



## The Impact of Audit Committee Characteristics on Earnings Management in the Pre- and Post- Bahraini Corporate Governance Code 2011

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### *Author's contribution*

*The sole author designed, analyzed and interpreted and prepared the manuscript.*

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### ABSTRACT

**Aims:** This study tends to measure the effectiveness of the Bahraini corporate governance code (BCGC) 2011 on curbing earnings management practices by using audit committee (AC) characteristics in the pre- and post- BCGC 2011.

**Study Design:** The AC characteristics examined are AC independence, AC meetings and AC experts. To present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre- and post- BCGC 2011.

**Place and Duration of Study:** The initial study sample includes all Bahraini companies listed on the Bahrain Bourse (BB) for the year 2010 and for the year 2012, one year data before and one year data after implementing the BCGC 2011.

**Methodology:** Ordinary least-squares regression is used to examine the association between AC characteristics and earnings management practices pre- and post- BCGC 2011. The regression model is implemented separately for the year 2010 and for the year 2012.

**Results:** The results of the regression model show that earnings management does not significantly associated with any of the AC characteristics even pre- or post- the BCGC 2011.

**Conclusion:** The results may suggest that ACs doesn't provide incremental monitoring in curbing

earnings management in the post- BCGC period. The results of this study called for future research to examine the impact of BCGC 2011 on earnings management by using the board functions in addition to the AC functions in the regression model, and by using more years data pre- and post-BCGC 2011. This study contributes geographically to the effectiveness of ACs and earnings management literatures by analyzing data from an emerging market, and it has potential implication for regulators and policy-makers in Bahrain to increase the effectiveness of ACs.

*Keywords: Bahraini Corporate Governance code 2011; effectiveness; audit committee characteristics; earnings management.*

## 1. INTRODUCTION

Accounting scandals events raised questions about the role of AC and its effectiveness in constraining earnings management. AC is a sub-committee of the board that specializes in, and is responsible for, ensuring the accuracy and reliability of the financial statements provided by management. The Blue Ribbon Committee [1] in its ten recommendations submitted on the AC, called for ACs to be more effective in overseeing the financial reporting process and improving the quality of financial reporting practices including earnings.

Even though recent events have led to an increased focus on ACs, interest in their effectiveness is not new. There has been notable demand for regulatory oversight of AC composition as a means of advancing AC effectiveness [2]. The effectiveness of ACs has been a subject of increasing interests due to increased concerns about the quality of corporate financial reporting process caused by accounting scandals. Therefore, the Sarbanes-Oxley Act (SOX) [3] in the U.S. mandates the role of the AC and strengthens its composition to oversee the financial reporting process. Reference [4] examined whether external auditors' judgments relating to internal audit were affected by the AC governance strength and accounting expertise, and the level of board independence. They found that the greater the governance strength and accounting expertise of the AC, the greater the assessed quality of internal audit, and the greater the overall level of coordination between internal and external audit. In Nigeria [5] examined the role of AC in the relationship with financial reporting quality best code of practices of corporate governance and the relationship between independence, size, diligence, and expertise of AC. They found that the AC in Nigeria is seen from a very narrow prism. It is merely a "Committee of Directors" and the enterprise's shareholders representatives whose specific responsibility is to review the

annual financial statements before submission to the board of directors. Also they examined the impact of AC on financial reporting quality, they provide evidence of the relationship between AC formation; AC attributes, and enhanced financial reporting quality.

ACs play a key role in effective corporate governance, and are considered a cornerstone of corporate governance. Blue Ribbon Committee [1] stated that, AC is the most important governance mechanism with respect to audit firm appointments because it is responsible for hiring the external auditor and for overseeing audit quality, thus, a properly functioning AC is critical in ensuring the independence of auditors and high quality financial reporting. Improving the quality of financial statements has been widely proposed as one of the major benefits of companies establishing ACs. Reference [6] suggest that best corporate governance practices minimize earnings management practices and reduces fraud significantly. Reference [5] suggest that improving corporate governance regulation is a key factor to strengthening financial reporting quality. Reference [7] examined systematic differences in earnings management across 31 countries; they found that earnings management decreases with better investor protection.

Since earnings management is inherently unobservable, most studies used measures of accruals as proxies for earnings management. The central objective of Corporate Governance Codes (CGCs) is to restore the reliability of financial statements by curbing earnings management and accounting fraud [8]. Therefore, on the process to enhance the investor protection and to restore the confidence to the investors, different laws, provisions, recommendations and codes were puts in place, for example, SOX [3] in US, the recommendations of Blue Ribbon Committee [1], provisions of SEC Code, and CGCs of many countries.

In Bahrain the first CGC has been effective on 1<sup>st</sup> January 2011. All Bahraini companies to which this Code applies should be in full compliance by the end of 2011. The BCGC 2011 is expected to mitigate corporate scandals and other related issues. This study is conducted against the background of increased regulation of Bahrain corporate governance. The BCGC 2011 stated that, the board shall establish an AC of at least three members of which the majority should be independent including the chairman. The AC shall review the company's accounting and financial practices, review the integrity of the company's financial and internal controls and financial statements, review the company's compliance with legal requirements, and recommend the appointment, compensation and oversight of the company's outside auditor. Also, the code recommends a majority of the AC members should have the financial literacy qualifications. The BCGC 2011 is in line with the recommendations by Blue Ribbon Committee [1] that the AC should be comprised of at least three directors who are independent and financially literate, and in line with the SOX [3] which emphasize the importance of the independence of the AC for effective monitoring of financial reporting, and requires all AC members to be independent. Also the BCGC 2011 is in line with the SEC Code, 2011 which emphasize the AC to be fully independent and effective committee, and requires the majority of the members to be independent directors or non-executive directors.

In recent years there has been growing recognition of the effectiveness of ACs. However, there is a shortage of studies that target the Gulf Cooperation Council (GCC) countries. Given the importance of AC characteristics in Improving the quality of financial statements and minimizing earnings management practices in the region, this study focuses on one of the GCC countries, namely Bahrain. This study contributes geographically to the effectiveness of ACs and earnings management literatures by analyzing data from an emerging market and providing feedback to the Bahraini regulators and policy-makers on the effectiveness of ACs. The main objective of this study is to examine the effectiveness of the BCGC 2011 on curbing or minimizing earnings management practices by using AC characteristics, more precisely to examine whether AC characteristics (independence, meetings and expertise) are associated with earnings management before and after BCGC 2011.

The remainder of this study is organized as follows. Section two presents a review of the literature and the development of hypotheses. Section three explains the research methodology employed in this study. The descriptive statistics and the empirical results are discussed in section four. Section five concludes the study.

## **2. LITERATURE REVIEW AND HYPOTHESES**

### **2.1 Literature Review**

The effectiveness of ACs has been a subject of increasing interests, an independent and expert AC member can help mitigate earnings management and misreporting. However, few studies have investigated the effectiveness of CGCs in preventing or curbing earnings management practices by measuring the association between AC characteristics and earnings management in the pre- and post CGCs periods. Empirical studies like, [2,9,8,10,11,12]; and [13] found different results on the association between corporate governance and earnings management, earnings formativeness in the post- SOX and CGCs period.

Reference [14] hypothesize that the provisions of SOX improve the effectiveness of an independent AC and other corporate governance functions in monitoring the quality of earnings, and they examined whether the provisions in SOX improve the effectiveness of cross-listed foreign firms' corporate governance through the disclosure of AC independence and other governance functions, and whether, as a result, SOX improves cross-listed foreign firms' quality of accounting earnings. They provide evidence suggesting that the functioning of firms' corporate governance in monitoring earnings management behavior is more effective after SOX. In Malaysia [15] examined the effect of AC effectiveness on earnings quality which is proxied by earnings management. They found that AC expertise, AC independence, AC disclosure and frequency of AC meetings are negatively associated with earnings management after the revised of Malaysian Code of Corporate Governance. Reference [16] examined the effect of regulatory changes and corporate governance reforms on firms' earnings management practices in Australia and New Zealand. They found that the level of earnings management did not decline after the introduction of new regulations to reform corporate governance, but they detected a

positive time trend suggesting that earnings management has been growing over time.

Early studies focused on the role of boards and ACs in preventing managerial actions leading to fraud actions and earnings management practices. For example, [17] examined whether the ability of the AC to limit earnings management in Chinese firms is associated with the listing environment and the presence of government officials on the AC. They found that the expertise and independence of the AC for cross-listed Chinese firms are associated with earnings management, also they found a positive relationship between AC independence and experience and earnings management when there are government officials on the AC. However, [18] finds that independent boards are important in preventing accounting fraud, but that ACs provide no incremental monitoring. Reference [19] reported that auditors generally found ACs to be ineffective in monitoring the financial reporting process. Reference [20] by using pre-SOX data found that fraud firms have fewer AC meetings and less financial expertise in the AC. Reference [11] by using pre-SOX data, found a negative relationship between AC independence and earning management, and, [21] found a negative relationship between AC financial expertise and aggressive earning management. Reference [13] by using post-SOX data, found a negative association between AC industry expertise and earning management, and [22] found a positive association between AC accounting expertise and earning management. Reference [6] examined the impact of the UK CG Code on accruals earnings management around mergers and acquisitions in the UK. The results of modified Jones model showed some level of income increasing discretionary accruals in the pre-CG period but showed an opposite situation in the post-CG period. However, a test for significance indicates that the level of earnings management around mergers and acquisitions in the UK has significantly reduced after the endorsement of the UK Corporate Governance code 2010.

## 2.2 Hypotheses

### 2.2.1 AC independence

The existence of an independent AC serves to enhance the veracity of both the internal and external auditing processes, which helps guarantee the accuracy of firm financial

statements and allows the capital markets to place greater reliance on reported results [2]. Reference [23] suggested that the more independent AC will provide better governance compared to less independent AC. This suggestion supported by the provision in SOX and SEC Code requiring publicly traded companies to have completely independent ACs. Reference [14] found that earnings informativeness is significantly associated with AC independence in the post-SOX period. In contrast, they did not found a significant association between earnings informativeness and AC independence in the pre-SOX period. Also, they found a negative association between earnings management and AC independence in the post-SOX period, however no association in the pre-SOX period.

The literature provides mixed results on the association between AC independence and the levels of earnings management. For example, Reference [15] reported a negative association, and [23] by using pre-SOX samples reported a negative association, [24] reported a positive association. However, [25] and [26] reported no significant association between ACs' independence and earnings management. Also, [2] found that AC independence does not have a greater correlation to earnings informativeness over board independence.

The BCGC 2011 stated that, the board shall establish an AC of at least three members of which the majority should be independent including the chairman. If the BCGC 2011 is effective in ensuring that Bahraini listed firms' management maintains a strong system for monitoring financial-reporting processes through the requirements of AC independence, the association between earnings management and AC independence is expected to be negative post- BCGC 2011. However, to present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre and post BCGC period. Therefore, in this study the following hypotheses will be tested.

**H1:** The audit committee independence is negatively associated with earnings management in the pre- BCGC 2011.

**H2:** The audit committee independence is negatively associated with earnings management in the post- BCGC 2011.

### **2.2.2 AC meetings**

Reference [11] suggests that an active AC as measured by the number of meetings are positively associated with AC independence, also he suggests that AC independence influences the effectiveness of the committee in monitoring financial reporting. Also, [23] suggest that, ACs that meets regularly is associated with effective monitoring. Therefore, it is generally agreed that AC that meets more frequently is more likely to effectively detecting and preventing earnings management.

The literature provides mixed results on the association between AC meetings and earnings management. For example, [15] reported a negative association, and [23] by using pre-SOX samples found a negative association between frequency of AC meetings and earnings management. However, [21] and [25] found no association between ACs meetings and the level of earnings management.

If the BCGC 2011 is effective in ensuring that Bahraini listed firms' management maintains a strong system for monitoring financial-reporting processes through the requirements of the frequency of AC meetings, the association between earnings management and AC meetings is expected to be negative post-BCGC, and to present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre and post BCGC period. Therefore, in this study the following hypotheses will be tested.

- H3:** The frequency of audit committee meetings is negatively associated with earnings management in the pre- BCGC 2011.
- H4:** The frequency of audit committee meetings is negatively associated with earnings management in the post- BCGC 2011.

### **2.2.3 AC expertise**

It is generally agreed that the key duty of the AC is to review the financial reporting process to ensure the best quality of financial reports, therefore, the availability of an accounting and financial expertise in the AC would enhance its efficiency and its ability in detecting and preventing earnings management. The literature

reveals that the effectiveness of the AC is enhanced through the presence of financial experts on the committee [27,22]. Reference [28] found a favorable valuation effect of the AC members with financial expertise in the pre-SOX financial services industry. Reference [14] found that the market reacts positively to financial experts on ACs after SOX.

Reference [23] used pre-SOX samples to examine whether AC members with financial expertise help monitor earnings management, they found that AC members with financial expertise are negatively associated with earnings management. Reference [29] found that the financial expertise of the AC has a negative relationship with earnings management. Also, [15] reported a negative association between AC expertise and earnings management. Reference [30] found that AC accounting expertise is positively associated with accruals quality; however, they did not find evidence of an association between accruals quality and the presence of finance or supervisory expertise in ACs.

The BCGC 2011 recommends a majority of the AC members should have the financial literacy qualifications. Financial experts with a high degree of accounting knowledge are expected to enhance the AC's effectiveness in monitoring earnings management. If the BCGC 2011 is effective in ensuring that Bahraini listed firms' management maintains a strong system for monitoring financial-reporting processes through the requirements of AC members with high degree of expertise, the association between earnings management and AC expertise is expected to be negative post- BCGC. However, to present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre and post BCGC period. Therefore, in this study the following hypotheses will be tested.

- H5:** The audit committee expertise is negatively associated with earnings management in the pre- BCGC 2011.
- H6:** The audit committee expertise is negatively associated with earnings management in the post- BCGC 2011.

## **3. METHODOLOGY**

This section discusses the methods, definitions and measurements of variables, study sample,

and the model employed in examining the associations between AC characteristics and earnings management pre- and post- BCGC 2011.

### 3.1 Definitions and Measurement of the Dependent Variable

Most of previous studies used various measures of discretionary accruals as proxies for earnings management. Based on prior literatures, it was observed that the modified-Jones model is the most famous and the most frequently used model to estimate discretionary accruals. Therefore, it's adopted in this study, which is specified as follows,

$$\frac{TAC_{it}}{A_{it-1}} = \beta_1 \left( \frac{1}{A_{it-1}} \right) + \beta_2 [(\Delta REV_{it} - \Delta REC_{it}) / A_{it-1}] + \beta_3 (PPE_{it} / A_{it-1}) + \varepsilon_{it} \quad (1)$$

where:

- $TAC_{it}$  = total accruals for firm  $i$  in the current year  $t$ ;
- $A_{it-1}$  = total assets for firm  $i$  at the end of the previous year;
- $\Delta REV_{it}$  = change in revenue for firm  $i$  between the current year and previous year;
- $\Delta REC_{it}$  = the change in receivables for firm  $i$  between the current year and previous year;
- $PPE_{it}$  = gross property, plant and equipment for firm  $i$  in the current year;

Using the cash flow approach [31], total accruals (TAC) are calculated as the difference between operating income (OI) obtained from the income statement and operating cash flows (OCFO) obtained from the statement of cash flows.

$$TAC_{it} = OI_{it} - OCFO_{it} \quad (2)$$

The predicted values from equation (1) are non-discretionary accruals (NDAC), and the difference between actual total accruals (TAC) and (NDAC) is discretionary accruals (DAC) [32].

$$DAC_{it} = TAC_{it} - NDAC_{it} \quad (3)$$

### 3.2 Definitions and Measurement of the Independent Variables

The independent variables used in this study are AC characteristics, namely, AC independence, AC meetings, and AC expertise. Consistent with

prior corporate governance studies, the three AC variables are defined and measured as shown in Table 1.

### 3.3 Definitions and Measurement of the Control Variables

In order to examine the associations between AC characteristics and earnings management pre- and post- BCGC 2011, and to control for other factors influencing management's incentives to manage earnings, three variables are added to the regression model namely, company size, leverage, and audit firm size. The control variables are defined and measured as shown in Table 1.

### 3.4 Study Sample and Regression Model

The initial study sample includes all Bahraini companies listed on the Bahrain Bourse (BB) for the year 2010 and for the year 2012, one year data before and one year data after implementing the BCGC 2011. After excluding suspended companies and excluding companies with incomplete financial data, the final sample of companies included in the analyses is 31 Bahraini companies. To present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre- and post- BCGC 2011. Therefore, 31 firm-year observations for the year 2010 and 31 firm-year observations for the year 2012 are included in the regression analyses. In order to examine the associations between AC characteristics and earnings management pre- and post- BCGC 2011, the following regression model is developed and implemented separately for the year 2010 and for the year 2012.

$$EARMGT = \beta_0 + \beta_1 ACIND + \beta_2 ACMEET + \beta_3 ACEXPR + \beta_4 COSIZE + \beta_5 LEV + \beta_6 AUFSIZE + \epsilon$$

where:

- EARMGT = Earnings management;
- ACIND = Audit committee independence;
- ACMEET = Audit committee meetings;
- ACEXPR = Audit committee experts;
- COSIZE = Company size;
- LEV = Leverage;
- AUFSIZE = Audit firm size;
- $\epsilon$  = Error term.

**Table 1. Variables definitions and measurements**

<b>Variables</b>	<b>Definitions and measurements</b>
<b>Dependent variable</b>	
EARMGT	Earnings management, measured by discretionary accruals as a proxy.
<b>Independent variables</b>	
ACIND	Audit committee independence, the percentage of independent (non-executive) directors on the audit committee;
ACMEET	Audit committee meetings, number of audit committee meetings held during the fiscal year;
ACEXP	Audit committee experts, the percentage of audit committee members having expertise in accounting or financial management.
<b>Control variables</b>	
COSIZE	Company size, the companies' natural log of total assets;
LEV	Leverage, measured as the ratio of the companies' total liabilities to the companies' total assets.
AUFSIZE	Audit firm size, a dummy variable that equals 1 if the company is audited by big-4 auditor and 0 otherwise;

**4. RESULTS AND DISCUSSION**

The descriptive statistical test results of all variables for the sample of companies for 2010 and 2012 are presented in Table 2 and Table 3 respectively, the results show that, the average earnings management (EARMGT) for 2010 is 0.7092 and for 2012 is 0.9888, this result may suggest that the overall level of earnings management didn't decline post- BCGC 2011. The average percentage of independent directors on the AC (ACIND) for 2010 is 37.74% and for 2012 is 86.13%; this result indicates that there is a clear increase in the AC independence after implementing BCGC 2011. The average number of AC meetings (ACMEET) held during 2010 is 3.13 and that held during 2012 is 4.61, this result indicates that there is increase in the number of AC meetings after implementing BCGC 2011. Also, the descriptive statistical test results in Table 2 and Table 3 show that, the average percentage of AC members having experience in accounting or financial management (ACEXP) for 2010 is 20.07% and for 2012 is 75.73%, which indicate a clear

increase in the level of AC experts after implementing BCGC 2011. Accordingly, the descriptive statistical test results show that, there is a clear impact for implementing the BCGC 2011 on the percentage of independent directors on the AC, average number of AC meetings, and the average percentage of AC members with experience in accounting or financial management.

The Pearson correlation coefficients between dependent and independent variables for 2010 are presented in Table 4 and for 2012 are presented in Table 5. The results show that there is a moderately high correlation between some variables. However, it has been suggested that correlation coefficients should not be considered harmful until they exceed 0.80. The coefficients in the correlation matrix in Table 4 reveal that the highest correlation is (.527) between AC independence and AC experts, and in Table 5 the highest correlation is (.421) between company size and leverage, which support the lack of multicollinearity in the regression model.

**Table 2. Descriptive statistics for year 2010 (Pre- BCGC 2011)**

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. deviation</b>
EARMGT	0.09512	6.59107	0.7092	1.1282
ACIND	0	1	0.3774	0.3726
ACMEET	0	8	3.13	2.377
ACEXP	0	1	0.2007	0.2968
COSIZE	5.866	10.025	8.2546	1.0721
LEV	0.0350	1.2627	0.4781	0.3308
AUFSIZE	0	1	0.77	0.425

*The variables are defined in Table 1*

**Table 3. Descriptive statistics for year 2012 (Post- BCGC 2011)**

	Minimum	Maximum	Mean	Std. deviation
EARMGT	0.3253	5.0791	0.9888	1.1791
ACIND	0.25	1.00	0.8613	0.23504
ACMEET	2	8	4.61	1.202
ACEXPR	0.3333	1	0.7573	0.20318
COSIZE	16.550	23.144	19.272	2.07069
LEV	0.0019	1.7055	0.47170	0.39197
AUFSIZE	0	1	0.84	0.374

The variables are defined in Table 1

**Table 4. Pearson correlations for year 2010 (Pre- BCGC 2011)**

	EARMGT	ACIND	ACMEET	ACEXP	COSIZE	LEV	AUFSIZE
EARMGT	1						
ACIND	.027	1					
	.886						
ACMEET	.159	.508**	1				
	.394	.004					
ACEXP	-.121-	.527**	.257	1			
	.515	.002	.163				
COSIZE	.169	.049	-.020-	-.200-	1		
	.364	.792	.913	.281			
LEV	.150	.100	-.063-	.133	.342	1	
	.421	.592	.737	.474	.060		
AUFSIZE	.011	.198	-.036-	.195	.203	.336	1
	.953	.285	.847	.293	.274	.065	

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

**Table 5. Pearson correlations for year 2012 (Post- BCGC 2011)**

	EARMGT	ACIND	ACMEET	ACEXPR	COSIZE	LEV	AUFSIZE
EARMGT	1						
ACIND	.231	1					
	.211						
ACMEET	.171	-.088-	1				
	.359	.637					
ACEXPR	-.175-	-.024-	-.040-	1			
	.346	.896	.830				
COSIZE	.293	.296	.154	.023	1		
	.109	.106	.408	.904			
LEV	.363*	.297	.255	.142	.421*	1	
	.045	.105	.166	.446	.018		
AUFSIZE	.110	-.137-	-.218-	-.240-	-.061-	-.110-	1
	.554	.463	.239	.194	.743	.557	

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

To measure the effectiveness of the AC functions (i.e. AC independence, frequency of AC meetings and AC expertise) on curbing earnings management practices, this study investigated this issue by comparing the regression results in the pre and post BCGC 2011 to present evidence on whether the BCGC 2011 decreases

the level of earnings management. If there is a significant change of magnitude in the association between earnings management and AC functions in the post BCGC period implies that, the effectiveness of the BCGC in monitoring earnings management practices is improved. By examining the change of magnitude in these



associations, it can be identify any shift in corporate governance functions in monitoring earnings management between the pre- and post- BCGC 2011.

Table 6 shows the main results of the regression that examine the effectiveness of the BCGC 2011 (AC effectiveness) on curbing earnings management practices. The regression model is run separately for the pre and post BCGC 2011. The results in Table 6 show that discretionary accruals as a proxy for earnings management does not significantly associated with any of the AC characteristics and any of the control variables even before or after implementing BCGC 2011. These results may suggest that ACs doesn't provide incremental monitoring in curbing earnings management in the post-BCGC period. These results confirmed by the descriptive statistical results, which show that, the average earnings management increased from 0.7092 in year 2010 to 0.9888 in year 2012. These findings may support [16] who found that the level of earnings management did not decline after the introduction of new regulations to reform corporate governance in Australia and New

Zealand, also support [18] who finds that ACs provides no incremental monitoring in preventing accounting fraud, and it may support [19] who reported that auditors generally found ACs to be ineffective in monitoring the financial reporting process.

The effectiveness of the AC on curbing earnings management is enhanced through AC independence, AC meetings and the presence of financial or accounting experts on the committee. However, the results in Table 6 show that neither variable has a significant association with the level of earnings management pre or post BCGC 2011. Accordingly, all hypotheses of this study are rejected. These findings are consistent (for example) with [25] and [26] who found no significance association between AC independence and earnings management, also consistent with [21] and [25] who found no significance association between number of AC meetings and earnings management, and consistent with [30] who did not find a significance relation between accruals quality and non-accounting expertise (i e. finance or supervisory expertise) of the AC.

**Table 6. The results of the regression model**

<b>Dependent variable</b>		
<b>Earnings management (EARMGT)</b>		
<b>Independent variables</b>	<b>Model (2010)</b>	<b>Model (2012)</b>
	<b>(Pre- BCGC 2011)</b>	<b>(Post- BCGC 2011)</b>
Constant	(-.455)	(-1.601)
<b>Audit committee variables</b>		
ACIND	-.011 (-.042)	.136 (.689)
ACMEET	.220 (.961)	.117 (.601)
ACEXP	-.173 (-.711)	-.173 (-.921)
<b>Control variables</b>		
COSIZE	.086 (.393)	.131 (.650)
LEV	.164 (.748)	.279 (1.326)
AUFSIZE	-.018 (-.082)	.152 (.790)
R-Square	.308	.238
Adjusted R-Square	.095	.048
F-statistic	.419	1.250
Prob (F-statistic)	.859	.317
Obs	31	31

*The variables are defined in Table 1.  
t-values in parentheses*

## 5. CONCLUSION

This study provides the first evidence on the effectiveness of the BCGC 2011, and it measured the effectiveness of the BCGC 2011 by using AC characteristics against earnings management practices in the pre- and post-BCGC 2011. Bahraini listed companies on BB for one year pre and one year post the BCGC 2011 have been investigated. If the BCGC 2011 is effective in ensuring that Bahraini listed firms' management maintains a strong system for monitoring financial-reporting processes through the requirements of AC independence, frequency of AC meetings and AC members with high degree of expertise, the association between earnings management and the AC characteristics is expected to be negative post-BCGC. However, to present evidence on whether the BCGC 2011 decreases the level of earnings management, this study investigated this issue by comparing the regression results in the pre and post BCGC period.

The descriptive statistical test results show that, there is clear evidence, on the increase of the AC independence, on the increase of the number of AC meetings, and on the increase of the level of AC experts after implementing the BCGC 2011. However, the results of the regression model show that discretionary accruals as a proxy for earnings management does not significantly associated with any of the AC characteristics (i.e. AC independence, AC meetings and AC experts) and any of the control variables (i.e. company size, leverage, and audit firm size) even before or after the BCGC 2011. These results may suggest that the effectiveness of the BCGC 2011 in monitoring earnings management practices doesn't improved, and it may suggest that ACs characteristics doesn't provide incremental monitoring in preventing or curbing earnings management practices in the post BCGC 2011.

This study is not free from limitations, in this study I used only AC characteristics and only one year data before and one year data after implementing BCGC 2011, therefore, I can't generalize that BCGC 2011 is ineffective in preventing or curbing earnings management practices. Future research might attempt to examine the impact of BCGC 2011 on earnings management practices by using more AC characteristics or using the board characteristics in addition to the AC characteristics in the regression model, and by using more years data pre- and post- implementing BCGC 2011. This

study provides feedback to the policy-makers and professional accounting bodies, and it has potential implication for regulators and policy-makers of the Bahraini Bourse in increasing the effectiveness of AC rules. This study contributes to the extant literature on ACs effectiveness by investigating the association between AC functions and earnings management practices, and it contributes geographically to the corporate governance, financial-reporting processes and earnings management literatures by analyzing data from an emerging market.

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## COMPETING INTERESTS

Author has declared that no competing interests exist.

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