

## Perceptions on the Impact of Audit Committees on Financial Reporting Quality: Evidence from Bahrain

Dr. Abdelmohsen M. Desoky<sup>1</sup>

Dr. Hussein Khasharmeh<sup>2</sup>

### Abstract:

The current study aims mainly to examine perceptions of financial managers, accountants, internal auditors and others who are working in listed companies in Bahrain on the effect of audit committees, as a new phenomenon in the Bahraini environment, upon the financial reporting quality (FRQ). To accomplish this aim, a questionnaire was developed and disseminated to a sample of 320 respondents. In addition to descriptive statistics, non-parametric tests such as the Chi-square Test, Mann-Whitney U Test and the Kruskal-Wallis Test were used as well. One of the main findings was that respondents' answers were not 'equally distributed' among the levels of agreement for each of the 26 questions included in the questionnaire and each group of questions (four groups) as probability values were significant ( $p < 0.05$ ). Other findings support that the independence of audit committees may help ensuring that management is more transparent; and there is a positive relationship between audit committees formation and earning quality. Furthermore, results of the current study are in line with prior research that revealed a positive relationship between audit committees formation and FRQ in a number of developed countries such as Canada, Australia and France. Concerning the effect of demographic variables, the Mann-Whitney U Test clearly showed that respondents' gender has no impact on their perceptions. However, Kruskal-Wallis Test showed that there are statistically significant differences in respondents' perceptions across the four groups of occupation (in 3 groups of questions); across the four groups of experience (in only 2 groups of questions); and across the four groups of education (in all groups of questions). Therefore, there is a full consensus among gender groups and some consensus among occupation and experience groups on their perceptions. The study recommended that future research is needed to investigate this issue of research in other developing countries in general and GCC countries in particular. The study also suggested that other respondent groups such as external auditors, shareholders, regulators and members of the audit committees might be included in future research.

### Keywords:

Audit committees, financial reporting quality, Bahrain listed companies, Bahrain Bourse, Central Bank of Bahrain, independence of audit committees.

<sup>1</sup> Associate Professor of Accounting, South Valley University, Egypt. Currently: Chairman of the Accounting Department, College of Business Administration, University of Bahrain, P.O. Box 32038, Kingdom of Bahrain. (The corresponding author and can be contacted at: +97336720981; E-mail: [adesoky@uob.edu.bh](mailto:adesoky@uob.edu.bh)).

<sup>2</sup> Associate Professor and Chairman of Accounting and Finance Department, College of Administrative Sciences, Applied Sciences University, Kingdom of Bahrain.

## مدى الإدراك لتأثير لجان المراجعة علي جودة التقارير المالية للشركات المسجلة في البورصة البحرينية

### ملخص البحث:

تهدف الدراسة الحالية أساسا للتعرف علي مدى إدراك المديرين الماليين والمحاسبين والمدققين الداخليين وغيرهم ممن يعملون في الشركات المسجلة في البورصة البحرينية لأثر لجان المراجعة، كظاهرة جديدة في البيئة البحرينية على جودة التقارير المالية. ولتحقيق هذا الهدف، تم تطوير وتوزيع قائمة استبيان على عينة من ٣٢٠ شملت الدراسة الحالية. بالإضافة إلى الإحصاء الوصفي، استخدمت الاختبارات اللامعلمية مثل اختبار Chi-square واختبار Mann-Whitney U وأخيرا اختبار Kruskal-Wallis. ومن أهم النتائج التي توصلت إليها الدراسة أن إجابات المشاركين في الدراسة لم تكن موزعة بالتساوي بين مستويات الاجابة على كل الأسئلة ال ٢٦ الواردة في الاستبيان من ناحية، وكل مجموعة من الأسئلة (أربع مجموعات) من ناحية أخرى. ومن ضمن النتائج أيضا أن هناك اتفاق علي أن استقلال لجان المراجعة قد يساعد في التأكد من أن الإدارة أكثر شفافية. وهناك علاقة إيجابية بين تشكيل لجان المراجعة وجودة الأرباح. وعلاوة على ذلك فإن نتائج الدراسة الحالية تتماشى مع الأبحاث السابقة والتي كشفت عن وجود علاقة إيجابية بين تشكيل لجان المراجعة وجودة التقارير المالية في عدد من الدول المتقدمة مثل كندا وأستراليا وفرنسا. بالنسبة لتأثير المتغيرات الديموغرافية، فقد أظهر اختبار Mann-Whitney U بوضوح أن نوع جنس المشاركين في الدراسة ليس له أي تأثير على تصوراتهم. ومع ذلك فقد أظهر اختبار Kruskal-Wallis الذي استخدم للمتغيرات الديموغرافية الأخرى أنه توجد فروق ذات دلالة إحصائية في تصورات المشاركين في الدراسة عبر المجموعات الأربع للوظيفة (في ٣ مجموعات من الأسئلة)؛ عبر المجموعات الأربع من الخبرة (في مجموعتين فقط من الأسئلة)؛ وعبر المجموعات الأربع للتعليم (في جميع الفئات من الأسئلة). لذلك يمكن القول بوجود توافق كامل بين مجموعات المشاركين حسب جنسهم، وبعض التوافق بين مجموعات المشاركين حسب الوظيفة والخبرة في تصوراتهم. وأوصت الدراسة أن هناك حاجة إلى إجراء بحوث مستقبلية في البلدان النامية الأخرى بشكل عام، ودول مجلس التعاون الخليجي على وجه الخصوص. واقترحت الدراسة أيضا أن فئات أخرى مثل المدققين الخارجيين والمساهمين والمنظمين وأعضاء لجان المراجعة يمكن إدراجها في البحوث المستقبلية.

### الكلمات المفتاحية:

لجان المراجعة، جودة التقارير المالية، الشركات المسجلة في البورصة البحرينية، البورصة البحرينية، بنك البحرين المركزي، استقلال لجان المراجعة.

## 1- Introduction and problem statement

Audit committees (AC) play a significant role in the implementation of corporate governance (CG) guidelines, oversee the internal and external audit performance, and give an advice to the board of directors (BoD) on audit matters. Therefore, an effective AC should improve the audit process and FRQ. The accounting literature provides empirical evidence suggesting that AC are able to reduce earnings management and consequently increase FRQ (e.g.: Bozec, ٢٠٠٧; Piot and Janin, ٢٠٠٧; Baxter and Cotter, ٢٠٠٩). Sarbanes-Oxley Act (SOX) (٢٠٠٢), the new rules of CG and the New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotation (NASDAQ) all emphasized greater independence and effectiveness for BoD and AC (Person, ٢٠٠٥).

AC are seen as a powerful tool in effective CG (Joshi and Wakil, ٢٠٠٤). According to KPMG (٢٠٠٦), there are five guiding principles for AC to play an effective role. These guides are: ١) identify that one size cannot fit all; ٢) ensure the "right" people to be included in the committee; ٣) monitor and insist on the right 'tone at the top'; ٤) make sure that the oversight process enables the committee's understanding and monitoring of key roles, responsibilities, and risks within the environment of financial reporting; and ٥) articulate and exercise the committee's direct responsibility for the external auditor.

More effective and powerful AC can help auditors confront management thus possibly improve the actual and perceived independence of auditors (Krishnamoorthy et al., ٢٠٠٢). However, AC effectiveness and their abilities to assist auditors' independence may be affected by influential management. By working together, auditors and AC can preserve and promote FRQ. Based on the recommendations provided by Blue Ribbon Committee (BRC), the New York Stock Exchange and the National Association of Securities Dealers instituted several measures to improve FRQ through enhancing AC effectiveness and stringer communications between the external auditor and AC.

Bahrain, the focus of this study, was selected because it centers the heart location among the Gulf Cooperation Council (GCC) countries, with stable political and economic environment and runs a free market economy. The current study is implemented for a number of reasons. First, the literature on the issue of AC is mostly focused on developed countries. Therefore, the current study focused on developing countries, the case of Bahrain. Second, to the best knowledge of the researchers, no such study was carried out with special reference to Bahrain. The results of the study are expected to increase knowledge about situation of AC's formation in listed companies in Bahrain and the perceptions on its impact upon FRQ. Third, it is essential to note that GCC countries, which include six countries namely Bahrain, Kingdom of Saudi Arabia, Kuwait, Oman, Qatar and United Arab Emirates, are considered key player in the global energy market in terms of production, exportation and the availability of spare capacity (ECB, ٢٠٠٨). GCC countries are sharing common characteristics such as high reliance on oil and/or gas as expressed in the portion of oil and gas revenues in total fiscal and export revenues; young and speedily increasing national labor forces; and heavy dependence on expatriate labor in the private sector (ECB, ٢٠٠٨).

In the past two decades, the accounting literature provides a considerable number of studies on AC. Most of the previous studies were carried out in developed countries (Dechow et al., ١٩٩٦; Blue Ribbon Committee, ١٩٩٩; Dezoort and Salterio, ٢٠٠١);

Abbott et al., ٢٠٠٤; Davidson and Godwin-Stewart, ٢٠٠٥; Yang and Krishanan, ٢٠٠٥; Lin et al., ٢٠٠٦; Bozec, ٢٠٠٧; Baxter and Cotter, ٢٠٠٩ and Vlamincx and Sarens, ٢٠١٥). However, little is known about this significant issue in GCC including Bahrain as one of the developing countries.

The major contribution of this study lies in the fact that it is expected to fill the gap in the accounting literature regarding perceptions on the impact of AC formation on FRQ especially as there are little published research papers directly testing this important issue in developing countries and specifically GCC countries such as Bahrain; and to have useful implications for regulators, members of the accounting profession, and users of financial reports. Providing such empirical evidence within the Bahraini environment, as a developing country and a member of GCC, may add a new dimension to the literature. The results of the current study are expected to offer valuable understanding upon the impact of AC on FRQ in developing countries like Bahrain. In addition, the findings of the current study might also help regulators of auditing services in Bahrain, other countries with similar environmental characteristics such as GCC countries in particular and other developing countries in general.

Few studies have been done in GCC countries in general and in Bahrain in particular where the capital market is not highly developed. This may be due to lack of infrastructures, lack of transparency and a more conservative approach for revealing and analyzing data pertaining to the issue of auditor independence (Joshi, et al., ٢٠٠٧). To the best of the authors' knowledge, this is the first exploratory survey conducted in Bahrain regarding perceptions on the impact of AC on FRQ of companies listed in Bahraini Bourse (BHB). It is hoped that the study will serve as guidance to the users of financial reporting in Bahrain.

Although most of the literature reviews on the impact of AC in providing effective FRQ have been conducted in developed countries and very few were accomplished in developing countries, the current study aims to address this gap by reviewing closely this issue in Bahrain. It extends the literature by exploring a number of aspects of AC practices in the Bahraini environment and also examines the impact of AC on FRQ. Therefore, the problem statement of this study may be highlighted through answering the following research questions:

١. Based on the perceptions of the four groups of respondents (financial managers, accountants, internal auditors and others), do AC have influence upon FRQ?
٢. Does respondents' background (such as gender, occupation, education and experience) affect their perceptions upon FRQ?

Accordingly, the problem statement can be highlighted from the focal point that AC play an important role in improving FRQ to the interested users (such as shareholders, creditors, lending institutions and other stakeholders) for making their decision.

The remainder of the study proceeded as follows: Section ٢ presents background about Bahrain. Section ٣ provides the related literature review and hypotheses development. Section ٤ provides the research methodology (data collection, population of the study and hypotheses). Section ٥ presents results of the study. Finally, section ٦ demonstrates the conclusions.

## ٢- Background about Bahrain

The GCC is an economic and political union of six Arab countries bordering the Arabian Gulf, namely Kingdom of Bahrain (Bahrain), Kingdom of Saudi Arabia,

Kuwait, Qatar, Saltant of Oman (Oman), and United Arab Emirates. Members of the GCC are developing from a regional bloc to a confederacy. The current research is based on one member of GCC, namely Bahrain which is seen as a financial capital of the Middle East. Bahrain characterized by a geographical and time-zone location mid-way between the Asian market from one side and the European markets from the other. It has launched a wide range of economic initiatives aiming at varying the economy and stimulating growth and economic stability. Bahrain constitutes a vital member of GCC and shares these economic characteristics with other GCC. In addition, listed companies are subject to nearly similar disclosure requirements. Companies' Acts in GCC countries require all companies to submit their annual reports which should be prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). This gives the current study special importance as GCC countries are expected to benefit from its results.

Bahrain performed much effort to create the right climate to attract more foreign investment in order to ensure sustainable growth and to create increased employment opportunities. The 2013 Index of Economic Freedom states that Bahrain is placed as the first in the Middle East and North Africa (MENA) area and ranked as 12 in the world rank (The Heritage Foundation, 2013). By 2002, the Central Bank of Bahrain (CBB) was responsible for legislative and regulatory issues of BHB replacing the Ministry of Commerce which was the body to regulate and supervise all the bourse's activities.

BHB was established as a shareholding company according to Law No. 60 for the year 2010 replacing Bahrain Stock Exchange that was established in 1987 according to Amiri Decree No. 4. The Exchange formally started operations in June 1989. The Corporate Governance Code (CGC) in Bahrain, which has been issued by CBB and effective since 2011, intends to make the Corporate Governance (CG) practices transparent and understandable for both local and foreign investors in a well liberalized and more transparent economic system. The CGC was based on on the Organization of Economic Cooperation and Development (OECD)'s CG principles and was developed via a consultative process with stakeholders in Bahrain and a number of international experts (CBB, 2011).

The CGC in Bahrain applies to all companies which are incorporated under the Bahrain Companies Law and whose shares are listed on the BHB. Nevertheless, the Code might also play as a reference framework for other unlisted Bahraini companies and foreign companies working in Bahraini environment (CBB, 2011). It assists to improve the FRQ. Improving the FRQ has been cited as one of the key benefits for the companies to establish audit committees (Blue Ribbon Committees, 1999). Given the importance of AC, the Bahraini Code of CG requires all listed companies in Bahrain to have AC. In this regards, Principle 3 of the Bahraini CGC stated that:

“The board shall establish an audit committee of at least three members which, as required under Article 6.63 of the Company Law, shall include the company's independent directors and shall review the company's accounting and financial practices, review the integrity of the company's financial 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” (CBB, 2011, p. 10).

Listed companies in BHB are required to comply with IFRS, while audit firms must comply with the International Standards on Auditing - ISA (Al-Ajmi, ٢٠٠٩). According to the Bahrain Accountants Association - BAA, which is a private and one of the oldest associations in the area, its members are required to comply with a number of laws and regulations among them Bahrain Audit Law of No. ٢٦ of ١٩٩٦, Rule Books/Disclosure Standards as issued by the Central Banks of Bahrain - CBB (IFAC, ٢٠١٦). This compliance is monitored by Ministry of Industry, Commerce and Tourism (MOIC) and CBB.

According to article (٢٠٥) paragraph (e) of the Bahrain Commercial Companies Law (CCL) number ٢١ of ٢٠٠١, auditors' appointment should be made on an annual basis at the firm's general meeting. However, practically, the boards of directors (BoD) have the power to select and to determine the remuneration of the external auditor through the annual meetings.

### ٣- Literature review and hypotheses development:

The review of the related literature can assist in the formulation of research hypotheses and the formation of a related research methodology for accomplishing a research. Concerning the formation of AC, the accounting literature provides several studies which have been conducted in the area of AC. They suggested that the significance of AC is seen as part of corporation accountability and transparency expected to serve as the watchdog of stakeholder interests (Blue Ribbon Committee, ١٩٩٩). Prior research has revealed a positive relationship between AC formation and FRQ. For instance, in Canada, Bozec (٢٠٠٧) reported that earnings management was reduced consequently increasing FRQ when an audit committee is formed. Also, in Australia, Baxter and Cotter (٢٠٠٩) reported that earnings management was reduced and the quality of earnings improved after the formation of AC. They used two models to measure the quality of earnings based on Jones (١٩٩١) model and Dechow and Dichev (٢٠٠٢) model. Similar results were revealed in France by Piot and Janin (٢٠٠٧). Moreover, Dechow et al. (١٩٩٦) revealed that firms having AC are less likely to manipulate earnings and are more likely to voluntarily present financial information. Furthermore, it was declared that there is a significant increase in market response to earnings reports released after the formation of AC (Wild, ١٩٩٦; Ho and Wong, ٢٠٠١).

A number of previous studies found that independent members of AC are more objective and less probable to administer possible deficiencies in the manipulation of financial reports (Abbott et al., ٢٠٠٤; Davidson and Godwin-Stewart, ٢٠٠٥; Yang and Krishnan, ٢٠٠٥; and Baxter and Cotter, ٢٠٠٩). However, other studies concluded that the mere establishment of AC does not automatically mean better FRQ (Kalbers and Fogarty, ١٩٩٣; Menon and Williams, ١٩٩٤). In Bahrain, Joshi and Wakil (٢٠٠٤) conducted a study to examine the functioning of AC and found that size, type of auditors and industry type influence the establishment of AC in Bahrain. The study indicated that the establishment of AC has been slow yet.

Moreover, the accounting literature indicated that independence of AC may help ensuring that management is transparent and will be held accountable to stakeholders (Treadway Commission, ١٩٨٧; Cadbury Committee, ١٩٩٢; Blue Ribbon Committee, ١٩٩٩). Concerning the impact of AC independence on FRQ, Vlaminck and Sarens (٢٠١٥) provided empirical evidence from Belgium and concluded that the independence

of AC is positively and significantly associated with financial statement quality. They used discretionary accruals measured by earning management. Further, Beasley et al. (2000) found that AC independence is significantly related to FRQ since financial statement fraud is more likely to happen in firms with less AC independence.

Deli and Gillan (2000) reported that AC serve as reinforcing agents to the independence of both internal and external auditors, AC are expected to be more effective in the oversight of financial reporting when they are independent. Xie et al. (2003) pointed out that the more independent AC is argued to provide better governance compared to less independent AC. In the US, after Congress pass the Sarbanes Oxley Act (SOX) in 2002, AC in the US must comprise completely of independent members to pre-approve audit and non-audit services and to set procedures for handling complaints related to accounting and auditing issues.

According to Daliwal et al. (2006), effective independent AC are seen as one of the determinants of audit quality. The OECD (2004) outlined the importance of audit committee in enhancing audit quality. Dezoort and Salterio (2001); Abbott et al. (2004); Yang and Krishnan (2005) and Lin et al. (2006) found a positive relationship between audit quality from one side and the effectiveness of AC from the other. Similarly, Krishnan (2005) reported that there is a positive association between AC independence and the quality of internal control prior to the enactment of SOX. On the other hand, Habash (2011) reported a significant association between independent AC and earnings management. However, Waweru and Riro (2013) reported that independence of AC is not significantly associated with earnings management. Soliman and Ragab (2014) found that audit committee independence have significant negative association with earnings management. Other studies reported that the role of AC in strengthening and overseeing the audit process is not significant (Carcello et al., 2002). Further, Xie et al. (2003) found no significant relationship between the level of discretionally accruals and independent audit committee. Also, (Lin et. al., 2006) concluded that there is no association between AC having independent members and earnings restatement. The contradictory findings of these previous studies are expected, because the mere existence of the AC, without ensuring its independence and competence, cannot assure the efficiency of the monitoring process, or its ability to detect and reduce earnings management. For instance, more than 10 years ago, Joshi & Wakil (2004) have documented that the concept of independent audit committee is yet to be popularized in Bahrain.

Concerning the effect of AC expertise upon FRQ, a number of prior studies reported the availability of a significant association between the expertise of the audit committee and FRQ. For instance, Kamolsakulchai (2010) investigated the impact of AC effectiveness and audit quality on FRQ in Thailand and concluded that AC effectiveness had a significantly positive association with FRQ. Correspondingly, Abbott et al., (2004) revealed that the financial expertise of AC is related with a higher FRQ. Also, DeFond et al. (2005) concluded that there is a positive market reaction to the appointment of accounting and financial experts in AC. Moreover, Daliwal et al., (2010) reported a positive relationship between the existence of accounting and financial experts in AC and FRQ. In general, many previous studies argued that AC members' knowledge/expertise or experience is related to effective functioning of AC (Bedard and Chouteau, 2004; McDaniel et al., 2002; Beasley and Salterio, 2001 and

DeZoort and Salterio, ٢٠٠١). Conversely, other studies found no significant association between financial expertise and FRQ when measured as the level of earnings management (Yang and Krishnan, ٢٠٠٥ and Lin et al., ٢٠٠٦).

The number of meeting of AC is another issue that has been indicated in the literature to have an impact upon FRQ and seen as an indicator of AC effectiveness. It has been concluded that financial statements users view fewer number of meetings as an indicator of less commitment and insufficient time to check the financial reporting process. It was argued that the number of AC meetings as a proxy of AC activity is negatively associated with levels of earnings management (Xie et al., ٢٠٠٣). Similar results were reported by Metawee (٢٠١٣) and Soliman and Ragab (٢٠١٤) who found that the number of meetings of AC has significant negative association with earnings management.

Members of AC who meet frequently are often expected to be able to achieve monitoring tasks more effectively than otherwise. In this regards, Bryan et al. (٢٠٠٤) suggested that AC which meet frequently improve the transparency and openness of reported earnings and therefore improve earnings quality. Similar finding was reported by Zhang et al. (٢٠٠٧) who found positive association between regular meetings of AC and FRQ. Even so, other studies found a negative association between the number of meetings of AC and earnings management (Vafes, ٢٠٠٥). Bedard et al. (٢٠٠٤); Davidson et al. (٢٠٠٥) and Lin et al., (٢٠٠٦) found no positive association between the frequency of AC' meetings and FRQ.

The size of AC and its role as an effective mechanism for monitoring and controlling financial reporting is another point to be highlighted. The accounting literature provides evidence on the significant positive impact of the size of AC on its effectiveness and on FRQ. For instance, Kamolsakulchai (٢٠١٥) found that as the size of AC increased, FRQ measured by earning management was enhanced. However, other studies found that smaller number of BoD may be less encumbered with bureaucratic problems. Anderson et al., (٢٠٠٤) concluded that large board can devote more time and resources to monitor the financial reporting process and the internal control systems. This might support that an increase in the size of AC enables members to distribute the work load and commit more time and resources to monitor management and detect fraudulent behavior.

In the light of various findings drawn from previous studies, together with what has been discussed earlier, several comments about the empirical evidences of the previous studies can be presented. These comments help to differentiate the current study from earlier related research. First, it is clear that there is no rich empirical evidence in support or against the impact of AC (formation, size, number of meetings, expertise, and independence of AC) upon FRQ. Accordingly, there is a need to research this significant issue further especially in the GCC area including Bahrain which started to mandate all listed companies to have AC. Thus, the current study aims at partially filling this gap in the accounting literature. Second, most of previous studies focused on developed countries (e.g.: Dechow and Dichev, ٢٠٠٢; Abbott et al., ٢٠٠٤; Davidson and Godwin-Stewart, ٢٠٠٥; Yang and Krishnan, ٢٠٠٥; Bozec, ٢٠٠٧; Baxter and Cotter, ٢٠٠٩; Waweru and Riro, ٢٠١٣; and Vlaminck and Sarens, ٢٠١٥) and little is known about the issue in the GCC area including Bahrain in comparison to in developed

countries. Third, most previous studies measured of FRQ via earnings management (Xie et al., ٢٠٠٣; Yang and Krishnan, ٢٠٠٥; Bozec, ٢٠٠٧; Baxter and Cotter, ٢٠٠٩; Metawee, ٢٠١٣; Waweru and Riro, ٢٠١٣; Soliman and Ragab; and Vlaminc and Sarens, ٢٠١٥), however, the current study uses different research strategy, the survey research, through a questionnaire as a data collection tool. This is due to the current study aims to investigate perceptions of four groups working in listed companies in Bahrain on the effect of audit committees, as a new phenomenon in the Bahraini environment, upon FRQ.

Based on the literature review and the theoretical background, a number of research hypotheses were formulated. Empirically testing the research hypotheses may help to achieve the main objectives of this study. They are as follows:

- H<sup>١</sup>. The formation of AC is significantly associated with FRQ.
- H<sup>٢</sup>. The independence of AC is significantly associated with FRQ.
- H<sup>٣</sup>. The expertise of AC is significantly associated with FRQ.
- H<sup>٤</sup>. The frequency of meeting of AC is significantly associated with FRQ.
- H<sup>٥</sup>. The size of AC is significantly associated with FRQ.
- H<sup>٦</sup>. Respondents' gender affects their perceptions on the impact of AC on FRQ.
- H<sup>٧</sup>. Respondents' occupation affects their perceptions on the impact of AC on FRQ.
- H<sup>٨</sup>. Respondents' education affects their perceptions on the impact of AC on FRQ.
- H<sup>٩</sup>. Respondents' experience affects their perceptions on the impact of AC on FRQ.

#### ٤- Research methodology

Several strategies, which are considered as general plans of how the researcher(s) will go concerning answering the research questions or testing the hypotheses, can be followed. A decision on the relevant strategy from the variety of alternative strategies should be made. Saunders et al. (٢٠١٢) reported several strategies, some of which clearly belong to the deductive approach while others belong to the inductive one. Among these strategies are survey, case study, experiment, action research, grounded theory, and ethnography. Since the main aim of the current study is to investigate perceptions on the impact of AC upon FRQ, it would be difficult to conduct the research other than the strategy of survey, as the data sources are persons themselves, rather than any other source. So the survey strategy was chosen to conduct this research. Survey is defined as "a procedure in which information is collected systematically about a set of cases (such as people, organizations, objects)" (Thomas, ١٩٩٦, p. ١١٥). Therefore, questionnaire surveys are the most frequently used method of collecting data in such a type of research.

##### ٤-١ The questionnaire design:

A questionnaire was designed and pre-tested to gather the data needed for answering questions and testing hypotheses stated earlier (a copy of the questionnaire is ready upon request from the correspondent author). In General, the main difficulty often met by researchers using the questionnaire as a data collection method is the poor response rates. In this study, every possible effort was made, in both the questionnaire design and questionnaire distribution and collection stages, to make the response rate as high as possible. When a study is applied in local areas and/or the researcher is able to

assemble groups of respondents to response to the questionnaire, for the case of the current study, administering the questionnaire personally is the best way of data collection. (Ibert et al., ٢٠٠١; Sekaran, ٢٠٠٦).

The questionnaire was tested for the reliability to check the internal consistency, as a method of assessing the reliability of the instrument or the scales used in the study. Cronbach's Alpha is considered the best known and most frequently used test of internal consistency (Sekaran, ٢٠٠٦). As noted by Pallant (٢٠١٣), ideally, the Cronbach alpha coefficient of a scale should be above ٠.٧. Sekaran (٢٠٠٦) stated that in general reliability less than ٠.٦٠ is considered to be poor, those in the ٠.٧ range, are acceptable, and those over ٠.٨ are good. This means that whenever the coefficient above ٠.٧, the scale can be considered reliable with the sample. In the current study, Cronbach's Alpha coefficient was ٠.٨٠١ and is considered high. This means that the scale could be considered reliable with the sample.

## ٤-٢ Sample size and selection

In the light of the main objective of the current study, four groups of respondents were selected in this survey namely "Financial managers", "Accountants", "Internal auditors" and "Others". Financial managers are the agent of the principal, who conduct business on behalf of the principal, hence, requires a monitoring mechanism (i.e., an auditor) to report on their performance (Jensen and Meckling, ١٩٧٦), and on this basis, financial managers' perceptions on the current topic are valuable to the study. Accountants are directly involved in providing credible information and their perceptions are also considered valuable to the study. Internal auditors were selected because of their important role in providing credible information to various stakeholders (Humphrey, ١٩٩٧). Others mostly include persons such as customer relations and other staff working in listed companies with business background which help them to understand the issue of the study.

After developing the questionnaire, the sample was personally contacted and the questionnaire was distributed. The sample size is determined by many factors such as funds, time, access to potential participants, planned methods of analysis, the degree of precision and accuracy required (De Vaus, ٢٠٠١). Saunders et al. (٢٠١٢) suggested a formula to estimate the actual sample size which requires two main factors to be estimated: (١) the likely response rate, and (٢) the minimum or the adjusted minimum sample size. The suggested formula is as follows:  $n^a = (n \times ١٠٠) / re\%$ . Where  $n^a$  is the actual sample size required,  $n$  is the minimum (or the adjusted minimum) sample size, and  $re\%$  is the estimated response rate expressed as a percentage (Saunders et al., ٢٠١٢).

Consequently, a total of ٢٠٠-٢٦٠ respondents was considered to be an acceptable minimum sample size and a response rate between ٦٥% and ٨٠% was expected. It should be noted that these response rates are based on personal administration of the questionnaires. Thus, the sample size could be computed as follows:  $n^a = (٢٠٠ \times ١٠٠) / ٧٠ = ٢٨٦$  respondents. Therefore, ٣٢٠ questionnaires were distributed to allow for unexpected circumstances. By end of ٢٠١٥, the number of listed companies in BHB was ٤٦ companies (BHB, ٢٠١٥) and the questionnaire was distributed in most of the ٤٦ listed companies during September and October ٢٠١٥. Distributions of the questionnaires and response rates are shown in Table ١ below which shows that a total of ٣٢٠ questionnaires were distributed and ٢٥٥ questionnaires were received. Sekaran (٢٠٠٦)

suggested that “If a substantial number of questions - say, ٢٥ percent of the items in the questionnaire, have been left unanswered, it may be advisable to exclude them from analysis”, so, ٨ incomplete and unusable questionnaires were excluded from the analysis. This means that the final usable questionnaires were ٢٤٧ representing ٧٧.٢%.

**Table ١: Distribution of the questionnaires and response rates**

<i>Respondents</i>	<i>No. of QD</i>	<i>No. of QR</i>	<i>No. of IQ</i>	<i>No. of UQ</i>	<i>% of UQ</i>
Financial managers	٤٠	٣١	٠	٣١	٧٧.٥*
Accountants	١٠٠	٨٢	٢	٨٠	٨٠.٠*
Internal auditors	٨٠	٦١	٢	٥٩	٧٣.٣*
Others	١٠٠	٨١	٤	٧٧	٧٧.٠*
<b>Total</b>	<b>٣٢٠</b>	<b>٢٥٥</b>	<b>٨</b>	<b>٢٤٧</b>	<b>٧٧.٢**</b>

\* Percentage of UQ to QD of each group of respondents; \*\* Percentage of total UQ to total QD.

Note: QD = Questionnaire Distributed; QR = Questionnaire Received; IQ = incomplete Questionnaire; and UQ = Useable Questionnaire.

### ٤-٣ Data Analysis

In this survey, two different levels of data analysis namely the overall sample and the various sub-groups (based on demographic variables) were carried out in the analysis. Four demographic variables namely respondents' gender, occupation, experience and education were used. The Statistical Package for Social Science (SPSS) was used to analyze the data collected. Both descriptive statistics and some statistical analyses (non-parametric tests such as the Chi-square Test, the Mann-Whitney U Test and the Kruskal-Wallis Test) were utilized. The purpose was to test for significant differences for the overall sample (respondents' choice of answers on their perceptions) and between various sub-groups based on demographic variables.

### ٤-٤ Data collection

The current study used a questionnaire to gather information from the sample of the study on audit committees and FRQ. The questionnaire consists two sections: Section A: contains demographic information about the respondents; Section B: contains ٢٦ questions divided over ٤ groups related to the research topic. These groups are:

Group ١: Formation of AC;

Group ٢: Independence of AC;

Group ٣: Effect of AC expertise upon financial statement quality;

Group ٤: AC meetings and size.

Table ٢ below includes details on the ٢٦ questions in section ٢ of the questionnaire. These questions were measured by using a ٥-point Likert scale ranging from ١ to ٥, where ١ refers to strongly disagree and ٥ refers to strongly agree. One open-ended question was also asked to gather the views of the respondents on the issue of the study.

Table ٢: Details on the four groups of questions used in the current survey:

	No	Question
Group ١	١.	AC are seen as part of corporation accountability and transparency expected to serve as the watchdog of stakeholder interests.
	٢.	There is a positive relationship between AC formation and earning quality.
	٣.	Earnings quality is supposed to increase after the year of AC formation.
	٤.	Firms with AC are less likely to manipulate earnings and are more likely to voluntarily disclose information.
Group ٢	٥.	There is a significant increase in market response to earnings reports released after AC formation.
	٦.	Independence of AC may help ensuring that management is more transparent.
	٧.	Independent members of AC will be more objective and less likely to overlook possible deficiencies in the misappropriation and manipulation of financial reporting.
	٨.	Independence of AC increases with board size.
	٩.	Independence of AC increases with board independence.
	١٠.	AC independence is significantly related to FRQ since financial statement fraud is more likely to happen in firms with less audit committee independence.
	١١.	There is a positive relationship between AC independence and the quality of internal control.
Group ٣	١٢.	Independence of AC is related to company size.
	١٣.	Independence of AC is related to company profitability.
	١٤.	Independence of AC is related to industry type of a company.
	١٥.	There will be a positive market reaction to appointing accounting and financial experts as members of the company AC.
	١٦.	AC that have financial expertise have greater interaction with their internal auditors.
	١٧.	AC are more likely to understand external auditors and support the auditors in conflict situations with management.
	١٨.	There is a positive stock price reaction when new members of AC have accounting or financial expertise.
Group ٤	٢٠.	There is no relation between financial expertise and FRQ measured as the level of earnings management.
	٢١.	The number of AC meetings is an indicator of their effectiveness.
	٢٢.	Users of financial reports perceive fewer meetings as an indicator of less commitment and insufficient time to oversee the financial reporting process.
	٢٣.	Increased AC activity as proxies by the number of committee meetings is associated with reduced levels of management earnings.
	٢٤.	AC that meet regularly improve the transparency and openness of reported earnings and thus improve earnings quality.
	٢٥.	There is a positive relation between regular meetings of AC members and FRQ.
	٢٦.	Having a small number of board members improves the efficiency of AC monitoring and control.
	٢٧.	An increase in AC size enables members to distribute the work load and commit more time and resources to monitor management and detect fraudulent behavior.

## ٥- Results

### ٥-١ The sample description

Table ٣ below provides a description of the sample. According to their gender, respondents were grouped into two groups: "Male" and "Female". As can be seen from the table, of the ٢٤٧ respondents, there were ١٥٨ male respondents (٦٤ %) and ٨٩ female respondents (٣٦ %). Concerning their occupation, respondents were grouped into four groups: "Financial managers", "Accountants", "Auditors" and "Others" representing ١٢.٥%, ٣٢.٤%, ٢٣.٩%, and ٣١.٢% respectively. Respondents were grouped into four groups of experience: "Less than ٥ years", "٥ < ١٠ years", "١٠ < ١٥ years", and "More than ١٥ years" representing ٢٦.٧%, ٣٨.٥%, ٢١.٨%, and ١٣.٠% respectively. This

information might reflect the relative “youthfulness” of the Bahraini stock market staff as ٦٥.٢% of respondents are with experience of less than ١٠ years. In accordance with the level of education, respondents were grouped into four groups: “Below BSc”, “BSc”, “Master or PD”, and “PhD”. This information shows that ٧٩.٤% of respondents are with higher qualification, Bachelor Degree “BSc” or higher, meaning that respondents seem to be able to provide valuable information that may positively affect the results of the study.

**Table ٣: Details of usable questionnaire in sample groups**

Gender		Occupation		Experience		Education	
Variable	No. %*	Variable	No. %*	Variable	No. %*	Variable	No. %*
Male	١٥٨ ٦٤	Fin. managers	٣١ ١٢.٥	Less than ٥ y	٦٦ ٢٦.٧	Below BSc	٥١ ٢٠.٦
Female	٨٩ ٣٦	Accountants	٨٠ ٣٢.٤	٥ < ١٠ y	٩٥ ٣٨.٥	BSc	١٢٦ ٥١.٠
		Auditors	٥٩ ٢٣.٩	١٠ < ١٥ y	٥٤ ٢١.٨	Master or PD	٦٨ ٢٧.٦
		Others	٧٧ ٣١.٢	More than ١٥ y	٣٢ ١٣.٠	PhD	٢ ٠.٨
Total	٢٤٧ ١٠٠		٢٤٧		٢٤٧ ١٠٠		٢٤٧ ١٠٠

Note: PD = Professional Degree; \* = Percentage of UQ in a specific group to total UD of the groups.

### ٥-٢ Descriptive statistics and Chi-square results (the whole sample)

Descriptive statistics related to the purpose of audit (question ٦); who is authorized to select the audit firm (question ٧); and having an audit committee (question ٨) are provided in Tables ٤. Concerning question ٦ (section one of the questionnaire) which is about the purpose of the audit, If the company is audited by one of the big four audit firms, Table ٤ shows that ٨١ (٣٢.٨%) of respondents considered “Request by a bank” as the first reason followed by “Preparation for public listing” as second with ٧٥ respondents representing ٣٠.٤%. Respondents believed that other reasons, “Interest of shareholders” and “Interest of the management”, are with lower importance to be a reason for a company to be audited by one of the big four audit firms. The above results were expected because the Big Four audit firms assumed to have a strong presence in Bahrain; and companies in Bahrain are legally requested to have their financial reports audited at reasonable fee without compromising audit quality.

Table ٤ below shows results on question ٧ (section one of the questionnaire) which asks about “Who is authorized to select the audit firm”. It is clear that more than half of respondents, ١٢٩ representing ٥٢.١% of the total number of respondents, selected “Audit committee” as authorized to select the audit firm. Other respondents, ٧٦ representing ٣٠.٨%, considered “BoD” is authorized to select the audit firm. Other selections in question ٧ were of lower perceptions, for instance, only ٧.٣% saw that “CEO” is authorized to select the audit firm. These results indicate that in most listed companies, the selection of the audit firm could be done by AC. This is coinciding with what is required by the Bahraini CGC.

**Table 4: Descriptive statistics of questions ٦, ٧ and ٨**

(Q ٦) Purpose of audit	No.	%	(Q ٧) Who is authorized to select the audit firm	No.	%	Having an audit committee	No	%
Request by a bank	٨١	٣٢.٨	BoD	٧٦	٣٠.٨	Yes	٢٤٧	١٠٠
Preparation for public listing	٧٥	٣٠.٠	CEO	١٨	٠.٧.٣	No	٠	٠
Interest of shareholders	٣٨	٤	General manager	١٢	٠.٤.٩			
Interest of the Management	٤٦	١٥.٤	Audit committee	١٢٩	٥٢.١			
Other	٧	١٨.٦	Lending bank	١٢	٠.٤.٩			
		٠.٢.٨						
Total	٢٤٧	١٠٠	Total	٢٤٧	١٠٠	Total	٢٤٧	١٠٠
	٧							

Moreover, Table 4 provides results on question ٨ (section one of the questionnaire) asking about “Does your company have an audit committee”. All respondents, ١٠٠% of the ٢٤٧ selected “Yes” and none of them selected “No”. This result indicates that most listed companies complied with what was recommended by the Bahraini CGC that requires all listed companies in Bahrain to have AC.

As mentioned earlier (see ٤.٤ above), section two of the questionnaire includes ٢٦ questions divided over four groups concerning: Formation of AC (Group ١); Independence of AC (Group ٢); Effect of AC expertise upon financial statement quality (Group ٣); and AC meetings and size (Group ٤). To test if any one choice of answer for each question or each group of questions was favoured significantly more than others, the Chi-square for one sample was used. Table ٥ and ٦, below, reveal the results of this test. Both tables show that the probability value for each of the ٢٦ questions and each group of questions is significant ( $p < ٠.٠٥$ ), so it is possible to say that respondents' answers were not ‘equally distributed’ among the choices of each question or each group of questions.

For instance, Table ٥ shows the mean, standard deviation, chi-square results of respondents' answers for each of the ٢٦ questions. In general, all of the ٢٦ questions, except questions ١٣ and ١٤, have mean score above ٣.٠٠. For the purpose of this study, it is supposed that any question with a mean score more than ٣ refers to the importance or the high agreement on the question. The standard deviations of all of the ٢٦ questions are less than half of the mean score for each which refers that there is no notable dispersion among respondents' perceptions regarding all questions.

Moreover, it shows that of the ٢٦ questions, ٤ questions (questions ٦, ٧, ١ and ٢) have mean scores of more than ٤.٠٠ meaning that respondents either agree or strongly agree on these ٤ questions. For instance, question ٦, Independence of audit committee may help ensuring that management is more transparent, has the highest mean score of ٤.٢٨ with a standard deviation of .٧٦٢. Also, question ٧, Independent members of audit committee will be more objective and less likely to overlook possible, has a high mean

score of ٤.٢٣ with a standard deviation of .٨٧٢. These results are expected and consistent with what was indicated in the accounting literature by Treadway Commission, ١٩٨٧; Cadbury Committee, ١٩٩٢; Blue Ribbon Committee, ١٩٩٩ who concluded that independence of audit committee may help ensuring that management is transparent and will be held accountable to stakeholders. Furthermore, the above results are in line with what was revealed by Abbott et al. (٢٠٠٤) who suggested that independent members of AC will be more objective and less likely to overlook possible deficiencies in the misappropriation and manipulation of financial reporting.

**Table ٥: Descriptive statistics and Chi-square results for each question (the overall sample)**

Questions	N	Mini.	Maxi.	Mean	Std.	Chi-Squar	df	Asymp. Sig.
<i>Deviation</i>								
<b>Group ١: Formation of audit committee</b>								
Q١	٢٤٧	١	٥	٤.١٦	.٩٨٧	١٨٧.٤٠٦	٤	.٠٠٠
Q٢	٢٤٧	١	٥	٤.٠٩	١.٠٢٨	١٢٤.٧١٥	٤	.٠٠٠
Q٣	٢٤٧	١	٥	٣.٦٣	١.٠٠٤	١٣٢.٤٢٦	٤	.٠٠٠
Q٤	٢٤٧	٢	٥	٣.٨٢	.٩٥٢	٣٧.٨٥٩	٣	.٠٠٠
Q٥	٢٤٧	١	٥	٣.٤٩	١.٠٧٤	١٤٧.٢٨٥	٤	.٠٠٠
<b>Group ٢: Independence of audit committee</b>								
Q٦	٢٤٧	٢	٥	٤.٢٨	.٧٦٢	١٤٧.٧٧١	٣	.٠٠٠
Q٧	٢٤٧	١	٥	٤.٢٣	.٨٧٢	٢١٩.٦٥٥	٤	.٠٠٠
Q٨	٢٤٧	١	٥	٣.٥١	١.٠٢٤	١٠٦.٢٨١	٤	.٠٠٠
Q٩	٢٤٧	١	٥	٣.٩٥	.٨٢٤	٢٢٠.٧٧٩	٤	.٠٠٠
Q١٠	٢٤٧	١	٥	٣.٤٥	.٩٢٤	١٥٦.٦٤٣	٤	.٠٠٠
Q١١	٢٤٧	١	٥	٣.٩٠	١.٠٨١	١٣٩.٣٧٣	٤	.٠٠٠
Q١٢	٢٤٧	١	٥	٣.٠٦	١.١٣٦	٥٠.٧٧٩	٤	.٠٠٠
Q١٣	٢٤٧	١	٥	٣.٧٨	١.٢٢٠	٤٧.٨٨٨	٤	.٠٠٠
Q١٤	٢٤٧	١	٥	٣.٢٩	١.٢٨٧	٤٣.٩٥٢	٤	.٠٠٠
<b>Group ٣: Effect of audit committee expertise upon financial statement quality</b>								
Q١٥	٢٤٧	١	٥	٣.٥٩	.٩٦٧	١٣٢.٧٨٧	٤	.٠٠٠
Q١٦	٢٤٧	١	٥	٣.٥٨	.٨٤٩	١٦٩.٠١٢	٤	.٠٠٠
Q١٧	٢٤٧	١	٥	٣.٨٦	.٩٠٤	١٥٨.٨٩٢	٤	.٠٠٠
Q١٨	٢٤٧	١	٥	٣.٣٧	.٩٥٤	١٠٣.٤٦٦	٤	.٠٠٠
Q١٩	٢٤٧	١	٥	٣.٠٠	١.١٩٥	٦٣.٧٩١	٤	.٠٠٠
<b>Group ٤: Audit committee meeting and its size</b>								
Q٢٠	٢٤٧	١	٥	٣.٤٣	١.٠٣٣	١١٠.٦١٨	٤	.٠٠٠
Q٢١	٢٤٧	١	٥	٣.٣٦	.٨٦٩	١٨٧.٦٤٧	٤	.٠٠٠
Q٢٢	٢٤٧	١	٥	٣.١٣	١.٠٩٢	٨٩.٧٣٥	٤	.٠٠٠
Q٢٣	٢٤٧	١	٥	٣.٦٦	.٩٦٩	١٣٩.٤٩٨	٤	.٠٠٠
Q٢٤	٢٤٧	١	٥	٣.٢٦	١.٠٩٩	٩١.٠٢٠	٤	.٠٠٠
Q٢٥	٢٤٧	١	٥	٣.٠١	.٩٦٩	١٠٦.٦٠٢	٤	.٠٠٠
Q٢٦	٢٤٧	١	٥	٣.٣٤	.٩٩٢	١٠٣.٥٥٠	٤	.٠٠٠

The other ٢ questions of high mean scores, questions ١ and ٢, are related to the formation of AC. Questions ١, Audit committee is seen as part of corporation accountability and transparency expected to serve as the watchdog of stakeholder interests, has a high mean score of ٤.١٦ with a standard deviation of .٩٨٧; and question ٢, there is a positive relationship between audit committee formation and earning quality, has a high mean score of ٤.٠٩ with a standard deviation of ١.٠٢٨. This is consistent with what was suggested by Blue Ribbon Committee (١٩٩٩) that the significance of AC is seen as part of corporation accountability and transparency expected to serve as the watchdog of stakeholder interests. Also, the above results are in agreement with prior

research that revealed a positive relationship between AC formation and FRQ in a number of developing countries such as Canada (Bozec, ٢٠٠٧), Australia (Baxter and Cotter, ٢٠٠٩), France (Piot and Janin (٢٠٠٧).

Of the total of ٢٦ questions, only ٢ have low mean scores which are less than ٣.٠٠. Question ١٤, Independence of audit committees is related to industry type of a company, has the lowest mean score of ٢.٦٩ with the highest standard deviation of ١.٢٨٧; and question ١٣, Independence of audit committees is related to company profitability, has a low mean score of ٢.٧٨ with a high standard deviation of ١.٢٢. This result is acceptable as the Bahraini CGC require all listed companies in BHB to have AC regardless of their industry, profitability or any other factors. Other questions have moderate mean scores ranging from ٣.٠٠ to ٤.٠٠.

Besides, Table ٦ reveals the results of the statistical analysis for each of the ٢٦ questions using Chi-Square. It shows that values of Chi-square for all questions were significant at ( $p < ٠.٠٥$ ). Consequently, it can be concluded that respondents' answers for each question were not equally dispersed among the different levels of agreement.

Similar to what was presented in Table ٥; Table ٦ shows averages of the mean score, standard deviation, Chi-square of respondents' answers for each of the ٤ groups of questions. It shows that the average mean score is above ٣ for all groups; however, the first five questions on formation of AC (Group ١) have the highest mean score of ٣.٨٤ with a standard deviation of ٠.٦٠٦ followed by the second group of questions on independence of AC (Group ٢) as second having a mean score of ٣.٥٤ with a standard deviation of ٠.٥٤٨. Other groups of questions on the effect of AC expertise upon financial statement quality (Group ٣); and AC meetings and size (Group ٤) have mean score of ٣.٤٨ and ٣.٣١ with standard deviations of ٠.٥٢٢ and ٠.٥٩١ respectively. Based on the above results from Chi-square Test in Tables ٥ and ٦, it is possible to conclude that respondents' selection of answers were not equally distributed among the different levels of agreement for almost all of the ٢٦ questions (for ٢٤ question of ٢٦) and all of the four groups of questions, Group ١, ٢, ٣ and ٤. Accordingly, the first five hypotheses ( $H^1$ ,  $H^2$ ,  $H^3$ ,  $H^4$  and  $H^5$ ) formulated earlier are accepted and the alternative ones are rejected.

**Table ٦: Descriptive statistics and Chi-square results of the four groups of questions (the overall sample)**

Groups of Q	N	Mean	Std. Deviation	Chi-Square	df	Asymp. Sig.
Group ١ (Q ١-٥)	٢٤٧	٣.٨٤	.٦٠٦	٢٣٤.٤٠	١٧	.٠٠٠
Group ٢ (Q ٦-١٤)	٢٤٧	٣.٥٤	.٥٤٨	١٥٧.٧١	٢٥	.٠٠٠
Group ٣ (Q ١٥-١٩)	٢٤٧	٣.٤٨	.٥٢٢	٣٢٩.١٠	١٧	.٠٠٠
Group ٤ (Q ٢٠-٢٦)	٢٤٧	٣.٣١	.٥٩١	١٣٠.٦٠	٢٠	.٠٠٠

### ٥-٣ The effect of demographic variables

This section is dedicated to present information of respondents' perceptions in relation to their background which helps in testing  $H^6$ ,  $H^7$ ,  $H^8$  and  $H^9$ . The purpose of this analysis is to examine whether the differences in demographic characteristics of respondents affect their perceptions on the topic of the current study. Tables ٧-١٠ below show information on respondents' perceptions in relation to their gender (Table ٧), occupation (Table ٨), experience (Table ٩) and education (Table ١٠). Mann-Whitney U Test (for gender groups) and Kruskal-Wallis Test (for other demographic groups), the non-parametric alternative to a parametric T Test and one way analysis of variance, were used to test for significant differences among the various groups.

Table ٧ below provides result of Mann-Whitney U Test and reveals the results regarding gender groups. It clearly shows that the probability value in each question group was non-significant ( $p > 0.05$ ) indicating that there are no statistically significant differences in perceptions across the two groups of gender. This result gives a clear indication that respondents' gender has no impact on their perceptions concerning the four groups of questions. Also the test presents the values of the mean rank of each group of questions. Based on the above result, it is possible to reject  $H^6$ , "Respondents' gender affects their perceptions on the impact of AC on the FRQ", and accept the alternative one.

**Table ٧: Statistical analysis of gender groups (The Mann-Whitney U Test)**

Groups of Q	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig.
Group ١ (Q ١-٥)	٦٤٥٥.٥٠٠	١٩١٧٥.٥٠٠	-١.٢٩١	.١٩٧
Group ٢ (Q ٦-١٤)	٦٧١٢.٥٠٠	١٠٨٠٧.٥٠٠	-٠.٨١٢	.٤١٧
Group ٣ (Q ١٥-١٩)	٦٦١١.٥٠٠	١٠٧٠٦.٥٠٠	-١.٠٠٧	.٣١٤
Group ٤ (Q ٢٠-٢٦)	٦٣٩٥.٥٠٠	١٠٤٩٥.٥٠٠	-١.٣٩٧	.١٦٢

a. Grouping Variable: Gender

**Table ٨: Statistical analysis of occupation groups (Kruskal Wallis Test)**

Groups of Q	Chi-Square	df	Asymp. Sig.
Group ١ (Q ١-٥)	٩.١٥٧	٣	.٠٢٧
Group ٢ (Q ٦-١٤)	١٩.٣٩٦	٣	.٠٠٠
Group ٣ (Q ١٥-١٩)	٤.٧٣٥	٣	.١٩٢
Group ٤ (Q ٢٠-٢٦)	١٤.٢٤٧	٣	.٠٠٣

a. Kruskal Wallis Test

b. Grouping Variable: Occupation

Conversely, results of the Kruskal - Wallis Test in Table ٨ above which provide information on occupation groups indicate that there are statistically significant differences in respondents' perceptions across the four groups of occupation in Group ١, Group ٢ and Group ٤ of questions as the probability values were significant ( $p > 0.05$ ). This result indicates that different occupations almost have different perceptions on most groups of questions. However, the table shows no statistically significant differences in respondents' perceptions across the four groups of occupation in Group ٣ of questions as the probability value is .١٩٢ which is greater than .٠٥. Accordingly, it is possible to accept  $H^7$ , "Respondents' occupation affects their perceptions on the impact of AC on the FRQ", for only Group ١, Group ٢ and Group ٤ of questions and reject the alternative one.

Regarding respondents' experience and education, Tables 9 and 10 below present results of Kruskal - Wallis Test. Table 9 shows that there are statistically significant differences in respondents' perceptions across the four groups of experience in only Group 2 and Group 4 of questions as the probability values were significant ( $p > .05$ ). Nevertheless, the probability values of the other two groups of questions, Group 1 and Group 3, are greater than .05 indicating that no statistically significant differences in respondents' perceptions across the four groups of experience in these two groups. Therefore, it is possible to accept  $H_0$ , "Respondents' experience affects their perceptions on the impact of AC on the FRQ", for only Group 2 and Group 4 of questions and reject the alternative one.

**Table 9: Statistical analysis of experience groups (Kruskal Wallis Test)**

Groups of Q	Chi-Square	df	Asymp. Sig.
Group 1 (Q 1-5)	3.934	3	.279
Group 2 (Q 6-14)	10.330	3	.016
Group 3 (Q 15-19)	7.037	3	.071
Group 4 (Q 20-26)	14.890	3	.002

a. Kruskal Wallis Test

b. Grouping Variable: Experience

**Table 10: Statistical analysis of education groups (Kruskal Wallis Test)**

Groups of Q	Chi-Square	df	Asymp. Sig.
Group 1 (Q 1-5)	8.321	3	.040
Group 2 (Q 6-14)	10.832	3	.001
Group 3 (Q 15-19)	14.019	3	.003
Group 4 (Q 20-26)	19.707	3	.000

a. Kruskal Wallis Test

b. Grouping Variable: Education

Similarly, Table 10 above provides the results concerning education groups. It obviously shows that the probability values in all groups of questions were significant ( $p < .05$ ) indicating that there are statistically significant differences in perceptions across the four groups of education. This result was expected as respondents participated in the current study have different levels of education ranging from below BSc to PhD affecting their perceptions on the issue of the current research. Based on the above result, it is possible to accept  $H_0$ , "Respondents' education affects their perceptions on the impact of AC on the FRQ", and reject the alternative one.

## 6- Conclusions

The current study empirically investigated perceptions of four groups (financial managers, accountants, internal auditors and others) who are working in firms listed in BHB on the impact of AC upon FRQ. A questionnaire was developed and distributed to a sample of 320 respondents to gather information needed for testing the hypotheses of the study. 247 (77.2%) useable questionnaires were received and analyzed. Descriptive statistics such as mean and standard deviation were used in the analysis. Non-parametric tests such as the Chi-square Test, Mann-Whitney U Test and the Kruskal-Wallis Test were also used. One of the main findings was that respondents' answers were not 'equally distributed' among the levels of agreement of each question and each group of questions as the probability value for each of the 26 questions included in the questionnaire and each group of questions (four groups) was significant ( $p < .05$ ). Findings support that the independence of AC may help ensuring that management is

more transparent; independent members of AC will be more objective and less likely to overlook possible deficiencies in the misappropriation and manipulation of financial reporting; and there is a positive relationship between AC formation and earning quality.

Furthermore, results of the current study are in line with prior research that revealed a positive relationship between AC formation and FRQ in a number of developed countries such as Canada, Australia and France. Concerning the effect of demographic variables, the Mann-Whitney U Test clearly showed that there are no statistically significant differences in perceptions across the two groups of gender indicating that respondents' gender has no impact on their perceptions. However, Kruskal - Wallis Test which used for other demographic variables revealed that there are statistically significant differences in respondents' perceptions across the four groups of occupation in Group ١, Group ٢ and Group ٣ of questions. The results also indicated that there are statistically significant differences in respondents' perceptions across the four groups of experience in only Group ٢ and Group ٣ of questions as the probability values were significant. Concerning education variable, it was clear that there are statistically significant differences in perceptions across the four groups of education. Therefore, there is a full consensus among gender groups and some consensus among occupation and experience groups on their perceptions.

The study recommended that future research is needed to investigate this issue of research in other developing countries in general and GCC countries in particular. The study also suggested that other respondent groups such as external auditors, shareholders, regulators and members of the audit committees might be included in future research.

The current study is limited to respondents working in listed companies in Bahrain. Then the question raised is how the situation would be formed in case of privately held companies are another venue for research. Further, in order to generalize the findings of the study, there is a need to conduct same study over long period of time. Other factors can be considered in implementing the study such as market share of the audit firms and the economic conditions of the country. Findings of such research may not be generalized to different countries at different stages of development, or with different business environments and cultures.

Future research could investigate this important issue of research in other developing countries in general and GCC countries in particular. Other respondent groups such as external auditors, shareholders, regulators and members of the audit committees can be included in future research.

### **Acknowledgment**

This study has been successful with helps from various people who helped us especially in the data collection stage. Thanks also for those who commented on the first draft of this paper which was presented in the Fourth European Academic Research Conference on Global Business, Economics, Finance and Banking (EAR<sup>١٦</sup>Swiss Conference), ٧-٩ July ٢٠١٦, Zurich, Switzerland.

## References:

١. Abbott, L., Parker, S., and Peters, F. (٢٠٠٤), "Audit committee characteristics and restatement", *Auditing: A Journal of Practice and Theory*, ٢٣(١), ٦٩-٨٧.
٢. Al-Ajmi, J. (٢٠٠٩), "Audit firm, corporate finance, and audit quality: Evidence from Bahrain", *Advances in Accounting, Incorporating Advances in International Accounting*, ٢٥, ٦٤-٧٤.
٣. Anderson, R. C., Mansi, S. A., and Reeb, D. M. (٢٠٠٤), "Board characteristics, accounting report integrity, and the cost of debt", *Journal of Accounting and Economics*, ٣٧(٣), ٣١٥-٣٤٢.
٤. Bahrain Bourse – BHB (٢٠١٥), *Monthly Trading Bulletin*, October, Manama, Kingdom of Bahrain.
٥. Baxter, P. and Cotter, J. (٢٠٠٩), "The Audit committee and earning quality", *Accounting and Finance*, ٤٩(٢), ٢٦٧-٢٩٠.
٦. Beasley, M. S. and Salterio, S. E. (٢٠٠١), "The relationship between board characteristics and voluntary improvements in audit committee composition and experience", *Contemporary Accounting Research*, ١٨, ٥٣٩-٥٧٠.
٧. Beasley, M. S., Carcello, J. V., Hermanson, D. R., and Neal, T. L. (٢٠٠٠), "The audit committee oversight process", *Contemporary Accounting Research*, ٢٦(١), ٦٥-١٢٢.
٨. Bedard, J. M. and Chouteau, L. (٢٠٠٤), "The effect of audit committee expertise, independence, and activity on aggressive earnings management", *Auditing: A Journal of Practice and Theory*, ٢٣(٢), ١٣-٣٦.
٩. Blue Ribbon Committee (١٩٩٩), "Report and recommendations of the Blue Ribbon Committee on improving effectiveness of corporate audit committees", New York Stock Exchange and National Association of Securities Dealers.
١٠. Bryan, D. Liv, M. H. and Tiars, S. L. (٢٠٠٤), "The influence of independent and effective audit committee on earnings quality", Working Paper, State University of New York, Buffalo.
١١. Cadbury Committee (١٩٩٢), "Report of the committee on the financial aspects of corporate governance: A code of best practice. London.
١٢. Carcello, J. V., Hermanson D. R., Neal, T. L. and Riley, R. A. (٢٠٠٢), "Board characteristics and audit fees", *Contemporary Accounting Research*, ١٩, ٣٦٥-٣٨٤.
١٣. Central Bank of Bahrain (CBB) (٢٠١١), *Advancing Corporate Governance in the Kingdom of Bahrain - Corporate Governance Code*, CBB, Manama, Kingdom of Bahrain.
١٤. Daliwal, D., Naiker, V. and Navissi, F. (٢٠٠٦), "Audit committee financial expertise, corporate governance and accruals quality: An empirical analysis", Available at SSRN: <http://ssrn.com/abstract=٩٠٦٦٩٠>.
١٥. Daliwal D., Naiker V. and Navissi F. (٢٠١٠), "The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committee", *Contemporary Accounting Research*, ٢٧(٣), ٧٨٧-٨٢٧.
١٦. Davidson, R., Godwin-Stewart, J. and Kent, P. (٢٠٠٥), "Internal governance structure and earnings management", *Accounting and Finance*, ٤٥(٢), ٢٤١-٢٦٨.
١٧. Dechow, P. and Dichev, I. (٢٠٠٢), "The quality of accruals and earnings: the role of accrual estimation errors", *Accounting Review*, ٧٧, ٣٥-٥٩.
١٨. Dechow, P. M., Sloan, R. G. and Sweeney, A. P. (١٩٩٦), "Causes and consequences of earning manipulation: An analysis of firms subject to enforcement actions by the SEC", *Contemporary Accounting Research*, ١٣(٢), ١-٣٦.
١٩. DeFond, M. L., Hann, R. N. and Hu, X. (٢٠٠٥), "Does the market value financial expertise on audit committees of board of directors?", *Journal of Accounting Research*, ٤٣(٢), ١٥٣-١٩٣.
٢٠. Deli, D. N. and Gillan, S. L. (٢٠٠٠), "On the demand of independence and active audit committees", *Journal of Corporate Finance*, ٦, ٤٢٧-٤٤٥.
٢١. De Vaus, D. (٢٠٠١), *Research Design in Social Research*, London, Sage Publications Ltd.

٢٢. Dezoort, F. T. and Salterio, S. (٢٠٠١), "The effect of corporate governance experience and financial reporting and audit knowledge on audit committee member judgments", *Journal of Accounting and Public Policy*, ١٥, ٥٥-٧٦.
٢٣. European Central Bank (٢٠٠٨), *The Gulf Cooperation Council Countries Economic Structures - Recent Developments and Role in the Global Economy*, Occasional Paper Series No. ٩٢/July ٢٠٠٨.
٢٤. Ho, S. and Wong, K. (٢٠٠١), "A study of the relationship between corporate governance structures and the extent of voluntary disclosure", *Journal of International Accounting and Taxation*, ١٠(٢), ١٣٩-١٥٦.
٢٥. Humphrey, C. (١٩٩٧), *Debating Audit Expectations* (٢nd ed., ٣-٣٠). London: Paul Chapman.
٢٦. International Federation of Accountants - IFAC (٢٠١٦), *Action plan prepared by Bahrain Accountants Association - BAA*. [https://www.ifac.org/system/files/compliance\\_assessment/part\\_٣/٢٠١٥٠٢-Bahrain-BAA.pdf](https://www.ifac.org/system/files/compliance_assessment/part_٣/٢٠١٥٠٢-Bahrain-BAA.pdf) (Accessed: ٤/١/٢٠١٦).
٢٧. International Organization of Securities Commissions (IOSCO) (٢٠٠٢), *Principles of auditor oversight*; IOSCO.
٢٨. Jensen, M. C. and Meckling, W. H. (١٩٧٦), "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure", *Journal of Financial Economics*, ٣(٤), ٣٠٥-٣٦٠.
٢٩. Jones, J. (١٩٩١), "Earnings management during import relief investigations", *Journal of Accounting Research*, ٢٩, ١٩٣-٢٢٨.
٣٠. Joshi, P. L. & Wakil, A. (٢٠٠٤), "A study of audit committees' functioning in Bahrain: Empirical findings", *Managerial Auditing Journal*, ١٩(٧), ٨٣٢-٨٥٨.
٣١. Joshi, P., Bremser, G., Hemalatha, J. and Al-Mudhaki, J. (٢٠٠٧), "Non-audit services and auditor independence: Empirical findings from Bahrain", *International Journal of Accounting, Auditing and Performance Evaluation*, ٤(١), ٥٧-٨٩.
٣٢. Ibert, J., Baumard, P., Donada, C. and Xuereb, J. (٢٠٠١), *Data Collection and Managing the Data Source*. In: Raymond-Alain Thietart et al. (eds.), *Doing Management Research - A Comprehensive Guide*, London, Sage Publications, ١٧٢-١٩٥.
٣٣. Kallbers, L. & Fogarty, T. (١٩٩٣), "Audit committee effectiveness: An empirical investigation of the contribution of power", *Auditing: A Journal of Practice and Theory*, ١٢(١), ٢٤-٤٩.
٣٤. Kamolsakulchai, M. (٢٠١٥), "The impact of the audit committee effectiveness and audit quality on financial reporting quality of listed company in stocks exchange of Thailand", *Review of Integrative Business and Economics Research*, ٤(٢), ٣٢٨-٣٤١.
٣٥. KPMG International Audit Committee Institute (٢٠٠٦), *Five guiding principles for audit committees*, Geneva, KPMG International.
٣٦. Krishnamoorthy, G., Wright, A. and Cohen, J. (٢٠٠٢), "Audit committee effectiveness and financial reporting quality: Implications for auditor independence", *Australian Accounting Review*, November, ٣-١٣.
٣٧. Krishnan, J. (٢٠٠٥), "Audit committee quality and internal control: An empirical analysis", *Accounting Review*, ٨٠(٢), ٦٤٩-٦٧٥.
٣٨. Lin, J. W., Li, J. F. and Yang, J. S. (٢٠٠٦), "The effect of audit committee performance on earnings quality", *Managerial Auditing Journal*, ٢١(٩), ٩٢١-٩٣٣.
٣٩. McDaniel, L., Martin, R. D., Maines, L. A. and Peecher, M. E. (٢٠٠٢), "Evaluating financial reporting quality: The effect of financial expertise vs. financial literacy", *The Accounting Review*, ٧٧, ١٣٩-١٦٧.
٤٠. Menon, K. and Williams, J. D. (١٩٩٤), "The use of audit committees for monitoring", *Journal of Accounting and Public Policy*, ١٣(٢), ١٢١-١٣٩.
٤١. Metawee, A. (٢٠١٣), "The relationship between characteristics of audit committee, board of directors and level of earning management, Evidence from Egypt", *Journal of International Business and Finance*, Plymouth Business School, UK, January.
٤٢. OECD Principles of Corporate Governance, Paris: OECD, ٢٠٠٤.

٤٣. Pallant, J. (٢٠١٣), SPSS Survival manual - A Step by Step Guide to Data Analysis Using SPSS, Open University Press, England.
٤٤. Person, O. S. (٢٠٠٥), "The relation between the corporate governance rules and the likelihood of financial statement fraud". Review of Accounting and Finance, ٤(٢), ١٢٥-١٤٨.
٤٥. Piot, C. and Janin, R. (٢٠٠٧), "External Auditors, Audit Committees and Earnings Management in France", European Accounting Review, ١٦(٢), ٤٢٩-٤٥٤
٤٦. Sarbanes, P. and Oxley, M. (٢٠٠٢), The Sarbanes-Oxley Act of ٢٠٠٢, Washington D.C.: U.S. Congress.
٤٧. Saunders, M., Lewis, P. and Thornhill, A. (٢٠١٢), Research Methods for Business Studies, Second Edition, London, Pearson Education Limited.
٤٨. Sekaran, U. (٢٠٠٦), Research Methods for Business – A Skill-Building Approach, Fourth Edition, New York, John Wiley & Sons, Inc.
٤٩. Soliman, M. M. and Ragab, A. A. (٢٠١٤), "Audit committee effectiveness, audit quality and earnings management: An empirical study of the listed companies in Egypt", Research Journal of Finance and Accounting, ٥(٢), ١٥٥-١٦٦.
٥٠. The Heritage Foundation (٢٠١٣), Index of Economic Freedom and Dow Jones & Company Inc., Washington.
٥١. Thomas, R. (١٩٩٦), Surveys. In: Greenfield, T. (ed.), Research Methods - Guidance for Postgraduates, Arnold, London, ١١٥-١٢٤.
٥٢. Treadway Commission (١٩٨٧), Report of the national commission on fraudulent financial reporting, American Institute of Certified Public Accountants. New York.
٥٣. Vafes, N. (٢٠٠٥), "Audit committee boards and quality of reported earnings", Contemporary Accounting Research, ٢٢(٤), ١٠٩٣-١١٢٢.
٥٤. Vlaminc, N. and Sarens, G. (٢٠١٥), "The relationship between audit committee characteristics and financial statement quality: Evidence from Belgium", Journal of Management and Governance, ١٩(١), ١٤٥-١٦٦.
٥٥. Waweru, N. M. and Riro, G. K. (٢٠١٣), "Corporate governance firm characteristics and earnings management in an emerging economy", Journal of Applied Management Accounting Research, ١١(١), ٤٣-٦٤.
٥٦. Wild, J. J. (١٩٩٦), "The audit committee and earnings quality", Journal of Accounting, Auditing and Finance, ١١(٢), ٢٤٧-٢٧٦.
٥٧. Xie, B., Davidson, W. W. and DaDalt, P. J. (٢٠٠٣), "Earnings management and corporate governance: The role of the board and audit committee", Journal of Corporate Finance, ٩(٣), ٢٩٣-٣١٦.
٥٨. Yang, J. and Krishnan J. (٢٠٠٥), "Audit committee and quarterly earnings management", International Journal of Auditing, ٩(٣), ٢٠١-٢١٩.
٥٩. Zhang, Y., Zhou, J. and Zhou, N. (٢٠٠٧), "Audit committee quality, auditor independence, and internal control weakness", Journal of Accounting and Finance, ١٥(٢), ١٠٥-١١٨.