CHARACTERISTICS OF AUDIT COMMITTEES AND BANKING SECTOR PERFORMANCE IN GCC

Ehab R. Elbahar *, Magdi El-Bannany **, Mohamed El Baradie ***

* Corresponding author. Faculty of Business, Higher Colleges of Technology (HCT), Abu Dhabi, UAE
** Contact details: Faculty of Business, Higher Colleges of Technology (HCT), 25026 Abu Dhabi, UAE
*** Faculty of Business, Ain Shams University, Cairo, Egypt

Abstract

The purpose of this paper is to investigate the association between bank performance and audit committee characteristics for banks in Gulf Cooperation Council (GCC) over the period from 2013 to 2017. Regression of ordinary least squares quantile (OLS) and regression of quantile data are used to test the relationship between bank performance as a dependent variable and certain independent variables. The results revealed that committee size has a significant impact on banks’ performance but the presence of women members, independent members, committee meetings, and the existence of qualified members do not. The current study is one of a few studies, which addresses the association between bank performance and audit committee characteristics for banks in GCC.

Keywords: Audit Committee Characteristics, Bank Performance, Non-Executive Committee Members, Committee Size, Committee Meetings, GCC Countries

Authors’ individual contribution: Conceptualization — E.R.E.; Methodology — E.R.E.; Investigation — M.E.B.; Resources — E.R.E.; Writing — Original Draft — E.R.E.; Writing — Review & Editing — M.E.-B.; Supervision — M.E.B.; Funding — E.R.E., M.E.-B., and M.E.B.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.
of the audit committee in large firms from monitoring role to oversight and monitoring role and this led to enhancing the quality of corporate disclosure.

Sarbanes-Oxley Act of 2002 referred that an effective audit committee should include some members with good experience about financials, risk management and control, and some independent members, and this reflected in the current study by selecting two variables: one to represent the percentage of qualified members and the other to represent the percentage of non-executive committee members.

From the above discussion, the purpose of this study is to investigate the relationship between banks’ performance and a number of characteristics of the audit committees in Gulf Council Countries (GCC). This study is one of a few studies, which investigated the relationship between firm performance and the characteristics of the audit committee in the GCC and hence should contribute to filling the gap in the literature in this context by enhancing the understanding of the nature of this relationship.

The remainder of this paper is structured as follows. Section 2 presents the literature review and hypotheses development. The research design and methodology are presented in Section 3. Section 4 covers the results and discussion. Section 5 provides the conclusions.

2. LITERATURE REVIEW

Agency theory and resource dependence theory have been adopted in this study, as they are relevant in achieving its purpose.

The audit committee is responsible for overseeing, improving, and enhancing the operation and the financial performance of the companies. In addition, it assists all stakeholders in taking the best course of action based on the quality of disclosed information.

The role of the audit committee is crucial in mitigating the conflict of interest between the owners and management and this can be explored within the boundaries of the agency theory.

Jensen and Meckling (1976) argued the significant role of the agency theory in explaining and predicting the behavior of the principals and their agents. In a modern business environment, the separation between ownership and management led to the conflict of interest between the principal and its agent. In addition, the agency theory indicated that the good-managed firms are performing better than the poorly-managed firms and are more capable to achieve the strategic and operational objectives of the firms and increase their shareholders’ wealth.

Previous agency theory-based studies argued that the non-executive directors are more efficient and effective in monitoring and supervising the firms and hence enhance their performance (Anderson, Mansi, & Reeb, 2004; Adams & Ferreira, 2009).

Using the resource dependence theory, Zhou, Owusu-Ansah, and Maggina (2018) argued the benefits of having more insider directors in running the companies’ operations as they are more efficient than others due to their experience, and this, in turn, will be reflected in better performance.

As argued earlier, the role of the audit committees in monitoring and overseeing to assure the compliance and adherence of policies, regulations, rules, procedures, and code of conduct. In addition, as argued by Kallamu and Saat (2015), it plays a significant role in monitoring and supervising the management of the firm, and this helps in protecting and preserving the shareholders’ interests.

Chen, Duh, Hsu, and Pan (2015) argued that applying the substance over form concept is important to reflect the true figure of the companies’ earnings and the existence of the audit committee should help in implementing this concept.

The results of the following previous studies revealed no impact for the existence of the audit committee in the firms on:

- the likelihood of the occurrence of financial fraud (Beasley, 1996);
- the return on equity and operational self-sufficiency (Durgavanshi, 2014);
- the financial reporting timeliness (Akinleyen & Aduwo, 2019);

The results of the study of DeFond and Jiambalvo (1991) showed a positive impact on the existence of the audit committee on mitigating the overstatement of the earnings (DeFond & Jiambalvo, 1991).

The results of the study of Fanta et al. (2013) and Klein (2002) revealed a negative impact on the existence of the audit committee on the firm performance.

2.1. Association between directors’ independence and bank performance

It has been argued that the role of the non-executive audit committee members in monitoring the performance of their firms is important and helpful in achieving the shareholders’ objective representing by maximizing their wealth (Anderson et al., 2004; Adams & Ferreira, 2009). Ashari and Krismiaji (2020) using a sample of 466 observations of Indonesian companies over the years 2016–2017, studied the relationship between the independence of the audit committee directors’ and companies’ performance and found a positive association.

Aanu, Odanonsen, and Foyeke (2014) studied for a sample of companies in Nigeria, the association between the firm performance measured by ROE, ROCE, and ROA and the presence of independent members. The results revealed a significant and positive correlation.

The results of the study of Agrawal and Chadha (2005) revealed a negative relationship between independent directors and performance measured by returns and earnings.

Al-Matar, Al-Swidi, and Fadzil’s (2017), Kajola’s (2008), and Lin, Li, and Yang’s (2006) studies concluded insignificant influence of the presence of independent members on the firm performance.

Carcello and Neal’s (2000) study showed no influence of the presence of independent members on the firm performance.

Therefore, we adopted the first hypothesis (H1) as follows:

\[ H1: The \ relationship \ between \ independent \ directors \ and \ bank \ performance \ is \ insignificant. \]
2.2. Relationship between audit committee (AC) meetings and bank performance

Menon and Williams (1994) argued that the number of audit committee (AC) meetings is important in maximizing the effectiveness and efficiency of the monitoring role of the committee. Their empirical study results revealed that inactive audit committees are poorly correlated with the effective and efficient monitoring role of the committee.

Blue Ribbon Committee (BRC, 1999) advised that the audit committee should meet at least once per quarter in order to discuss financial reporting issues. Ashari and Krismijaı (2020) studied the association between a number of AC meetings and firm performance and found a positive association. The results of the study of Abbott, Parker, and Peters (2004) revealed that the audit committee that does not meet quarterly (at least 4 meetings per year) might need to restate the financial statements of its company. Beaasley Carcello, Hermanson, and Lapides (2000) found that the less frequent AC meetings are associated with a high percentage of fraudulent financial reporting. On the other hand, the results of the study of Al-Matari et al. (2017) showed an insignificant relationship between the number of audit committee meetings and the firm performance.

Therefore, we adopted the second hypothesis (H2) as follows:

H2: The association between the number of AC meetings and bank performance is insignificant.

2.3. Relationship between qualifications of AC members and bank performance

It has been argued that the qualifications of the audit committee members play a significant role in enhancing the performance of the firms (Ashari & Krismijaı, 2020; Abbott & Collins, 2002). Ashari and Krismijaı (2020) and Aanu et al. (2014) found a positive relationship between the qualification of AC members and the firm performance. The study of Aldamen, Duncan, Kelly, McNamara, and Nagel (2011) concluded that the highly experienced and qualified AC members are positively contributing to the performance of the firm.

The results of the study of Lin et al. (2006) showed an insignificant relationship between earnings management and the existence of audit committee members with financial expertise. Bouaziz (2012) studied the relationship between directors who possess financial experience and firm performance measured by ROA and ROE and found a significant relationship.

Abbott and Collins (2002) argued that the members of the audit committee with no experience in dealing with risk management and finance commit many financial errors and mistakes.

Therefore, we adopted the third hypothesis (H3) as follows:

H3: The relationship between audit committee members' qualifications and bank performance is significant.

2.4. Relationship between AC size and bank performance

Many studies in the literature argued the influence of AC size on bank performance due to its positive contribution to the performance of the firms (Ashari & Krismijaı, 2020; Aanu et al., 2014; Aldamen et al., 2011).

Ashari and Krismijaı (2020) studied the relationship between firm performance and AC size and found a positive relationship. Be’lard, Chtourou, and Courteau (2004) found that a larger AC size leads to better oversight functions on financial processes and accounting. The results of the study of Anderson et al. (2004) revealed that the larger AC size reflected the better protection and control over financial issues and accounting. Al-Lawati, Hussainey, and Sagitova (2021) concluded that the committee size improves the quality of forward-looking disclosure.

On the contrary, Aldamen et al. (2011) concluded a positive relationship between small committee size and better performance. Lin et al. (2006) concluded a negative correlation between earnings management and audit committee size. Yang and Krishnan (2005) found that the size of the audit committee and earnings management are negatively correlated.

Furthermore, Al-Matari et al. (2017) indicated an insignificant correlation between AC size and firm performance. Aanu et al. (2014) found an insignificant relationship between firm performance and AC size. The results of Xie, Davidson, and DaDalt (2003) showed insignificant between firm performance and AC size.

Moreover, AC size should have a positive influence on the quality of the financial disclosure but the results of the studies of Carcello and Neal, (2003), Klein (2002), Abbott and Parker (2000), concluded that the association between financial disclosure quality and committee size is negatively correlated.

Therefore, we adopted the fourth hypothesis (H4) as follows:

H4: The relationship between AC size and bank performance is significant.

2.5. Relationship between female directors and bank performance

It has been argued that the gender of the audit committee member is a key factor that influences the performance of the firms (Ashari & Krismijaı, 2020; Carter, D’Souza, Simkins, & Simpson, 2010). Al-Lawati et al. (2021) found that the presence of women members in the audit committee improves the quality of financial disclosure. The results of the study of Ashari and Krismijaı (2020) revealed a positive relationship between female directors and firm performance. Carter, Simkins, and Simpson (2003) indicated the significant correlation between female directors and performance. The results of the study of Campbell and Mínguez-Vera (2008) showed that the presence of women in the AC is positively correlated with firm performance. Erhardt, Werbel, and Shrader (2003) in their studies about the US companies found that the number of female members on the board is positively correlated with
the firm financial performance. On the contrary, the studies of Carter et al. (2010) in the US and Rose (2007) in Denmark showed an insignificant association between the presence of females on the board and firm performance respectively.

Therefore, we adopted the fifth hypothesis (H5) as follows:

\( H5: \) The relationship between female directors and performance is significant.

3. RESEARCH DESIGN

The structure of this section is as follows. Subsection 3.1 presents the sample and data collection, Subsection 3.2 explains the nature of the dependent variable, Subsection 3.3 explains the nature of the independent variable.

\[
ROE = \beta_0 + \beta_1 \text{No. Meetings} + \beta_2 \text{ComSize} + \beta_3 \text{GenDiversity} + \beta_4 \text{QualMemb} + \beta_5 \text{NECM} + \beta_6 \text{GovOwn} + \\
\quad + \beta_7 \text{BankSize} + \beta_8 \text{BankType} + \varepsilon
\]

\[
ROE = \beta_0 + \beta_1 \text{No. Meetings} + \beta_2 \text{ComSize} + \beta_3 \text{GenDiversity} + \beta_4 \text{QualMemb} + \beta_5 \text{NECM} + \beta_6 \text{GovOwn} + \\
\quad + \beta_7 \text{BankSize} + \beta_8 \text{BankType} + \varepsilon
\]

3.2. Dependent variable

Return on equity (ROE) and return on assets (ROA) have been adopted in this study to represent the bank performance as a dependent variable. ROE measures the recognized return on banks' equity, this ratio is very important to measure how firms employ investments in the best manner to achieve high levels of growth. While the ROA measures how banks efficiently and effectively manage their economic resources and how they can recognize the highest level of returns on assets.

3.3. Independent variables

The independent variables are divided into two groups. Group 1 represents the variables that are related to the audit committee characteristics, group 2 represents the control variables. The variables of the audit committee characteristics are the number of committee meetings (No.Meetings), the percentage of committee members (ComSize), the percentage of female directors to total directors (GenDiversity), the percentage of qualified members to total members (QualMemb), and the percentage of non-executive members (NECM). The control variables are bank type (BankType) (conventional-Islamic), bank size (BankSize), and governmental ownership (GovOwn).

The definitions and measurements of the variables are shown in Table 1.

| Variables      | Definitions                                      | Measurements                                      |
|---------------|--------------------------------------------------|--------------------------------------------------|
| No.Meetings   | Number of meetings per year                      | Total number of meetings per year                 |
| ComSize       | Number of committee members                      | Total number of committee members                |
| GenDiversity  | Percentage of female members to total members    | The number of female members divided by the total number of members |
| (female %)    |                                                  |                                                  |
| QualMemb      | Qualified members are members who are qualified or experienced in business management, accounting, finance, or auditing | The number of qualified members |
| NECM          | Non-executive committee members                  | The number of NECM divided by the total number of members |
| GovOwn        | Government ownership                             | 1 if the government owns more than 50% and 0 if otherwise |
| ROE           | Return on total equity                           | Net income divided by total equity                |
| BankSize      | Bank size                                        | The logarithm of total assets                     |
| ROA           | Return on total assets                           | Net income divided by total assets                |
| BankType      | Bank type                                        | 1 if Islamic bank and 0 if conventional          |

4. EMPIRICAL RESULTS AND DISCUSSION

4.1. Descriptive statistics

Descriptive statistics is presented in Table 2a and Table 2b. Table 2a shows the descriptive statistics of the following non-dummy variables: the number of AC meetings’ range is between one meeting (Min) and 15 meetings (Max) with mean of 5.28. The minimum number of members is 2 members and the maximum is 8 members with mean of 3.66. Regarding the participation of female members in the committee, its maximum is 50%, and sometimes the participation of female members is zero (0) and the mean is very low (0.03) which means that the female participation in audit committees is low in the GCC banking sector.

In reference to the percentage of the qualified members, it is between 0.00% and 100%, and the mean is 0.56, which means that in the number of committees there are no qualified members and other committees are fully qualified. The percentage of NECM is between zero (0) and 100%, and the mean is 0.93, which means that most of the committee members are non-executive members.
Table 2b shows the descriptive statistics of the following dummy variables: 76.4% of the sample represents conventional banks and the remaining 23.6% represent Islamic banks. Additional to the above, 79.4% represents private banks and the remaining 20.6% represents government banks.

### Table 2a. Descriptive statistics of the non-dummy variables

| Variables | Observations | Minimum | Maximum | Mean | Std. Dev. | Kurtosis | Skewness |
|-----------|--------------|---------|---------|------|-----------|----------|----------|
| No.Meetings | 340 | 1.00 | 15.00 | 5.28 | 1.88 | 0.00 | 0.00 |
| ComSize | 340 | 2.00 | 8.00 | 3.66 | 0.88 | 0.00 | 0.00 |
| GenDiversity % | 340 | 0.00 | 0.50 | 0.03 | 0.13 | 0.00 | 0.00 |
| Qualified members % | 340 | 0.00 | 0.93 | 0.24 | 0.00 | 0.00 | 0.00 |
| NECM % | 340 | 0.00 | 0.93 | 0.24 | 0.00 | 0.00 | 0.00 |
| BankSize | 340 | 10.08 | 20.51 | 16.36 | 2.40 | 0.03 | 0.00 |
| ROA | 340 | -0.57 | 0.10 | 0.01 | 0.03 | 0.00 | 0.00 |
| ROE | 340 | -0.40 | 0.29 | 0.10 | 0.07 | 0.00 | 0.00 |

As shown in Table 2a, the skewness is closer to 0.00 in our entire sample, which means that the study data is symmetric distribution whereas the left tail and the right tail of the distribution are roughly equally balanced around the mean.

### 4.2. Multicollinearity test

The potential existence of the multicollinearity problem among the independent variables has been tested through the variance inflation factors (VIF). The results of the test showed that the value of VIF for all variables is between 1.05 and 1.29 and this means that the multicollinearity problem does not exist in the current study as per Gujarati (2003) who indicates that the multicollinearity problem does not occur if the VIF is lower than 10.

Pearson and Spearman tests have been adopted in this study to explore the associations among all study variables (dependent and independent) to get a better understanding of the nature of the relationship among the study variables and to help in testing the potential occurrence of multicollinearity problems among the independent variables.

Table 2b presents Pearson correlation coefficients, while Table 3b presents Spearman correlation coefficients. In Table 3a, Pearson coefficients indicate that bank size and percentage of qualified members are significantly associated with ROA, however, bank type, bank size, and committee size are associated significantly with ROE.

In Table 3b, Spearman coefficients indicate that bank type, committee size, percentage of qualified members, and bank size are significant with ROA, however, bank size, committee size, and bank type are significant with ROE.

### Table 2b. Descriptive statistics of the dummy variables

| Variables | Criteria | N | % |
|-----------|----------|---|---|
| BankType | Conventional | 260 | 76.4 |
| | Islamic | 80 | 23.6 |
| GovOwn | Private | 270 | 79.4 |
| | Government | 70 | 20.6 |

### Table 3a. Correlation matrix (Pearson)

| Variables | BankType | BankSize | GovOwn | No.Meetings | ComSize | GenDiversity | Qualified | NECM | ROA | ROE |
|-----------|----------|----------|--------|------------|---------|--------------|-----------|------|-----|-----|
| BankType | 1 | 0.0808 | 1 | | | | | | | |
| BankSize | 0.0808 | 1 | | | | | | | | |
| GovOwn | -0.1111 | -0.1777 | 1 | | | | | | | |
| No.Meetings | -0.0059 | 0.0934 | -0.0087 | 1 | | | | | | |
| ComSize | -0.0894 | 0.2134 | 0.3485 | 0.1604 | 1 | | | | | |
| GenDiversity | -0.1249 | -0.0557 | 0.0058 | 0.1099 | 0.1586 | 1 | | | | |
| Qualified | 0.0006 | -0.1216 | -0.0571 | 0.2057 | 0.0249 | 0.1473 | 1 | | | |
| NECM | -0.0935 | 0.1111 | 0.0006 | 0.1796 | 0.1402 | 0.0865 | 0.3812 | 1 | | |
| ROA | -0.1801 | 0.1279 | 0.0357 | 0.0321 | 0.0986 | 0.0052 | -0.1279 | -0.0403 | 1 | |
| ROE | -0.0935 | 0.4627 | 0.0514 | 0.0149 | 0.1695 | 0.0998 | -0.0127 | 0.0548 | 0.6679 | 1 |

Notes: *** at 0.01 level (2-tailed), correlation is significant. ** at 0.05 level (2-tailed), correlation is significant. * at 0.10 level (2-tailed), correlation is significant.

### Table 3b. Correlation matrix (Spearman)

| Variables | BankType | BankSize | GovOwn | No.Meetings | ComSize | GenDiversity | Qualified | NECM | ROA | ROE |
|-----------|----------|----------|--------|------------|---------|--------------|-----------|------|-----|-----|
| BankType | 1 | 0.0877 | 1 | | | | | | | |
| BankSize | 0.0877 | 1 | | | | | | | | |
| GovOwn | -0.1111 | 0.1909 | 1 | | | | | | | |
| No.Meetings | -0.0188 | 0.1464 | -0.0313 | 1 | | | | | | |
| ComSize | -0.0922 | 0.2367 | 0.3113 | 0.1586 | 1 | | | | | |
| GenDiversity | -0.1067 | -0.0926 | 0.1309 | 0.1853 | 0.3153 | 1 | | | | |
| Qualified | 0.0845 | -0.1583 | -0.0527 | 0.1554 | -0.021 | 0.2091 | 1 | | | |
| NECM | -0.064 | -0.1516 | 0.0308 | 0.2901 | 0.1641 | 0.0928 | 0.2714 | 1 | | |
| ROA | -0.111 | 0.4227 | 0.0036 | -0.0404 | 0.1128 | 0.0059 | -0.1128 | -0.0418 | 1 | |
| ROE | -0.0906 | 0.1644 | 0.0474 | 0.0057 | 0.1717 | 0.0194 | 0.0127 | -0.0621 | 0.6590 | 1 |

Notes: *** at 0.01 level (2-tailed), correlation is significant. ** at 0.05 level (2-tailed), correlation is significant. * at 0.10 level (2-tailed), correlation is significant.
4.3. Multivariate analysis

Two models of regression analysis have been used to test the relationship between the dependent variables (performance) and the independent variables (AC characteristics) and these are ordinary least squares (OLS) and regression of quantile data.

The OLS is a simple linear multiple regression approach that investigates the impact of a number of explanatory variables on the dependent variable. The quantile regression approach is a robust analysis that assists in estimating the other quantiles of the response variable or conditional median.

Tables 4 and 5 present the OLS and quantile tests results respectively. The results in these tables show that the committee size is significantly and positively correlated with ROA and ROE, but its association with ROA using the OLS is insignificant. These results are in line with the results of Be`dard et al. (2004), Anderson et al. (2004), Al-Matari et al. (2012), Ashari and Krismiaji (2020), and Al-Lawati et al. (2021) but are contrary to the results of Aldamen et al. (2011), Yang and Krishnan (2005) Aanu et al. (2014), Al-Matari et al. (2017) and Xie et al. (2003).

The results in Table 4 showed that the number of meetings is significantly and negatively correlated with ROA but insignificant correlated with ROE. This result is in line with the results of Al-Matari et al. (2017) and Aanu et al. (2014) but is contrary to the results of Ashari and Krismiaji (2020).

The participation of female members in the audit committees is insignificant in the two tests, which means that the participation of women in the audit committees does not explain the changes in bank performance. This result is consistent with the result of Carter et al. (2010) and Rose (2007) and is contrary to the results of Al-Lawati et al. (2021), Ashari and Krismiaji (2020), Carter et al. (2003), Campbell and Mínguez-Vera (2008), and Erhardt et al. (2003).

The relationship between bank performance and the existence of qualified members in the audit committee is insignificant and this result is in line with the result of Abbott and Collins (2002) who indicated that the audit committee members without background experience in risk management and financial management are correlated significantly with higher volumes of financial errors and mistakes. This result is not in line with the results of Ashari and Krismiaji (2020), Aldamen et al. (2011), Lin et al. (2006), Bouaziz (2012), and Aanu et al. (2014).

The existence of non-executive committee members is insignificantly correlated with ROA and ROE. This result is in line with the results of Kajola (2008), Lin et al. (2006), Al-Matari et al. (2017), and Carcello and Neal (2000). The result is contrary to the results of Ashari and Krismiaji (2020), Aanu et al. (2014), Adams and Ferreira (2009), and Anderson et al. (2004) which showed a positive and significant relationship. In addition, the result is not in line with the results of Agrawal and Chadha (2005) which indicated a negative correlation between the independent directors and returns.

The results for the control variables are as follows: The relationship between bank performance and bank size is significant and positive for the two tests. The relationship between bank performance and bank size is insignificant for the two tests.

| Table 4 | Regression results of ROE |
|----------|---------------------------|
| **Variables** | **Quantile** | **OLS** |
| | **Coef.** | **P > t** | **Coef.** | **P > t** |
| No.Meetings | -0.00171 | 0.398 | -0.00205 | 0.3090 |
| ComSize | 0.012629 | 0.008 | 0.008339 | 0.0710 |
| GenDiversity | 0.001186 | 0.964 | 0.006179 | 0.8250 |
| QualMemb | 0.013003 | 0.247 | 0.013805 | 0.2310 |
| NECM | 0.012809 | 0.446 | -0.011 | 0.510 |
| BankSize | 0.012289 | 0.000 | 0.014302 | 0.0000 |
| BankType | -0.00822 | 0.359 | -0.01062 | 0.224 |
| GovOwn | -0.00955 | 0.003 | -0.0123 | 0.2030 |
| cons | -0.14968 | 0.000 | -0.13384 | 0.000 |
| R² | | | 0.2125 |
| Pseudo R² | 0.1052 |

| Table 5 | Regression results of ROA |
|----------|---------------------------|
| **Variables** | **Quantile** | **OLS** |
| | **Coef.** | **P > t** | **Coef.** | **P > t** |
| No.Meetings | -0.00053 | 0.002 | -0.00091 | 0.271 |
| ComSize | 0.001241 | 0.002 | 0.001157 | 0.5400 |
| GenDiversity | 0.001786 | 0.418 | 0.008204 | 0.470 |
| QualMemb | 0.001047 | 0.284 | -0.00844 | 0.074 |
| NECM | -5.2E-05 | 0.971 | 0.004727 | 0.489 |
| BankSize | 0.001921 | 0.000 | 0.005808 | 0.000 |
| BankType | -0.00062 | 0.406 | 0.002239 | 0.531 |
| GovOwn | -0.00579 | 0.000 | -0.00274 | 0.488 |
| cons | -0.01949 | 0.000 | -0.05145 | 0.000 |
| R² | | | 0.1982 |
| Pseudo R² | 0.1174 |
Table 6a. The summary of the results: ROE’s associations

| Independent variables | Bivariate analysis | Quantile | OLS |
|-----------------------|--------------------|----------|-----|
|                       | Pearson            | Spearman | Mann Whitney | T-test | (-)** |
| BankType              | (+)**              | (+)**    | (+)**       |        |
| GovOwn                | (±)**              | (±)**    | (±)**       |        |
| No.Meetings           | (±)**              | (±)**    | (±)**       |        |
| ComSize               | (+)**              | (+)**    | (+)**       |        |
| GenDiversity          | (+)**              | (+)**    | (+)**       |        |
| QualMemb              | (+)**              | (+)**    | (+)**       |        |
| NECM                  | (+)**              | (+)**    | (+)**       |        |

Table 6b. The summary of the results: ROA’s associations

| Independent variables | Bivariate analysis | Quantile | OLS |
|-----------------------|--------------------|----------|-----|
|                       | Pearson            | Spearman | Mann Whitney | T-test | (-)** |
| No.Meetings           | (±)**              | (±)**    | (±)**       |        |
| GenDiversity          | (+)**              | (+)**    | (+)**       |        |
| QualMemb              | (+)**              | (+)**    | (+)**       |        |
| NECM                  | (+)**              | (+)**    | (+)**       |        |
| BankType              | (±)**              | (±)**    | (±)**       |        |
| GovOwn                | (±)**              | (±)**    | (±)**       |        |

5. CONCLUSION

The purpose of this study is to investigate the relationship between AC characteristics named committee meetings, committee size, qualified members, percentage of female members, and the existence of non-executive members and bank performance. Three control variables represented by bank size, bank type (conventional and Islamic), and government ownership have been chosen in this study. The study sample consists of 68 banks located in GCC with 340 observations over the years 2013–2017.

The empirical results of this study showed that the number of audit committee meetings does not significantly affect the performance which means that the change in the number of meetings does not explain the change in performance and, in turn, a piece of advice can be given to the audit committee members in GCC banks to be more dedicated, efficient and effective in their meetings to affect the performance positively.

The higher returns are correlated with larger committee size, this indicates that the increased number of committee members adds value to the bank performance especially if they possess good experience and qualifications in the area of finance, risk, and governance.

The participation of the female members in audit committees in the GCC region is very weak. In addition, the correlation between performance and the existence of female members is insignificant. Based on this result, we recommend the encouragement of the participation of females in such committees with the hope of improving the effectiveness and efficiency of the bank performance.

The relationship between the percentage of qualified members and bank performance is insignificant which means that the qualified members in the audit committees do not add values to enhance the bank performance.

The association between the existence of non-executive members and bank performance is insignificant and this reflects that the independent members do not play their expected role in managing the risks, finance, the operation to enhance the bank performance.

There are some limitations to this study. First, using primary data through questionnaires/interviews rather than secondary data might help in getting a better understanding of the study model. Second, relying on both quantitative and qualitative data might add more empirical value and enrich the results of the research.

Further research can apply the present study model for the GCC banks in years after 2017 to explore the maturity and evolution of the characteristics of the audit committees in these banks or select more measures for bank performance such as liquidity, productivity, and marketability and compare the results.

REFERENCES

1. Aanu, O. S., Odianonsen, I. F., & Foyeke, O. I. (2014). Effectiveness of audit committee and firm financial performance in Nigeria: An empirical analysis. Journal of Accounting and Auditing: Research & Practice, 12. https://doi.org/10.5171/2014.301176
2. Abbott, A., & Collins, D. (2002). A theoretical and empirical analysis of a 'state of the art' talent identification model. High Ability Studies, 13(2), 157–178. https://doi.org/10.1080/1359813022000048798
3. Abbott, L. J., & Parker, S. (2000). Auditor selection and audit committee characteristics. Auditing: A Journal of Practice and Theory, 19(2), 47–67. https://doi.org/10.2308/aud.2000.19.2.47
4. Abbott, L. J., Parker, S., & Peters, G. F. (2004). Audit committee characteristics and restatements. Auditing: A Journal of Practice & Theory, 23, 69–87. https://doi.org/10.2308/aud.2004.23.1.69
5. Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics, 94*(2), 291–309. https://doi.org/10.1016/j.jfineco.2008.10.007

6. Afify, H. A. E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence from Egypt. *Journal of Applied Accounting Research, 10*(1), 56–86. https://doi.org/10.1108/14708570910963397

7. Agoral, C., & Chadha, S. (2005). Corporate governance and accounting scandals. *The Journal of Law and Economics, 48*(2), 371–406. https://doi.org/10.1086/430808

8. Akinleye, G. T., & Aduvo, O. (2019). Effect of audit committee characteristics on the timeliness of financial reporting in Nigeria. *Journal of Economics, Management, and Trade, 24*(3), 1–10. https://doi.org/10.9734/jemt/2019/v24i30167

9. Al Lawati, H., Hussainey, K., & Sagitova, R. (2021). Disclosure quality vis-à-vis disclosure quantity: Does audit committee matter in Omani financial institutions? *Review of Quantitative Finance and Accounting, 57*, 537–594. https://doi.org/10.1007/s11156-020-00955-0

10. Aldamen, H., Duncan, K., Kelly, S., McNamara, R., & Nagel, S. (2011). Audit committee characteristics and firm performance during the global financial crisis. *Accounting and Finance, 52*(4), 971–1000. https://doi.org/10.1111/j.1467-629X.2011.00447.x

11. Al-Matari, E., Al-Swidi, A. K., & Fadzik, F. H. B. (2017). Audit committee characteristics and executive committee characteristics and firm performance in Oman: Empirical Study. *Asian Social Science, 10*(12), https://doi.org/10.5539/ass.v10n12p98

12. Al-Matari, Y. A., Al-Swidi, A. K., Fadzik, F. H. B., & Al-Matari, E. M. (2012). Board of directors, audit committee characteristics and performance of Saudi Arabia listed companies. *International Review of Management and Marketing, 24*(2), 2012, 241–251. Retrieved from https://dergipark.org.tr/en/download/article-file/366637

13. Anderson, R., Mansi, S. A., & Reeb, D. (2004). Board characteristics, audit committee reporting integrity, and the cost of debt. *Journal of Accounting and Economics, 37*(3), 313–342. https://doi.org/10.1016/j.jaceco.2004.01.004

14. Ashari, S., & Krisniati, K. (2020). Audit committee characteristics and financial performance: Indonesian evidence. *Equity, 22*(2), 149–152. https://doi.org/10.3420/eqva22.2.1326

15. Be’dard, J., Chbourou, S. M., & Courteau, L. (2004). The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice & Theory, 23*(2), 13–35. https://doi.org/10.2308/aud.2004.23.2.13

16. Beasley, M. S. (1999). An empirical analysis of the relationship between the board of director composition and financial statement fraud. *The Accounting Review, 74*(1), 443–465. Retrieved from https://www.jstor.org/stable/248566

17. Beasley, M. S., Carcello, J. V., Hermanson, D. R., & and Lapides, P. D. (2000). Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. *Accounting Horizons, 14*(4), 441–454. https://doi.org/10.2308/achc.2000.14.4.441

18. Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (BRC). (1999). Report *http://www.ijmbs.com/24/zied.pdf*

19. Bouaziz, Z. (2012). The impact of the presence of audit committees on the financial performance of Tunisian companies. *International Journal of Management & Business Studies, 24*(2), 57–64. Retrieved from http://www.ijmbs.com/24/zied.pdf

20. Campbell, K., & A. Miguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics, 83*(3), 433–451. https://doi.org/10.1007/s10551-007-9630-y

21. Carcello, J. V., & Neal, T. L. (2000). Audit committee composition and auditor reporting. *The Accounting Review, 75*(4), 453–467. https://doi.org/10.2308/accr.2000.75.4.453

22. Carcello, J. V., & Neal, T. L. (2003). Audit committee characteristics and auditor dismissals following “new” going-concern reports. *The Accounting Review, 78*(1), 95–117. https://doi.org/10.2308/accr.2003.78.1.95

23. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review, 18*(5), 396–414. https://doi.org/10.1111/j.1467-8683.2010.00809.x

24. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review, 38*(1), 33–53. https://doi.org/10.1111/1540-6288.00034

25. Chen, J., Duh, R.-R., Hsu, A. W.-H., & Pan, C.-M. (2015). Can Anglo-Saxon audit committee scheme improve earnings quality in non-Anglo-Saxon environments? *Journal of Contemporary Accounting & Economics, 11*(1), 61–74, https://doi.org/10.1016/j.jcace.2014.12.004

26. DeFond, M. L., & Jiambalvo, J. (1991). Incidence and circumstances of accounting errors. *The Accounting Review, 66*(3), 643–655. Retrieved from https://www.jstor.org/stable/247814

27. Durgavanshi, S. (2014). Impact of corporate governance practices on financial performance of microfinance institutions in India. https://doi.org/10.2139/ssrn.2636047

28. Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review, 11*(2), 102–111. https://doi.org/10.1111/j.1467-8683.2003.00117.x

29. Fanta, A. B., Kemal, K. S., & Waka, Y. K. (2013). Corporate governance and impact on bank performance. *Journal of Finance and Accounting, 1*(1), 19–26. https://doi.org/10.11648/j.jfa.20130101.12

30. Gujarati, D. (2003). *Basic econometrics*. New York, NY: McGraw Hill Book Co.

31. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

32. Kajola, S. O. (2008). Corporate governance and firm performance: The case of Nigerian listed firms. *European Journal of Accounting, Finance and Administration Sciences, 14*(1), 16–28. Retrieved from https://www.researchgate.net/publication/206890848_Corporate_Governance_and_Firm_Performance_The_Case_of_Nigerian_Listed_Firms

33. Kallamu, B. S., & Saat, N. A. M. (2015). Audit committee attributes and firm performance: Evidence from Malaysian finance companies. *Asian Review of Accounting, 23*(3), 206–231. https://doi.org/10.1108/ARA-11-2013-0076

34. Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics, 33*(3), 375–400. https://doi.org/10.1016/S0165-4101(02)00059-9
35. Lin, J. W., Li, J. F., & Yang, J. S. (2006). The effect of audit committee performance on earnings quality. *Managerial Auditing Journal, 21*(9), 921–933. https://doi.org/10.1108/02686900610705019
36. Menon, K., & Williams, J. D. (1994). The use of audit committees for monitoring. *Journal of Accounting and Public Policy, 13*(2), 121–139. https://doi.org/10.1016/0278-4254(94)90016-7
37. Pincus, K., Rusbarsky, M., & Wong, J. (1989). Voluntary formation of corporate audit committees among NASDAQ firms. *Journal of Accounting and Public Policy, 8*(4), 239–265. https://doi.org/10.1016/0278-4254(89)90014-8
38. Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review, 15*(2), 404–413. https://doi.org/10.1111/j.1467-8683.2007.00570.x
39. Wild, J. J. (1996). The audit committee and earnings quality. *Journal of Accounting, Auditing and Finance, 11*(2), 247–276. https://doi.org/10.1177/0148558X9601100206
40. Xie, B., Davidson, W. N., III, & DaDalt, P. J. (2003). Earnings management and corporate governance: The roles of the board and the audit committee. *Journal of Corporate Finance, 9*(3), 295–3146. https://doi.org/10.1016/S0929-1199(02)00006-8
41. Yang, J. S., & Krishnan, J. (2005). Audit committees and quarterly earnings management. *International Journal of Auditing, 9*(3), 201–219. https://doi.org/10.10111/j.1099-1123.2005.00278.x
42. Zhou, H., Owusu-Ansah, S., & Maggina, A. (2018). Board of directors, audit committee, and firm performance: Evidence from Greece. *Journal of International Accounting, Auditing and Taxation, 31*, 20–36. https://doi.org/10.1016/j.intaccaudtax.2018.03.002