Received 3 July 2015
Revised 17 November 2015
18 January 2016
Accepted 18 January 2016

An investigation of the level of compliance with international accounting standards (IAS 1) by listed firms in Bahrain Bourse

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Abstract

Purpose – This study aims to investigate the association between seven firm-specific characteristics and the level of mandatory compliance with International Accounting Standards (IAS) 1 by firms listed on Bahrain Bourse.

Design/methodology/approach – A disclosure index is used to measure the extent of compliance with IAS 1. Each of the 36 sampled firms' annual reports were examined against the index for the financial year ending December 31, 2013.

Findings – The results reveal an overall compliance of 83 per cent. Regression results report that only audit firm size, profitability and industry type have a positive and significant association with IAS 1 disclosure requirements.

Practical implications – This study should be particularly relevant to regulatory bodies in Bahrain for strategizing and encouraging compliance with IAS 1 by listed firms.

Originality/value – Additionally, the study contributes to financial reporting literature relating to the Gulf Cooperation Council countries, mainly Bahrain. Bahrain is a financial hub, and it is interesting to examine how it presents its financial statements to investors and the degree of its compliance with International Financial Reporting Standards since its adoption in 2007.

Keywords Accounting, Disclosure, IFRS, Bahrain Bourse, Corporate financial reporting

Paper type Research paper

1. Introduction

Today, many countries use International Financial Reporting Standards (IFRSs), including Russia, India, Hong Kong, Australia, Malaysia, South Africa, the European Union (EU) and the Gulf Cooperation Council (GCC) countries. It has been reported that since July 2014, 130 countries have been required to adopt IFRSs for companies listed locally (Deloitte Touche Tohmastu, 2014). The motivation for this significant change is the globalization of financial markets, where there is a need to create a consistent, transparent and comparable global approach to financial accounting that better enables investors to compare the performance of corporations regardless of what countries they operate in due to reduction in information asymmetries (Latifah *et al.*, 2012).

Consequently, the topic of IFRSs as an international accounting standard (IAS) arouses the professional curiosity of many researchers, which has subsequently led to more in-depth studies on this topic. The issue of compliance of IFRS has become more important in both developing and developed countries, with more research concentrating on the latter. Furthermore, moving on to the GCC countries,

International Journal of Islamic and Middle Eastern Finance and Management
Vol. 9 No. 2, 2016
pp. 254-276

1753-8394
DOI 10.1108/IMEFM-07-2015-0077

Al-Shammari *et al.* (2008) report that non-compliance with IFRS is higher than in developed countries, indicating limited compliance enforcement and oversight by bodies in these countries that supervise financial reporting.

As part of the GCC, the Kingdom of Bahrain does not have its own national accounting standards. According to Joshi and Al-Mudhahki (2013), no accounting standards have been developed in Bahrain due to the following reasons. First, Bahrain is considered as an international financial hub with a large number of foreign banks operating there. Consequently, they follow IFRSs as they are considered as benchmarks for comparison, Additionally, Bahrain is a small country and there may be a lack of expertise to develop standards. So, it will be too expensive to develop local standards. Therefore, as of 2007, under the Bahrain Commercial Companies Law 2001, all firms listed on Bahrain Bourse and all financial institutions licensed by the Central Bank of Bahrain (CBB), are required to prepare their financial statements in accordance with the IFRSs (Bahrain Business Guide, 2005).

Since the adoption of IFRS eight years ago in an attempt to improve the quality of financial reporting in Bahrain, only a handful of studies address the issue of compliance of IASs and IFRSs in Bahrain. Joshi and Al-Mudhahki (2013), investigated the degree to which the disclosure requirements of IAS 1 are complied with by the firms listed with Bahrain Bourse regarding ten disclosure items. Another study examined the factors affecting the level of voluntary compliance with the IFRS Practice Statement Management Commentary by firms listed on Bahrain Bourse (Joshi *et al.*, 2013). However, so far, only one study has been conducted to empirically investigate the extent of compliance with mandatory IFRSs disclosure requirements for firms listed on Bahrain Bourse (Juhmani, 2012). In his study, Juhmani (2012) investigates the association between the extent of disclosure compliance with IFRSs and five firm characteristics, namely, firm size, firm age, size of audit firm, profitability and leverage.

Therefore, due to the infancy of studies regarding this area in the Kingdom of Bahrain, this research draws on studies by Alfaraih, 2009; Al-Mutawa, 2010; Juhmani, 2012; Demir and Bahadir, 2014, to extend on previous research available in the region and address the issue of non-compliance. Therefore, to aid standard setters and regulatory bodies in Bahrain in instituting strategies and to encourage compliance with IFRSs by the listed firms, this research aims to examine the extent to which firms listed in Bahrain Bourse comply with the IFRSs, in particular, to determine the level of IAS 1 compliance and the firm-specific characteristics that influence these levels, as no prior research has examined IAS 1 on its own merit. It is a very important standard discussing the Presentation of Financial Statements which are used by both domestic and foreign investors. Bahrain is a financial hub, and it is interesting to examine how financial statements are presented to investors and the degree of their compliance with IFRSs since its adoption in 2007. Although the findings of this study are specific to Bahrain, the results of this research are relevant to other countries in the region with similar socio-economic environments.

The study, therefore, examines the association between seven firm-specific characteristics and the extent of mandatory compliance with IAS 1 by companies listed on Bahrain Bourse. These characteristics include: firm size, leverage, firm age, size of audit firm, profitability, industry category and liquidity. The main difference between this study and Juhmani's study in 2012 is that, this study includes two more characteristics, industry category and liquidity. Another important difference is that, while Juhmani takes into account a number of different standards and reports a general compliance level, this study focuses exclusively on IAS 1. Therefore, this paper provides a more in-depth study on IAS 1 – Presentation of Financial Statements.

The research objectives can be summarized as research questions of the type:

RQ1. What is the extent to which Bahraini listed companies comply with IAS 1?

RQ2. What characteristics are associated with and explain the level of the level of compliance with IAS 1 required disclosures?

It is not presumed that definitive answers to the questions raised exist. The "correct" answers will vary across companies, industries and sectors. That being said based on the findings of the research, the researcher proposed recommendations that might aid standard setters and regulatory bodies in Bahrain to institute strategies to encourage compliance with IFRSs and IASs by the listed firms. Furthermore, such research is not only significant for investors, standard setters and other users of financial statements but it also raises concerns regarding the effectiveness of the regulatory bodies, mainly the CBB and the Ministry of Industry and Commerce (MOIC), that oversee the compliance with IFRS in Bahrain.

In addition, managers may realize the importance of information disclosure and learn the determinants of better disclosure practices. This will result in better provision of information to stakeholders. Thus, investors will make healthier and economically sound decisions regarding their investing activities. According to the IAS Plus website, the main purpose of IAS 1 is to establish the basis of the Presentation of Financial Statements, therefore ensuring comparability both with the firms' own financial statements regarding prior periods and with the financial statements of other firms. Standards for recognizing, measuring and disclosing specific transactions are addressed in other standards and interpretations. The standard concerns all general-purpose financial statements that are prepared and presented in accordance with the IFRSs. General-purpose financial statements, as defined by the IAS website, are those expected to serve users who are not in a position to require financial reports designed to meet their specific information needs.

This study is organized as follows, where Section 2 reviews the literature that has been published in the area and the development of the hypotheses introduced in the introduction chapter. Section 3 describes the research methods used for data collection and Section 4 reports the results. Finally, the Section 5 draws conclusions, states implications and suggestions for future research. It also covers the limitations faced by the researcher.

2. Literature review

2.1 The corporate financial reporting environment in Bahrain

The Kingdom of Bahrain, a small island and a member of the GCC, has an estimated population of 1.198 million as of 2014 and land area of 620 km^2 (Coleman, 2014). Based on the International Monetary Fund (IMF), the gross domestic product (GDP) per capita is US$24,465, with GDP of US$28.728bn [International Monetary Fund (IMF), 2014]. Moreover, according to the International Futures Bahrain's profile, the average life expectancy is 75.52 years and the literacy rate is 95.23 per cent (IFs, Version 7.08). Blessed with smaller oil resources than its neighbors, Bahrain has turned to processing and refining petroleum and has converted itself into an international banking center, 300 institutions providing a wide range of services, including banking, insurance, capital markets and investment advice. Its economy has developed into one of the most diversified and advanced in the region. Although the people of Bahrain have a relatively high rate of literacy, the youth unemployment per cent is over 19 per cent (Coleman, 2014).

Despite being an international banking sector, Bahrain does not have its own national accounting standards. Nonetheless, the CBB and the MOIC are responsible for overseeing the Commercial Companies Law that requires all financing companies to publish their annual audited and reviewed quarterly financial statements as per the rules set out in Article 62 of the CBB Law and the Bahrain Commercial Companies Law. Such financial statements must be prepared in accordance with IFRS in the case of conventional financing companies and Financial Accounting Standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) in the case of Shari'a-compliant financing companies (The Central Bank of Bahrain Rule book, 2013). However, the setting and issuance of IFRSs remain the sole responsibility of the International Accounting Standards Board (IASB), which conducts the business of the International Accounting Standards Committee (IASC) that was established in 1973 [International Accounting Standards Board (IASB), 2001].

2.2 Theoretical framework

Healy and Palepu (2001) argue that corporate disclosure is vital for the effectiveness and efficiency of a capital market. They further state that companies provide disclosure using financial reports which are regulated, including the financial statements, footnotes, management discussion and analysis and other regulatory filings. Besides, some companies take on voluntary communication, including management forecasts, analysts' presentations and conference calls, press releases, internet sites and other corporate reports. Lastly, there are disclosures regarding firms by information intermediaries, such as industry experts, financial analysts and the financial press.

The IASB believes that the purpose of financial statements is to deliver information with respect to the financial performance, position and changes of financial positions of an organization that is useful to a wide-ranging number of users in making informed economic decisions (International Accounting Standards Board (IASB), 2001). However, Cairns (1997) states that the IASB and the International Federation of Accountants (IFAC) had criticized the auditors who claim that financial statements comply fully with IASs while, in fact, the accounting notes and policies imply otherwise. Street *et al.*, 1999; Street and Gray, 2001; Glaum and Street, 2003, and Al-Shammari *et al.*, 2008 found significant levels of IASs non-compliance, and that the extent of compliance by firms that claim to comply with IAS is varied. This supports the criticism made by both the IASB and the IFAC. More importantly, Al-Shammari's (2008) study shows a significant variation in compliance levels among GCC countries and firms. The overall compliance level for all GCC firms during the period under study, 1996 to 2002, was 75 per cent, and there was a rise in compliance over time from 68 per cent in 1996 to 82 per cent in 2002. Another recent study conducted by Aljifri *et al.* (2014) revealed that the overall mean value of disclosure in the UAE is 57 per cent, reflecting a low-to-moderate level of disclosure. This suggests that non-compliance is widespread and is possibly higher than that in developed countries.

In addition to determining the degree of compliance with IFRS, previous researches have investigated the association of several firm-specific characteristics with the disclosure level of annual reports of firms. These characteristics include firm size, firm age, leverage, listing status, profitability, auditor type, industry type internationality and liquidity.

Most of the relevant and related studies cite and use Jensen and Meckling's (1976) agency theory that provided the clear foundations of the agency relationships, as a framework for their research and hypotheses development. Additionally, prior literature utilizes the agency theory to justify managers' incentives for disclosure. Basically, the theory concerns the issues that result from shareholders (principals) depending on managers (agents) to provide services on their behalf, due to the separation of both control and ownership. That is if parties act in self-interest, the conflict of interest between them increases, thus there is an increase in agency costs (Alfaraih, 2009). Accordingly, to lower such costs, managers are motivated to disclose additional accounting information as a means of improving transparency.

Another theory, put forth by Alfaraih (2009), that justifies managers' disclosure incentives is the signaling theory, which is a market-based theory underlying the agency theory. The signaling theory argues companies disclose more comprehensive information to the market when their performance is better, than when they hold bad news to avoid their shares from being undervalued. It assumes that managers want to signal that they are pursuing shareholders' wealth maximization and that they are efficient. This assumes that there are ways managers can transmit such signals and that there are investors who receive these signals (Tsalavoutas, 2009).

2.3 Hypotheses development

Bearing in mind the empirical and theoretical literature, a series of associations were noticed, which other researchers have noticed as well, between the extent of disclosure compliance with IFRS and the firm characteristics mentioned in the theoretical framework.

In his paper, Juhmani (2012) included 27 IFRSs that were the most applicable to Bahraini listed companies and applied them to 41 corporate annual reports for the year ending 2010, using a general disclosure index. His findings report an overall compliance of 80.7 per cent in Bahrain. Moreover, the results reveal that large firms comply with mandatory IFRSs disclosure requirements, disclosing more information than small firms. Moreover, companies audited by the Big 4 comply with mandatory IFRSs disclosure requirements more than the companies audited by small audit firms. On the contrary, the other three independent variables such as age, profitability and leverage were found to be insignificant to the compliance level.

An earlier study by Al-Mutawa (2010) examined the disclosures of financial statements of 48 non-financial Kuwaiti firms for the financial year ending in 2006. The findings reveal that only firm size and industry type have a positive association with IAS disclosures requirements. Additionally, all the remaining independent variables are either negatively (leverage) associated with compliance level or positively (other variables), but statistically insignificant. While Al Mutawa (2010) focused on non-financial companies, Al-Shammari (2011) investigated the extent of disclosure compliance with IFRSs by 168 firms listed on the Kuwait Stock Exchange for the year ending 2008. He found that the extent of compliance is negatively related to liquidity and positively related to firm size, age, auditor and internationality, with an overall compliance equaling 82 per cent.

Similarly, Galani *et al.* (2011) and Aljifri *et al.* (2014) report that size is the most influential firm characteristic in explaining mandatory disclosure practices. The regression analysis revealed a significant and positive relation between disclosure level and firm size. On the other hand, it is noticed that profitability and company age have no significant association with mandatory disclosure level. These findings are in accordance with Alfaraih's (2009) perception that studies show that firm size is statistically significant in its relation to the degree of compliance. However, there are mixed findings on the association between the extent of compliance and other firm characteristics.

Al-Shammari *et al.* (2008) argue that one reason for this result could be that larger firms own more resources to spend on compliance and are less likely to be affected by disclosure of information than smaller companies. Another possible reason is that larger companies may be older, with more conventional reporting systems, meaning that compliance is less costly for them. Moreover, larger companies are expected to be more international, that is, having more foreign investors, foreign sales or foreign stock exchange listings. Conversely, Glaum and Street's (2003) study failed to find association between corporate compliance of IFRS and firm size. Thus, notwithstanding on the basis of the literature, we hypothesize that:

H1. There is a positive association between firm size and IAS 1 disclosure.

Following a similar methodology, Demir and Bahadir (2014) report that the findings of their regression analysis indicated that disclosure compliance by listed Turkish companies varies by audit firm size and leverage, while the remaining characteristics including company age and size are insignificant. Leverage, however, was negatively related to the extent of disclosure compliance. However, in contrast to their finding of leverage, Alsaeed (2006) claims that companies with higher amounts of debt in their capital structure are more likely to incur higher agency costs. Therefore, managers are motivated to lower these agency costs by disclosing more accounting information to satisfy the needs of the creditors. On the other hand, Juhmani (2012) found that leverage was insignificant to compliance levels by firms listed in Bahrain Bourse. To examine the relation between leverage and the level of compliance with IAS-1 among firms listed in Bahrain Bourse, it is predicted that:

H2. There is a positive association between leverage and IAS 1 disclosure.

With regards to non-financial companies in India, Bhayani (2012) found that firms with large size of assets, higher profitability, higher leverage, listing in foreign stock exchanges, lower holding of promoters' share and audited by the Big 4 are inclined to be more transparent and therefore disclose more information. However, the age of a company and residential status do not significantly influence the extent of corporate disclosure. In terms of firm age, Bhayani's (2012) result is in line with that of Alsaeed (2006); Juhmani (2012) and Demir and Bahadir (2014). While, Al-Shammari (2011) reports a positive association between the mandatory IFRS disclosure and firm age, Glaum and Street (2003) argue that younger firms tend to have poor accounting systems, giving rise to lower-quality accounting and disclosures. Generally, findings regarding the association between firm age and degree of compliance vary. It is, hence, hypothesized that:

H3. There is a positive association between firm age and IAS 1 disclosure.

Alfaraih (2009) declares that the association between a firm's disclosure level and the size of its external auditing firm is well-established in the literature. With regards to firms audited by the Big 4, Al-Shammari (2011); Juhmani (2012) and Demir and Bahadir (2014) report that a positive association exists between size of the audit firm and the level of compliance with IFRSs mandatory disclosures. It could be justified that large audit companies can reduce agency costs, thus restricting the opportunistic interests of management through monitoring. This leads to the fourth hypothesis:

H4. There is a positive association between size of the audit firm and IAS 1 disclosure.

The influence of profitability on the extent of IFRS compliance is probably linked to the signaling theory, where managers are willing to share their success to prospective investors and shareholders to raise capital. Nevertheless, Glaum and Street (2003); Alsaeed (2006); Al-Shammari *et al.* (2008) and Juhmani (2012) found that profitability is insignificantly related to the extent of compliance with IFRSs mandatory disclosures. Therefore, to test the association of profitability with the level of IAS-1 compliance from a Bahraini perspective, it is hypothesized that:

H5. There is a positive association between profitability and IAS 1 disclosure.

The industry in which the firm operates in might have an impact on managements' interest toward publishing information in the firm's annual report (Al-Mutawa, 2010). But, Glaum and Street (2003) claim that no statistically significant association exists between the type of industry and the level of disclosure. In contrast, Street and Gray (2001); Gallery *et al.* (2008); Aljifri *et al.* (2014) state a positive association between compliance levels and industry type. A reason for this could be that, as some standards are more commonplace within certain industries, firms in those industries will probably comply more fully with IFRS requirements that are more relevant to their operations (Alfaraih, 2009). Bahrain is considered as a financial center in the region. Therefore, it is important to examine the financial sector's compliance with IFRSs as opposed to non-financial sectors. Therefore, an industry category was added to further expand on Juhmani's (2012) study. For additional investigation of the association between industry type and level of compliance with disclosure required by IAS-1, it is hypothesized that:

H6. There is a positive association between the type of industry and IAS 1 disclosure.

Al-Mutawa (2010) defined liquidity as the capacity of a firm to pay back its commitments and obligations in the short run. Literature on the association between liquidity and level of disclosures remains indecisive. Empirical evidence indicates results which are mixed for the association between firm's liquidity and extent of disclosure. Al-Mutawa (2010) found a positive, yet insignificant, association between liquidity and level of disclosure. On the other hand, Al-Shammari (2011) reported a negative association between the two. To test this association for companies listed in Bahrain Bourse, it is hypothesized that:

H7. There is a positive association between liquidity and IAS 1 disclosure.

To summarize, this study examines the association between seven firm-specific characteristics and compliance with mandatory disclosures in Bahrain, expanding on Juhmani's (2012) study to find whether compliance levels have continued to increase in the past four years while stock markets have become more open to foreign investors, thus providing important feedback to the regulators in Bahrain. The agency and signaling theories derived from the literature are regarded as particularly relevant for the purposes of this research study.

3. Research methodology

3.1 Sample selection

To address the research questions, this study adopts a quantitative research design to evaluate the level of listed firms' mandatory compliance with IFRSs in Bahrain. The study population consists of 48 firms listed in Bahrain Bourse, of which 45 were Bahraini firms and 3 were non-Bahraini firms. These firms fall into the following seven sectors: commercial banks, investment, insurance, services, industrial and hotels and tourism as shown in Table I. However, five firms were excluded due to incomplete data, and seven firms were excluded due to suspension. Therefore, the final sample consisted of 36 firms listed on Bahrain Bourse. Appendix 2 shows the list of firms included in this study.

The data for measuring the dependent and independent variables investigated in this study were collected manually from the sampled companies' annual report downloaded from their official websites, as well as from the Bahrain Bourse website. The 36 firms' annual reports were fully covered in the study because of its small sample size and, second, the researcher sought to determine the overall compliance rate of companies listed on Bahrain Bourse. The reports of 2013 were selected because they were quite recent at the time the study was undertaken and they were easier to obtain.

3.2 Development of Disclosure Compliance Index (the dependent variable)

The unweighted disclosure index, also known as the dichotomous disclosure index, is used in this research, as it is the most common method used for determining the firms' compliance with mandatory disclosure requirements. This approach provides equal weighting to the items required to be disclosed by the standards (Demir and Bahadir, 2014). Additionally, it is claimed that when a large number of disclosure items are

Sector	Total population	Sample
Commercial banks	7	7
Investment	12	9
Insurance	5	5
Services	10	8
Industrial	3	2
Hotel and Tourism	5	4
Preferred shares	1	0
Closed companies	2	0
Non-Bahraini	3	1
Total	**48**	**36**

Table I. Classification of sampled companies by sector examined, weighted and unweighted disclosure indices will provide similar findings (Marston and Shrives, 1996 as cited by Al-Mutawa, 2010).

Based on that, a disclosure index was developed with reference to IFRSs issued by the IASB, indices used in prior research (Alfaraih, 2009) and the disclosure and presentation checklist published by Deloitte Touche Tohmastu (2014). For scoring, a score of "1" is assigned if compliance with IFRSs provision under the IAS 1 is disclosed in the annual report for the year under investigation, and "0" for non-compliance. Appendix 1 shows the disclosure index. The disclosure index for each company is calculated by dividing the number of items reported and disclosed in the firm's annual report by the required/relevant items. Consistent with prior compliance research, Street and Gray (2001); Al-Shammari *et al.* (2008), and Demir and Bahadir (2014) the index that will be used is defined as:

$$\mathrm{PC_j} = \frac{\sum i = 1Xi}{Rj} \tag{1}$$

Where $\mathrm{PC_j}$ = the total compliance score for each company $0 \leq \mathrm{PC_j} \leq 1$. Xi = level of compliance with each standard's mandatory disclosure requirements. Rj = total number of relevant standards for each company in Bahrain Bourse, j.

3.3 The independent variables

As derived from the literature review, seven firm characteristics were examined for their association with the level of disclosure compliance to find whether the extent of mandatory compliance with IFRS was affected by firm characteristics. The annual reports of the listed firms were used to obtain the data. Table II illustrates the independent variables of the study and their measurements. It also shows that prior studies used similar measurement methods as follows.

3.4 Development of the model

To assess the association of each firm characteristic with the extent of compliance with mandatory IAS-1 disclosure requirements, the following multiple linear regression model was incorporated into the data:

$$\begin{aligned}\mathrm{DCI} = \beta 0 + \beta 1\, TA + \beta 2\, LEV + \beta 3\, FA + \beta 4\, AFS + \beta 5\, ROE + \beta 6\, IND \\ + \beta 7\, LIQ + e,\end{aligned} \tag{2}$$

where:

DCI = Disclosure compliance index
TA = Total assets (firm size)
LEV = Leverage
FA = Firm age
AFS = Audit firm size
ROE = Return on equity (profitability)
IND = Type of industry
LIQ = Liquidity
e = Error term

Variable	Exp. Sign	Measurement	Prior studies
Firm size	+	Total assets of the firms	Street and Gray (2001), Al-Shammari *et al.* (2008), Juhmani (2012), Demir and Bahadir (2014)
Leverage	+	Ratio of total debts to total assets of the firms	Al-Shammari *et al.* (2008), Alfaraih (2009), Demir and Bahadir (2014)
Firm age	+	Date of financial statements less date of foundation	Al Mutawa (2010), Juhmani (2012), Demir and Bahadir (2014)
Size of audit firm	+	Dummy value (1 = if firm is audited by Big 4, 0 = otherwise)	Glaum and Street (2003), Alfaraih (2009), Al-Mutawa (2010), Al-Shammari (2011), Yiadom and Atsunyo (2014)
Profitability	+	Return on equity (ROE) of the firms	Street and Bryant (2000), Al-Mutawa (2010), Juhmani (2012), Demir and Bahadir (2014), Yiadom and Atsunyo (2014)
Industry	+	Dummy values (1 = Financial sector, 0 = Non-financial sector)	Tai *et al.* (1990), Patton and Zelenka, (1997), Tower *et al.* (1999), Street and Gray (2001), A-Shammari *et al.* (2008), Galani *et al.* (2011
Liquidity	+	Current ratio of the firms	Alfaraih (2009), Al-Mutawa (2010)

Note: Bahrain is considered as a financial center in the region. Therefore, it is important to examine the financial sector's compliance with IFRSs as opposed to non-financial sectors

Table II. Summary of the independent variables

4. Data analysis and discussion

4.1 Descriptive statistics

Table III reports the descriptive statistics for the dependent and independent variables for the sample firms. Moreover, it reports the normality tests of the variables used in the study. The mean of the extent of disclosure compliance with IAS 1 of the 36 firms was 83 per cent, with a minimum of 77 per cent and a maximum of 94 per cent, showing

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Dependent variable						
DCI	0.77	0.94	0.83	0.051	0.362	1.866
Independent variables						
Size (BD)	5,949	1.2310E7	1.607831E6	3.0594E6	2.328	7.316
Leverage (%)	4.15	89.69	45.01	28.09	0.123	1.732
Age	7	56	28.83	12.41	−0.176	2.273
Auditor	0	1	0.83	0.378	–	–
Profitability	−19.21	20.90	7.44	9.32	−1.274	4.677
Industry	0	1	0.61	0.494	–	–
Liquidity	0.29	12.58	2.40	2.49	2.255	9.006

Table III. Descriptive statistics for the dependent and independent variables variations in the extent of disclosure compliance with IAS 1 in Bahrain. Furthermore, the maximum percentage indicates that no firm fulfilled all the requirements of IAS 1.

Although this study is concerned with investigating the level of compliance with IAS 1 in Bahrain, the level of disclosure at 0.83 is higher than Juhmani's (2012) study that reported a 0.81 level of disclosure with IFRSs. This could be due to the fact that Juhmani takes into account a number of different standards, while this study focuses solely on one standard, i.e. IAS 1. Therefore, we can state that the level of compliance with IAS 1 (Presentation of Financial Statements), which sets out the overall requirements for financial statements, is 0.83. This indicates the level of comparability both with the firms' own financial statements regarding prior periods and with the financial statements of other firms.

Furthermore, studies that are similar to Juhmani's study report the level of disclosure compliance with IFRSs at 0.81 (Glaum and Street, 2003) in Germany, 0.33 (Alsaeed, 2006) in Saudi Arabia, 0.82 (Al-Shammari *et al.*, 2008) in the GCC, 0.73 (Alfaraih, 2009) in Kuwait, 0.70 (Al-Muatwa, 2010) in Kuwait and 0.79 (Demir and Bahadir, 2014) in Turkey. However, Alfaraih (2009) further reports a 0.85 level of disclosure compliance with IAS 1 in Kuwait, which is higher in comparison to the figure reported in this study. On the other hand, Al-Mutawa (2010) reports a 0.77 level of disclosure compliance with IAS 1 in Kuwait, which is lower than the figure reported in this study. It is interesting to note that both studies, Alfaraih's and Al Mutawa's, use the annual reports for 2006, resulting in different levels of disclosure. This could be due to the use of a different number of disclosure requirements in their checklists.

Additionally, as suggested by the minimum and maximum figures, there is a wide range of variation within the independent variables. The mean of liquidity was 2.40 times, with a minimum of 0.29 times and a maximum 12.58 times, while the mean of size was BD 1.6 million, with a minimum of BD 0.006 million and a maximum BD 12.3 million. The normality distributions of both liquidity and total assets (size) were skewed. Therefore, natural logarithm was used in the regression analysis to mollify skewness and bring the distribution of the variables nearer to normality. This is consistent with prior studies such as Wallace *et al.*, 1994; Al-Mutawa, 2010 and Demir and Bahadir, 2014. Moreover, the mean leverage for the firms was 45.01 per cent with a minimum 4.15 per cent, indicating firms with somewhat high debts, and a maximum of 89.69 per cent, indicating firms with very high debts. Firm age ranges from 7 to 56 with a mean of 28.83. With respect to the auditor type, the researcher documents a mean of 0.83 and minimum (maximum) values of 0.00(1.00), suggesting that about 83 per cent of the listed firms in Bahrain are audited by Big 4 auditing firms. Profitability ranges from −19.21 times to 20.90 times with a mean of 7.44 times, revealing that 19.21 times the amount of equity of the firm was because of operations. Which brings us to the normality test, where the skewness test and the kurtosis test suggest that all the predictive variables are normally distributes except for size and liquidity which were treated using natural logarithm as mentioned above.

Table IV summarizes the Pearson's and Spearman's correlation matrices. This will aid in examining the statistical relationship between the independent and the dependent variables, and if multicollinearity exists among the data before assessing the model.

The above table shows that industry type and leverage had the highest correlation (0.702). Other variables were also found to be correlated. According to Juhmani (2012), it has been suggested, by Farrar and Glauber, 1967 and Judge *et al.*, 1985, that correlation coefficients should not be considered damaging until they exceed 0.80. A further check for multicollinearity involves conducting the variance inflation factor (VIF) (Al-Shammari, 2011 and Demir and Bahadir, 2014). The VIF scores are reported in Table V, indicating that no score exceeds 10 for any variable in the model. It was, therefore, concluded that no problems were found with regard to collinearity.

4.2 Regression results

Table V reports the findings of the regression analysis. These results show that *F*-ratio is 2.888 ($p < 0.01$). This finding supports the significance of the regression model statistically. Additionally, the results reveal that R^2 is 0.419, suggesting that independent variables used in the model explain 41.9 per cent of the variation in disclosure index.

Generally, the model of compliance with IAS 1 mandatory requirements in Bahrain is supported as three of the seven hypotheses are accepted. Particularly, auditor type,

Pearson's and Spearman's correlation matrices	DCI	Age	Auditor	Liquidity	Leverage	Industry	Size	Profitability
DC1		−0.113	0.411*	0.011	0.154	0.129	0.292	0.287
Age	−1.33		−1.52	0.159	−0.018	−0.174	−0.080	0.235
Auditor	0.426**	−0.180		−0.160	0.296	0.255	0.529**	−0.171
Liquidity	0.088	0.235	−0.093		−0.508**	−0.310	−0.366*	0.087
Leverage	0.167	−0.116	0.301	−0.469**		0.683**	0.571**	−0.100
Industry	−0.105	−0.209	0.255	−0.285	0.702**		0.439**	−0.312
Size	0.274	−0.203	0.567**	−0.363*	0.552**	−0.417*		−0.015
Profitability	0.325	0.218	−0.115	0.153	−0.054	−0.280	0.028	

Notes: $*p < 0.05$ and $**p < 0.01$ significance level (two-tailed). Spearman correlation is shown below and from the left of the diagonal; Pearson correlation is shown above and from the right of the diagonal

Table IV. Correlation coefficient table for the dependent and independent variables

Independent variables	Coefficients	SE	*t*-statistics	Significance	VIF
Firm size	0.003	0.005	0.504	0.618	1.972
Leverage	0.001	0.000	1.635	0.113	2.742
Age	−0.001	0.001	−1.372	0.181	1.140
Auditor	*0.053***	0.023	2.286	0.030	1.466
Profitability	*0.002**	0.001	1.851	0.075	1.225
Industry	*0.044**	0.022	1.999	0.055	2.216
Liquidity	0.010	0.009	1.077	0.291	1.429
(Constant)	0.762***	0.055	13.821	0.000	-
R^2	0.419				
Adjusted R^2	0.274				
F-statistics	2.888				
Probability (*F*)	<0.01				
No. of observations	36				

Notes: $***p < 0.01$, $**p < 0.05$ and $*p < 0.1$ level

Table V. Regression analysis

profitability and industry type are significantly related to compliance with IAS 1 mandatory requirements. The remaining four independent variables (size, leverage, age and liquidity), however, show statistically insignificant associations with compliance with IAS-1 mandatory requirements. These results are discussed in detail below.

H1 predicts a positive association between firm size and IAS 1 disclosure. Contradictory to the researcher's prediction, the findings suggests that firm size is insignificant in explaining the differences in the extent of disclosure compliance with IAS 1. Moreover, the results reported that there is a positive association between leverage and liquidity and the extent of compliance. Therefore *H1*, *H2* and *H7* are not supported as can be seen in Table VI. The results provide evidence that there is a negative association between age and the extent of disclosure compliance with IAS 1. It is contrasting with the prediction made. This could be due to the fact that older companies find it difficult to comply with IAS-1 standards due to their use of local and predetermined set of standards, and it takes time to comply with international standards such as IASs and IFRSs as fast as younger companies, which are more flexible. Nonetheless, the results are statistically insignificant and therefore, *H3* is not supported as well.

On the other hand, the findings report a positive association between size and type of audit firm and the level of disclosure compliance with IAS-1. This result supports the notion put forward by Demir and Bahadir that large audit firms such as the Big 4 have

Table VI. Summary of hypotheses results

Hypothesis	Status and reason	Prior studies
H1. There is a positive association between firm size and IAS 1 disclosure	*H1* is rejected because *t*-test 0.504 < 1.65 and significance 0.618 > 0.05	Street and Bryant (2000), Street and Gray (2001), Glaum and Street (2003)
H2. There is a positive association between leverage and IAS 1 disclosure	*H2* is rejected because *t*-test 1.635 < 1.65 and significance 0.113 > 0.05	Wallace *et al.* (1994), Ali *et al.* (2004), Hassan *et al.* (2006)
H3. There is a positive association between age and IAS 1 disclosure	*H3* is rejected *t*-test – 1.372 < 1.65 and significance 0.181 > 0.05	Glaum and Street (2003), Alsaeed (2006), Bhayani's (2012), Juhmani (2012), Demir and Bahadir (2014)
H4. There is a positive association between size of audit firm and IAS 1 disclosure	*H4* is accepted because *t*-test 2.286 >1.65 and Sig. 0.030 < 0.05	Glaum and Street (2003), Al-Shammari (2011), Juhmani (2012), Demir and Bahadir (2014)
H5. There is an association between profitability and IAS 1 disclosure	*H5* is accepted because *t*-test 1.851 > 1.65 and significance 0.075 < 0.1	Patten and Zelenka (1997), Owusu-Ansah (1998), Gallery *et al.* (2008), Alfaraih (2009)
H6. There is a positive association between industry type and IAS 1 disclosure	*H6* is accepted because *t*-test 1.999 > 1.65 and significance 0.055 < 0.1	Street and Gray (2001), Naser *et al.* (2002), Al Mutawa (2010)
H7. There is a positive association between liquidity and IAS 1 disclosure	*H7* is rejected because *t*-test 1.077 < 1.65 and significance 0.291 > 0.05	Owusu-Ansah (1998), Naser *et al.* (2002), Al-Shammari *et al.* (2008)

an incentive to protect their reputation and to signal to the market their higher audit quality by encouraging their clients to have a higher level of disclosure compliance with IFRS. Moreover, large audit firms can reduce agency costs, hence restricting the opportunistic interests of management through monitoring. As a result, *H4* of this study is accepted.

Moreover, while many studies (Glaum and Street, 2003; Alsaeed, 2006; Juhmani, 2012 and Demir and Bahadir, 2014) found no association between profitability and the extent of mandatory disclosure, the results of this study indicate otherwise. This supports the signaling theory that managers are more likely to disclose and present detailed information when profitability is high to signal their ability to maximize shareholders' value and avoid undervaluation (Alfaraih, 2009). It also supports the argument that to hide the various reasons for declining profitability or losses, firms may disclose and present less information. Moreover, Gallery *et al.* (2008); Alfaraih (2009) found an association between profitability and level of disclosure. Similarly, this study supports *H5*, indicating a positive association between profitability and level of disclosure compliance with IAS-1 in Bahrain.

Finally, type of industry was also found to be positively and significantly associated with the level of IAS 1 disclosure. Alfaraih (2009) suggests that a reason for this could be that specific industry types are highly regulated due to their overall contribution to the national income. These industry types, such as the financial sector in Bahrain, might be regulated more rigorously, and this might influence the disclosure practices of firms operating in these industry types. Consequently, *H6* of this study is accepted.

Table VI provides a summary of the hypotheses results, the reason for accepting or rejecting each hypothesis and prior studies that support and report similar results to this study.

5. Conclusion

5.1 Conclusion

In an attempt to improve the quality of financial reporting in Bahrain and since the adoption of IFRSs in 2007, relatively few attempts have been made to investigate the depth of information disclosure and factors that may influence the information disclosure of listed firms in Bahrain. Therefore, this research investigates the level of compliance with IAS-1 disclosure requirements by 36 firms listed on Bahrain Bourse for the financial year ending December 31, 2013 and reports the underlying firm characteristics influencing the disclosure compliance of Bahraini firms with IAS-1. A Disclosure Compliance Index was used to measure the extent of disclosure compliance with IAS-1. Each of the 36 sampled firms' annual reports was examined against the index to identify the sampled companies' compliance. A regression analysis was used to test the association between the level of disclosure and seven firm characteristics including, firm size, age, leverage, size of audit firm, profitability, industry type and liquidity.

The findings indicate that the overall extent of compliance with IAS-1 of Bahraini companies is 0.83. However, Alfaraih (2009) reports a 0.85 level of disclosure compliance with IAS 1 in Kuwait, which is higher than the figure reported in this study, indicating that regulations in Bahrain need to be improved.

The regression analysis indicates that disclosure compliance of 0.83 varies by audit firm size, profitability and industry type. Audit firm size is positively related to the extent of compliance with disclosure requirements. This implies that big audit firms such as the Big 4 incite firms to have a higher level of disclosure compliance with IAS 1 to protect their reputation. Profitability is also positively related to the level of disclosure compliance, mainly due to the signaling theory which states that managers are more likely to disclose and present detailed information when profitability is high to signal their ability to maximize shareholders' value and avoid undervaluation. However, the remaining firm characteristics such as leverage, company size, age and liquidity are insignificant in describing the level of disclosure compliance with IAS 1.

5.2 Implications and contributions

Practically, the results of the analysis provided in this research should be particularly relevant to regulatory bodies and standard setters. The study, therefore, recommends the CBB and the MOIC, the regulatory bodies in Bahrain, to organize regular training programs and provide practical guides for full compliance with IFRSs and IASs. Although the results of this paper are specific to Bahrain, conclusions drawn from this research might be relevant to other countries in the region with similar socio-economic environments.

Furthermore, although none of the 36 samples fully complied with IAS-1 during the period of study, the external auditors for all listed firms attested to full compliance. This reinforces the argument put forth by the IASB and IFAC that criticize external auditors for asserting that financial statements fully comply with prescribed IAS/IFRS requirements when, in fact, the notes indicate otherwise (Cairns, 1997, and Alfaraih, 2009).

From a theoretical point of view, this study adds to existing literature on the association of firm characteristics and compliance with IAS-1 by investigating firms listed on Bahrain Bourse. Therefore, it expands on international accounting compliance studies in the Gulf region, particularly in Bahrain. The findings of this paper are also expected to benefit researchers and users of annual reports in other parts of the world.

5.3 Limitations and future research

Similar to any other research, this study has some limitations. Due to time factors, only seven variables were regarded and tested for a sample of 36 firms in Bahrain. As a result, annual reports for only one year ending December 31, 2013 were used. Therefore, further research would be needed by considering more than one year's annual reports to explore the progress of company's compliance level with IAS/IFRSs disclosure requirements.

Moreover, this research is based on data from only 36 listed firms in Bahrain Bourse as the researcher was not able to get access to data for all the 48 listed firms in the stock exchange. Therefore, the sample of the firms selected was based on the availability of data and has influenced the results. Consequently, the findings of this study offer a starting point for similar research undertaking. Another future research could introduce voluntary items instead of mandatory items used in this study.

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Appendix 1

Table AI.
Disclosure compliance checklist for IAS 1

Item	Presentation/disclosure requirement
A complete set of financial statements comprises	
1	a) a statement of financial position as at the end of the period
2	b) a statement of *profit or loss* and other comprehensive income for the period
3	c) a statement of *changes in equity* for the period
4	d) a statement of *cash flows* for the period
5	e) notes, comprising a summary of significant accounting policies and other explanatory information:
6	ea) comparative information in respect of the preceding period
7	All of the financial statements in a complete set of financial statements shall be *presented with equal prominence*
8	The financial statements shall *present fairly the financial position, financial performance and cash flows*
9	Did the entity whose financial statements comply with IFRSs, make an *explicit and unreserved* statement of such compliance in the notes?
10	An entity shall prepare its financial statements, except for cash flow information, using the *accrual basis of accounting.*
11	An entity shall present each *material class* of similar items separately in the financial statements
12	Except when IFRSs permit or require otherwise, an entity shall *present comparative information in respect of the preceding period for all amounts reported in the current period's financial statements.*
13	An entity shall include comparative *information for narrative* and descriptive information if it is relevant to understanding the current period's financial statements
14	When an entity *changes the presentation or classification of items* in its financial statements, it shall reclassify comparative amounts, unless it is impracticable to do so
15	Have comparative amounts been *reclassified*? If yes, the entity shall disclose (including as at the beginning of the preceding period): *the nature of the reclassification*; *the amount of each item or class of items that is reclassified; and the reason for the reclassification*
16	*Is it impracticable to reclassify comparative amounts*? If yes, the entity shall disclose: the *reason for not reclassifying the amounts;* and the nature of the adjustments that would have been made if the amounts had been reclassified
17	An entity shall *clearly identify the financial statements and distinguish them from other information in the same published document*
	An entity shall display the following information prominently, and repeat it when it is necessary for the information presented to be understandable:
18	a) the *name* of the reporting entity or other means of identification, and any change in that information from the end of the preceding reporting period
19	b) whether the financial statements are of the *individual entity or a group of entities*
20	c) *the date of the end of the reporting period* or the period covered by the set of financial statements or notes
21	d) *the presentation currency*, as defined in IAS 21 The Effects of Foreign Exchange Rates

(*continued*)

Item	Presentation/disclosure requirement
22	e) *the level of rounding used* in presenting amounts in the financial statements
An entity shall disclose on the face of the financial statement the following minimum disclosures;	
23	(a) Property, plant and equipment
24	(b) Investment property
25	(c) Intangible assets
26	(d) Financial assets (excluding amounts shown under e., f., and g.)
27	(e) Investments accounted for using equity method
28	(f) Trade and other receivables
29	(g) Cash and cash equivalents
30	(h) Trade and other payables
31	(i) Provisions
32	(j) Financial liabilities (excluding amounts shown under (h) and (l))
33	(k) Liabilities and assets for current tax
34	(l) Deferred tax liabilities and deferred tax assets as defined under
35	(m) Non-controlling interest, and presented within equity
36	(n) Issued capital and reserves attributable to owners of the parent
37	An entity shall present current and *non-current assets, and current and non-current liabilities* as separate classifications in its statement of financial position except when a presentation based on liquidity provides information that is reliable and more relevant
38	For some entities, such as financial institutions, a presentation of assets and liabilities in *increasing or decreasing order of liquidity* provides information that is reliable and is more relevant than a current/non-current presentation because the entity does not supply goods or services within a clearly identifiable operating cycle
39	An entity shall disclose, either in the statement of financial position or the notes, further *sub-classifications of the line items* presented, classified in a manner appropriate to the entity's operations
An entity shall disclose the following, either in the statement of financial position or statement of changes in equity, or in the notes:	
40	a) for each class of share capital i) the number of *shares authorized*
41	ii) the number o*f shares issued and fully paid, and issued and not fully paid*
42	iii) *par value* per share, or the shares that have no par value
43	iv) a reconciliation of the *number of shares outstanding* at the beginning and end of the period
44	v) the *rights, preferences and restrictions* attaching to that class, including restrictions on the distribution of dividends and the repayment of capital
45	b) a description of the nature and purpose of each *reserve* within equity
The statement of profit or loss and other comprehensive income shall present, in addition to the profit or loss and other comprehensive income sections:	
46	a) Profit or loss
47	b) Total other comprehensive income
48	c) Comprehensive income for the period, being the total of profit or loss and other comprehensive income
	d) An entity shall present the following items as allocation of profit or loss and other comprehensive income for the period:
49	da) profit or loss *attributable to non-controlling interests, and owners of the parent*

(*continued*)

Table AI.

Item	Presentation/disclosure requirement
50	db) comprehensive income for the period *attributable to non-controlling interests, and owners of the parent*
51	e) a single amount for the total of *discontinued operations*
52	An entity shall *not present* any items of income or expense as *extraordinary items,* in the statements presenting profit or loss and other comprehensive income or in the notes
53	An entity shall present an *analysis of expenses recognized* in profit or loss using a classification based either on the nature of expenses or their function within entity, whichever provides information that is reliable and more relevant
The financial statements shall include notes to the accounts. The notes shall:	
54	a) Present the information about the basis of preparation of the financial statements and the specific *accounting policies* used
55	b) Disclose the information required by IFRSs that is *not presented elsewhere* in the financial statements
56	c) Provide information that is *presented elsewhere* in the financial statements, but is *relevant* to an understanding of any of them
57	An entity shall present notes in a *systematic manner*. An entity shall cross-reference each item in the statements of financial position and in the statements of profit or loss and other comprehensive income, and in the statements of changes in equity and of cash flows to any related information in the notes
58	An entity shall disclose, the *judgments* made by the management in the process of applying the entity's accounting policies that have most significant effect on the amounts recognized in the financial statements
59	An entity shall disclose information about the *assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the* reporting period, that have a significant risk of resulting in a material adjustment tothe carrying amounts of assets and liabilities within the next financial year
60	In respect of such *assets and liabilities, the notes shall include details of; their nature; and their carrying amount as at the end of the reporting period.*
61	An entity shall disclose in the notes *the amount of dividends proposed or declared* before the financial statements were authorized for issue but not recognized as a distribution to owners during the period, and the related amount per share
An entity shall disclose the following, if not disclosed elsewhere in information published within the financial statements	
62	a) *the domicile and legal form of the entity*, its country of incorporation and the address of its registered office (or principal place of business, if different from the registered office);
63	b) a description of the *nature of the entity's operations and its principal activities*
64	c) the *name of the parent entity* and the ultimate parent of the group

Table AI.

Appendix 2

No.	Firm name	Year of incorporation
Commercial banks		
1	Al Salam Bank	2006
2	Al Ahli United Bank	2000
3	Bahrain Islamic Bank	1979
4	BBK	1971
5	Ithmaar Bank	1982
6	Khaleej Commercial Bank	2004
7	National Bank of Bahrain	1957
Investment banks		
8	Al Baraka Banking Group	2002
9	Arab Banking Corporation	1980
10	Bahrain Commercial Facilities Company	1983
11	Bahrain Middle East Bank	1982
12	ESTERAD INVESTMENT COMPANY B.S.C	1973
13	Gulf Finance House E.C	1999
14	INOVEST B.S.C	2002
15	Investcorp Bank	1982
16	United Gulf Bank	1980
Insurance		
17	Al Ahlia Insurance Company	1976
18	Arab Insurance Group	1980
19	Bahrain & Kuwait Insurance Company	1975
20	Bahrain National Holding Company	1998
21	Takaful International Company	1989
Services		
22	Bahrain Cinema Company	1967
23	Bahrain Duty Free Complex	1991
24	Bahrain Telecommunication Company	1981
25	BMMI B.S.C	1980
26	Nass Corporation BSC	2005
27	Seef Properties	1999
28	TRAFCO GROUP B.S.C	1977
29	Zain Bahrain B.S.C	1983
Hotels and Tourism		
30	Bahrain Family Leisure	1994
31	Bahrain Tourism Company	1974
32	GULF HOTEL GROUP B.S.C	1968
33	National Hotels Company	1974
Industrial		
34	Aluminum Bahrain B.S.C	1968
35	Delmon Poultry Company	1980
Non-Bahraini Companies		
36	Bank Muscat	1982

Table AII.
List of firms included in this study listed with Bahrain Bourse

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