

# INEFFECTIVE CORPORATE GOVERNANCE: BUSYNESS OF INTERNAL BOARD MONITORING COMMITTEES

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## Abstract

We examine whether the voluntary formation of a Risk Committee (RC) compromises the effectiveness of other monitoring duties carried out by the board members. We argue that adding more monitoring committees increases the board's internal busyness, which reduces the effectiveness of monitoring by the Audit Committee (AC). Using a sample of financial firms over the period 2007 to 2011 from the Gulf Cooperation Countries (GCC), we find that voluntarily adopting a risk committee impairs the effectiveness of the audit committee, which in turn reduces financial reporting quality. Our findings suggest that multiple layers of monitoring capacity viz-a-viz the existence of both an audit and risk committee may weaken the quality of monitoring provided by the audit committee.

**Keywords:** Internal Busyness; Board; Effectiveness; Monitoring; Risk Committee

**JEL:** G34, D71, G32

## 1. INTRODUCTION

The board of directors exists as one of the strongest corporate governance mechanisms, put in place to ensure that, the interests of shareholders of the company are protected. Traditionally, the literature concerning the role of the board of directors has concentrated on multiple outside directorships. For instance, Ferris, Jagannathan, and Pritchard (2003) contend with the fact that directors with multiple outside directorships may be sufficiently busy, such that, they do not function as effective monitors. Consistent with this argument, Core, Holthausen and Larcker (1999) find that outside multiple directorships lower the effectiveness of outside directors as corporate monitors because they become overcommitted and might shirk their responsibilities as monitors. Similarly, Fich and Shivdasani (2006) demonstrate that outside multiple directorship weakens board monitoring. However, there is little evidence on the effect of internal board busyness on monitoring. In this paper, we argue that internal board busyness also has a similar adverse effect on monitoring. Specifically, we argue that incrementing more monitoring committees increases the board's internal busyness resulting in less work effort from the members to monitor management. Hence, we test how the voluntary formation of an additional board monitoring committee such as the RC, reduces the effectiveness of monitoring by the audit committee.

Corporate governance, effective board monitoring and managerial accountability have been placed under scrutiny since the recent Global Financial Crisis. A frequently suggested solution to financial crises is that increasing the monitoring quality of the board of directors, could improve the board's effectiveness (Field et al. 2013). Globally

(e.g., GCC region<sup>14</sup> and USA), regulators require firms to have three mandatory monitoring board sub-committees (audit, compensation and nominating) for publicly listed firms. Whilst voluntarily adding more monitoring committees to the board increases their monitoring duties, directors' oversight may be somewhat impaired because directors are generally busier and potentially equipped with less resources to deal with the hard issues requiring attention. Allen (1992) suggests that the monitoring function is more powerful when directors have more commitment to time and better resources.

Ferris et al. (2003) and Jiraporn et al. (2009) provide evidence on how external directors' busyness affect the firm's performance. On the one hand, Ferris et al. (2003) find that multiple external directorship (outside board seats) does not diminish directors' abilities to serve multiple internal board committees' memberships. On the other hand, Jiraporn et al. (2009) find that a greater number of external directorships reduces the ability of internal members of board monitoring committees to perform effectively. Hence, they suggest that external directorship plays a significant role in determining AC membership. Given this competing views on the role of multiple board membership, we are motivated to investigate the effects of the internal board members' busyness on the AC monitoring effectiveness.<sup>15</sup>

Faleye et al. (2011) examine how the intensity and busyness of internal board monitoring committees can influence the directors'

<sup>14</sup> GCC is Gulf Co-operation Council established in 1981 comprising of Oman, Bahrain, Kuwait, Qatar, Saudi Arabia (KSA), and United Arab Emirates (UAE).

<sup>15</sup> We consider the internal board monitoring busyness by board internal committees. The outside directorship is not a popular phenomenon in the GCC (TNI 2008 survey).

effectiveness in performing their role in the advisory committee. They find that busy directors sitting on internal board monitoring committees (audit committee, remuneration, compensation and corporate governance), limit their ability to perform in board strategic and planning committees. Specifically, they argue that independent directors are assigned multiple oversight tasks; hence, they are overcommitted in an advisory role. In this study, we extend this line of argument by suggesting that the voluntary formation of an additional monitoring committee such as the RC will increase the internal board's oversight workload and thereby, limit directors' abilities in effectively discharging their duties in monitoring committees. While Jiraporn et al. (2009) suggest that board members external directorship significantly explains the AC assignments, they also conclude that the relationship between the number of external directorship and audit committee assignments are non-linearly related.

In this paper, we investigate how an internal directorship's busyness affects audit committee assignments. Based on board signalling theory (prestigious board) and busyness hypothesis, we examine how more internal directorships of the board will have an adverse impact particularly, in regards to the monitoring of the AC. We argue that this could occur through compromising the AC's composition quality, thus, reducing its effectiveness in improving the firm's Financial Reporting Quality (FRQ).<sup>16</sup>

Several reasons motivate us to use the voluntary formation of RC as a benchmark for a firm's internal board busyness as an effective factor, to reduce the relationship between AC and FRQ. First, in the GCC listed firms, audit, remuneration and compensation committees are mandatory, while the RC is not, hence, we assume that firms that form an additional monitoring board committee will increase their monitoring workload for directors compared to firms that do not. Second, duties and responsibilities of the RC in all code of corporate governance in GCC are assigned under the responsibility and oversight of the AC, hence, the overlapping responsibilities between both committees can create conflict. This suggests that "voluntarily" adopting an RC leads the board to nominate a director who used to or still serves in the AC to be a member of the RC compared to directors who serve on other internal committees because of the director's prior experiences and background in risk management issues. Third, the RC is considered a monitoring committee, thus, adopting an RC will increase monitoring duties and oversight of the board.

Using data from six GCC countries financial firms' annual reports, we provide evidence that the internal monitoring busyness (through formation of RC) reduces the quality of AC composition which then reduces its monitoring effectiveness. First, we find that the quality of AC's composition reduces significantly when the firm "voluntarily" adopts RC. Specifically, we find that the mean difference of AC quality is significant when the firm "voluntarily" adopts RC. Second, we find consistent results which

indicate that, in the presence of RC, the association between AC and FRQ proxies is reduced. This result might be due to time-series problem; hence, we have repeated our analysis by considering if the firm "voluntarily" adopted RC in the current year ( $t$ ), and yet did not adopt RC in the previous year ( $t-1$ ). After re-running the regressions, we find consistent results that show that adopting RC reduces the relationship between AC and FRQ. The results suggest that the formation of RC reduces the quality of AC composition which in turn lowers the financial reporting quality. This result is generally consistent with the recent findings of Tani and Smith (2015), who demonstrate that the busyness of the audit committee chairman and financial expert weakens the monitoring and oversight role that audit committees play in the financial reporting process. Third, self-selection bias can be a case in our regression. Neglecting self-selection for firms having only RC and selecting financial firms may result in bias and an inconsistent estimator. Hence, we replicate our analysis using Heckman's (1979) two-stage self-selection bias model. We find that our results are in line with baseline regressions, suggesting that estimates based on self-selection bias cannot explain or justify the reason for the negative association between AC and FRQ in the presence of RC.

This study enrich corporate governance literature in four important ways. First, this study contributes to the limited, albeit, growing literature on internal busyness by providing empirical evidence to show that the internal busyness of the board has a significant impact on the effectiveness of board monitoring. While prior research (e.g., Vafeas 2005) extensively documents that the quality of AC's monitoring has a positive impact in improving the board's effectiveness (e.g., FRQ), no study has till date examined whether introducing voluntary monitoring RC deteriorates or improves the board's effectiveness.

Second, this study is one of the first to theoretically introduce an interaction between signalling and busyness theories, in order to explain how the voluntary creation of an additional monitoring committee (e.g., RC) can influence the board's effectiveness, by testing the conditional effects between the FRQ and the monitoring quality of AC in the presence of RC. Third, given the recent emphasis on regulatory bodies to strengthen risk management and board monitoring, an empirical study on the association between voluntary formations of RC as well as board monitoring busyness and effectiveness is of great importance. Our study responds to this call by investigating this relationship, suggesting that even internal busyness of the board's monitoring sub-committee can harm the shareholders' interests by increasing the oversight time of monitoring directors on the board. Fourth, we contribute to the literature on audit committees by demonstrating that when the quality of the AC composition is reduced through the formation of additional monitoring committees, such as RC, the financial reporting quality will be adversely affected.

In summary, our findings suggest that multiple layers of monitoring capacity viz-a-viz the existence of both an audit and risk committee may impair the quality of monitoring provided by the audit

<sup>16</sup> Quality of AC composition is measured based on 4 characteristics that have been used in prior literature namely: majority independent director, qualification, size, and independence of the AC chairman.

committee. In other words, the internal busyness of the board weakens the monitoring and oversight role that audit committee plays in the quality of the financial reporting. The implication is that, regulators need to consider directors' commitments and busyness when making rules for mandatory establishment of risk committee. This study has international implications for regulators who have rules governing the existence and composition of committees.

The remainder of the paper is organized as follows: Section 2 reviews the GCC setting and relevant prior studies, and develops the testable hypotheses. Section 3 focuses on the research design, data sources and sample selection. Section 4 contains the empirical results, while Section 5 states our main conclusions.

## 2. GCC SETTING, BACKGROUND AND HYPOTHESIS DEVELOPMENT

### 2.1. GCC Setting and Background

The Gulf Corporation Council was established in 1981, to strengthen the economic co-operation and development of six countries comprising of, Oman, Bahrain, Kuwait, Qatar, Saudi Arabia (KSA) and United Arab Emirates (UAE). The GCC countries collectively constituted one of the fastest growing developing economies, and the GCC stock markets, represent emerging but equally rapidly growing markets (Al-Shammari et al. 2008). All corporate codes in GCC countries recommend and encourage firms to form different types of board sub-committees, including AC, remuneration committee, and corporate governance committee. However, these codes do not mandate the establishment of RC (Risk Committee). Hence, the creation of RC is primarily voluntary. Risk management policy, accountability, and risk disclosure, are currently under AC's supervision and responsibility in all corporate governance codes in the GCC region. Although, none of the GCC corporate governance codes require firms to establish a separate RC (except in Kuwait- from 2016), about 39% of our sample of GCC financial firms shows the existence of a separate RC.

Two opposing views exist in the literature in relation to the voluntary formation of RC. Proponents argue that, since RC is charged with monitoring and managing business risks, therefore, the directors (members) of RC will objectively act to safeguard the interests of shareholders. On the other hand, the opponents argue that, directors having multiple board membership will have limited time to concentrate on various aspects of corporate risk, so RC will unlikely be effective in protecting shareholders' interests.

Jiraporn et al. (2009) and Bradbury (1990) suggest that board size, composition, and ownership structure play a significant role in voluntarily adopting the internal board monitoring committee. The GCC region provides an ideal setting to test our hypotheses. The GCC political institutions are built systematically favouring specific classes (Amenta 2000), who have controls over many big government banks and financial listed firms. Furthermore, a small number of government representatives who are mainly from ruling families and rich merchant

families in the board of directors, regulate and control the state and economy rather than vice versa (Boron 1995; Hertog 2012; Ozel 2003). In addition, it is "Socially" accepted that the "Sheik"<sup>17</sup> directors in the GCC expect absolute obedience and are not willing to be questioned (Sidani and Al Ariss 2013).

Ruling families and family directors are largely dominant in the GCC region. For instance, the TNI (2008) survey found that in Qatar, the directors from ruling families and top 9 families are represented by 24% and 25% directors in listed firms, respectively. Hence, the high influence of the ruling families in the board composition may have consequences on the firm's financial reporting quality (Chaney et al. 2011), which may subsequently increase the board's internal busyness. Moreover, the board's internal busyness is worthy of study in the GCC as the external board directorship has been widely investigated in prior survey and has been found to be the least popular in all GCC's publicly listed firms (TNI Survey 2008). For example, in Bahrain, the 2, 3, 4, 5 and 6 boards seat are only represented by about 5.8%, 2.9%, 0.3%, 0.9%, 0.3% of the total sample respectively.<sup>18</sup>

### 2.2. Literature review and hypothesis development

The literature on board monitoring is lengthy and dates back to Berle and Means (1980). The board of directors is an apex body in an organisation which monitors the activities of internal management. The board of directors in most public corporations are comprised of inside directors who hold other positions in the firm and outside directors who have no such affiliation. Generally, internal monitoring is likely to be stronger when the board of directors and its committees, are dominated by outside directors. The outside directors are often seen as independent and objective monitors, protecting the interests of various stakeholders against managerial opportunism. Fama and Jensen (1983) argue that outside directors have greater incentives to monitor corporate decisions on behalf of shareholders, since they "...have incentives to develop reputations as experts in decision control...the value of their human capital depends primarily on their performance as their internal manager" (p. 315). A significant aspect of an effective board committee is that outside directors give adequate time and devotion to their jobs and it can be determined by how busy a director in the board committee is (Song and Windram 2004). There are conflicting views on the consequences of directors' busyness. One view suggests that holding multiple directorships (proxy for busyness) allows knowledge spill-over to take place in the boards they sit on and thus, potentially enhance their reputation as decision experts (Fama 1980; Ferris et al. 2003; Kaplan and Reishus 1990; Shivdasani 1993; Yermack 1996). For example, a busy audit committee director has a good experience and this will enhance his monitoring effectiveness (Song and Windram 2004). However, the opponents argue that a busy director may have less time to dedicate to each individual board committee he serves in. For instance, Morck et al. (1988) claim that

<sup>17</sup> Sheik is a term used to entitle the front (leader or governor) of a tribe who inherits the title after his father.

<sup>18</sup> As an additional test, we also control ownership structure on the board of directors.

time factor can negatively influence directors' effectiveness in monitoring. Lipton and Lorsch (1992) also suggest that time is a main constraint for directors in any board. Core et al. (1999) report that more directorships can make directors very busy, therefore, the ability of over committed directors serving on multiples boards, is dampened (Core et al. 1999; Fich and Shivdasani 2006) to perform their fiduciary role. Similarly, Faleye et al. (2011) suggest that the dynamics of internal work assignment through the board internal committees' responsibilities generates even greater directors' over-commitment. Other studies (e.g., Colquitt et al. 2001; Leventhal 1976), suggest that directors serving on multiple internal board monitoring committees are hard pressed for time compared to directors serving in board advisory committees. Cashman et al. (2012) report that busy directors serving in numerous committees will have less available time which may eventually reduce their ability to serve in multiple monitoring committees. Furthermore, Ferris et al. (2003) argue that over committed directors serve less frequently on important board committees, such as the audit or the compensation committees.

This line of argument suggests that voluntary adoption of an additional monitoring board committee, such as the RC, will increase directors busyness (Faleye et al. 2011) and this may significantly affect the board's monitoring effectiveness. Despite this controversy, very little research has been undertaken in relation to the effect of multiple monitoring committees' directorships on board monitoring effectiveness, particularly, on audit committee. Our study is the first to test the hypothesis that firms that have multiple internal board monitoring committees tend to do a poor job of managing corporate affairs including reporting of financial performance. The board (directors) Busyness hypothesis of corporate directorships suggests that multiple internal board committees in the board over commit an individual director, and thus, lower the effectiveness of the board (Faleye et al. 2011). Thus, we expect to observe a negative association between FRQ and AC, if the firm adopts a high quality RC. In other words, we expect that an increased work-load would lead to the less effective performance of directors. Hence, in support of internal board busyness, the presence of an additional monitoring committee (e.g., RC) will reduce the effectiveness of AC. Thus, we hypothesize that:

*H1a: The voluntary formation of a high quality monitoring RC significantly reduces the effectiveness of AC.*

We try to ascertain how the voluntary formation of RC reduces the board's effectiveness by relying on signalling theory. Board-signalling theory suggests that companies voluntarily create board internal committees and select its directors to signal its legitimacy and quality (Certo 2003; Spence 1973). Certo (2003) demonstrates that the prestigious structure of the board is important as it allows managers to influence the perceptions of customers, suppliers, and investors. On the other hand, directors (that is independent directors) accept the board's membership to signal their talent as decision makers (Fama and Jensen 1983).

From a signalling perspective, in the presence of asymmetric information, firms voluntarily form

RC and assign membership to signal firm value (Certo 2003). When a firm voluntarily forms an additional oversighting committee (e.g., RC), they disclose it in the corporate governance section of their annual reports, hence, readers are able to observe the signal. Choosing prestigious directors for RC (for example, those who are qualified and independent) will make this signal costly to imitate (Certo 2003). However, the voluntary formation of a credible and prestigious monitoring committee (e.g., RC) may on the other hand, compromise the quality of other monitoring committees. Specifically, we expect that RC could lower the monitoring quality of AC due to several reasons: First, in all codes of corporate governance in GCC countries, the risk management is assigned to AC except in Kuwait (starting from the year 2016)<sup>19</sup>, hence, adopting a separate RC will lead to an overlap of the risk management responsibilities. For instance, financial reporting is oversighted by AC, while risk reporting is shown to be under the responsibility of RC (Subramaniam et al. 2009; Hawkamah 2010). These overlapping duties between RC and AC indicate dual membership in both committees. However, busyness hypothesis indicates that the directors who serve in AC are the busiest directors and boards will face difficulties in assigning them to more monitoring committees (Ferris et al. 2003). Second, Sun et al. (2014) provide evidence from financial firms that a busy director in AC has a lower ability to manage and monitor the firm's risk. Accordingly, we expect the firm that has introduced an RC to makes directors in the AC to opt moving to RC or not serving in both committees. If this is the case, we will observe that the firms after adopting an RC, compromise the ability of ACs, thus, we hypothesize that:

*H1b: Voluntary formation of RC compromises the composition and monitoring quality of AC and thus reduces FRQ.*

### 3. RESEARCH DESIGN

#### 3.1. Sample and Data

We collect our sample from financial companies listed in the six GCC capital markets (Bahrain, Saudi Arabia, Kuwait, Oman, Qatar, and UAE) for the year 2007 - 2011. Data on corporate governance are hand-collected from annual reports and S&P Capital IQ, while all control variables data are collected from S&P Capital IQ database. We exclude industrial firms, firms inactive in capital market, and firms' cross listed in GCC. This procedure results in 705 observations. We then winsorize all continuous variables at the 1<sup>st</sup> and 99<sup>th</sup> percentiles to mitigate undesirable influence of outliers. Due to FRQ models that uses lag variables and exclusion of firms with missing values on key variables, we obtain a total sample of 649 firm-year observations for our regressions (see Panel A of Table 1 for sample selection criteria).

<sup>19</sup> In Kuwait risk management issues are assigned under risk committee, however, the code of corporate governance is not yet mandatory till 2016.

**Table 1 Panel A.** Sample Distribution Year and Country Firms (Obs.)

<i>Number of firms available in S &amp; P Capital IQ for the GCC countries</i>	629
<i>Less:</i>	
<i>Industrial firms</i>	421
<i>Joint listed firms</i>	2
<i>Firms with unavailable annual report for disclosure items</i>	65
<i>Final Sample year observations FRQ</i>	141 (649 Obs.)

Panel B of Table 1 presents sample distribution that are used for our regressions by country and year. UAE is represented by 150 firms-year observations, followed by Kuwait (138) and Oman (101) year observations. Panel C of Table 1 also

shows sample distribution based on year and financial sector. Banks presents 45% of the sample size followed by financial firms (153 observations), Insurance (116 observations) and Investment firms (83 observations).

**Table 1 Panel B.** Sample Distribution Year and Country

<i>Country</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2012</i>	<i>Total</i>
Bahrain	17	17	17	17	17	85
K.S.A	18	18	18	18	18	90
Kuwait	27	28	28	28	27	138
Oman	21	20	22	17	21	101
Qatar	17	17	17	17	17	85
U.A.E	30	30	30	30	30	150
Total	130	130	132	127	130	649

**Table 1 Panel C.** Sample Distribution Year and Financial Sector

<i>Industry</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>Total</i>
Bank	60	59	60	58	60	297
Financial	31	31	31	29	31	153
Insurance	23	23	24	23	23	116
Investment	16	17	17	17	16	83
Total	130	130	132	127	130	649

### 3.2. Dependent Variables

Following prior literature (e.g., Faleye et al. 2011; Klein 2002; Rahman and Ali 2006), we rely on a proxy for the board and audit committee's

effectiveness, by using Financial Reporting Quality. Based on Kothari et al. (2005), this study adopts performance-adjusted discretionary accruals by estimating the model below, using the year and industry that has at least 9 observations:

$$T\text{-accruals}_{i,t} = \alpha_0 + \alpha_1 \Delta \text{Asset}_{i,t-1} + \alpha_2 \Delta \text{Rev}_{i,t} + \alpha_3 \text{PPE}_{i,t} + \alpha_4 \text{ROA}_{i,t} + \varepsilon_t \quad (1)$$

We also adopt the modified Jones (1991) model, suggested by Klein (2002), by estimating the model

below, using the year and industry that have at least 9 observations:

$$T\text{-accruals}_{i,t} = \alpha_0 + \alpha_1 \Delta \text{Asset}_{i,t-1} + \alpha_2 \Delta \text{Rev}_{i,t} + \alpha_3 \text{PPE}_{i,t} \quad (2)$$

Where  $T\text{-accruals}_{i,t}$  is calculated as the change in non-cash current assets, less the change in current liabilities, less depreciation and amortizations expenses for firm  $i$  in year  $t$ , scaled by lagged total assets ( $\text{Asset}_{i,t-1}$ ).  $\Delta \text{Rev}_{i,t}$  is calculated as revenue growth of one year at year  $t$  for firm  $i$  scaled by lagged asset.  $\text{PPE}_{i,t}$  is the sum total of the firm's property, plant and equipment scaled by lagged total asset, and  $\text{ROA}_{i,t}$  is the firm's return on assets in year  $t$  for firm  $i$ . The residuals from the model are the discretionary accruals. Consistent with previous studies (Chen et al. 2011; Srinidhi and Gul 2007), we compute the absolute value and then multiply by  $-1$  ( $\text{FRQ}_{i,t}$ ). The higher the values, the greater the value of  $\text{FRQ}_{i,t}$ .

### 3.3. Independent Variables and Conditional test

#### 3.3.1. DummyAudCom

Previous literature (e.g., Klein 2002), suggests that firms with AC provide meaningful monitoring on FRQ. We test this relationship between FRQ and AC (*DummyAudCom*) in the presence of risk committee.

#### 3.3.2. AudFactor

Factor analysis is widely used to capture the characteristics of the committee in governance studies (Sun et al. 2009; Tao and Hutchinson 2013). Prior literature utilize components factor analysis test to determine the board committees' characteristics. Consistent with Tao and Hutchinson (2013), we conduct factor analysis to obtain one eigenvalue that represents all observable values

which are: 1. Independence<sup>20</sup> which is equal to 1, if AC directors are a majority, otherwise 0; 2. If AC has at least one directors with a professional and academic qualification in accounting and finance (e.g., CPA)<sup>21</sup>, it is equal to 1 otherwise 0; 3. AC's size is equal to 1, if RC's size is higher than the median RC's size of the firm, otherwise 0; and 4. AC's chair is equal to 1, if AC is chaired by an independent director, otherwise 0. Un-tabulated results show that our eigenvalue of 3.630, is highly representative of 72.61 % proportion, and other eigenvalues of AC characteristics scored less than one eigenvalue.<sup>22</sup> We expect this measure to have a negative association if a firm has adopted RC.<sup>23</sup>

Likewise, we calculate the proxy for quality of RC (*RisFactor*) by conducting components factor analysis of 4 variables of RC compositions. To arrive at a consistent measure for RC, we also use the four characteristics that we used in AC namely: 1. Independence equals 1, if RC directors are a majority, otherwise 0; 2. If RC has at least one director with a professional qualification, it is equal to 1 (e.g., CPA), otherwise 0; 3. RC's size is equal to 1 if RC's size is higher than the median RC's size of the firm, otherwise 0; and 4. RC's chair is equal to 1 if RC is chaired by an independent director, otherwise 0. We obtain one eigenvalue of 2.667 (66.68% proportion), and other eigenvalues are less than 1, then we predict the *RisFactor* with 2.667 eigenvalue. Finally, firms with higher *RisFactor* (proxy for high quality RC) are recorded as 1, if the quintile of *RisFactor*  $\geq 50\%$ .<sup>24</sup>

### 3.3.3. AudComScaled

Beasley and Salterio (2001) suggest that independence, qualification and size are interdependent characteristics in the board. Hence, in this measure, we aggregate the 4 characteristics of AC mentioned in section 3.3.2, then the total is scaled by 4 items. We regress this measure with FRQ, in the presence of RC=1.

## 3.4. Control Variables

Based on previous studies (e.g., Francis and Wang 2008; Klein 2002; Leuz et al. 2003; Vafeas 2005), we use firm-specific and country-specific level variables as control. First, for the firm-specific factor, we use

the firm's LMVAL<sub>t</sub> as a natural logarithm of the total firm market value at the year end. In addition, we control for *Leverage* which is the sum total of short and long term liabilities scaled by total assets (e.g., Woitdte and Yeh 2013). *AuditBig* is equal to 1 if a firm employs one of the big accounting firms (Big four), otherwise 0. Also, following Burgstahler et al. (2006), we control for firm's profitability using Return on Assets (*ROA*). In agreement with Francis and Wang (2008), we add two growth variables; *BM* is calculated as the book value over market value (Klein 2002; MacGregor 2012); *RavGrowth* is also included, based on (Francis and Wang 2008), calculated as total revenue change (total revenue<sub>t</sub> less total revenue<sub>t-1</sub>). We also follow Vafeas (2005), Burgstahler et al. (2006) and Xie et al. (2003) to control for internal board busyness. a. *MajIndDir* is equal to 1 if the firm has majority of independent auditors, otherwise 0. For instance, Xie et al. (2003) and Vafeas (2005) suggest that an independent board manages to protect the shareholders' interests and increases the firm's earning quality. b. *MoreComDir* is equal to 1, if the board's chairman is assigned in at least one of the board committees, otherwise 0. Based on busyness literature (e.g., Faleye et al. 2011), we argue that a busy chairman will devote less time to managing the firm. c. Following prior literature (e.g., Brickley et al. 1997; Xie et al. 2003), we include that *DualityCEO* is equal to 1 if the firm's chairman and CEO is held by one person, otherwise 0.

We also control for country-specific factors using, a). *GovFactor*: Following Leuz et al. (2003) and Gul et al. (2013), we conduct a Factor Analysis (*GovFactor*<sub>p</sub><sup>25</sup> of country level governance (which covers regulatory quality<sup>26</sup> and control of corruption from Kaufmann et al. (2009)),<sup>27</sup> and country investor protection index (which covers the extent of directors' liabilities and ease of shareholders to suit directors and managers from (La Porta et al. 2000)); b). We also include the country's *MCapDev* in year<sub>t</sub>, calculated by, total country market capitalization in year<sub>t</sub> scaled by country GDP in year<sub>t</sub> as a country-specific measure to control for country omitted variables (Pástor et al. 2008). Finally, we fixed effects and the firm's random effects (see discussion section 4.3 on the model selection).<sup>28</sup>

## 3.5. Empirical Model

To examine the conditional test of "voluntary" adoption of risk monitoring committee and the association between AC and FRQ, we employ the following model:

<sup>20</sup> The definition of independence is an area where there are differencing approaches among the GCC countries. For example, In Oman, K.S.A and U.A.E, an independent director should not be an employee or senior executive within the preceding 2 years, in Qatar within preceding 3 years and 1 year in Bahrain, while prior career is not mentioned in the code of governance of Kuwait. Hence, in this study, a director is considered independent, if he/she meets the definition of independence as per country code.

<sup>21</sup> We consider academic qualification in accounting and finance (Ph.D., Master, and Bachelor) and professional accounting and finance certification (e.g., CPA, ACCA, and CFA).

<sup>22</sup> Generation of eigenvalue was also used as a proxy for quality measure (see Miihkinen 2012).

<sup>23</sup> Components factor analysis correlation table for AC and RC are available upon request.

<sup>24</sup> We also repeat our analysis using greater than median quintile of (75%), and we find a consistency in the results. However, when we replace our analysis below the median quintile (*RisFactor*  $\leq 50\%$ ), we observe a U-Shaped association (positive association), that is, when the quality of RC composition is low, the quality of AC improves FRQ.

<sup>25</sup> We check the factor value year by year and find that values vary for each country and year.

<sup>26</sup> Regulation Quality consists of trade policy, competitive environment and labour market policies.

<sup>27</sup> Control of Corruption consists of transparency and corruption.

<sup>28</sup> Furthermore, we segregate our sample based on 2 code financial industry (Bank, Financial, Insurance and Investment), and when we fix the industry effects for all our main models, unreported results show consistent evidence.

$$\begin{aligned} \text{FRQ}_{i,t} = & a_0 + a_1 \text{DummyAudCom}_{i,t} + a_2 \text{LMVAL}_{i,t} + a_3 \text{Leverage}_{i,t} + a_4 \text{AuditBig}_{i,t} + a_5 \text{BM}_{i,t} + a_6 \text{RavGrowth}_{i,t} \\ & + a_7 \text{MajIndDir}_{i,t} + a_8 \text{MoreComDir}_{i,t} + a_9 \text{DualityCEO}_{i,t} + a_{10} \text{GovFactor}_{i,t,j} + a_{11} \text{MCapDev}_{i,t,j} \\ & + \sum \text{Year} + \varepsilon_{i,t} \end{aligned} \quad (3)$$

Our main variable of interest is *DummyAudCom*, we predict  $a_1$  to be negative for  $H_1$ , if the firm voluntarily adopts a high quality of RC (RisFactor > 50% quintal).

To examine the association between FRQ and the quality of AC in the presence of RC ( $H_{1b}$ ), we repeat equation (1), and replace ( $a_1$ ) *DummyAudCom* with two measures of quality of AC: *AudFactor* and *AudComScaled*, then we replace our conditional test by replacing *RisFactor*, with *DummyRisCom*:

$$\begin{aligned} \text{FRQ}_{i,t} = & a_0 + a_1 \text{AudFactor}_{i,t} + a_2 \text{LMVAL}_{i,t} + a_3 \text{Leverage}_{i,t} + a_4 \text{AuditBig}_{i,t} + a_5 \text{BM}_{i,t} + a_6 \text{RavGrowth}_{i,t} \\ & + a_7 \text{MajIndDir}_{i,t} + a_8 \text{MoreComDir}_{i,t} + a_9 \text{DualityCEO}_{i,t} + a_{10} \text{GovFactor}_{i,t,j} + a_{11} \text{MCapDev}_{i,t,j} \\ & + \sum \text{Year} + \varepsilon_{i,t} \end{aligned} \quad (4.1)$$

$$\begin{aligned} \text{FRQ}_{i,t} = & a_0 + a_1 \text{AudComScaled}_{i,t} + a_2 \text{LMVAL}_{i,t} + a_3 \text{Leverage}_{i,t} + a_4 \text{AuditBig}_{i,t} + a_5 \text{BM}_{i,t} + a_6 \text{RavGrowth}_{i,t} \\ & + a_7 \text{MajIndDir}_{i,t} + a_8 \text{MoreComDir}_{i,t} + a_9 \text{DualityCEO}_{i,t} + a_{10} \text{GovFactor}_{i,t,j} + a_{11} \text{MCapDev}_{i,t,j} \\ & + \sum \text{Year} + \varepsilon_{i,t} \end{aligned} \quad (4.2)$$

We expect the sign of the coefficient ( $a_1$ ) between FRQ and quality of AC (*AudFactor* and *AudComScaled*) to be negative and significant, if firms adopt additional monitoring committee (if  $RC = 1$ ), suggesting that adopting additional monitoring committee (e.g., RC) will compromise the effectiveness of the existing monitoring committee (e.g., AC).

Subramaniam et al. (2009) covers both financial and non-financial firms, while we cover only financial firms. Since risk exposure of financial firms is higher, establishment of separate risk committee is more apparent for financial sectors. Second, Aebi et al. (2012) cover only the financial crisis period. Further, our mean of *DummyAudCom* is lower than Carson (2002) where she investigates only 361 firms from top 500 Australian listed firms. Mean (S.D) for  $\text{FRQ}_{\text{Kothari}}$  and  $\text{FRQ}_{\text{Jones}}$  are 8.61 (58.6) and 2.07(9.35) respectively. Our results are consistent with prior research in earning quality for instance, in FRQ proxy's mean.

## 4. EMPIRICAL RESULTS AND DISCUSSION

### 4.1. Descriptive Statistics

Panel D of Table 1 reports summary statistics for the variables included in the regression models. The mean [Standard Deviation (S.D)] value for *DummyAudCom*, *AudFactor* and *AudComScaled* variables are 0.65(0.48), -0.02 (0.84), and 1.03 (1.0) respectively. *RiskFactor* and *DummyRisCom* is -0.02 (0.82), and 0.38 (0.49). In the sample, 38% financial firms have dedicated risk committee (RC), which is higher than that of Subramaniam et al. (2009) of 33% and Aebi et al. (2012) of 8%. There may be two reasons for this differential statistics. First,

Based on current discretionary accrual derived from (Jones 1991) is 2.20. However, our variables discussed above have exhibited over-dispersion since in most cases their variances are higher than their means. That might be due to selection bias error; hence we later test for sample selection bias problem in section 4.5. Moreover, the Table shows that there is a large dispersion among the sample firms in terms of control variables, which illustrates a considerable diversity in the sample.

Table 1 Panel D. Descriptive statistics

Variables	N	Mean	S.D	Min	Mdn	Mix
(ABS) $\text{FRQ}_{\text{Kothari}}$	649	-8.61	58.60	-1404.17	-3.11	0.00
(ABS) $\text{FRQ}_{\text{Jones}}$	669	2.07	9.35	0.00	0.12	118.46
(ABS) $\text{FRQ}_{\text{Carson}}$	325	3.59	11.61	0.00	0.36	117.29
<i>DummyAudCom</i>	649	0.65	0.48	0.00	1.00	1.00
<i>AudFactor</i>	649	-0.02	0.84	-1.29	0.00	2.36
<i>AudComScaled</i>	649	1.03	1.00	0.00	1.00	5.00
<i>RiskFactor</i>	649	-0.02	0.82	-0.60	-0.60	2.68
RC	649	0.38	0.49	0.00	0.00	1.00
<i>LMVAL</i>	649	6.19	1.70	2.46	6.17	9.74
<i>Leverage</i>	649	0.67	0.33	0.00	0.72	2.39
<i>AuditBig</i>	649	0.90	0.30	0.00	1.00	1.00
ROA%	649	1.86	5.23	-49.30	2.14	32.80
BM%	649	3.20	13.25	-0.38	0.93	230.05
<i>RavGrowth</i>	649	11.87	72.00	-172.08	2.49	439.10
<i>MajIndDir</i>	649	0.33	0.47	0.00	0.00	1.00
<i>MoreComDir</i>	649	0.27	0.45	0.00	0.00	1.00
<i>DualityCEO</i>	649	0.08	0.28	0.00	0.00	1.00
<i>GovFactor</i>	649	0.02	1.01	-1.48	-0.15	1.60
<i>MCapDev</i>	649	71.89	36.51	24.60	72.50	163.90

## 4.2. Univariate t-Test

Panel D of Table 1, reports the mean difference and *t*-statistic of variables for firms with (without) separate RC. We find that the FRQ proxies and Quality of AC (*AudFactor*) are significantly higher for

firms with separate RC (*t*-value = 1.739, 2.038, 1.738, 2.292, and 8.429) at ( $p < 0.01\%$  level) respectively. The table also shows that the firm that establishes separate RC has larger size, leverage, busyness proxies (*MoreComDir* and *DualityCEO*) and *AuditBig*.

**Table 2 Panel E.** Means differences between presence (absence) of RC and Quality of RC

	Risk Committee Mean		Difference	t-statistic
	Yes	No		
FRQ <sub>Kothari</sub>	-3.063	-1.803	1.259	1.739*
FRQ <sub>Jones</sub>	-3.016	-1.490	1.521	2.038**
FRQ <sub>RM</sub>	-2.964	-2.670	2.293	1.738*
<i>AudFactor</i>	0.477	0.810	0.6811	8.429***
LMVAL	6.417	5.941	-0.4757	3.53***
Leverage	0.656	0.642	-0.0333	1.3401
<i>AuditBig</i>	0.941	0.880	0.0608	2.673***
ROA%	1.883	1.732	0.1517	0.446
BM%	1.832	1.777	0.0554	0.2902
RavGrowth	7.714	14.403	6.689	1.213
MajIndDir	0.357	0.334	0.0235	0.6414
<i>MoreComDir</i>	0.343	0.222	0.1203	3.535***
<i>DualityCEO</i>	0.014	0.118	0.1037	5.09***
<i>GovFactor</i>	-0.194	0.123	0.3176	4.158***
MCapDev <sub>t</sub>	65.636	73.258	7.6228	2.697***

FRQ<sub>Kothari</sub>: Earning Quality based on Kothari et al. (2008) calculated for each year in each industry; FRQ<sub>Jones</sub>: Earning Quality based on Jones (1991) mode calculated for each year in each industry; FRQ<sub>RM</sub>: Earning Quality based on Dechow and Dichev, 2002 calculated for each year in each industry; *DummyAudCom*: firms recorded 1 if audit committee existed, otherwise 0; *AudFactor*: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics: qualification, majority of independence, independent chair and size; *AudComScaled* is total score of audit committee from the four characteristics divided on 4; *RiskFactor*: *AudFactor*: quality of risk committee calculated based on component factor analysis obtained from 4 characteristics which are qualification, majority of independence, independent chair and size; *Size*: natural log of firms' market value proxy for firm's size; *Leverage*: total short and long term debt over total asset; *AuditBig*: firm is reported 1 if at least one of auditor in year *t* is from the big accounting firm; *ROA*: Return of Asset, *BM*: firms' book value divided on market value; *RavGrowth*: firms' total revenue growth calculated as the difference of total revenue in year *t* and *t*-1; *MajIndDir*: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; *MoreComDir*: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; *DualityCEO*: if firm's chairman and CEO is one person 1, otherwise 0; *GovFactor*: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); *MCapDev*: country level measure calculated total stock market divided on GDP in year *t* and country

Table 2 reports the Pearson correlation matrix for variables included in the regression analysis. In line with our hypothesis and as expected, the correlation between the FRQ proxies and AC is positive and significant, while this association is negative and significant with RC. For instance, the correlation coefficient between FRQ proxies (FRQ<sub>Kothari</sub> and FRQ<sub>Jones</sub>) and quality of AC (*AudFactor*) are 0.785, 0.0740 at ( $p < 0.05\%$  level). Moreover, busyness proxy (*DualityCEO*) is significantly and negatively correlated with the FRQ proxies, suggesting that internal busyness proxied by duality of CEO and Chairman, reduce the firms' FRQ, while for second measure of board internal busyness (*MoreComDir*), Table 2 provides mixed correlation results. Likewise, unreported results show mixed evidence for outside directorship (proxy of external board busyness). Specifically, we find negative results with FRQ<sub>Kothari</sub> but not with other FRQ proxies. These results suggest that external directorship plays a less important role in the GCC financial firms' reporting quality and this in fact is consistent with TNI Survey (2008), that external directorship is not an important phenomenon in the GCC region. In addition, our results in Table 2 are in line with prior hypotheses in terms of control variables. For example, we find positive (significant) results between FRQ and (leverage, LMVAL, *AuditBig* and country governance as well as the investor protection level). This also validates our control variables used in our regression analysis.

## 4.4. Regression Analysis

### 4.4.1. Association between FRQ and *DummyAudCom* in the presence of High quality *RisFactor*

Table 3 presents Random Effect (RE) estimates of  $H_{1a}$ . We statistically test for the empirical model (pooling, random effect, or fixed effect regression), which is the most suitable for estimating the relationship. Specifically, following Aivazian et al. (2005), we conduct the Lagrangian Multiplier (LM) test of the random effect model (Breusch and Pagan 1980). The null hypothesis is that the individual effect,  $a_i$ , is 0 for all  $i$ . The null hypothesis is not rejected at the 1% significance level, which suggests that Random Effect regression is appropriate for our model. Thereafter, we follow Hausman (1979) test to choose our model between fixed effect and random effect. Fixed effect models suggest that individual firms and time have different intercepts in the regression equation, while random effect assumes that individual firms group and time have different disturbance. The null hypothesis is that fixed effect is not correlated with the regressor (or our main independent and control variables). We fail to reject the null hypothesis in all of our models, suggesting that random effects model is still more appropriate; therefore, time-invariant variables should be included in our equation. We also test for Heteroskedasticity, using Wald test, which rejects the fact that our models are homoscedastic, hence, we robust and cluster firms into 69 groups.



Table 2. Person Correlation Matrix

	1	2	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
EQ <sub>Kothari</sub>	1.0000																	
EQ <sub>Jones</sub>	0.9041***	1.0000																
EQ <sub>DD</sub>	0.7513***	0.7633***	1.0000															
DummyAudCom	0.0979**	0.0956**	0.0771	1.0000														
AudFactor	0.0785**	0.0740**	0.0523	0.6922***	1.0000													
AudComScaled	0.0873**	0.0917**	0.0621	0.5149***	0.7720***	1.0000												
RisComFactor	-0.0769**	-0.0458	-0.0853	0.0454	0.2916***	0.6261***	1.0000											
LMVAL	0.3143***	0.2205***	0.3236***	0.0249	-0.0883**	-0.0382	-0.0392	1.0000										
Leverage <sub>t</sub>	0.1766***	0.1419***	0.1125**	0.0723**	0.0795**	0.0507	-0.0464	0.3561***	1.0000									
AuditBig <sub>t</sub>	0.0657***	0.0588	0.0365	0.0314	0.1014***	0.0394	0.0463	0.1849***	0.1863***	1.0000								
ROA <sub>t</sub>	-0.0074	-0.0333	-0.0067	-0.0719**	0.0110	0.0202	0.0551	0.0320	-0.0340	0.0440	1.0000							
BM	0.0804**	0.0534	-0.0181	-0.1241***	-0.0226	0.0957***	0.1683***	0.2917***	0.3036***	-0.0481	-0.0709**	1.0000						
RavGrowth	0.0346	0.0165	0.0453	-0.0544	0.0282	0.0451	0.0286	-0.0231	0.0109	-0.0261	0.2585***	0.0071	1.0000					
MajIndDir	-0.0373	-0.0214	-0.0733	0.2073***	0.5111***	0.6389***	0.5460***	-0.1840***	-0.0009	0.0943**	0.0638**	0.0347	0.0287	1.0000				
MoreComDir	0.0459	0.0685*	-0.0051	0.3056***	0.3906***	0.5962***	0.3913***	0.0186	0.0600*	0.0672*	0.0648*	0.0179	0.0627*	0.2921*	1.0000			
DualityCEO	-0.0635*	-0.0447	-0.0915*	-0.3188***	-0.2965***	-0.1383***	0.0934***	-0.0865**	-0.1422***	-0.0672*	-0.0377	-0.0094	-0.0384	-0.0398	-0.0502	1.0000		
GovFactor <sub>t</sub>	0.0631	0.0598	0.0866	-0.2950***	-0.3922***	-0.2754***	-0.0999***	0.3508***	-0.0028	-0.0889**	-0.0934**	0.1844***	-0.0208	-0.2704***	-0.1221***	0.2800***	1.0000	
MCapDev	-0.0355	-0.0762**	-0.0262	-0.1693***	-0.3337***	-0.2206***	-0.0706*	0.0949**	-0.0913***	-0.1032***	0.1765***	0.0190	0.0372	-0.2377***	-0.0640*	0.1574***	0.2078***	1.0000

FRQ<sub>Kothari</sub>: FRQ based on Kothari et al. (2008) calculated for each year in each industry; FRQ<sub>Jones</sub>: FRQ based on Jones (1991) mode calculated for each year in each industry; FRQ<sub>DD</sub>: FRQ based on Dechow and Dichev, 2002 calculated for each year in each industry; DummyAudCom: firms recorded 1 if audit committee existed, otherwise 0; AudFactor: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics : qualification, majority of independence, independent chair and size; AudComScaled is total score of audit committee from the four characteristics divided on 4; RiskFactor: AudFactor: quality of risk committee calculated based on component factor analysis obtained from 4 characteristics which are qualification, majority of independence, independent chair and size; Size: natural log of firms' market value proxy for firm's size; Leverage: total short and long term debt over total asset; AuditBig: firm is reported 1 if at least one of auditor in year t is from the big accounting firm; ROA: Return of Asset, BM: firms' book value divided on market value; RavGrowth: firms' total revenue growth calculated as the difference of total revenue in year t and t-1; MajIndDir: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; MoreComDir: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; DualityCEO: if firm's chairman and CEO is one person 1, otherwise 0; GovFactor: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); MCapDev: country level measure calculated total stock market divided on GDP in year t and country i.

In all tables, we illustrate the p value for LM between OLS and RE and Hausman test (p-value) between fixed effects and random effects and robust and cluster effects. We hypothesize that firms that voluntarily adopt RC are more likely to signal their prestigious board, and in order to keep their signal costly to imitate, RC composition should be at a high level and should be observed. However, we assume that these firms will reduce the effectiveness of AC to improve FRQ. As hypothesized earlier, we can expect that in a firm where the composition quality of RC is at a higher level, the AC has a significant and negative association with FRQ. In Table 3, we find that in the presence of a high RC (RisFactor), the relationship between AC and FRQ is significant and negative. Specifically, the coefficient ( $\alpha_1$ ) of FRQ and *DummyAudCom* is -1.043 at ( $p < 0.1\%$  level), and the coefficient of FRQ<sup>Kothari</sup> is -1.299 but not significant. We also find that the consistent sign (negative) of the firm's size (*LMVAL*), *leverage*, *BM*, *AuditBig* are consistent with previous findings

(Burgstahler et al. 2006; Francis and Wang 2008; Klein 2002; MacGregor 2012; Vafeas 2005; Woitke and Yeh 2013; Xie et al. 2003). Although, we collect our sample from the financial industry, motivated by prior literature, we disaggregate our sample based on two-code industry based on the Capital IQ database, obtaining (4 classes of sub-industry, based on stock markets classification (1. banks, 2. Financial, brokerage and superannuation, 3. Insurance, and 4. Investment). Unreported results show robust evidence even after industry fixed effect. For instance, for the FRQ<sup>Jones</sup> model, we find 1.282 coefficient at ( $p < 0.1\%$  level) and for FRQ<sup>Kothari</sup> model, it is -0.623 but not significant. Then we re-run the regression and if *RisFactor* quality  $< 50$ , we expect that  $\alpha_1$  will be positive. Un-tabulated result finds a positive association of 1.0584. These results suggest that the "voluntary" formation of RC generates more monitoring responsibilities on the board, which compromises the AC (quality and composition), and thus, FRQ is reduced.

**Table 3.** FRQ and Audit Committee in presence of Quality Risk Committee

	FRQ <sup>Kothari</sup>	FRQ <sup>Jones</sup>
<i>Intercept</i>	5.990*** (2.65)	3.215 (1.09)
<i>DummyAudCom</i>	-2.533* (-1.68)	-0.899 (-0.39)
<i>LMVAL</i>	-0.681** (-2.57)	-0.885*** (-3.25)
<i>Leverage</i>	-1.729* (-1.76)	-0.742 (-1.00)
<i>AuditBig</i>	-1.197 (-1.08)	-0.344 (-0.40)
<i>ROA</i>	0.024 (0.76)	0.028 (0.83)
<i>BM</i>	0.216*** (2.88)	0.182*** (2.77)
<i>RavGrowth</i>	-0.003 (-1.17)	0.001 (0.50)
<i>MajIndDir</i>	0.258 (0.33)	0.348 (0.49)
<i>MoreComDir</i>	0.916 (1.30)	0.367 (0.64)
<i>DualityCEO</i>	-2.646 (-1.58)	-3.475 (-1.23)
<i>GovFactor</i>	-0.439 (-0.73)	-0.253 (-0.40)
<i>MCapDev</i>	-0.010 (-0.70)	0.017 (1.07)
<i>Robust/Cluster</i>	Yes	Yes
<i>Year FE</i>	Yes	Yes
<i>N</i>	649	646
<i>N-RisFactor</i>	148	149
<i>LM (p-value): OLS vs RE</i>	0.000	0.000
<i>LM: Chi(2)</i>	20.41	20.47
<i>Hausman (p-value): FE vs RE</i>	0.2437	0.0608
<i>Sargan-Hansen</i>	14.95	20.346

FRQ<sup>Kothari</sup>: FRQ based on Kothari et al. (2008) calculated for each year in each industry; FRQ<sup>Jones</sup>: Earning Quality based on Jones (1991) mode calculated for each year in each industry; *DummyAudCom*: firms recorded 1 if audit committee existed, otherwise 0; *RisFactor*: quality of risk committee calculated based on component factor analysis obtained from 4 characteristics which are qualification, majority of independence, independent chair and size; *Size*: natural log of firms' market value proxy for firm's size; *Leverage*: total short and long term debt over total asset; *AuditBig*: firm is reported 1 if at least one of auditor in year t is from the big accounting firm; *ROA*: Return of Asset, *BM*: firms' book value divided on market value; *RavGrowth*: firms' total revenue growth calculated as the difference of total revenue in year t and t-1; *MajIndDir*: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; *MoreComDir*: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; *DualityCEO*: if firm's chairman and CEO is one person 1, otherwise 0; *GovFactor*: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); *MCapDev*: country level measure calculated total stock market divided on GDP in year t and country i.

4.4.2. Association between FRQ and Quality of AC in presence of RC  $H_{1b}$

Table 4 exhibits the association between FRQ and Quality of AC (*AudFactor*), in the presence of the dummy variable of RC (1, if a firm adopts a separate RC). As mentioned earlier, *AudFactor* is calculated based on factor analysis of 4 characteristics of AC (qualification, independence, size, and AC Chairman's independence). (We did not include meeting frequency and meeting duration, as we find very few companies that disclosed time and meeting frequencies in their annual reports and in other databases. In addition, most of the firms that disclose meeting frequencies do not disclose meeting duration. Furthermore, we find that the few firms that disclosed meeting related information have adopted RC which will inflate our models by more zeroes). In this test, we assume that a firm that adopts RC (without considering the quality of RC), reduces the quality of AC, and hence, lowers FRQ. Consistent with our hypothesis, we find that the existence of RC, moderates the coefficient ( $\alpha$ ) between FRQ (proxies  $FRQ_{Kothari}$  and  $FRQ_{Jones}$ ) and quality of AC. We find significant and negative association between  $FRQ_{Kothari}$  ( $FRQ_{Jones}$ ) and *AudFactor* at coefficient of 2.101, (1.812) at ( $p < 0.05\%$  level). For *AudComScaled* (sum scores of the four AC characteristics (dummies)), our results show same inference sign at ( $p < 0.05\%$ ) level and a coefficient of 2.316 (2.494). Furthermore, we find significant sign of our internal busyness proxy (*DualityCEO*) at ( $p < 0.01\%$ ), while *MoreComDir* another proxy for internal busyness proxy, found to be positive but not significant. Consistent with prior literature, we also find that *LMVAL*, *Leverage*, *BM*, *DualCEO* and country level measures (*McapDev*), have significant inference. Even after fixing the industry effects, we find that for instance, for  $FRQ_{Jones}$  at ( $p < 0.05\%$ ) significance level for both *AudFactor* and *AudComScaled*, is negative but not significant for the  $FRQ_{Kothari}$  model. This suggests that the voluntary formation of RC lowers the quality of AC which negatively influences the FRQ.

In the aforementioned discussion, our results are obtained after regressing the aggregated measures of AC (*AudFactor* and *AudComScaled*), with FRQ, in the presence of RC. However, motivated by previous studies (e.g., Woidtke and Yeh 2013), we then test each individual characteristics in the presence and absence of RC. In this test, we expect to observe a U-shaped relationship (positive association between AC and FRQ) if firms do not adopt the RC, and negative relationship (negative association between AC and FRQ) if firms adopt high quality RC. This is exactly what we find. Specifically, Un-tabulated results show that firms that adopt RC suppress the association between AC and FRQ (e.g.,  $FRQ_{Kothari}$ ). On the other hand, we find a positive association between AC and FRQ for firms without RC. However, coefficients are not significant except for the independent Chair of AC.

In summary, our results suggest that the formation of RC reduces the quality of AC composition which in turn lowers financial reporting quality. This result is generally consistent with the recent findings of Tani and Smith (2015), who demonstrate that the busyness of the audit committee chair and financial expert weaken the monitoring and oversight role that audit committees play in the financial reporting process.

4.5. Self-selection bias

RC is a growing practice in financial firms; hence we collect our sample from financial firms. However, choosing financial firms and testing the hypothesis in the presence of RC can create a selection bias problem, that the estimators are inconsistent and bias. For instance, average firms without RC, may have higher than average FRQs and a firm with AC, may have lower than average FRQ, evidenced by over-dispersion of our mean and variance in our main variables. Therefore, we conduct a self-selection bias test. Specifically, we test Heckman's (1979) procedure, where we first compute the Inverse Mills ratio (*InvMills*)  $\gamma$  from a probit model for random effect model of AC in the firms then we add *InvMills* ratio in our control variables in all equations to control for self-selection bias.

In the probit model for random effect model, we include three variables that determine the probit model of AC, which are; number of board of directors, the Firm's size ( $assets_{log}$ ) and total debt over total asset based on Bradbury (1990) and Chau and Leung (2006). Firstly, Bradbury (1990), Certo (2003) and Faleye et al. (2011) suggest board size and composition, and monitoring committee, determined the assignment of AC membership, hence, we include board size. Song and Windram (2004) and Carson (2002), find that the firm's size has a positive association with the formation of AC, while Carson (2004) report a negative association between AC and (total debt / total assets). Table 5 presents the second-stage probit regression model, where we find that the regression coefficient for AC is negatively and significantly associated with  $FRQ_{Kothari}$  ( $p < 0.05\%$ ), suggesting that even after controlling for self-selection bias, our inference is un-changed, that is in the presence of high quality of RC, the association between AC and FRQ is negative.

4.6. Additional Analysis and Sensitive tests

4.6.1. Other measure of FRQ

We also test for sensitivity analysis of our dependent variable (FRQ), using a third measure that has been widely used in previous literature [(Dechow and Dichev 2002) therefore,  $FRQ_{DD}$ ]. The third proxy of Financial Reporting Quality is calculated based on discretionary accrual of Dechow and Dichev (2002) as below:

$$T\text{-accruals}_t = \alpha_0 + \alpha_1 OCF_{t-1} + \alpha_2 OCF_t + \alpha_3 OCF_{t+1} + \alpha_4 \Delta Rev_t + \alpha_5 PPE_t + \epsilon_{it} \tag{5}$$

Where  $OCF_{t-1}$  is cash from operation scaled by lagged total asset,  $OCF_t$  is cash from operation scaled by lagged total asset,  $OCF_{t+1}$  is cash from operation scaled by total asset,  $Rev_t$  is change of

total revenue scaled by total lagged asset,  $PPE_t$  is the total of the firm's property, plant and equipment scaled by total lagged asset. Residual represents the estimation errors in current accrual that is not

associated with OCF, change in Revenue and the firm's level of PPE. This procedure results in less data and we find only 325 year observations.

We regress *AudFactor* and *AudComScaled* with both FRQ proxies, in presence of RC. Panel A Table 6 shows that *AudFactor* (*AudComScaled*) is -2.611 which is significant at ( $p < 0.01\%$  level) with  $FRQ_{DD}$ . The sign and significant levels in control variables in the regression models are in line with the baseline regression. Our results are consistent with our hypothesis which states that the presence of RC lowers FRQ through reducing the quality of audit monitoring committee.

#### 4.6.2. Average of FRQ proxies

Following Chen et al. (2011) and Biddle et al. (2009), we also calculate the average of three FRQ measures  $FRQ_{Ave}$ :  $FRQ_{Kothari}$ ,  $FRQ_{Jones}$  and  $FRQ_{DD}$ . Chen et al. (2011), suggest that using average proxy for FRQ is more appropriate for three reasons. First, one single measure cannot cover all facets of FRQ. Second, aggregating different proxies of FRQ help to generalize the results. Third, using average proxy reduces measurement error that is generated from using one proxy which consists of factors other than FRQ. Panel B of Table 6 shows that our inference is unchanged, that is, we find that the coefficient of *AudFactor* (*AudComScaled*) are significantly and negatively associated with  $FRQ_{Ave}$  of 1.396 (1.779), in the presence of RC at ( $p < 0.05\%$  level).

**Table 4.** FRQ and Quality of Audit Committee in presence of Dummy Risk Committee

	FRQ <sub>Kothari</sub>		FRQ <sub>Jones</sub>	
<i>Intercept</i>	2.277 (1.62)	3.446** (2.22)	1.128 (0.91)	2.328* (1.70)
<i>AudFactor</i>	-2.101** (-2.27)		-1.821** (-2.19)	
<i>AudComScaled</i>		-2.316** (-2.31)		-2.494** (-2.36)
<i>LMVAL</i>	-1.139*** (-2.78)	-1.058*** (-2.70)	-0.980** (-2.34)	-0.883** (-2.30)
<i>Leverage</i>	-3.816** (-2.15)	-4.152** (-2.34)	-3.677** (-2.02)	-4.009** (-2.14)
<i>AuditBig</i>	0.786 (0.86)	0.284 (0.29)	0.181 (0.28)	-0.348 (-0.57)
<i>ROA</i>	-0.037 (-0.65)	-0.04 (-0.69)	-0.063 (-1.04)	-0.07 (-1.11)
<i>BM</i>	0.717*** (2.60)	0.692** (2.55)	0.598* (1.86)	0.575* (1.85)
<i>RavGrowth</i>	-0.002 (-1.33)	-0.002 (-1.30)	-0.001 (-0.35)	-0.001 (-0.37)
<i>MajIndDir</i>	2.551** (2.04)	2.580* (1.94)	2.631** (2.27)	3.051** (2.20)
<i>MoreComDir</i>	1.057 (1.15)	1.722 (1.62)	0.653 (0.65)	1.386 (1.22)
<i>DualityCEO</i>	-4.205*** (-3.59)	-3.190*** (-3.65)	-5.452*** (-3.56)	-4.997*** (-3.91)
<i>GovFactor</i>	-0.32 (-0.52)	-0.247 (-0.40)	0.001 (0.00)	0.055 (0.08)
<i>MCapDev</i>	0.026 (1.34)	0.026 (1.33)	0.044** (1.97)	0.043** (1.97)
<i>Robust/Cluster</i>	Yes	Yes	Yes	Yes
<i>Year FE</i>	Yes	Yes	Yes	Yes
<i>N</i>	647	647	649	649
<i>N-RC</i>	255	255	250	250
<i>LM (p-value): OLS vs RE</i>	0.000	0.000	0.000	0.000
<i>LM: Chi(2)</i>	194.05	180.09	14.23	14.15
<i>Hausman (p-value): FE vs RE</i>	0.263	0.2463	0.313	0.3192
<i>Sargan-Hansen statistic</i>	13.483	13.765	13.81	13.716

FRQ<sub>Kothari</sub>: FRQ based on Kothari et al. (2008) calculated for each year in each industry; FRQ<sub>Jones</sub>: FRQ based on Jones (1991) mode calculated for each year in each industry. *AudFactor*: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics: qualification, majority of independence, independent chair and size; *AudComScaled* is total score of audit committee from the four characteristics divided on 4; RC equal 1 if a firm voluntarily adopted risk committee, otherwise 0; *Size*: natural log of firms' market value proxy for firm's size; *Leverage*: total short and long term debt over total asset; *AuditBig*: firm is reported 1 if at least one of auditor in year  $t$  is from the big accounting firm; *ROA*: Return of Asset, *BM*: firms' book value divided on market value; *RavGrowth*: firms' total revenue growth calculated as the difference of total revenue in year  $t$  and  $t-1$ ; *MajIndDir*: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; *MoreComDir*: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; *DualityCEO*: if firm's chairman and CEO is one person 1, otherwise 0; *GovFactor*: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); *MCapDev*: country level measure calculated total stock market divided on GDP in year  $t$  and country  $i$ .

**Table 5.** Probit Self-Sample Selection Bias: FRQ and Quality of Audit Committee in presence of Dummy Risk Committee

	FRQ <sub>Kothari</sub>	FRQ <sub>Jones</sub>
<i>Intercept</i>	7.785*** (2.78)	3.787 (1.14)
<i>AudComDummy</i>	-2.641** (-1.97)	-0.958 (-0.43)
<i>LMVAL</i>	-0.803*** (-2.73)	-0.922*** (-3.09)
<i>Leverage</i>	-2.610** (-2.3)	-1.018 (-1.13)
<i>AuditBig</i>	-1.302 (-1.13)	-0.363 (-0.42)
<i>ROA</i>	0.029 (0.92)	0.029 (0.88)
<i>BM</i>	0.254*** (3.41)	0.194*** (2.70)
<i>RavG</i>	-0.003 (-1.12)	0.001 (0.51)
<i>MajIndDir</i>	0.317 (0.40)	0.363 (0.51)
<i>MoreComDir</i>	0.899 (1.25)	0.35 (0.60)
<i>DualityCEO</i>	-2.921* (-1.93)	-3.602 (-1.31)
<i>GovFactor</i>	-0.401 (-0.66)	-0.24 (-0.37)
<i>MCapDev</i>	-0.012 (-0.77)	0.017 (1.04)
<i>InvMills</i>	-9.932* (-1.71)	-3.227 (-0.65)
<i>Robust/Cluster</i>	Yes	Yes
<i>Year FE</i>	Yes	Yes
<i>N</i>	464	455
<i>N-RC</i>	148	149

FRQ<sub>Kothari</sub>: FRQ based on Kothari et al. (2008) calculated for each year in each industry; FRQ<sub>Jones</sub>: FRQ based on Jones (1991) mode calculated for each year in each industry. *AudFactor*: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics : qualification, majority of independence, independent chair and size; *AudComScaled* is total score of audit committee from the four characteristics divided on 4; *Size*: natural log of firms' market value proxy for firm's size; *Leverage*: total short and long term debt over total asset; *AuditBig*: firm is reported 1 if at least one of auditor in year t is from the big accounting firm; *ROA*: Return of Asset, *BM*: firms' book value divided on market value; *RavGrowth*: firms' total revenue growth calculated as the difference of total revenue in year t and t-1; *MajIndDir*: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; *MoreComDir*: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; *DualityCEO*: if firm's chairman and CEO is one person 1, otherwise 0; *GovFactor*: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); *MCapDev*: country level measure calculated total stock market divided on GDP in year t and country i; *InvMills* is predicted residual from Probit regression between, *Board\_Size*, *Size*, and *Total debt /Total Asset*.

#### 4.7. Potential time-series dependence

We perform the analyses at firms that do not adopt RC<sub>t-1</sub> in the previous year, but adopt the RC<sub>t</sub> in the current year. First, if a firm does not adopt RC<sub>t-1</sub>, we expect that there is less internal monitoring busyness, due to less incentive to create or signal their prestige RC. Second, if a firm voluntarily adopts RC<sub>t</sub> in the current year, it is more likely that the firm with voluntary RC will face more internal busyness issue on the board. Therefore, we re-run our regressions for firms that did not adopt RC in the previous year (RC<sub>t-1</sub>=0), but adopted RC in the current year (RC<sub>t</sub>=1). Un-tabulated results provide consistent evidence of negative association between FRQ<sub>Ave</sub> and the quality of AC in all regressions. For instance, the coefficients association between *AudComScaled* and all FRQ proxies (FRQ<sub>Kothari</sub>, FRQ<sub>Jones</sub>, FRQ<sub>DD</sub>, and FRQ<sub>Ave</sub>) are 2.742, 2.426, 2.434, 0.001, and 1.712 respectively, which are all significant at ( $p < 0.05\%$  level). We also find negative, but not significant, using *AudFactor*. This also provides robustness for our hypothesis that a firm

that voluntarily chooses to adopt RC has less FRQ due to lower composition quality of AC.

#### 4.8. Board Ownership Representatives Setting in GCC

One of the salient features in the GCC is that the boards of publicly listed companies are represented by members of the Government, private families and ruling families (TNI Survey 2008). Hence, we repeat our regressions including the three types of ownership (*GovDir*, *FamilyDir* and *RoyalDir*). After adding the three types of directors, un-tabulated results lend consistent support (not changed) regarding sign and the statistical magnitude, while some coefficients show highly significant results after controlling for the three ownership attributes. The coefficients regressions of *AudFactor* (*AudComScaled*) and FRQ proxies (FRQ<sub>Kothari</sub>, FRQ<sub>Jones</sub>, FRQ<sub>DD</sub>, and FRQ<sub>Ave</sub>) are 1.868(2.293), 1.567(2.523), 2.253(2.786), and 1.158(1.770) respectively, and all are negative and significant at ( $p < 0.05\%$  level) and for FRQ<sub>DD</sub>, significant level at ( $p < 0.01\%$ ). Moreover, we regress if *AudCom* is dummy (1 or 0) with FRQ<sub>Ave</sub>

in the presence of high quality composition of RC (RisFactor). We find a negative and significant association between *DummyAudCom* and  $FRQ_{AVE}$  of 1.033 at ( $p < 0.05\%$ ). Further, the *RoyalDir* and *GovDir*

are found to be negative with FRQ proxies, while *FamilyDir* is positive with FRQ. We also noticed that the significance level varies depending on the main independent variable (FRQ).

**Table 6 Panel A:** Additional Analysis: FRQ and Quality of Audit Committee in presence of Dummy Risk Committee using Dechow and Dichev, 2002 and Teoh et al., (1998)

	FRQ <sub>pd</sub>	
<i>Intercept</i>	0.636	2.357
	(0.27)	(0.97)
<i>AudFactor</i>	-2.611***	
	(-3.49)	
<i>AudComScaled</i>		-3.192***
		(-3.09)
<i>LMVAL</i>	-1.019*	-1.076*
	(-1.66)	(-1.73)
<i>Leverage</i>	-4.576***	-4.694***
	(-2.66)	(-2.79)
<i>AuditBig</i>	-1.567	-1.50
	(-1.42)	(-1.38)
<i>ROA</i>	-0.056	-0.052
	(-0.99)	(-0.91)
<i>BM</i>	0.673**	0.691**
	(2.47)	(2.44)
<i>RavG</i>	-0.008	-0.009
	(-1.56)	(-1.43)
<i>MajIndDir</i>	3.951***	4.107***
	(3.76)	(3.09)
<i>MoreComDir</i>	1.244	1.804
	(1.02)	(1.28)
<i>DualityCEO</i>	-5.886**	-5.070*
	(-2.18)	(-1.79)
<i>GovFactor</i>	-2.480**	-2.274**
	(-2.49)	(-2.26)
<i>MCapDev</i>	0.049*	0.051*
	(1.682)	(1.67)
<i>Robust/Cluster</i>	Yes	Yes
<i>Year FE</i>	Yes	Yes
<i>N</i>	324	324
<i>N-RC</i>	130	130
<i>LM (p-value): OLS vs RE</i>	0.000	0.000
<i>LM: Chi(2)</i>	157.69	125.05
<i>Hausman (p-value): FE vs RE</i>	0.5243	0.575
<i>Sargan-Hansen statistic</i>	10.068	9.51

FRQ<sub>pd</sub>: FRQ based on Dechow and Dichev, 2002 calculated for each year in each industry; *AudFactor*: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics : qualification, majority of independence, independent chair and size; *AudComScaled* is total score of audit committee from the four characteristics divided on 4; *RC* equal 1 if a firm voluntarily adopted risk committee, otherwise 0; *Size*: natural log of firms' market value proxy for firm's size; *Leverage*: total short and long term debt over total asset; *AuditBig*: firm is reported 1 if at least one of auditor in year *t* is from the big accounting firm; *ROA*: Return of Asset, *BM*: firms' book value divided on market value; *RavGrowth*: firms' total revenue growth calculated as the difference of total revenue in year *t* and *t-1*; *MajIndDir*: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; *MoreComDir*: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; *DualityCEO*: if firm's chairman and CEO is one person 1, otherwise 0; *GovFactor*: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); *MCapDev*: country level measure calculated total stock market divided on GDP in year *t* and country *i*.

## 5. CONCLUSION

The primary purpose of this study is to enhance our understanding of internal board busyness and its effect on the qualities of corporate monitoring and financial reporting. We investigate whether the voluntary adoption of an additional monitoring committee (e.g., RC) adversely influences the board's audit committee's effectiveness (e.g., AC).

Using a unique dataset from six GCC countries, we obtain a number of interesting results. First, we find new evidence that the voluntary adoption of high quality RC has an adverse consequence on

audit committee's effectiveness through less monitoring of a firm's FRQ. Second, we find that the voluntary adoption of RC reduces AC's effectiveness. In other words, our results indicate that voluntarily adopting a Risk Committee reduces the quality of Audit Committee composition which in turn, reduces financial reporting quality. Our findings are robust after controlling for several firm-specific and country-specific factors, and using various proxies for FRQ and AC. Our conclusions remained unchanged when we use alternative models and tests.

Table 6 Panel B: Additional Analysis: Average FRQ

	FRQ <sub>Ave</sub>	FRQ <sub>Ave</sub>
<b>Intercept</b>	0.819	1.691*
	(0.97)	(1.91)
<b>AudFactor</b>	-2.166**	
	(-2.58)	
<b>AudComScaled</b>		-2.835**
		(-2.56)
<b>LMVAL</b>	-0.820**	-0.738*
	(-1.99)	(-1.83)
<b>Leverage</b>	-5.479**	-5.807**
	(-2.42)	(-2.51)
<b>AuditBig</b>	-0.117	-0.581
	(-0.22)	(-1.14)
<b>ROA</b>	-0.045	-0.051
	(-0.86)	(-0.95)
<b>BM</b>	0.719**	0.699**
	(2.38)	(2.35)
<b>RavG</b>	-0.003	-0.003
	(-1.50)	(-1.52)
<b>MajIndDir</b>	3.041***	3.293***
	(2.85)	(2.71)
<b>MoreComDir</b>	0.957	1.600*
	(1.14)	(1.75)
<b>DualityCEO</b>	-5.049***	-4.291***
	(-4.54)	(-4.94)
<b>GovFactor</b>	-0.499	-0.443
	(-0.67)	(-0.59)
<b>MCapDev</b>	0.052*	0.051*
	(1.86)	(1.85)
<b>Robust/Cluster</b>	Yes	Yes
<b>Year FE</b>	Yes	Yes
<b>N</b>	669	669
<b>N-RC</b>	250	250

FRQ<sub>Ave</sub> is average of three measures of FRQ<sub>Kothari</sub>, FRQ<sub>Jones</sub> and FRQ<sub>DP</sub>; DummyAudCom: firms recorded 1 if audit committee existed, otherwise 0; AudFactor: quality of audit committee calculated based on component factor analysis obtained from 4 characteristics : qualification, majority of independence, independent chair and size; AudComScaled is total score of audit committee from the four characteristics divided on 4; RiskFactor: AudFactor: quality of risk committee calculated based on component factor analysis obtained from 4 characteristics which are qualification, majority of independence, independent chair and size; Size: natural log of firms' market value proxy for firm's size; Leverage: total short and long term debt over total asset; AuditBig: firm is reported 1 if at least one of auditor in year t is from the big accounting firm; ROA: Return of Asset, BM: firms' book value divided on market value; RavGrowth: firms' total revenue growth calculated as the difference of total revenue in year t and t-1; MajIndDir: is firm-specific governance measure calculated if firm's has majority independent board of directors 1, otherwise 0; MoreComDir: Busyness measure if the chairman of the board is a member in at least one of the board committee 1, otherwise 0; DualityCEO: if firm's chairman and CEO is one person 1, otherwise 0; GovFactor: score obtained after factor analysis of country investor protection index (which covers extent of director liability and ease of shareholders' suit against directors and managers) and country level governance (which covers regulatory quality and control of corruption); MCapDev: country level measure calculated total stock market divided on GDP in year t and country i.

This study contributes to corporate governance literature in several important ways. First, prior studies focused primarily on investigating the effect of outside board busyness on a firm's board internal advising role, however, whether introducing voluntary monitoring RC enhances or undermines board effectiveness has not been investigated yet, despite its importance. Our study is the first to test how the voluntarily formation of an additional board monitoring committee such as the RC reduces the effectiveness of monitoring by the audit committee. Second, we theoretically introduce an interaction between signalling and busyness theories to explain how the voluntary creation of an additional monitoring committee (e.g., RC) can influence the board's effectiveness, by testing the conditional effects between the FRQ and the monitoring quality of AC in presence of RC. Third, our study investigates the interplay of relationship between the audit committee, financial reporting quality and risk management committee. Our results suggest that the internal busyness of the board monitoring sub-committee can harm shareholders' interests through increasing the oversight time of monitoring directors on the board.

In sum, we find that the busyness of board members can have a significant impact on the effectiveness of their monitoring abilities and capacity. Our findings suggest that multiple layers of monitoring capacity viz-a-viz the existence of both an audit and risk committee may impair the quality of monitoring provided by that audit committee. The implication is that the regulators need to consider directors' commitments and busyness in making rules for mandatory establishment of risk committee. In addition, firms who intend to improve their financial reporting quality should think seriously about the consequences of adding a new committee on the effectiveness of audit committee before deciding to form this new committee.

Overall, this study has implications for the corporations, regulators and investors and should attract the attention of policy makers. This study has international implications for regulators that have rules governing the existence and composition of committees. It is expected that the findings of this study would be instructive and applicable to other countries in the Middle East region, due to the similarity in their social, political and economic environment.

The study, however, has a few limitations that suggest a number of avenues for future research. First, the study focuses primarily on whether the voluntary adoption of RC adversely influences the board's audit committee's effectiveness. There are other committees that are formed by the board that may have an adverse effect on the audit committee's effectiveness which may warrant future investigation. Second, we use GCC firms in our sample. Future studies could extend the research to other countries that have similar corporate governance environments in the Middle East region. Finally, since we exclude non-financial firms from our sample, new insights may be gained by investigating these types of firms in the future.

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