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Firm- and country-level antecedents of corporate governance compliance and disclosure in MENA countries

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Abstract

Purpose – This paper aims to investigate the level of compliance with, and disclosure of, corporate governance best practice recommendations and the firm- and country-level factors that can explain discernible differences in the level of compliance with, and disclosure of, corporate governance best practice recommendations in a number of Middle Eastern and North African (MENA) countries.

Design/methodology/approach – The authors use the widely used content analysis technique to examine the level of compliance with, and disclosure of, corporate governance best practice recommendations in a sample of listed corporations in MENA countries. In addition, the authors use the ordinary least square multiple regression analysis technique to examine the firm- and country-level antecedents of the level of compliance with, and disclosure of, corporate governance best practice recommendations. The findings are generally robust to different types of firm- and country-level factors, alternative measures and potential endogeneity problems.

Findings – The findings of this study are two-fold. First, the level of voluntary compliance with, and disclosure of, corporate governance best practice recommendations among MENA listed corporations is low and differs substantially across firms. Second, the evidence suggests that firm- and country-level factors, including religiosity, national governance quality and macroeconomic factors, have a positive and significant impact on voluntary compliance with, and disclosure of, corporate governance best practice recommendations.

Originality/value – To the best of the authors' knowledge, this paper is the first to examine both the potential firm- and country-level factors affecting voluntary compliance with, and disclosure of, corporate governance best practice recommendations among MENA listed corporations from a neo-institutional theoretical perspective. The results of our study provide regulators and policymakers with the impetus to encourage greater efforts towards pursuing reforms that seek to improve national governance quality, economic environment and positive religious practices.

Keywords Corporate governance, Religiosity, Disclosure, Neo-institutional theory, MENA countries, Macroeconomic factors

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Introduction

This study departs from much of the existing accounting, corporate governance (CG), disclosure and transparency literature by investigating the level of compliance with, and disclosure of, CG best practice recommendations in Middle Eastern and North African (MENA) countries and the extent to which firm- and country-level factors, including religiosity, national governance quality and macroeconomic factors, can explain noticeable variations in the level of compliance with, and disclosure of, CG best practice recommendations. The analysis and interpretations of the findings draw inspiration from neo-institutional theory.

There is increasing global interest in developing the level of compliance with, and disclosure of, sound CG practices (Ntim *et al.*, 2012b; Al-Janadi *et al.*, 2013; Elmagrhi *et al.*, 2016; Elamer *et al.*, 2018). Discernibly, MENA countries have pursued economic and financial reforms aimed at encouraging domestic savings and attracting foreign investment (Lagoarde-Segot and Lucey, 2008; Al-Janadi *et al.*, 2013; Aljifri *et al.*, 2014). One way of achieving this objective is to improve the disclosure environment and governance practices (Al-Shammari and Al-Sultan, 2010; Baydoun *et al.*, 2012; Aljifri *et al.*, 2014; Albitar, 2015). Although previous studies have used a number of theories, including agency, legitimacy, resource dependence and stakeholder, to examine the possible motives that may explain why public corporations comply with, and disclose, sound CG practices (Samaha *et al.*, 2012; Al-Janadi *et al.*, 2013; Aljifri *et al.*, 2014; Al-Bassam *et al.*, 2018), the recent discernible growth in the issuance and/or adoption of CG codes can arguably also be explained within the context of neo-institutional theory (Aguilera and Jackson, 2003; Aguilera and Cuervo-Cazurra, 2004, 2009; Ioannou and Serafeim, 2012; Judge *et al.*, 2008; Zattoni and Cuomo, 2008; Kim, 2016; Shahab *et al.*, 2018).

Neo-institutional theory predicts that the prevalence of many business norms and practices among firms or countries is influenced by institutional aspects (e.g. economic, social and political forces) (DiMaggio and Powell, 1983, 1991; Scott, 2001). Different members of society (e.g. corporations and nations) are subject to institutional forces, which may be driven by the need to pursue economic efficiency (*substantive management*) and/or social legitimacy (*symbolic management*) (Aguilera and Cuervo-Cazurra, 2004; Zattoni and Cuomo, 2008). In this case, prior studies have successfully used neo-institutional theory at the national level to rationalise institutional forces, which may drive or hinder the diffusion of several corporate practices. These include International Accounting Standards (Judge *et al.*, 2010, Kim, 2016) and governance codes and mechanisms (Aguilera and Jackson, 2003; Aguilera and Cuervo-Cazurra, 2004; Judge *et al.*, 2008; Zattoni and Cuomo, 2008). Neo-institutional theory has also been used recently to explain company practices, such as corporate social responsibility (CSR) (Ioannou and Serafeim, 2012; Ntim and Soobaroyen, 2013a,b; Bose *et al.*, 2018; Haque and Ntim, 2018) and the adoption of voluntary CG compliance and disclosure practices (Elmagrhi *et al.*, 2016; Alnabsha *et al.*, 2018).

Consistent with global developments, MENA countries have pursued CG reforms by issuing national CG codes. Similar to most emerging economies, MENA CG codes mostly adopt a UK-style voluntary "comply or explain" compliance and disclosure regime (Elghuweel *et al.*, 2017; Al-Bassam *et al.*, 2018). However, and distinct from most developed countries, MENA context has distinctive cultural features of having strong hierarchical social structure, where greater importance is usually attached to religious and informal relationships, such as family loyalty, norms and tribalism than formal CG and accountability mechanisms such as corporate boards and institutional shareholdings (Elghuweel *et al.*, 2017; Al-Bassam *et al.*, 2018). Arguably, these contextual challenges raise serious empirical questions as to whether institutional factors (i.e. religiosity, national governance quality and macroeconomic factors) that are prevalent in MENA economies can hinder or improve CG standards in their listed corporations (Samaha *et al.*, 2012; Al-Bassam *et al.*, 2018). Compared to previous cross-country studies that have based their argument on national-level institutional differences between the "Anglo-American" and the "Continental" CG models (Aguilera and Jackson, 2003; Ioannou and Serafeim, 2012), the current study introduces new evidence by examining the impact of institutional factors on the level of compliance with, and disclosure of, CG best practice recommendations within MENA context, which is rarely studied in the literature. The current study also focusses on both firm- and country-level factors that may explain observable differences in the level of compliance with, and disclosure of, CG best practice recommendations within MENA countries. By contrast, much of the previous studies that have addressed similar questions have either focussed on firm-level factors (Ntim *et al.*, 2012a; Samaha *et al.*, 2012; Elmagrhi *et al.*, 2016; Al-Bassam and Ntim, 2017; Al-Bassam *et al.*, 2018) or country-level factors (Salter, 1998; Jaggi and Low, 2000; Zaman Mir *et al.*, 2009) only. Therefore, the current study responds directly to recent calls for studies that explore both firm- and country-level determinants by examining whether discernible variations in the level of compliance with, and disclosure of, CG best practice recommendations may be explained by noticeable differences in firm- and country-level institutions with specific focus on MENA countries (Aguilera and Jackson, 2003; Archambault and Archambault, 2003).

Although religion is often considered to be one of the main institutional and cultural pillars that may affect corporate activities (Archambault and Archambault, 2003; Aribi and Gao, 2011; Baydoun *et al.*, 2012; Chan-Serafin *et al.*, 2013; Du *et al.*, 2016), few studies have examined the effect of religiosity on modern organisations' outcomes and decisions, including CG disclosures (Baydoun *et al.*, 2012; Tracey, 2012; Chan-Serafin *et al.*, 2013; Du *et al.*, 2016). It is, however, discernible that a large number of such previous studies (Al-Shammari and Al-Sultan, 2010; Samaha *et al.*, 2012; Elmagrhi *et al.*, 2016; Al-Bassam *et al.*, 2018) have mainly examined the effect of firm-level characteristics and CG measures on corporate voluntary disclosure, notably ignoring the impact of religiosity, national governance quality and macroeconomic factors.

Consequently, the current study aims to extend existing knowledge by offering a number of new contributions to the existing literature. First, it seeks to add to the extant literature by providing new cross-country evidence on the level of compliance with, and disclosure of, CG best practice recommendations in MENA countries. Second, it examines how religiosity affects the levels of compliance with, and disclosure of, CG best practice recommendations. Third, it provides new evidence on the extent to which the quality of national governance affects the level of compliance with, and disclosure of, CG best practice recommendations. Finally, it offers a new evidence on the effect of macroeconomic factors on the level of compliance with, and disclosure of, CG best practice recommendations among listed firms in MENA countries.

The remainder of the paper is structured as follows. First, we briefly discuss recent governance reforms and practices in MENA countries. Second, we present the theoretical framework, followed by the literature review and development of hypotheses section. Third, we discuss the research design. Fourth, we present the empirical analysis, including robustness checks and; finally, we outline our study's limitations and concluding remarks.

Governance reforms and practices in Middle Eastern and North African countries

MENA countries provide an interesting context to conduct the current study for a number of reasons. First, most of these countries have many common cultural aspects (e.g. they speak

Arabic, follow Islam and share many customs and traditions). These distinctive characteristics have direct effects on their economic features, information environment and corporate practices (Al-Shammari and Al-Sultan, 2010; Baydoun *et al.*, 2012; Al-Bassam and Ntim, 2017; Elghuweel *et al.*, 2017; Al-Bassam *et al.*, 2018). They also provide opportunities for standardisation, harmonisation and convergence of governance codes and practices at both firm and country levels (Aguilera and Cuervo-Cazurra, 2004). Second, almost all MENA countries are emerging markets, with a stronger need to develop their investment environment, especially stock markets. Therefore, they have pursued economic and financial reforms to attract foreign direct investments (Lagoarde-Segot and Lucey, 2008; Baydoun *et al.*, 2012; Aljifri *et al.*, 2014). The issuance and implementation of CG codes in these countries are, therefore, essential for their economic success (Claessens and Yurtoglu, 2013). Thus, the findings of this study may have important implications not only for MENA countries but also for other developing countries and emerging markets which have pursued governance reforms.

Third, the MENA context is characterised by strong Islamic beliefs that are expected to have important effects on the adoption and implementation of good governance standards. It is argued that societies with strong religious principles are more likely to exhibit higher levels of transparency and compliance with regulations (Haniffa and Cooke, 2002; Al-Bassam and Ntim, 2017; Elghuweel *et al.*, 2017). Typically, within the MENA region, individuals appear to rely mainly on religious norms in monitoring business activities (Kamla, 2009). Unlike most previous studies which were conducted in Western contexts, where business is arguably not explicitly influenced heavily by religious tenets, the current study is conducted in MENA countries, where *Sharia* Law significantly influences business.

Fourth, unlike developed countries, where strong legal enforcement affects corporate practices, emerging economies, including MENA countries, have a record of weak legal enforcement, meaning that firms operating in these countries have little incentive to comply with corporate regulations (Aguilera and Jackson, 2003; Allen *et al.*, 2005; Al-Bassam *et al.*, 2018). Consequently, this study seeks to examine the firm- and country-level determinants of compliance with, and disclosure of, CG best practice recommendations in this distinctive context.

A neo-institutional framework for good governance practices

Institutional theory argues that over time, organisations tend to become structured and are influenced by social norms, symbols, beliefs and rituals (DiMaggio and Powell, 1983). Institutional theory, thus, studies the interaction between the organisation and the environment in which it operates.

From the neo-institutional perspective, there are three types of institutional pressures: coercive/regulative; cognitive/mimetic; and normative. These pressures can be combined to rationalise the diffusion of good governance practices at the company or national levels. Briefly, coercive forces indicate that companies have to adhere to governmental or other equivalent regulations, such as capital markets. Memetic forces suggest that organisations may follow the steps of those which are successful in their field. Normative forces indicate that to gain investors' confidence, organisations may voluntarily follow conventional practices and norms (Yoshikawa and Rasheed, 2009). Therefore, institutional theory predicts that organisational practices tend to become isomorphic over time due to these three types of pressures (DiMaggio and Powell, 1983, 1991; Bose *et al.*, 2018).

The current study aims to apply this version of neo-institutional theory, which incorporates both efficiency and legitimation motives (Ntim and Soobaroyen, 2013a, b; Elmagrhi *et al.*, 2016; Kim, 2016) to explain differences in voluntary CG disclosure practices at the organisational level. First, from a legitimation perspective, corporations can improve their legitimacy and social acceptance by adhering to the regulative institutional pressures to conform to expected social behaviours and international standards (Ashforth and Gibbs, 1990; Suchman, 1995). Therefore, they can gain organisational legitimacy by showing compliance with good governance practices in the form of increased governance disclosure. This facilitates the congruence of corporate goals and norms with those of the larger society. Similarly, economic units can maintain good links with corporate stakeholders to improve corporate legitimacy by being involved in or mimicking accepted social behaviour (Aguilera *et al.*, 2007). On the other hand, the theoretical implications of the efficiency (instrumental) view of neo-institutional theory argue that adhering to coercive, mimetic and normative institutional forces can help economic entities to gain critical resources to enhance corporate performance and the overall interests of shareholders (Aguilera *et al.*, 2007).

Governance and voluntary disclosure: literature review and hypotheses development

Some studies have examined a number of antecedents that can explain differences in the extent of voluntary disclosure of good governance practices at the firm-level (Haniffa and Cooke, 2005; Ntim *et al.*, 2012b; Samaha *et al.*, 2012; Elmagrhi *et al.*, 2016; Al-Bassam *et al.*, 2018). Our study extends the literature on possible antecedents of CG compliance and disclosure. In particular, this study uses the neo-institutional theory to investigate the impact of firm- and country-level factors, including religiosity, national governance quality and macroeconomic factors, on the level of compliance with, and disclosure of, CG best practice recommendations in MENA countries' listed firms.

Religiosity

Institutional factors may better explain governance practices than do firm-level factors (Judge *et al.*, 2008, 2010; Baydoun *et al.*, 2012; Du *et al.*, 2016; Bose *et al.*, 2018). Therefore, this study will use both firm- and country-level factors to examine the level of compliance with, and disclosure of, CG best practice recommendations in MENA countries. Starting with religiosity, although religion is considered to be one of the main institutional and cultural pillars that may affect corporate activities (Archambault and Archambault, 2003; Aribi and Gao, 2011; Baydoun *et al.*, 2012; Chan-Serafin *et al.*, 2013; Elghuweel *et al.*, 2017), few scholars have investigated its impact on modern organisations' outcomes and decisions, including governance disclosure (Tracey, 2012; Chan-Serafin *et al.*, 2013).

Contrary to most developed countries, where religion is often considered as a private matter (Rice, 1999), in most Muslim countries, Islam influences people's daily activities and business, as it is integrated in all aspects of societal activities, including politics, community, law and economy (Hassan and Christopher, 2005; Abu-Tapanjeh, 2009; Kamla, 2009; Aribi and Gao, 2010). Therefore, business, financial and all economic transactions are performed within the tenets of Islamic principles. Governance of public corporations is also strongly influenced by Islamic values that emanate mainly from *Sharia* (Safieddine, 2009; Judge, 2010). Muslims believe that resources are provided to an individual by God in the form of trust, and therefore, accountability is ultimately to God (Bhatti and Bhatti, 2010). The "umma" or society also has the right to know about the operations and transactions of business organisations (Lewis, 2006). Therefore, Islamic economic principles require business organisations to provide accurate and fair corporate disclosure to different users of their annual reports so that they can make informed economic decisions (Maali *et al.*, 2006; Abu-Tapanjeh, 2009). Likewise, the Islamic ideals of unity of purpose of life, universal brotherhood and trust suggest that organisations should show greater transparency/ disclosure (Sulaiman and Willett, 2003) and apply sound governance practices in their business dealings (Hassan and Christopher, 2005). Hassan and Christopher (2005) and Maali *et al.*, (2006) proposed that in Muslim societies, organisations can use annual reports as a medium for promoting Islamic values (compliance with Islamic *Sharia*, "zakah", fairness and justice – *vis-à-vis* sound governance practices and disclosure). Accordingly, higher religious institutions are expected to disclose relevant corporate information to gain legitimacy for their continued existence (Haniffa, 2001; Haniffa and Cooke, 2002, 2005; Maali *et al.*, 2006; Abu-Tapanjeh, 2009; Farook *et al.*, 2011; Tracey, 2012).

The existing theoretical frameworks rarely recognise religion as a foundation for explaining why organisations comply with and voluntarily disclose governance information (Haniffa, 2001; Aribi and Gao, 2011; Du *et al.*, 2016). This is reflected in the dearth of literature investigating the impact of religion on governance practices. In this case and comparing the annual reports of 21 conventional financial institutions (CFIs) and 21 Islamic financial institutions (IFIs) operating in the Gulf region, Aribi and Gao (2010) find significant differences in the level of CSR disclosure between IFIs and CFIs. Using a sample of 761 industrial companies from 37 countries, Archambault and Archambault (2003) find empirical evidence supporting the positive and significant effect of religion (Islamic, Catholic, Protestant and Buddhist) on corporate financial disclosure. Similarly, Ongena and Sendeniz-Yuncu (2011) find empirical evidence that Islamic banks mainly deal with firms that are more transparent in their disclosure behaviour by using 16,056 bank relationships from 1999 to 2008 in Turkey. Further, Farook *et al.* (2011) document that Islamic governance (i.e. characteristics of the *Sharia* supervisory board) has a positive effect on the level of voluntary disclosure by Islamic banks. Additionally, and using a sample of 75 Saudi listed firms from 2004 to 2010, Al-Bassam and Ntim (2017) report that corporations that depict greater commitment towards incorporating Islamic values into their operations engage in higher voluntary CG disclosures than those that do not. On the other hand, Hassan and Christopher (2005) investigated the impact of Islam on governance disclosure in the annual reports of Malaysian banks. They find that Islamic banks do not exhibit better governance practices and disclosure behaviour than conventional banks. Maali *et al.* (2006) also suggest that social reporting is not a major concern for most Islamic banks, although banks required to pay "zakah" do offer more social disclosures. Thus, based on these arguments, the first hypothesis is as follows:

H1. There is a positive association between religiosity and the level of compliance with, and disclosure of, CG best practice recommendations.

National governance quality

National governance qualities, including laws and regulations, are also an important determinant of organisational outcomes (Ioannou and Serafeim, 2012). Available data from international organisations, such as the World Bank Group and Transparency International, demonstrate that compared to the rest of the world, MENA countries are generally characterised by poor governance indicators. This is supported by the often relatively high levels of corruption, political instability, poor regulatory quality, lack of accountability and general ineffectiveness of government institutions across several MENA countries (Bishara, 2011; Heidenhof, 2014; Tunyi and Ntim, 2016). Even though governance indicators in the MENA region show some improvement since the Arab Spring, they are still weak compared to the rest of the world (Bishara, 2011; Heidenhof, 2014). This part of the world encounters a number of governance challenges that include:

> [. . .] the very high concentration of political and economic power by the governing elites and those close to them, a general lack of transparency and accountability of state actors and deeply felt feelings of a lack of dignity, social justice and inequality by the populace at large (Heidenhof, 2014, p. 2).

Empirical studies examining the effect of national governance quality on disclosure are generally rare and therefore offer opportunity to contribute to the literature. Ioannou and Serafeim (2012) and Baldini *et al.* (2016) find that a high level of corruption has a significant negative impact on the level of environmental, social and governance disclosures. Similarly, Mateescu (2015) investigated firm- and country-level factors affecting CG disclosure practices. Using a sample of 51 companies listed in four emerging European countries (Estonia, Poland, Hungary and Romania), he reports a significant positive impact of the country-level variables (rule of law, government effectiveness and regulatory quality) on corporate compliance with, and disclosure of, CG practices. Also, using 401 firms from six countries, Jaggi and Low (2000) find empirical evidence that firms from common law countries with widely dispersed ownership and a high level of debt financing are associated with higher financial disclosures, compared to firms from code law countries. Ioannou and Serafeim (2012) report that the political, labour, educational and cultural systems have a significant effect on corporate social performance. Further, in a cross-country study (examining data from 55 countries), Belkaoui (1983) finds no significant relationship between political freedom and corporate disclosure, although Goodrich (1986) finds a link between political systems and accounting clusters.

Consequently, given the insights of the neo-institutional theory perspective, and following arguments from previous studies, the current study assumes that the quality of national governance is a significant structural factor influencing CG compliance and disclosure. This leads to the following hypothesis:

> *H2*. There is a positive association between the quality of national governance and the level of compliance with, and disclosure of, CG best practice recommendations.

Macroeconomic factors

Macroeconomic factors may also explain variations in the level of compliance with, and disclosure of, CG best practice recommendations (Belkaoui, 1983; Doupnik and Salter, 1995; Salter, 1998; Archambault and Archambault, 2003; Zaman Mir *et al.*, 2009; Baydoun *et al.*, 2012). Corporate disclosure is influenced by national economic development (Salter, 1998; Archambault and Archambault, 2003). The theoretical evidence also proposes that firms need to raise more capital in countries with increasing economic development. Thus, they are likely to provide more corporate disclosure to reduce information asymmetry and mitigate agency costs (Adhikari and Tondkar, 1992; Salter, 1998).

Developing countries are subject to external coercive pressures towards the adoption of best practices (e.g. International Financial Reporting Standards) as a result of the foreign aid provided by international organisations (coercive pressure) (Hassan, 2008; Judge *et al.*, 2010). This may result in improvement in organisational governance practices to gain legitimacy. Most MENA countries have experienced extensive neoliberal economic reforms and as such have attracted significant foreign investments (Al-Bassam and Ntim, 2017; Md Zaini *et al.*, 2018). Accordingly, domestic organisations may imitate successful multinational firms that originate from foreign locations with good governance practices (Wei *et al.*, 2001; Judge *et al.*, 2010).

Inflation is another institutional element that affects accounting practices, as it negatively impacts on the reliability of financial reports that are based on historical cost assumptions (Meek and Saudagaran, 1990; Archambault and Archambault, 2003). Therefore, firms operating in environments with high inflation are more likely to provide higher corporate disclosure to help investors make informed decisions (Archambault and Archambault, 2003).

In line with theoretical expectations, a number of previous studies have suggested that the average firm disclosure is higher in developed countries than in emerging markets (Adhikari and Tondkar, 1992; Salter, 1998; Archambault and Archambault, 2003; Md Zaini *et al.*, 2018). For instance, Adhikari and Tondkar (1992) document that the level of disclosure requirements of 35 stock exchanges in different countries is positively related to the degree of economic development. Therefore, it is expected that there is a positive association between GDP and the extent of CG compliance and disclosure. Although theoretical evidence suggests a positive relationship between inflation and the level of CG compliance and disclosure, empirical evidence is mixed. For example, Doupnik and Salter (1995) find a positive link between inflation and disclosure among countries with a macroeconomic orientation. In contrast, using firm-level data from 33 countries, Archambault and Archambault (2003) report a negative relationship between inflation and corporate disclosure. Consistent with the existing theoretical and empirical evidence, our final hypothesis is that:

H3. There is a positive association between macroeconomic factors and the level of compliance with, and disclosure of, CG best practice recommendations.

Research methodology

Sample selection and data source

Our sample is based on 494 non-financial and non-utility corporations listed on the national stock exchanges of Egypt, Jordan, Oman, Saudi Arabia and UAE (143, 121, 71, 112 and 47, respectively), with complete data over the period from 2009 to 2014[1]. Financial and utility firms are subject to different regulations and have different capital structure requirements that can impact differently on their disclosure and CG practices (Reverte, 2009; Ntim and Soobaroyen, 2013a, b). Consequently, companies in these industries are excluded from our final sample. We use the content analysis technique to measure CG attributes and CG disclosure by hand collecting data from the annual financial reports. Because traditional content analysis consumes a considerable amount of time and effort, we were able to collect data on 600 firm-year observations from 100 corporations by using the widely used stratified sampling technique based on firm size and industry in each country. The sampling period starts in 2009, because the 2007/2008 financial crisis increased debate surrounding the effectiveness of governance and disclosure practices (Elmagrhi *et al.*, 2016). It ends in 2014 because this was the latest year for which the annual reports of listed corporations were published at the start of the data collection. Thus, the current study uses a time-series and cross-sectional data. This panel data structure is characterised by its ability to provide more informative data, more reliability, less collinearity among variables and more degrees of freedom (Gujarati, 2009; Wooldridge, 2013). Data of board characteristics and ownership structures were manually collected from firms' annual reports, their websites and capital markets websites of the respective sampled countries. Financial and accounting variables were collected from *Datastream* database. Finally, country-level data, including GDP and national governance quality, were collected from the website of the World Bank. Further, the global Islamic economy indicator was collected from Thomson Reuter's website, whilst inflation rate was collected from the International Monetary Fund's website.

Model specification and variables measurement

The study's variables are classified into three main categories, as fully explained in the Appendix and Table I. First, our main dependent variable is the CG index (*GIND*). This index follows a checklist developed by the Intergovernmental Working Group of Experts on

Dependent variables	
GIND	CG compliance and disclosure index contains 51 CG provisions using the CG benchmark of the United Nations Conference Trade and Development (UNCTAD, 2006)'s guidance on good practice in CG disclosure, that takes a value of 1 if each of the CG provisions is disclosed, 0 otherwise; scaled to a value between 0% and 100%
OSH	Sub-index of GIND related to ownership structure and exercise of control rights consisting of 9 provisions that take a value of 1 if each of the nine provisions is disclosed, 0 otherwise; scaled to a value between 0% and 100%
TCY	Sub-index of GIND related to financial transparency consisting of 8 provisions that takes a value of 1 if each of the eight provisions is disclosed 0 otherwise; scaled to a value between 0% and 100%
AUD	Sub-index of GIND related to auditing consisting of nine provisions that takes a value of 1 if each of the 9 provisions is disclosed 0 otherwise; scaled to a value between 0% and 100%
RTY	Sub-index of GIND related to corporate responsibility and compliance consisting of 7 provisions that takes a value of 1 if each of the seven provisions is disclosed 0 otherwise; scaled to a value between 0% and 100%
BMS	Sub-index of GIND related to board and management structure and process consisting of 18 provisions that takes a value of 1 if each of the 18 provisions is disclosed 0 otherwise; scaled to a value between 0% and 100%
Independent variables	
FIVI	Firm Islamic values index contains three provisions (whether a narrative regarding the fact that the firm's funds and loans are on the basis of interest-free is disclosed, whether the firm discloses any Islamic and conventional finance separately, and whether a narrative regarding the appropriate calculation and payment of the Islamic religious tax "zakah" for the financial year is disclosed) that takes a value of 1 if each of the provisions is disclosed, 0 otherwise; scaled to a value between 0% and 100%
GIEI	Global Islamic economy indicator, developed by Thomson Reuters in collaboration with the Dubai Islamic Economy Development Centre, measures the development of the global Islamic economy across its multiple sectors (averaged for the period of analysis)
NGI	National Governance Index which is constructed by principal components analysis to combine the six indices (Rule of law, government effectiveness, control of corruption, voice and accountability, political stability, and regulatory quality)
GDP	Gross domestic product growth (annual %)
INFL	Inflation rate, average consumer prices
Control variables	
BRDS	Natural log of the total number of directors on the board of directors
BDIV	The percentage of the total number of women and ethnic minority (non-Arab) directors to the total number of board members
UBL	A dummy variable that takes a value of 1 if the roles of chairperson and CEO of firm are combined at the end of its financial year, 0 otherwise
DSHR	% of shares held by director
BSHR	% of shares held by shareholders with at least 5% of the total firm shareholdings
LNTA	Natural log of the book value of the total assets of a firm
AGE	Natural log of the total number of years since a company was established
SGR	The % of current year's sales minus previous year's sales divided by previous year's sales
LV	The % of total debt divided by total assets
ROA	% of operating profit to total assets at the end of its financial year
AFSIZ	A dummy variable that takes a value of 1 if a firm is audited by a Big 4 audit firm (PricewaterhouseCoopers, Deloitte & Touche, Ernst & Young, KPMG, etc.), 0 otherwise
DYER	Dummies for the years from 2009 to 2014, both inclusive
DIND	Dummies for each of the eight main industries: basic materials; oil and gas; industrial; customer goods; customer services; health care; technology and telecommunication
DCOU	Dummies for each of the five countries

Table I.
Summary of variables and measures

International Standards of Accounting and Reporting (ISAR), organised by the United Nations Conference on Trade and Development (UNCTAD, 2006). This checklist ("UNCTAD ISAR benchmark") of guidance on good practices on CG disclosure was based on five sections used to construct five sub-indices:

(1) ownership structure and exercise of control rights (OSH);
(2) financial transparency (*TCY*);
(3) auditing (*AUD*);
(4) corporate responsibility and compliance (*RTY*); and
(5) board and management structure and process (BMS).

The *GIND* is constructed by awarding a value of "1" if each of the 51 CG provisions contained in the Appendix is disclosed and "0" otherwise. With this binary scoring scheme, a firm's total disclosure score in a particular firm-year can vary between 0 (perfect non-compliance and non-disclosure) and 100 per cent (perfect compliance and disclosure)[2].

The widely used content analysis technique of coding narratives into different themes and patterns was used in collecting the CG data (Samaha *et al.*, 2012; Elmagrhi *et al.*, 2016; Al-Bassam *et al.*, 2018; Md Zaini *et al.*, 2018). To ensure the reliability, validity and consistency of the coding process, we followed the following procedures. First, the annual reports of each firm from 2009 to 2014 (for an initial sample of 25 firms, consisting of 5 firms from each of the five sampled countries) were read in its entirety to ensure that companies were not penalised for non-disclosure of non-applicable items. We discussed the coding categories and then coded the items with two experienced coders. After coding the annual reports of the initial sample, the second round of coding was conducted for the entire sample (600 firm-year observations). Any mistakes or inconsistencies identified independently by the two coders in the first round were discussed and corrected in the second round. After coding the annual reports of all the 600 firm-year observations, a third round was conducted as a final assessment. This third round was conducted to improve the coding accuracy by identifying and correcting any mistakes or inconsistencies made during the previous two rounds. The results of the third round were largely similar to those of the two previous rounds, indicating that stability among the different rounds of coding was attained. Furthermore, to measure the internal consistency of the *GIND*, Cronbach's alpha test was conducted. The coefficient for the five sub-indices in the *GIND* is 0.713, indicating that the power of the empirical test is less likely to be affected by any random measurement error (Elmagrhi *et al.*, 2016).

The second group of variables are independent variables that contain:

- firm Islamic values index (*FIVI*);
- global Islamic economy indicator (*GIEI*) (religiosity);
- national governance quality (*NGI*) (national governance);
- GDP growth (*GDP*); and
- inflation (*INFL*) (macroeconomic factors).

In this case, we first focus on two key layers of religiosity (firm- and country-level). Firm-level Islamic religious values are measured using index that contains three provisions:

- whether a narrative regarding the fact that the firm's funds and loans are on the basis of interest-free is disclosed;

- whether the firm discloses any Islamic and conventional finance commitments separately; and
- whether a narrative regarding the appropriate calculation and payment of the Islamic religious tax "zakah" for the financial year is disclosed, which takes a value of "1" if each of the provisions is disclosed and "0" otherwise.

Country-level Islamic religious values are measured using global Islamic economy indicator, developed by Thomson Reuters in collaboration with the Dubai Islamic Economy Development Centre, which measures the development of the global Islamic economy across its multiple sectors (Islamic finance, halal food, halal travel, modest fashion, halal media and recreation and halal pharmaceuticals and cosmetic). Second, we operationalise country-level governance quality by adopting country-level data compiled by Kaufmann *et al.* (2014) as part of the Worldwide Governance Indicators (WGIs) project. In the WGIs project, data from over 30 different sources are combined into six aggregate governance indicators (voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption). We use these six aggregate governance indicators (expressed in percentile rank terms) to measure the quality of national governance. Finally, we measure macroeconomic factors using country's GDP growth and country's inflation rate, as measured by the percent change in the average national consumer prices index.

The final group measures are the control variables. These are:

- firm-level governance variables, namely, board size (*BRDS*), gender and ethnicity diversity within the board of directors (*BDIV*), unitary board leadership (*UBL*), director shareholding (*DSHR*) and block shareholding (*BSHR*); and
- firm-level characteristics, namely, size (*LNTA*), age (*AGE*), growth opportunities (*SGR*), leverage (*LV*), profitability (*ROA*), audit firm size (*AFSIZ*), dummy variables for the years of operation (*DYER*), dummy variables for industries (*DIND*) and dummy variables for countries (*DCOU*).

After validating all the assumptions of multivariate regressions, the following multivariate ordinary least squares (OLS) regression model is used:

$$\begin{aligned} GIND_{it} = {} & \alpha_0 + \beta_1 FIVI_{it} + \beta_2 GIEI_{it} + \beta_3 NGI_{it} + \beta_4 GDP_{it} + \beta_5 INFL_{it} \\ & + \sum_{i=1}^{n} \beta_i CONTROLS_{it} + \varepsilon_{it} \end{aligned} \tag{1}$$

Where *GIND* is the overall MENA countries' CG index; *FIVI* is firm-level Islamic values index; *GIEI* is Global-level Islamic economy indicator; *NGI* is country-level governance; *GDP* is a country's GDP growth; and *INFL* is a country's inflation rate, and *CONTROLS* refers to firm-level control variables, namely, board size (*BRDS*), board diversity on the basis of both gender and ethnicity (*BDIV*), unitary board leadership (*UBL*), director shareholding (*DSHR*), block shareholding (*BSHR*), size (*LNTA*), age (*AGE*), growth opportunities (*SGR*), leverage (*LV*), profitability (*ROA*), audit firm size (*AFSIZ*), year dummies (*DYER*), industry dummies (*DIND*) and country dummies (*DCOU*).

Empirical results

Descriptive analysis

Table II illustrates summary descriptive analysis of the main dependent, independent and control variables over the six years investigated (2009-2014). Panel "A" of Table II shows descriptive statistics for the overall (*GIND*) index and its sub-indices. *GIND* index shows wide variability in its distribution. Specifically, it ranges from a minimum of 31.37 per cent (16 out of 51) to a maximum of 84.31 per cent (43 out of 51), with the average (median) firm complying with 56.45 per cent (56.86 per cent) of the 51 CG provisions examined. With regard to the *GIND*'s 5 sub-indices, they also show substantial differences in their descriptive analysis. For example, ownership structure and exercise of control rights (*OSH*) ranges from a minimum compliance rate of 22.22 per cent to a maximum of 100 per cent, with the average firm complying with 63.31 per cent of the nine CG provisions investigated. Also, board and management structure and process (*BMS*) ranges from a minimum compliance rate of 22.22 per cent to a maximum of 88.89 per cent, with the average firm complying with 58.09 per cent of the 18 CG provisions investigated. Thus, descriptive statistics indicate low level and considerable variations in the level of compliance with, and disclosure of, both the overall *GIND* index and its five sub-indices. Noticeably, these findings are consistent with those of the extant CG disclosure literature in MENA countries (Samaha *et al.*, 2012; Al-Janadi *et al.*, 2013; Aljifri *et al.*, 2014; Albitar, 2015; Al-Bassam *et al.*, 2018; Md Zaini *et al.*, 2018).

The descriptive statistics for independent and control variables are illustrated in Panels "B" and "C", respectively. With regard to the independent variable, firm Islamic values

Variables	Mean	Median	STD	Minimum	Maximum
Panel A: the GIND based on all 600 MENA firm-year observations					
GIND %	56.45	56.86	11.59	31.37	84.31
OSH%	63.31	66.67	11.77	22.22	100.00
TCY%	74.12	75.00	13.03	37.50	100.00
AUD%	53.70	55.56	22.24	0	100.00
RTY%	26.76	14.29	21.59	0	85.71
BMS%	58.09	61.11	15.58	22.22	88.89
Panel B: independent variables					
FIVI%	18.22	0	31.55	0	100.00
GIEI%	45.64	47.71	13.34	27.15	67.51
NGI	0	8.98	213.56	−473.28	357.26
GDP%	3.46	3.30	2.58	−5.20	10.00
INFL%	179.70	149.43	59.92	110.50	316.99
Panel C: control variables					
BRDS	8.52	9.00	2.59	4.00	19.00
BDIV%	7.88	0	14.34	0	69.23
UBL%	21.00	0	40.90	0	100.00
DSHR%	44.94	47.89	27.90	0	98.92
BSHR%	55.88	59.49	23.39	5.00	98.92
LNTA ($m)	2,089.75	184.45	5,728.52	3.45	35,222.66
AGE	21.84	20.00	10.06	1.00	47.00
SGR%	9.06	6.01	45.46	−92.59	594.06
LV%	20.38	17.99	17.65	0	69.75
ROA%	6.56	6.11	7.76	−32.09	31.03
AFSIZ%	59.00	100.00	49.30	0	100.00

Table II. Summary of descriptive statistics of the GIND, independent and control variables for all sampled firms index (*FIVI*), for example, the findings show that the average (median) firm complied with 18.22 per cent (0 per cent) of the firm Islamic values index. In line with the findings of previous studies (Al-Bassam and Ntim, 2017; Elghuweel *et al.*, 2017), our results indicate that a low percentage of the sampled firms comply with Islamic values. Elghuweel *et al.* (2017) found that the average of Islamic governance committee presence in Omani listed firms was about 1.22 per cent. The *GIEI* also shows wide variation, ranging from 27.15 to 67.51 per cent, with 45.64 per cent average country application of Islamic economic principles. Further, national governance quality (*NGI*) demonstrates a wide spread, spanning from a minimum of −473.28 per cent to a maximum of 357.26 per cent. With regard to macroeconomic factors, sampled countries show a wide variance as well. For example, *GDP* (*INFL*) ranges from a minimum of −5.20 per cent (110.50 per cent) to a maximum of 10 per cent (316.99 per cent), with average 3.46 per cent (179.70 per cent).

Control variables are illustrated in Panel "C" of Table II. The board size (*BRDS*) with a median of nine members is between a minimum of 4 and a maximum of 19 members. Board diversity (*BDIV*) on the basis of both gender and ethnic minority ranges from 0 to 69.23 per cent with an average of 7.88 per cent, which suggests that on average, MENA listed firms' boards are dominated by Arab men. All the other control variables show wide variation, suggesting that the sample is relatively representative of firms in MENA countries.

Table III presents the correlation matrix (including both Pearson's parametric and Spearman's non-parametric coefficients) for the variables to test for multicollinearity. The direction and magnitude of both coefficients are generally similar, hence suggesting that any remaining non-normalities may not pose a serious statistical problem. Noticeably, the bivariate correlations among the variables are also averagely low, indicating that any remaining multicollinearity problems may not be harmful[3]. Interestingly and as expected, compliance with Islamic values at the firm- (*FIVI*) and country- (*GIEI*) levels, national governance (*NGI*) and GDP growth (*GDP*) have a statistically significant positive relationship with the MENA CG index (*GIND*). In addition, significant associations exist between the CG index (*GIND*) and the control measures used, for example, size (*LNTA*), growth opportunities (*SGR*), leverage (*LV*), profitability (*ROA*) and audit firm size (*AFSIZ*). On the other hand, the correlation matrix shows that *GIND* has a negative significant correlation with unitary board leadership (*UBL*), director shareholding (*DSHR*) and age (*AGE*).

Multivariate regression analysis

Table IV reports the findings of the regression results for the model investigating firm- and country-level antecedents of the level of disclosure of, and compliance with, CG best practice recommendations. Models 1-5 show the cross-sectional OLS regressions of religiosity, national governance quality and macroeconomic factors on CG index (*GIND*).

With regard to religiosity, Models 1, 2 and 5 show a positive and significant relationship between *FIVI, GIEI* and *GIND*, suggesting that *H1* is empirically supported. This evidence is also consistent with the predictions of our neo-institutional theory framework. Specifically, the efficiency-led perspective suggests that firms complying with Islamic values are more likely to comply with, and disclose, CG best practice recommendations. This can attract additional resources by meeting Islamic finance providers' demand for information about their investments. From the legitimisation perspective, firms practising Islamic values are more likely to voluntarily comply with and disclose CG best practice recommendations to improve their reputation and image. This legitimises their operations through working within the framework of their society's principles. Empirically, the results are in line with the finding of Al-Bassam and Ntim (2017), who indicate that Islamic values drive the extent to

Table III. Pearson and Spearman correlation matrices of all variables

	GIND	FIVI	GIEI	NGI	GDP	INFL	BRDS	BDIV	UBL	DSHR	BSHR	LNTA	AGE	SGR	LV	ROA	AFSIZ
GIND	1	0.261***	0.694***	0.524***	0.220***	0.053	−0.052	0.034	−0.501***	−0.137***	−0.014	0.464***	−0.124***	0.084**	0.144***	0.119***	0.420***
FIVI	0.285***	1	0.349***	−0.203***	0.126***	−0.507***	0.104**	−0.188***	−0.231***	−0.274***	−0.265***	0.309***	−0.171***	0.135***	0.151***	0	0.146***
GIEI	0.681***	0.119***	1	0.697***	0.172***	−0.076*	−0.184***	−0.210***	−0.554***	−0.354***	−0.137***	0.371***	0.057	0.046	0.059	−0.026	0.242***
NGI	0.553***	−0.059	0.862***	1	0.202***	0.136***	−0.271***	−0.009	−0.443***	−0.128***	0.057	0.028	0.089**	−0.061	−0.003	0.065	0.156***
GDP	0.117***	0.185***	−0.044	0.020	1	−0.253***	−0.091**	0.070*	−0.152***	−0.062	−0.018	0.010	−0.050	−0.007	0.034	0.091**	0.053
INFL	0.024	−0.404***	0.085**	−0.171***	−0.277***	1	0.083**	0.077*	0.121**	0.255***	0.300***	0.184***	0.206***	0.065	−0.030	−0.025	0.109***
BRDS	−0.033	0.117***	−0.204***	−0.276***	−0.025	0.184***	1	0.054	0.243***	0.093**	−0.098**	0.355***	−0.005	0.099**	0.016	0.077*	0.150***
BDIV	0.055	−0.190***	−0.164***	−0.045	0.059	−0.031	0.062	1	0.039	0.308***	0.281***	−0.047	−0.134***	−0.021	0.006	0.186***	0.163***
UBL	−0.500***	−0.222***	−0.531***	−0.479***	−0.054	0.160***	0.249***	−0.003	1	0.068*	−0.017	−0.196***	0.067	0.013	−0.087**	−0.012	−0.296***
DSHR	−0.155***	−0.243***	−0.292***	−0.215***	−0.042	0.199***	0.107***	0.323***	0.072*	1	0.709***	0.125**	−0.143***	0.105***	0.078*	0.255***	0.154***
BSHR	−0.007	−0.247***	−0.054	−0.008	−0.048	0.240***	−0.067	0.279***	−0.018	0.710***	1	0.143***	−0.113***	0.067	0.037	0.238***	0.178***
LNTA	0.454***	0.372***	0.304***	0.050	0.010	0.245***	0.352***	−0.029	−0.204***	0.137***	0.169***	1	−0.091**	0.156***	0.298***	0.066	0.482***
AGE	−0.172***	−0.248***	0.001	0.010	−0.043	0.184***	−0.030	−0.101**	0.117***	−0.082**	−0.070*	−0.217***	1	−0.081**	−0.226***	−0.077*	−0.088**
SGR	0.079*	0.135***	0.023	−0.072*	0.012	0.068*	0.094**	−0.013	0.012	0.113***	0.094**	0.172***	−0.121***	1	0.036	0.290***	0.104**
LV	0.141***	0.173***	0.034	−0.010	0.028	0.004	0.026	0.028	−0.080**	0.063	0.057	0.329***	−0.282***	0.047	1	−0.169***	0.225***
ROA	0.098**	0.010	−0.018	0.043	0.055	−0.081**	0.086**	0.177***	0.001	0.233***	0.258***	0.053	−0.030	0.274***	−0.209***	1	0.174***
AFSIZ	0.421***	0.201***	0.233***	0.146***	0.016	0.098**	0.135***	0.181***	−0.296***	0.145***	0.200***	0.482***	−0.123***	0.110***	0.212***	0.158***	1

Notes: See Table I for variable definitions; $N = 600$ for all variables; *, ** and *** indicate significance at the 0.10, 0.05 and 0.01 levels, respectively

(Model)	Dependent variable GIND (1)	GIND (2)	GIND (3)	GIND (4)	GIND (5)
Independent variables					
FIVI	0.045*** (0.006)	–	–	–	0.048*** (0.003)
GIEI	–	0.342*** (0.000)	–	–	–
NGI	–	–	0.029*** (0.000)	–	0.013*** (0.000)
GDP	–	–	–	0.407*** (0.000)	0.327*** (0.004)
INFL	–	–	–	0.055*** (0.000)	0.050*** (0.000)
Control variables					
BRDS	0.008 (0.473)	0.013 (0.252)	0.011 (0.359)	0.012 (0.312)	0.008 (0.514)
BDIV	0.124*** (0.000)	0.111*** (0.000)	0.094*** (0.002)	0.111*** (0.000)	0.122*** (0.000)
UBL	−0.017* (0.059)	−0.017* (0.058)	−0.026*** (0.004)	−0.017* (0.063)	−0.017* (0.052)
DSHR	−0.037** (0.021)	−0.036** (0.023)	−0.045*** (0.005)	−0.037** (0.019)	−0.037** (0.020)
BSHR	−0.026 (0.136)	−0.025 (0.155)	−0.022 (0.211)	−0.022 (0.204)	−0.027 (0.119)
LNTA	0.008*** (0.002)	0.008*** (0.002)	0.009*** (0.001)	0.008*** (0.001)	0.008*** (0.002)
AGE	−0.015*** (0.007)	−0.016*** (0.005)	−0.016** (0.006)	−0.015*** (0.007)	−0.016*** (0.005)
SGR	−0.003 (0.612)	−0.003 (0.674)	−0.000 (0.955)	−0.003 (0.660)	−0.002 (0.770)
LV	0.022 (0.256)	0.025 (0.192)	0.027 (0.163)	0.021 (0.260)	0.019 (0.312)
ROA	0.108*** (0.008)	0.115*** (0.005)	0.103** (0.013)	0.110*** (0.007)	0.102** (0.012)
AFSIZ	0.024*** (0.000)	0.027*** (0.000)	0.027*** (0.000)	0.028*** (0.000)	0.024*** (0.000)
DYER	Included	Included	Included	Included	Included
DIND	Included	Included	Included	Included	Included
DCOU	Included	Included	Included	Included	Included
Constant	0.554***	0.473***	0.608***	0.540***	0.541***
D. Watson	2.026	2.087	2.071	2.099	2.083
F-value	50.05***	51.01***	48.62***	49.66***	48.27***
Adjusted R^2	69.63%	69.27%	67.68%	69.46%	70.31%
No. of ob.	600	600	600	600	600

Notes: See Table I for variable definitions; *, **and *** indicate significance at the 0.10, 0.05 and 0.01 levels, respectively

Table IV.
Antecedents of CG compliance and disclosure (GIND)

which Saudi listed firms voluntarily comply with and disclose CG provisions contained in the 2006 Saudi code. Additionally, the current study's results are in line with that of Ongena and Sendeniz-Yuncu (2011), who suggest that Islamic banks mainly deal with firms that are more transparent in their disclosure behaviour. The findings also support the empirical results of previous studies (Maali *et al.*, 2006; Farook *et al.*, 2011), which indicate that Islamic banks with effective Islamic governance (e.g. required to pay the Islamic religious tax "zakah") provide more voluntary disclosures than those who do not adhere to *Sharia*. Similarly, and at the country-level, results which are demonstrated in Model 2 suggest that firms listed in countries applying the Islamic economic model are more likely to comply with and disclose CG best practice recommendations than those that are not. Theoretically, this finding is consistent with the neo-institutional (efficiency and legitimation views) perspective. Business organisations in the Islamic world generally encounter unique agency relationships and CG challenges, requiring them to disclose more information to mitigate agency conflict, in addition to help in gaining social legitimacy (Safieddine, 2009; Al-Bassam and Ntim, 2017). Empirically, the results support previous studies, which have documented a positive impact of religiosity on the extent of corporate disclosure (Archambault and Archambault, 2003; Aribi and Gao, 2011). Economically, our findings imply that a one standard deviation change (increase) in *FIVI* and *GIEI* may be associated with about 1.51 per cent (31.55 per cent × 0.048) and 4.56 per cent (13.34 per cent × 0.342) change (increase) in the level of the *GIND*, respectively.

Models 3 and 5 of Table IV illustrate the results of the association between national governance quality (*NGI*) and CG index (*GIND*). Reported findings suggest that national governance quality is also positively related to compliance with, and disclosure of, CG best practice recommendations. This is also consistent with the neo-institutional theory perspective, which suggests that firms operating in countries characterised by high-quality governance (i.e. political stability, government efficiency, regulatory quality, rule of law and control of corruption) are generally assumed to have a higher level of corporate disclosure. As countries with strong legal protection rights have widely dispersed ownership, more outside (minority) shareholding and a high level of debt finance and therefore tend to have more agency conflicts, firms operating in such countries are likely to provide more detailed corporate disclosures to meet the demands of different groups of investors and creditors (Jaggi and Low, 2000; La Porta *et al.*, 1997, 2000). The current results support *H2* and are consistent with the empirical results provided by several authors (Judge *et al.*, 2008; Ioannou and Serafeim, 2012; Mateescu, 2015; Baldini *et al.*, 2016). Economically, the positive effect of *NGI* on *GIND* implies that on average, improvements in national governance quality will be associated with improvements in the level of compliance with, and disclosure of, CG best practice recommendations.

With regard to the third explanatory factors (macroeconomic factors), results reported in Models 4 and 5 illustrate that economic development (*GDP*) and inflation (*INFL*) have a positive and significant impact on corporate compliance with, and disclosure of, CG best practice recommendations. This is largely consistent with the predictions of neo-institutional theory, which suggests that firms operating in more economically developed countries need to raise more capital, and thus, they are likely to provide more corporate disclosures to reduce information asymmetry and mitigate agency costs, as well as to legitimise their operations (Adhikari and Tondkar, 1992; Salter, 1998). Likewise, firms operating in environments with high inflation are more likely to provide higher corporate disclosures to help investors to make informed decisions (Archambault and Archambault, 2003). The current results support *H3* and are consistent with the empirical results provided by previous studies (Adhikari and Tondkar, 1992; Salter, 1998; Archambault and Archambault, 2003). The economic implication of our findings is that a one standard deviation change in *GDP* and *INFL* may be associated with about 0.84 per cent (2.58 per cent × 0.327) and 3.00 per cent (59.92 per cent × 0.050) change in the level of the *GIND*, respectively.

The findings reported in Table IV, Models 1 to 5, indicate that board size (*BRDS*) and block shareholding (*BSHR*) have insignificant effects on the level of compliance with, and disclosure of, CG best practice recommendations, which is consistent with a number of previous studies (Samaha *et al.*, 2012; Al-Bassam *et al.*, 2018) but is inconsistent with other past evidence that reports a significant association (Ntim *et al.*, 2012b; Elmagrhi *et al.*, 2016). The positive board ethnicity and gender diversity (*BDIV*)–CG index (*GIND*) link is in line with the findings of Elmagrhi *et al.* (2016), Haniffa and Cooke (2002, 2005) and Ntim and Soobaroyen (2013a). The negative connection between director shareholding (*DSHR*), unitary board leadership (*UBL*) and CG index (*GIND*) provides support for past voluntary disclosure evidence (Haniffa and Cooke, 2002; Albitar, 2015) that suggests that director shareholding and unitary board leadership are negatively associated with the level of compliance with, and disclosure of, CG best practice recommendations.

Observably, the other control variables also have significant relationships with the dependent variable (*GIND*), as expected. For example, size (*LNTA*), profitability (*ROA*) and audit firm size (*AFSIZ*) are positively related to CG index (*GIND*). These results support the findings of Belkaoui (1983), Ntim *et al.* (2012b), Al-Janadi *et al.* (2013), Albitar (2015), Mateescu (2015) and Elmagrhi *et al.* (2016). However, leverage (*LV*) and growth opportunities (*SGR*), have an insignificant impact on the *GIND*. The insignificant influence of these variables is in line with previous studies, which have found no association between these variables and voluntary disclosure (Haniffa and Cooke, 2002; Samaha *et al.*, 2012; Ntim *et al.*, 2012b; Aljifri *et al.*, 2014; Albitar, 2015; Mateescu, 2015). Furthermore, the results support the suggestion that young firms (*AGE*) are more likely to heighten the level of compliance with, and disclosure of, CG best practice recommendations to gain market confidence by reducing uncertainty about their operations (Haniffa and Cooke, 2002).

The main CG index used in this study (*GIND*) contains five sub-indices, namely, ownership structure (*OSH*), financial transparency (*TCY*), auditing (*AUD*), corporate responsibility and compliance (*RTY*) and board and management structure and process (*BMS*). To infer the association between firm- and country-level religiosity, national governance quality, macroeconomic factors and the five sub-indices and to assess whether these relations differ from the overall *GIND*, Table V, Models 1-5, shows the results of OLS

	Dependent variables				
	OSH	TCY	AUD	RTY	BMS
Models	(1)	(2)	(3)	(4)	(5)
Independent variables					
FIVI	0.034 (0.161)	0.029 (0.205)	0.064** (0.035)	0.219*** (0.000)	0.069*** (0.003)
NGI	0.004 (0.448)	0.015*** (0.001)	0.062*** (0.000)	0.046*** (0.000)	0.027*** (0.000)
GDP	0.400** (0.021)	0.111 (0.492)	−0.047 (0.831)	0.490** (0.058)	0.103 (0.544)
INFL	−0.033** (0.044)	0.032** (0.033)	−0.001 (0.975)	0.212*** (0.000)	−0.022 (0.126)
Control variables					
BRDS	−0.058*** (0.001)	0.030* (0.065)	0.035 (0.127)	−0.131*** (0.000)	0.045** (0.011)
BDIV	−0.021 (0.628)	0.114*** (0.006)	0.129** (0.026)	0.515*** (0.000)	0.014 (0.760)
UBL	0.015 (0.255)	0.000 (0.969)	−0.065*** (0.000)	−0.008 (0.680)	−0.055*** (0.000)
DSHR	−0.000 (0.982)	−0.017 (0.434)	−0.110*** (0.000)	−0.046 (0.196)	−0.065*** (0.006)
BSHR	−0.050* (0.057)	−0.013 (0.586)	−0.015 (0.663)	−0.102** (0.012)	−0.020 (0.456)
LNTA	0.026*** (0.000)	−0.010*** (0.004)	0.009* (0.079)	0.020*** (0.001)	0.007* (0.067)
AGE	−0.016* (0.054)	−0.008 (0.304)	−0.025** (0.023)	−0.005 (0.694)	−0.020** (0.019)
SGR	−0.001 (0.875)	−0.001 (0.884)	−0.004 (0.731)	0.006 (0.683)	0.002 (0.853)
LV	0.018 (0.522)	0.051* (0.055)	0.070* (0.060)	−0.030 (0.487)	0.004 (0.900)
ROA	0.068 (0.267)	0.116** (0.043)	−0.014 (0.862)	0.202** (0.031)	0.119* (0.061)
AFSIZ	−0.001 (0.930)	0.039*** (0.000)	0.023* (0.088)	0.077*** (0.000)	0.003 (0.731)
DYER	Included	Included	Included	Included	Included
DIND	Included	Included	Included	Included	Included
DCOU	Included	Included	Included	Included	Included
Constant	0.532***	0.794***	0.614***	−0.049	0.673***
D. Watson	1.714	2.058	1.749	2.324	1.799
F-value	11.41***	23.61***	45.87***	25.08***	33.75***
Adjusted R^2	34.26%	53.10%	68.48%	53.83%	61.32%
No. of ob.	600	600	600	600	600

Notes: See Table I for variable definitions; *, **and ***indicate significance at the 0.10, 0.05 and 0.01 levels, respectively

Table V.
Antecedents of CG compliance and disclosure (sub-indices)

regression of the explanatory and control variables on the five sub-indices. For example, the coefficients of firm Islamic values index (*FIVI*) remain statistically significant and positively associated with *AUD*, *RTY* and *BMS* sub-indices but insignificantly associated with *OSH* and *TCY* sub-indices. Likewise, the coefficients of national governance index (*NGI*) have a significant and positive association with all the sub-indices, except ownership structure (*OSH*).

Robustness check

To ascertain the robustness of the study's findings, five additional sensitivity tests have been carried out. First, we re-estimate equation (1) using alternative measures of explanatory variables, namely, the average of the six national governance qualities (*AVNGI*) and the natural logarithm of *GDP* (in US dollars) (*LNGDP*) (Houqe and Monem, 2016). Results presented in Model 1 of Table VI indicate that our main inferences hold when replacing the *NGI* and *GDP* with *AVNGI* and *LNGDP*, respectively. Second and in relation to the 51 CG provisions making up the overall *GIND*, each provision is assigned equal weight in the overall *GIND*. However, the five sub-indices are inherently allocated different weights due to the existence of different numbers of provisions in each sub-index: ownership structure (OSH 17.6 per cent) (i.e. nine CG provisions divided by 51), financial transparency (*TCY* 15.7 per cent) (i.e. eight CG provisions), auditing (*AUD* 17.6 per cent) (i.e. nine CG provisions), corporate responsibility and compliance (*RTY* 13.7 per cent) (i.e. seven CG provisions) and board and management structure and process (*BMS* 35.3 per cent) (i.e. 18 CG provisions). Accordingly, an alternative index (*W-GIND*) is created in which each of the five sub-indices is assigned an equal weight of 20 per cent to find out whether the results hold regardless of the weighting of the five sub-indices. Model 2 of Table VI reports the results of the association between explanatory variables and weighted CG index (*W-GIND*). Generally, the results are consistent with those obtained using the non-weighted CG index (*GIND*), presented in Model 5 in Table IV.

Third and in line with the suggestions of Elmagrhi *et al.* (2016) and Ntim and Soobaroyen (2013a), one method of resolving possible endogeneity problems is to estimate a lagged form. We estimate a lagged CG index (*GIND*)–explanatory variables connection to resolve the existence of a potential simultaneous relationship between the dependent and independent variables. We do this by regressing the current year's CG index (*GIND*) on the previous year's firm Islamic values index (*FIVI*), national governance quality (*NGI*) and macroeconomic factors (*GDP* and *INFL*). The results presented in Model 3 of Table VI show that in general, our findings in Model 5 of Table IV are largely robust to estimate a lagged Islamic values index, national governance quality and macroeconomic factors and CG index regression model.

Fourth, it has been suggested that compliance with, and disclosure of, CG best practice recommendations may be influenced by other firm-specific opportunities and difficulties (Henry, 2008). Therefore, a fixed-effects model was estimated to address potential unobserved firm-specific heterogeneities that the OLS regression model may fail to control for (Henry, 2008; Ntim *et al.*, 2012a; Elmagrhi *et al.*, 2016). The estimated fixed-effects model is based on the re-estimation of Model 5 in Table IV by including 99 dummies to represent the 100 sampled firms. The results reported in Model 4 in Table VI are essentially similar to those contained in Model 5 in Table IV. Finally, The results of prior studies indicate that the size of a firm tends to affect CG compliance and disclosure levels and can result in varying effects of firm- and country-level characteristics on such disclosures (Baldini *et al.*, 2016; Elmagrhi *et al.*, 2016), and therefore, we partition our sample across the median size. Results for the subsample of large firms (Model 6 of Table VI) show that firm Islamic values index

Table VI. Sensitivity analyses of the antecedents of CG compliance and disclosure (GIND)

Model	GIND (1)	W-GIND (2)	Lagged-Effects (3)	Fixed –Effect (4)	Small-Size (5)	Large-Size (6)
Independent variables						
FIVI	0.047*** (0.003)	0.061*** (0.000)	0.049*** (0.005)	0.013*** (0.006)	0.009 (0.602)	0.110*** (0.000)
NGI	–	0.018*** (0.000)	0.009* (0.059)	0.034*** (0.000)	0.003 (0.455)	0.015*** (0.000)
AVNGI	0.280*** (0.000)	–	–	–	–	–
GDP	–	0.322*** (0.004)	0.259** (0.030)	0.322*** (0.000)	0.407*** (0.004)	0.271* (0.076)
LNGDP	0.028*** (0.000)	–	–	–	–	–
INFL	0.040*** (0.000)	0.060*** (0.000)	0.065*** (0.000)	0.127*** (0.000)	0.015 (0.255)	0.078*** (0.000)
Control variables						
BRDS	0.009 (0.463)	−0.009 (0.445)	0.010 (0.443)	−0.069 (0.782)	0.014 (0.296)	−0.047*** (0.007)
BDIV	0.123*** (0.000)	0.157*** (0.000)	0.124*** (0.000)	0.012*** (0.001)	0.019 (0.611)	0.147*** (0.001)
UBL	−0.017* (0.058)	−0.013 (0.128)	−0.008 (0.419)	−0.029*** (0.001)	0.003 (0.725)	−0.069*** (0.000)
DSHR	−0.036** (0.021)	−0.036** (0.019)	−0.050*** (0.004)	−0.008 (0.719)	0.042** (0.037)	−0.059*** (0.003)
BSHR	−0.027 (0.129)	−0.032* (0.061)	−0.014 (0.470)	−0.040* (0.084)	−0.036* (0.082)	−0.021 (0.373)
LNTA	0.008*** (0.002)	0.009*** (0.000)	0.007** (0.012)	0.003*** (0.000)	0.008** (0.049)	−0.007* (0.091)
AGE	−0.016*** (0.005)	−0.014*** (0.009)	−0.015*** (0.009)	−0.002** (0.013)	−0.009** (0.014)	0.001 (0.846)
SGR	−0.002 (0.732)	−0.001 (0.815)	−0.000 (0.951)	0.002 (0.608)	−0.004 (0.572)	−0.005 (0.543)
LV	0.021 (0.257)	0.021 (0.251)	0.011 (0.577)	0.009 (0.665)	0.005 (0.806)	0.048* (0.067)
ROA	0.105*** (0.010)	0.102** (0.011)	0.076* (0.085)	0.017 (0.614)	0.009 (0.836)	0.192*** (0.002)
AFSIZ	0.024*** (0.000)	0.030*** (0.000)	0.025*** (0.001)	0.013** (0.018)	−0.020*** (0.004)	0.083*** (0.000)
DYER	Included	Included	Included	Included	Included	Included
DIND	Included	Included	Included	Included	Included	Included
DCOU	Included	Included	Included	Included	Included	Included
Constant	0.321***	0.509***	0.499***	0.447***	0.426***	0.727***
D. Watson	2.051	2.148	2.139	1.829	2.036	1.820
F-value	49.16***	46.38***	42.92***	91.38***	33.13***	30.78***
Adjusted R^2	69.98%	69.44%	70.90%	94.72%	75.71%	74.92%
No. of ob.	600	600	600	600	600	600

Notes: Variable definitions: AVNGI = an average of the six national governance qualities, LNGDP = the natural logarithm of GDP (in US dollars) as per the World Bank, See Table I for other variable definitions; *, ** and *** indicate significance at the 0.10, 0.05 and 0.01 levels, respectively

(*FIVI*), national governance quality (*NGI*) and macroeconomic factors (*GDP* and *INFL*) are still correlated with CG index compared with the results of the subsample of small firms (Model 5 in Table VI). This evidence is also consistent with the theoretical predictions of our neo-institutional theoretical framework. The efficiency-led and legitimisation perspectives of neo-institutional theory suggest that large firms are more likely to comply with, and disclose, CG best practice recommendations to attract additional resources compared to small firms.

Summary and conclusion

MENA countries have engaged recently in extensive economic and financial reforms (including issuing CG codes) with the objective of attracting more private and foreign investment. However, the literature examining the level of compliance with, and disclosure of, CG best practice recommendations is still rare. Consequently, drawing on insights from neo-institutional theory, this study investigates the extent of compliance with, and disclosure of, CG best practice recommendations among corporations listed in MENA countries.

In addition to using neo-institutional theory in interpreting the study's findings, the authors provide a number of new contributions to the extant literature. First, analysis of the level of voluntary compliance with, and disclosure of, CG best practice recommendations indicates that CG practices among MENA listed firms are low and vary considerably. Second, our evidence suggests that religiosity (firm- and country-level), national governance quality and macroeconomic factors have a positive and significant impact on voluntary compliance with, and disclosure of, CG best practice recommendations. Furthermore, our findings provide substantial theoretical and empirical insights for future research. With regard to theoretical extensions, future studies can improve their theoretical evidence by using different CG theories (e.g. political cost theory, resource dependence theory and transaction cost theory). In terms of empirical improvements, future studies can examine different sets of CG practices, such as external CG mechanisms (e.g. government regulations, media exposure, market competition and takeover activities).

Our findings have important implications for regulators, policymakers and corporations in developing countries and emerging markets intending to pursue CG reforms. For example, the significant extent of differences among MENA listed corporations in the level of compliance with CG best practice recommendations suggests that a lack of legislative enforcement would result in most listed corporations, in these countries, not adhering to disclosure and transparency requirements. Thus, this suggests a need for regulatory authorities and policymakers to further enhance CG compliance and enforcement. This can be attained by strengthening legislative enforcement and establishing a "compliance and enforcement" unit that will continuously observe the implementation of CG practices. Furthermore, as the religiosity, national governance quality and macroeconomics factors are demonstrated to have a positive effect on corporate compliance with, and disclosure of, CG best practice recommendations, this provides regulators and policymakers with the impetus to encourage greater efforts towards pursuing reforms that seek to improve national governance quality, economic environment and positive religious practices. In addition, although we find low level of voluntary compliance with Islamic values in the sampled firms, our results suggest that firms with a strong commitment to religious values disclose more voluntary information (CG disclosure), and hence, companies are encouraged to adhere to Islamic business values and practices that may help enhance corporate transparency and disclosure. A prominent way by which MENA corporate boards' decision-making process can be guided by Islamic religious beliefs and values is through the establishment of the Islamic governance committee in the form of the *Sharia* supervisory board. *Sharia* supervisory board should be able to offer guidance as to whether corporate investments, operations and activities are in lines with rules, beliefs, tenets and values of Islamic *Sharia* law.

Although our findings are generally robust across a number of econometric models, there are some limitations that need to be acknowledged explicitly. First, future studies may improve on the generalisability of our findings by using a much larger sample of firms from MENA countries. Second, our study investigates the impact of a limited set of firm-level CG mechanisms (religiosity) and country-level (religiosity, national governance quality and macroeconomic factors) on the level of compliance with, and disclosure of, CG best practice recommendations. Future studies can examine the impact of other sets of CG mechanisms, such as board of directors' efficiency, existence and characteristics of the audit committee, along with other external CG characteristics and county-level cultural factors, on the level of compliance with, and disclosure of, CG best practice recommendations. Finally, and similar to all quantitative studies of this kind, our proxies for CG compliance and disclosure, national governance, religiosity and macroeconomic variables may or may not reflect practice. Future studies may, therefore, offer new insights by conducting in-depth interviews with company directors, executives, policymakers and regulatory authorities regarding these issues.

Notes

1. The selected countries share a number of common characteristics: (i) they all have similar accounting, auditing, governance and legal systems, which are derived from the Anglo–Saxon system; (ii) they require listed firms to prepare their financial statements in accordance with International Accounting Standards or national accounting standards that have been developed in accordance with the International Accounting Standards; and (iii) they have similar cultural characteristics (e.g. a strong hierarchical social structure, importance of personal relationships, religion, accountability and trust), corporate law and ownership structures (concentrated shareholding dominated by the state and powerful families), thereby permitting comparability of governance and corporate reporting practices among firms and across countries.

2. The rationale for choosing this un-weighted scheme in our study is for the following reasons. First, there is lack of a rigorously developed theoretical basis on which weights could be uniformly applied to the various CG disclosure practices (Black *et al.*, 2006; Ntim *et al.*, 2013; Ntim, 2016). Second, it is easier to replicate an un-weighted index as the scoring scheme is more objective and transparent to implement (Beiner *et al.*, 2006; Ntim *et al.*, 2017). Third, using an un-weighted coding scheme for scoring CG disclosure practices in annual reports can make it easier to make direct comparisons with the findings of prior studies (Archambault and Archambault, 2003; Henry, 2008; Ntim *et al.*, 2012a; Samaha *et al.*, 2012; Elmagrhi *et al.*, 2016; Al-Bassam *et al.*, 2018). Finally, the evidence provided by previous literature indicates that similar results tend to be obtained from using either weighted or un-weighted indices, especially in cases where the number of disclosure items is relatively large (Ntim *et al.*, 2012a, b; Soobaroyen and Ntim, 2013; Elmagrhi *et al.*, 2016). This is empirically supported in our study (i.e. Model 2 of Table VI), as we find that both schemes (i.e. using weighted or un-weighted index) lead to similar results.

3. The relatively high multicollinearity between GIEI and NGI (see Table III) may affect the use of the OLS regression model. Therefore, GIEI was excluded from the OLS regression model in Model 5 in Table IV.

References

Abu-Tapanjeh, A.M. (2009), "Corporate governance from the Islamic perspective: a comparative analysis with OECD principles", *Critical Perspectives on Accounting*, Vol. 20 No. 5, pp. 556-567.

Adhikari, A. and Tondkar, R.H. (1992), "Environmental factors influencing accounting disclosure requirements of global stock exchanges", *Journal of International Financial Management & Accounting*, Vol. 4 No. 2, pp. 75-105.

Aguilera, R.V. and Cuervo-Cazurra, A. (2004), "Codes of good governance worldwide: what is the trigger?", *Organization Studies*, Vol. 25 No. 3, pp. 415-443.

Aguilera, R.V. and Cuervo-Cazurra, A. (2009), "Codes of good governance", *Corporate Governance: An International Review*, Vol. 17 No. 3, pp. 376-387.

Aguilera, R.V. and Jackson, G. (2003), "The cross-national diversity of corporate governance: dimensions and determinants", *Academy of Management Review*, Vol. 28 No. 3, pp. 447-465.

Aguilera, R.V., Rupp, D.E., Williams, C.A. and Ganapathi, J. (2007), "Putting the S back in corporate social responsibility: a multilevel theory of social change in organizations", *Academy of Management Review*, Vol. 32 No. 3, pp. 836-863.

Al-Bassam, W.M. and Ntim, C.G. (2017), "The effect of Islamic values on voluntary corporate governance disclosure: the case of Saudi listed firms", *Journal of Islamic Accounting and Business Research*, Vol. 8 No. 2, pp. 182-202.

Al-Bassam, W.M., Ntim, C.G., Opong, K.K. and Downs, Y. (2018), "Corporate boards and ownership structure as antecedents of corporate governance disclosure in Saudi Arabian publicly listed corporations", *Business & Society*, Vol. 57 No. 2, pp. 335-377.

Albitar, K. (2015), "Firm characteristics, governance attributes and corporate voluntary disclosure: a study of Jordanian listed companies", *International Business Research*, Vol. 8 No. 3, pp. 1-10.

Al-Janadi, Y., Rahman, R.A. and Omar, N.H. (2013), "Corporate governance mechanisms and voluntary disclosure in Saudi Arabia", *Research Journal of Finance and Accounting*, Vol. 4 No. 4, pp. 25-35.

Aljifri, K., Alzarouni, A., Ng, C. and Tahir, M.I. (2014), "The association between firm characteristics and corporate financial disclosures: evidence from UAE companies", *International Journal of Business and Finance Research*, Vol. 8 No. 2, pp. 101-123.

Allen, F., Qian, J. and Qian, M. (2005), "Law, finance, and economic growth in China", *Journal of Financial Economics*, Vol. 77 No. 1, pp. 57-116.

Alnabsha, A.M., Abdou, H., Ntim, C.G. and Elamer, A.A. (2018), "Corporate boards, ownership structures and corporate disclosures: evidence from a developing country", *Journal of Applied Accounting Research*, Vol. 19 No. 1, pp. 20-41.

Al-Shammari, B. and Al-Sultan, W. (2010), "Corporate governance and voluntary disclosure in Kuwait", *International Journal of Disclosure and Governance*, Vol. 7 No. 3, pp. 262-280.

Archambault, J.J. and Archambault, M.E. (2003), "A multinational test of determinants of corporate disclosure", *The International Journal of Accounting*, Vol. 38 No. 2, pp. 173-194.

Aribi, Z.A. and Gao, S. (2010), "Corporate social responsibility disclosure: a comparison between Islamic and conventional financial institutions", *Journal of Financial Reporting and Accounting*, Vol. 8 No. 2, pp. 72-91.

Aribi, Z.A. and Gao, S.S. (2011), "Narrative disclosure of corporate social responsibility in Islamic financial institutions", *Managerial Auditing Journal*, Vol. 27 No. 2, pp. 199-222.

Ashforth, B.E. and Gibbs, B.W. (1990), "The double-edge of organizational legitimation", *Organization Science*, Vol. 1 No. 2, pp. 177-194.

Baldini, M., Dal Maso, L., Liberatore, G., Mazzi, F. and Terzani, S. (2016), "Role of country-and firm-level determinants in environmental, social, and governance disclosure", *Journal of Business Ethics*, Forthcoming.

Baydoun, N., Maguire, W., Ryan, N. and Willett, R. (2012), "Corporate governance in five Arabian Gulf countries", *Managerial Auditing Journal*, Vol. 28 No. 1, pp. 7-22.

Beiner, S., Drobetz, W., Schmid, M.M. and Zimmermann, H. (2006), "An integrated framework of corporate governance and firm valuation", *European Financial Management*, Vol. 12 No. 2, pp. 249-283.

Belkaoui, A. (1983), "Economic, political, and civil indicators and reporting and disclosure adequacy: empirical investigation", *Journal of Accounting and Public Policy*, Vol. 2 No. 3, pp. 207-219.

Bhatti, M. and Bhatti, M.I. (2010), "Toward understanding Islamic corporate governance issues in Islamic finance", *Asian Politics & Policy*, Vol. 2 No. 1, pp. 25-38.

Bishara, N.D. (2011), "Governance and corruption constraints in the middle east: overcoming the business ethics glass ceiling", *American Business Law Journal*, Vol. 48 No. 2, pp. 227-283.

Black, B.S., Jang, H. and Kim, W. (2006), "Does corporate governance predict firms' market values? Evidence from Korea", *Journal of Law, Economics, and Organization*, Vol. 22 No. 2, pp. 366-413.

Bose, S., Khan, H.Z., Rashid, A. and Islam, S. (2018), "What drives green banking disclosure? An institutional and corporate governance perspective", *Asia Pacific Journal of Management*, Vol. 35 No. 2, pp. 501-527.

Chan-Serafin, S., Brief, A.P. and George, J.M. (2013), "Perspective–how does religion matter and why? Religion and the organizational sciences", *Organization Science*, Vol. 24 No. 5, pp. 1585-1600.

Claessens, S. and Yurtoglu, B.B. (2013), "Corporate governance in emerging markets: a survey", *Emerging Markets Review*, Vol. 15, pp. 1-33.

DiMaggio, P.J. and Powell, W.W. (1983), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, Vol. 48 No. 2, pp. 147-160.

DiMaggio, P.J. and Powell, W.W. (1991), *The New Institutionalism in Organizational Analysis*, University of Chicago Press, Chicago, IL.

Doupnik, T.S. and Salter, S.B. (1995), "External environment, culture, and accounting practice: a preliminary test of a general model of international accounting development", *International Journal of Accounting*, Vol. 30 No. 3, pp. 189-207.

Du, X., Du, Y., Zeng, Q., Pei, H. and Chang, Y. (2016), "Religious atmosphere, law enforcement, and corporate social responsibility: Evidence from China", *Asia Pacific Journal of Management*, Vol. 33 No. 1, pp. 229-265.

Elamer, A.A., Ntim, C.G. and Abdou, H. (2018), "Islamic governance, national governance and risk management and disclosures practices in MENA countries", *Business & Society*, doi: 10.1177/0007650317746108.

Elghuweel, M.I., Ntim, C.G., Opong, K.K. and Avison, L. (2017), "Corporate governance, Islamic governance and earnings management in Oman: a new empirical insights from a behavioural theoretical framework", *Journal of Accounting in Emerging Economies*, Vol. 7 No. 2, pp. 190-224.

Elmagrhi, M.H., Ntim, C.G. and Wang, Y. (2016), "Antecedents of voluntary corporate governance disclosure: a post-2007/08 financial crisis evidence from the influential UK combined code", *Corporate Governance: The International Journal of Business in Society*, Vol. 16 No. 3, pp. 507-538.

Farook, S., Kabir Hassan, M. and Lanis, R. (2011), "Determinants of corporate social responsibility disclosure: the case of Islamic banks", *Journal of Islamic Accounting and Business Research*, Vol. 2 No. 2, pp. 114-141.

Goodrich, P.S. (1986), "Cross-national financial accounting linkages: an empirical political analysis", *British Accounting Review*, Vol. 18 No. 1, pp. 42-60.

Gujarati, D.N. (2009), *Basic Econometrics*, 5th ed., McGraw-Hill, New York, NY.

Haniffa, R. (2001), "Social responsibility disclosure: an Islamic perspective", *Discussion Paper in Accounting and Finance*, University of Exeter, Exeter.

Haniffa, R.M. and Cooke, T.E. (2002), “Culture, corporate governance and disclosure in Malaysian corporations”, *Abacus*, Vol. 38 No. 3, pp. 317-349.

Haniffa, R.M. and Cooke, T.E. (2005), “The impact of culture and governance on corporate social reporting”, *Journal of Accounting and Public Policy*, Vol. 24 No. 5, pp. 391-430.

Haque, F. and Ntim, C.G. (2018), “Environmental policy, sustainable development, governance mechanisms and environmental performance”, *Business Strategy and the Environment*, Vol. 27 No. 3, pp. 415-435.

Hassan, M. (2008), “The development of accounting regulations in Egypt: legitimating the international accounting standards”, *Managerial Auditing Journal*, Vol. 23 No. 5, pp. 467-484.

Hassan, S. and Christopher, T. (2005), “Corporate governance statement disclosure of Malaysian banks and the role of Islam”, *Asian Review of Accounting*, Vol. 13 No. 2, pp. 36-50.

Heidenhof, G. (2014), “*Strengthening Governance and Institutions in MENA: Issues and Priorities*”, MENA knowledge and learning quick notes series; no. 114. World Bank, Washington, DC, available at: https://openknowledge.worldbank.org/handle/10986/20555 License: CC BY 3.0 IGO.

Henry, D. (2008), “Corporate governance structure and the valuation of Australian firms: Is there value in ticking the boxes?”, *Journal of Business Finance & Accounting*, Vol. 35 Nos 7/8, pp. 912-942.

Houqe, M.N. and Monem, R.M. (2016), “IFRS adoption, extent of disclosure, and perceived corruption: a cross-country study”, *The International Journal of Accounting*, Vol. 51 No. 3, pp. 363-378.

Ioannou, I. and Serafeim, G. (2012), “What drives corporate social performance? The role of nation-level institutions”, *Journal of International Business Studies*, Vol. 43 No. 9, pp. 834-864.

Jaggi, B. and Low, P.Y. (2000), “Impact of culture, market forces, and legal system on financial disclosures”, *The International Journal of Accounting*, Vol. 35 No. 4, pp. 495-519.

Judge, W. (2010), “Corporate governance mechanisms throughout the world”, *Corporate Governance: An International Review*, Vol. 18 No. 3, pp. 159-160.

Judge, W., Li, S. and Pinsker, R. (2010), “National adoption of international accounting standards: an institutional perspective”, *Corporate Governance: An International Review*, Vol. 18 No. 3, pp. 161-174.

Judge, W.Q., Douglas, T.J. and Kutan, A.M. (2008), “Institutional antecedents of corporate governance legitimacy”, *Journal of Management*, Vol. 34 No. 4, pp. 765-785.

Kamla, R. (2009), “Critical insights into contemporary Islamic accounting”, *Critical Perspectives on Accounting*, Vol. 20 No. 8, pp. 921-932.

Kaufmann, D. Kraay, A. and Mastruzzi, M. (2014), “The worldwide governance indicators (1996–2014)”, available at: http://info.worldbank.org/governance/wgi/index.aspx#home

Kim, O. (2016), “The IFRS adoption reform through the lens of neo-institutionalism: the case of the Russian Federation”, *International Journal of Accounting*, Vol. 51 No. 3, pp. 345-362.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2000), “Investor protection and corporate governance”, *Journal of Financial Economics*, Vol. 58 Nos 1/2, pp. 3-27.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (1997), “Legal determinants of external finance”, *Journal of Finance*, Vol. 52 No. 3, pp. 1131-1150.

Lagoarde-Segot, T. and Lucey, B.M. (2008), “Efficiency in emerging markets – evidence from the MENA region”, *Journal of International Financial Markets, Institutions and Money*, Vol. 18 No. 1, pp. 94-105.

Lewis, M.K. (2006), “Accountability and Islam”, Conference paper presented at 4th International Conference on Accounting and Finance in Transition (ICAFT), 10-12 April, University of South Australia, Adelaide, available at: http://arrow.unisa.edu.au:8081/1959.8/50451

Maali, B., Casson, P. and Napier, C. (2006), “Social reporting by Islamic banks”, *Abacus*, Vol. 42 No. 2, pp. 266-289.

Mateescu, R.A. (2015), “Corporate governance disclosure practices and their determinant factors in European emerging countries”, *Journal of Accounting and Management Information Systems*, Vol. 14 No. 1, pp. 170-192.

Md Zaini, S., Samkin, G., Sharma, U. and Davey, H. (2018), "Voluntary disclosure in emerging countries: a literature review", *Journal of Accounting in Emerging Economies*, Vol. 8 No. 1, pp. 29-65.

Meek, G.K. and Saudagaran, S.M. (1990), "A survey of research on financial reporting in a transnational context", *Journal of Accounting Literature*, Vol. 9, pp. 145-182.

Ntim, C.G. (2016), "Corporate governance, corporate health accounting and firm value: the case of HIV/AIDS disclosures in Sub-Saharan Africa", *International Journal of Accounting*, Vol. 51 No. 2, pp. 155-216.

Ntim, C.G. and Soobaroyen, T. (2013a), "Corporate governance and performance in socially responsible corporations: New empirical insights from a neo-institutional framework", *Corporate Governance: An International Review*, Vol. 21 No. 5, pp. 468-494.

Ntim, C.G. and Soobaroyen, T. (2013b), "Black economic empowerment disclosures by South African listed corporations: the influence of ownership and board characteristics", *Journal of Business Ethics*, Vol. 116 No. 1, pp. 121-138.

Ntim, C.G., Lindop, S. and Thomas, D.A. (2013), "Corporate governance and risk reporting in South Africa: a study of corporate risk disclosures in the pre- and post-2007/2008 global financial crisis period", *International Review of Financial Analysis*, Vol. 30, pp. 363-383.

Ntim, C.G., Opong, K.K. and Danbolt, J. (2012a), "The relative value relevance of shareholder versus stakeholder corporate governance disclosure policy reforms in South Africa", *Corporate Governance: An International Review*, Vol. 20 No. 1, pp. 84-105.

Ntim, C.G., Soobaroyen, T. and Broad, M.J. (2017), "Governance structures, voluntary disclosures and public accountability: the case of UK higher education institutions", *Accounting, Auditing & Accountability Journal*, Vol. 30 No. 1, pp. 65-118.

Ntim, C.G., Opong, K.K., Danbolt, J. and Thomas, D.A. (2012b), "Voluntary corporate governance disclosures by post-apartheid South African corporations", *Journal of Applied Accounting Research*, Vol. 13 No. 2, pp. 122-144.

Ongena, S. and Sendeniz-Yuncu, I. (2011), "Which firms engage small, foreign, or state banks? And who goes Islamic? Evidence from Turkey", *Journal of Banking & Finance*, Vol. 35 No. 12, pp. 3213-3224.

Reverte, C. (2009), "Determinants of corporate social responsibility disclosure ratings by Spanish listed firms", *Journal of Business Ethics*, Vol. 88 No. 2, pp. 351-366.

Rice, G. (1999), "Islamic ethics and the implications for business", *Journal of Business Ethics*, Vol. 18 No. 4, pp. 345-358.

Safieddine, A. (2009), "Islamic financial institutions and corporate governance: new insights for agency theory", *Corporate Governance: An International Review*, Vol. 17 No. 2, pp. 142-158.

Salter, S.B. (1998), "Corporate financial disclosure in emerging markets: does economic development matter?", *International Journal of Accounting*, Vol. 33 No. 2, pp. 211-234.

Samaha, K., Dahawy, K., Hussainey, K. and Stapleton, P. (2012), "The extent of corporate governance disclosure and its determinants in a developing market: the case of Egypt", *Advances in Accounting*, Vol. 28 No. 1, pp. 168-178.

Scott, W.R. (2001), *Institutions and Organizations*, 2nd ed., Sage, Thousand Oaks, CA.

Shahab, Y., Ntim, C.G. and Ullah, F. (2018), "The brighter side of being socially responsible: CSR ratings and financial distress among Chinese state and non-state owned firms", *Applied Economics Letters*, doi: 10.1080/13504851.2018.1450480.

Soobaroyen, T. and Ntim, C.G. (2013), "Social and environmental accounting as symbolic and substantive means of legitimation: the case of HIV/AIDS reporting in South Africa", *Accounting Forum*, Vol. 37 No. 2, pp. 92-109.

Suchman, M.C. (1995), "Managing legitimacy: strategic and institutional approaches", *Academy of Management Review*, Vol. 20 No. 3, pp. 571-610.

Sulaiman, M. and Willett, R. (2003), "Using the hofstede-Gray Framework to argue normatively for an extension of Islamic corporate reports", *Malaysian Accounting Review*, Vol. 2 No. 1, pp. 81-105.

Tracey, P. (2012), "Religion and organization: a critical review of current trends and future directions", *Academy of Management Annals*, Vol. 6 No. 1, pp. 87-134.

Tunyi, A.A. and Ntim, C.G. (2016), "Location advantages, governance quality, stock market development and firm characteristics as antecedents of African M&As", *Journal of International Management*, Vol. 22 No. 2, pp. 147-167.

UNCTAD (2006), "*2006 Review of the Implementation Status of Corporate Governance Disclosures*", Report TD/B/COM.2/ISAR/CRP.3 by the UNCTAD secretariat, available at: UNCTAD.org

Wei, Y., Liu, X., Song, H. and Romilly, P. (2001), "Endogenous innovation growth theory and regional income convergence in China", *Journal of International Development*, Vol. 13 No. 2, pp. 153-168.

Wooldridge, J.M. (2013), *Introductory Econometrics: A Modern Approach*, 5th ed., South-Western Cengage Learning, Australia.

Yoshikawa, T. and Rasheed, A.A. (2009), "Convergence of corporate governance: critical review and future directions", *Corporate Governance: An International Review*, Vol. 17 No. 3, pp. 388-404.

Zaman Mir, M., Chatterjee, B. and Shiraz Rahaman, A. (2009), "Culture and corporate voluntary reporting: a comparative exploration of the chairperson's report in India and New Zealand", *Managerial Auditing Journal*, Vol. 24 No. 7, pp. 639-667.

Zattoni, A. and Cuomo, F. (2008), "Why adopt codes of good governance? A comparison of institutional and efficiency perspectives", *Corporate Governance: An International Review*, Vol. 16 No. 1, pp. 1-15.

Further reading

Bhagat, S., Bolton, B. and Romano, R. (2008), "The promise and peril of corporate governance indices", *Columbia Law Review*, Vol. 108 No. 8, pp. 1803-1882.

Appendix

GIND theme	Disclosure item	Range of scores	Total score per item
Ownership structure and exercise of control rights	1. Ownership structure	0-1	9
	2. Process for holding annual general meetings	0-1	
	3. Changes in shareholdings	0-1	
	4. Control structure	0-1	
	5. Control and corresponding equity stake	0-1	
	6. Availability and accessibility of meeting agenda	0-1	
	7. Control rights	0-1	
	8. Rules and procedures governing the acquisition of corporate control in capital markets	0-1	
	9. Anti-takeover measures	0-1	
Financial transparency	10. Financial and operating results	0-1	8
	11. Critical accounting estimates	0-1	
	12. Nature, type and elements of related-party transactions	0-1	
	13. Company objectives	0-1	
	14. Impact of alternative accounting decisions	0-1	
	15. The decision-making process for approving transactions with related parties	0-1	
	16. Rules and procedures governing extraordinary transactions	0-1	
	17. Board's responsibilities regarding financial communications	0-1	
Auditing	18. Process for interaction with internal auditors	0-1	9
	19. Process for interaction with external auditors	0-1	
	20. Process for appointment of external auditors	0-1	
	21. Process for appointment of internal auditors/scope of work and responsibilities	0-1	
	22. Board confidence in independence and integrity of external auditors	0-1	
	23. Internal control systems	0-1	
	24. Duration of current auditors	0-1	
	25. Rotation of audit partners	0-1	
	26. Auditors` involvement in non-audit work and the fees paid to the auditors	0-1	
Corporate responsibility and compliance	27. Policy and performance in connection with environmental and social responsibility	0-1	7
	28. Impact of environmental and social responsibility policies on the firm's sustainability	0-1	
	29. A code of ethics for the board and waivers to the ethics code	0-1	
	30. A code of ethics for all company employees	0-1	
	31. Policy on "whistle blower" protection for all employees	0-1	
	32. Mechanisms protecting the rights of other stakeholders in business	0-1	
	33. The role of employees in CG	0-1	

(continued)

Table AI.
Full list of the UNCTAD *ISAR* CG disclosure benchmark provisions **(GIND)**

GIND theme	Disclosure item	Range of scores	Total score per item
Board and management structure and process	34. Governance structures, such as committees and other mechanisms to prevent conflict of interest	0-1	18
	35. "Checks and balances" mechanisms	0-1	
	36. Composition of board of directors (executives and non-executives)	0-1	
	37. Composition and function of governance committee structures	0-1	
	38. Role and functions of the board of directors	0-1	
	39. Risk management objectives, system and activities	0-1	
	40. Qualifications and biographical information on board members	0-1	
	41. Material interests of members of the board and management	0-1	
	42. Existence of plan of succession	0-1	
	43. Duration of director's contracts	0-1	
	44. Compensation policy for senior executives departing the firm as a result of a merger or acquisition	0-1	
	45. Determination and composition of directors` remuneration	0-1	
	46. Independence of the board of directors	0-1	
	47. Number of outside board and management position directorships held by the directors	0-1	
	48. Existence of procedure(s) for addressing conflicts of interest among board members	0-1	
	49. Professional development and training activities	0-1	
	50. Availability and use of advisorship facility during reporting period	0-1	
	51. Performance evaluation process	0-1	
Total	51 GIND items		51

Note: Scoring procedure: 0 if a particular CG item is not disclosed and 1 if a particular CG item is disclosed

Table AI.

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