577892 | 0.935885 | 1        |          |          |    |
| CR    | -0.09961 | 0.361814 | 0.710592 | 0.681405 | 1        |          |    |
| LR    | 0.126488 | 0.174766 | 0.045688 | 0.013389 | -0.60979 | 1        |    |
| RT    | -0.01934 | 0.601865 | 0.93601  | 0.875015 | 0.747402 | 0.070799 | 1  |

Notes: Table 4.3 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, CR is Credit Risk, LR is Liquidity Risk, RT is Risk Taking, Lag\_1 and Lag\_2 proxy variable dependent variable, Age is operating year of IFIs.

**Table 4:** Multiple regression analysis

| Number of Instruments 14 & Observation (N)=56 |                          |        |          |
|---|--------------------------|--------|----------|
|   | rt                       | Z test | Std.Err. |
| L1. rt  | 0.6688515***<br>(0.000)  | 4.55   | .1469357 |
| L2. rt  | -0.1734615***<br>(0.006) | -2.74  | .0633562 |
| age_dmy                                       | -0.0143847<br>(0.901)    | -0.12  | .1160993 |
| AC_size                                       | 0.019353<br>(0.000)      | 4.21   | .0045936 |
| AFEXP_AC                                      | -0.0206254***<br>(0.040) | -2.05  | .0100483 |
| _cons   | 0.3953323***<br>(0.000)  | 5.82   | .0679652 |
|   |                          | N      | 56       |

p-values in parentheses

\* p&lt;0.05, \*\* p&lt;0.01, \*\*\* p&lt;0.001

Munisi and Randoy (2013) [28] findings that audit committee opinion and its complexity between internal and external affairs that influence on the risk taken. The table 4.2 shows the average size of AC is smaller than previous study. The more members of AC consider as costly and problem to coordinate. The AC characteristics impact on risk taking that is measured by following 0 or 1 value (if the size of AC is more than median of sample, then 0 others wise 1). Regarding financial expert; previous study shows that about 0.7854 of financial expert on the audit committees significantly influence on risk taking. The study shows accounting & finance background in AC is 0.2995 that is comparatively less than previous study. The table 4.3 multiple regressions analysis shows AC size and risk taking is significantly associated with risk taking at  $p < 0.000$  ( $\beta = .019353$ ,  $z = 4.21$ ). The more expertise in AC chance to have more critical reviews that attempts to reduce risk. However, Actg. & F. expert in AC negatively impacts on risk taking. The table 4.3 multiple regressions analysis also shows FEXP\_AC and risk taking is significantly negative with risk taking at  $p < 0.040$  ( $\beta = -0.0206254$ ,  $z = -2.05$ ). This means that the presence of financial experts on audit committee are not appropriate than prior study as a result indicate that audit committee characteristics is significantly impact for reducing risk taking of IFIs.

### Conclusion and Policy Recommendation

This study is to identify the audit committee characteristics and risk taking among the Islamic financial institutions (IFIs) in Bangladesh. The audit committee characteristics is the two elements audit committee size and accounting & financial experts in AC that affecting the risk taking and has justified with the most relevant theories in the particular area. The findings of this study thus offer the AC and accounting and financial experts in AC significantly influence corporate risk taking of IFIs in Bangladesh. The study support two relevant opportunities, firstly, accounting and financial expertise assume to be a fundamental determinant of the audit committee's effectiveness in risk management, so qualified and expertise are necessary for effectiveness of audit committees. The second implication arises from the study suggests that the audit committee plays a relevant role in risk management operation. In term of view, fruitful audit committee could guarantee a high-quality institutions risk-management. This study contributes

to IFIs literature on corporate governance. Additionally, future research could further extend the role of the audit committee.

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