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ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

Disclosure about corporate social responsibility through ISO 26000 implementation made by Saudi listed companies

Lassaad Ben Mahjoub^{1*}

Abstract: The paper examines the corporate social responsibility (CSR) reporting conducted by Saudi listed firms based on the guidelines of ISO 26000. To measure the extent of ISO disclosure, we use a content analysis. A CSR reporting index is established throughout the global reporting initiative (GRI) and the ISO 26000's seven core subjects of social responsibility. These sources inform the measurement of the level of CSR information reported in different documents (e.g., annual reports, sustainable development reports, etc.) published by these companies during the period 2015–2017. First, we conducted this study to explore the reactions of Saudi firms to the implementation of the new ISO 26000, and we searched for the most significant determinants of this reporting in Saudi listed companies. Second, we tested the bidirectional link between CSR reporting through Saudi market information asymmetry. The results showed that all the sampled firms included some ISO 26000 reporting in their published documents. Nevertheless, most reporting levels were weak. However, the results showed also a positive effect of CSR reporting based on ISO 26000 on information asymmetry.

Subjects: Environmental Communication; Econometrics; Ecological Economics; Business, Management and Accounting; Corporate Social Responsibility

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PUBLIC INTEREST STATEMENT

This paper analyses a new concept as ISO 26000 and its role in promoting the corporate social responsibility (CSR) disclosure. As a new standard, ISO 26000 established in 2010 in order to enhance organizations to disclose more about the effect of their activities on Society. This standard reveals a new form of ethics of standardization, by a formalization and structuring of customary international practices in the field of social responsibility. So, we test the reaction of Saudi companies to the implementation of ISO 26000; on the other hand, we studied the relationship between CSR reporting and information asymmetry. The findings are useful to signify the scope of CSR and sustainability after implementing the ISO 26000. Also, we conclude the existence of bidirectional relationship between CSR reporting and information asymmetry.

Keywords: Corporate Social Disclosure; ISO 26000; Saudi Listed Companies; Sustainability; content analysis; Information asymmetry

1. Introduction

This research aims to examine the role of ISO 26000 in promoting the CSR reporting made by Saudi companies. Precisely, this paper attempts to explore the effect of the implementation of the new standard ISO 26000 on the level of CSR reporting.

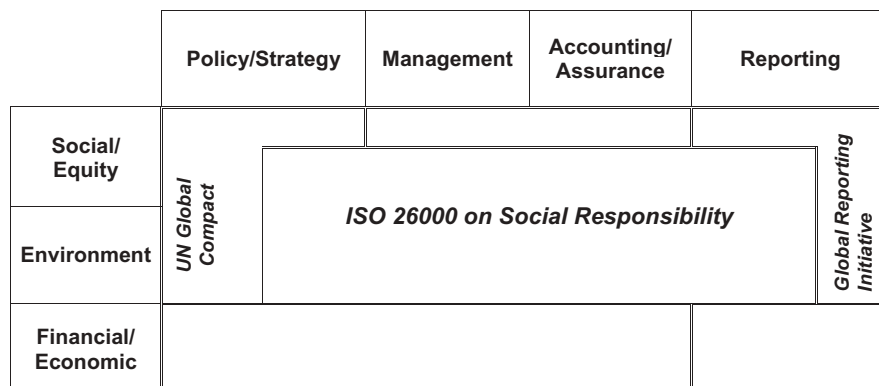
CSR concerns not only businesses but also shareholders, such as governments and civil societies. CSR is not limited to the developed world or to its Anglo-American origins. Certainly, the current growth in CSR is more marked in Europe and in some Asian countries (e.g., Japan, Taiwan, etc.), and the growth of India and China as main actors in the global economy has included CSR. The existence of large businesses in the developed world is contended by many as being one of the most solid drivers of CSR, not only in Western multinationals but also in indigenous firms.

The idea of conducting a study on a context of underdeveloped countries emanates from a first reading of the reports published by Saudi companies, for example by examining the website of SABIC, one of the biggest chemical companies in Saudi Arabia, we discovered the presence of a rubric for sustainability. This rubric includes elements related to CSR, energy and resources efficiency.

Nevertheless, in recent years, we have seen the attention given to CSR by the oil-producing Gulf countries. Petroleum firms need to increase their socially responsible consciousness in addition to putting into practice an ethical and environmental vision. Indeed, firms are being increasingly viewed as examples of hope regarding combating poverty by upgrading economically and highlighting alternatives in otherwise often less-governed organizations and economies.

Some institutions that adopted normalization developed certification related to CSR. Large international consultancy organizations prefer to be included in the global reporting initiative (GRI) to consolidate their reporting efforts. This reporting is also a political objective, and some governments supported obligatory reporting at the Rio+ 20 conference, the proceedings of which were published (paragraph 47). Although this provision is not obligatory, these countries comprise a group of friends (paragraph 47), which include corporate reporting in their sustainable development practices. Although incomplete according to the ISO 26000 standard, it is one of the significant contributions that could be a vector of diffusion of international law beyond the screen of the States. It is paradoxical that under the patronage of the UN Secretary-General, the Global Compact has lower standards than the ISO 26000, and it is deemed a private initiative. In Figure 1, we show the links between the concepts related to CSR reporting.

Figure 1. Adapted from: (World Business Council for Sustainable Development, 2004), (Rasche, 2009) and (Zinenko, Rovira, & Montiel, 2015).



Thereby, through this paper we seek to address the impact of the introduction of this new standard on the disclosure of social responsibility in the climate of developing countries such as Gulf region. In a second time we will treat the relationship between CSR disclosure and the asymmetry of information. Several theories support this option, most notably the agency theory, the resource dependence theory, signaling theory and legitimacy theory.

The rest of the paper is subdivided into 6 other sections: the next section discusses the background related the concept of CSR, the third section presents a theoretical literature especially about CSR in Saudi Arabia and the new concept of ISO 26000, then the fourth section reviews literature and the development of hypotheses, the following section treats the research design (the sample and the variables), the seventh section presents the empirical results and discussion, and finally we present the summary and the conclusion.

2. Background

According to the United Nations Environment Program (Ciroth et al., 2011), CSR is understood to be the practice of voluntary self-regulation by economic entities. Although CSR is generally voluntary in most countries, organizations are currently under increasing pressure by public claims.

CSR used to be thought of as relating merely to aid and volunteerism. However, according to the current CSR philosophy, these are minor aspects of CSR (Perrini, 2006). The concept is much wider and has serious strategic consequences. (Yeung, 2011) recognized that the need for liability and clarity in all organizational sectors is increasing. Consequently, organizations that are not concerned with the requirements and prospects of their stakeholders will be less competitive in relation to those who are concerned. In addition, Lim and Greenwood (2017) observed that the current corporate environment is very active and very competitive, which requires organizations to include social, environmental, corporate governance, and stakeholders' concerns in their policies in order to remain competitive. In general, the current operating environment is different from the old one, which is why it is referred to as the new economy.

Overall, the work of an organization in relation to its environmental impact on the local community has become a precarious measure of its global status and its capability of functioning efficiently (Hemphill, 2013; Sitnikov & Bocean, 2012). Sitnikov and Bocean (2012) indicated that the specific and important role of CSR is seen to be that of reconciling differences arising between firm profits and social objectives. They clarified that a CSR program enables managers to be aware of these conflicts and helps them address subsequent problems. Indeed, Perrini (2006) noted that CSR is seen as a way of doing business responsibly.

In its most comprehensive definition, CSR is perceived as a complete set of strategies, practices, and planning, which are combined in business operations, supply chains, and decision-making processes in the firm. CSR includes the responsibility for existing and past actions as well as the attention to future impacts (Masud, 2011). Ávila et al. (2013) attested to the benefits of sustained social responsibility for many firms that have embraced it in economic areas. In the same context, Karagiorgos (2010) provided empirical evidence that suggested the adoption of CSR strategy enables the firm to be valued positively by both the market and its stakeholders.

In this work we introduce an important factor related to sustainability and CSR such as the ISO 26000. This standard was developed by an ISO working group consisting of 450 experts and 210 observers from 99 ISO member countries and another 42 liaison organizations. While there has been a propagation of social responsibility-related rule tools at the universal level in recent years, and all of these tools are innovative, the ISO 26000 standard is chosen here for consideration as a main breakthrough or disorderly innovation in the emerging universal social responsibility rule planning, by reason of a number of distinguishing features which are well-defined below.

These typical characteristics of ISO 26000 have a main behavior on the glimpsed legitimacy of this standard as a handout of what finds desirable and undesirable social responsibility conduct by the most organizations (Moratis, 2016). These characteristics also constitute a source for the proposals submitted here that ISO 26000 is an official announcement of universal social responsibility practice, and that ISO 26000 is an exclusive linking tool, in terms of public-private relations on social responsibility matters (Moratis, 2017).

CSR in Saudi Arabia, designed to be the ideal path for private organizations, helps Saudi society achieve progress in two ways: (1) the intentional “Saudification” of the workforce and (2) the expansion and diversification of the economy that, at present, is largely reliant on the energy sector. While Saudi Arabia’s CSR approach stresses the importance of a national workforce and broad economic portfolio, the Saudi government’s awareness of the need for environmental protection dates back to 1981, when it created the Meteorology and Environmental Protection Administration and the Environmental Protection Coordinating Committee. Certainly, several other decisions have also been made to further acknowledge societal responsibility .

ISO 26000 is a standard issued by the International Organization for Standardization (ISO) in 2010 and offers guidelines on how businesses and other organizations can operate in a socially responsible way. To evaluate the extent of disclosure concerning ISO 26000 in Saudi Arabia, one must analyze the efforts and initiatives deployed by the Saudi government and Saudi organizations to enhance CSR disclosure. Several studies have researched this topic (Al-Janadi, Rahman, & Omar, 2012, 2013; Habbash, 2016; Khasharmeh & Desoky, 2013; Mahjoub, 2018; Omair Alotaibi & Hussainey, 2016). Additionally, Al-Janadi et al. (2013) investigated the annual reports of 87 Saudi companies listed on the Saudi Arabian Stock Exchange, the Tadawul, from 2006 to 2007. They discovered a low level of CSR reporting (14.61%) and characterized the extent of reporting using four attributes: board size, CEO duality, audit quality, and government ownership.

Religion is an important factor when studying CSR and ISO 26000 reporting in a Saudi context. CSR reporting in the Islamic world may be related to a social contract established on religious and moral values (Low, Idowu, & Ang, 2013), in accordance with the larger assessment system of an Islamic society, instead of being related to personal ethical convictions. From an Islamic perspective, the notion of benevolence to others is a main driver determining people’s responsibility vis-a-vis their society (Duthler & Dhanesh, 2018; Low et al., 2013).

3. Theoretical literature review

Negotiations took 5 years before the final version of the ISO 26000 standard was completed, and they involved an international working group and national commissions in over 90 countries (Zinenko et al., 2015). Defining the nature of a socially responsible firm is an incredibly complex undertaking, necessitating analysis that accounts for a wide variety of issues, actions, and features. Therefore, it is challenging to fully classify the extent of a firm’s social responsibility (Enderwick, 2018).

ISO 26000 focuses on creating guiding principles, as opposed to strict specifications for certification. Thus, no organization can obtain an ISO 26000 certification, as it could for other standards. Likewise, the objective of ISO 26000 is not to define a system through a set of requirements. The standard simply describes concrete forms of social responsibility, outlined to support organizations’ contributions to continuously sustainable development. (Moratis & Cochius, 2017).

Zinenko et al. (2015) explained that members within the negotiating process were separated into stakeholder groups, each spanning governments, nongovernmental organizations (NGOs), firms, etc., to ensure that the standard obtained the consensus of all stakeholders. Consequently, ISO 26000 addresses the impacts of organizations across different sectors and in developed and developing countries (Enderwick, 2018). The standard is recognized as a globally harmonized guidance pertinent to all types of organizations (Sitnikov & Bocean, 2012). Castka and

Balzarova (2008) stated that ISO 26000 is accurately considered a holistic standard because it includes the environment, social issues, health and safety, emissions, and much more. Moreover, it is praised for making sustainable development the predominant goal of organizational social responsibility.(Zinenko et al., 2015).

Fundamentally, the standard delivers an understanding of what social responsibility is and what is obligatory to work in a socially responsible manner (Sitnikov & Bocean, 2012). It offers a clear guide to organizations for combining their financial interests with environmental and social gains when conducting daily operations (Moratis & Cochius, 2017). As explained by Hemphill (2013), ISO 26000 discusses seven core subjects of social responsibility, as shown in Figure 2.

4. Literature review and hypotheses development

We have continued the research into CSR in Saudi Arabia with the formulation of our hypotheses. Various results drawn from previous studies were used in the formulation of the hypotheses. First, we attempted to determine the level of ISO 26000 reporting made by Saudi companies. Second, we assessed the factors that determine this extent of reporting.

4.1. The level of ISO 26000 reporting made by saudi companies

After our literature review, we concluded that there is a paucity of research about CSR in the Saudi context. The few studies that do exist have focused on CSR reporting levels, and no one has studied the extent of ISO 26000 disclosure made by Saudi companies.

When Mandurah, Khatib, and Al-Sabaan (2012) examined CSR activities in Saudi Arabia, they found a reasonable level of CSR activities within Saudi businesses and an adequate link between social objectives and the strategic objectives of the companies. In the same context, however, Macarulla and Talalweh (2012) studied the determinants of corporate social reporting practices in Saudi companies and found a low level of CSR reporting.

Several existing theories seek to explain the determinants of societal disclosure and CSR reporting. Combining all empirical results within one theoretical framework remains a daunting task; therefore, analyzing CSR reporting, as well as aligning the analysis with the guidelines of the ISO 26000 standard, is a complex process that cannot be clarified by one theory. Many studies in this domain have based their postulations on agency theory, signal theory, and legitimacy theory.

In regards to agency theory, organizations' voluntary reporting, especially on social and environmental aspects, is a means to minimize current or future agency costs that may ensue in the

Figure 2. ISO 26000's seven core subjects of social responsibility



form of government oversight. Reducing such costs affects the risk profile and profitability of organizations and thus influences performance. (Duthler & Dhanesh, 2018).

From the same perspective, signaling theory suggests that companies which communicate about environmental concerns send a signal that they are engaged in environmental strategy. They are encouraged to inform different stakeholders by voluntarily reporting more information. Consequently, these affirmative signals make the organizations more attractive to investors in the stock market (Kao, Yeh, Wang, & Fung, 2018).

According to legitimacy theory, CSR reporting provides information that legitimizes an organization's comportment with the aim of affecting stakeholders' and ultimately society's insights about the organization, resulting in a higher performance (Duthler & Dhanesh, 2018).

Finally, the resource dependence theory postulates that the organization seeks to reduce the uncertainty associated with its environment. According to this model, organizations must identify their dependencies on their environment and seek to overcome the control exercised by different actors through initiatives such as acquisition, lobbying or alliance (Hillman, Withers, & Collins, 2009). They remain in business only to the extent that they manage the requirements of the interest groups whose depend on for their resources. Pfeffer and Salancik (1978), at the origin of the theory, note the lack of knowledge of the interdependencies that exist between the company and certain groups of actors. In particular, they consider that organizations underestimate the demands of external groups and the complex relationships that are forming with other organizations. According to these authors, it is important to recognize that the environment constrains or affects organizations.

Hypothesis 1 We predict a high level of CSR reporting through ISO 26000 made by Saudi listed companies.

4.2. Determinants of CSR reporting within ISO 26000

4.2.1. Effect of firm size on ISO 26000 reporting

The size of the company is seen as the main factor in societal disclosure. In fact, larger firms are under more pressure to act and disclose information about the effects of their activities (Mahjoub, 2018).

Although the standard applies to all companies, the cost of adopting this standard is high for smaller firms, especially in terms of setting up the necessary devices. On the other hand, large companies are targeted by governments, and subsequently are more obligated to be in compliance with regulations.

Gnanaweera and Kunori (2018) found that firm size is the main variable related to voluntary disclosure. Duff (2016) noted that firm size and firm profitability have important and positive links with financial disclosure. In the same context, Ibrahim, Darus, Yusoff, and Muhamad (2015) argue that the quality of social responsibility is tentatively linked with firm size (measured by log of total assets) in the Malaysian context.

Based on what is reported above, we state the following hypothesis:

Hypothesis 2: The size of a firm positively influences the level of CSR reporting through ISO 26000 reporting.

4.2.2. Industry sensitivity role

Some activity sectors are perceived to be socially and environmentally sensitive. Such sectors are usually characterized by activities which cause high levels of pollution (Peters & Romi, 2013).

Macarulla and Talalweh (2012) perceived that the economic sector and profitability play noteworthy roles in explaining the extent of CSR reporting. Firms in socially-sensitive and environmentally-sensitive sectors such as the forestry, petroleum and chemical sectors, particularly the ones which accomplish best societal performance, are the ones perceived to report the maximum societal information (Mahjoub & Khamoussi, 2013; Raufflet, Cruz & Bres, 2014). The problem, however, is the credibility and quality of the information disclosed. In this area, Cormier and Magnan (2015) argue that the applicability of environmental reporting is significantly reduced for companies which belong to socially-sensitive and environmentally-sensitive sectors.

Furthermore, societal reporting is criticized by interested parties because firms operating in socially-sensitive and environmentally-sensitive sectors have a tendency to communicate “poorly” and provide vague information about the effects of their activities (Braam, de Weerd, Hauck, & Huijbregts, 2016). Consequently, it is difficult for an interested party to differentiate between credible and opportunistic societal reporting.

Based on the above discussion, we can formulate the following hypothesis:

Hypothesis 3: The firms in sensitive sectors are less credible when they report about CSR through ISO 26000.

4.2.3. Leverage as determinant of CSR reporting

According to the Cormier and Gordon (2001) study of Canadian companies, environmental communication is influenced by leverage and the use of new financing. By testing the link between the debt ratio and societal disclosure, Belkaoui and Karpik (1989) argue that the greater the debts of an organization, the less the company will communicate social and environmental information. In the same context, Cormier and Magnan (1999) have shown that leverage has a negative and significant influence on environmental disclosure. (Oxibar, 2003, 2009) found a negative link between a company’s leverage and societal disclosure in its annual reports. On the other hand, Roberts (1992) considers that leverage is likely to encourage the company to carry out societal activities and to be positive with regard to the information reported in order to meet the expectations of its creditors in term of its social role. Author expects a positive link between the firm’s leverage and its level of societal reporting.

In this respect, it is thought that:

Hypothesis 4: The most indebted firms have more incentive to disclose about CSR through ISO 26000.

4.3. Effect of CSR reporting on information asymmetry

Information asymmetry arises when stockholders retain private information about the organization’s value, but other uninformed stockholders only have access to public information (Rezaee & Tuo, 2017). According to signaling theory, disclosure principally makes private information available to all and can consequently diminish information asymmetry (Huang, Li, & Zhang, 2019). Information asymmetry is similarly a mean subject on its own because a great deal of the literature suggests that the occurrence of information asymmetry generates a contrary selection difficulty, discourages effective resource distribution and intensifies a company’s obligatory rate of returns. In relation to the effect of societal disclosure on the asymmetry of information, Rezaee and Tuo (2017) argue that non-disclosure can afford benefits for organizations by decreasing information asymmetry.

Information asymmetry theory specifies that one party, vis-a-vis an operation, has more pertinent information than others. In fact, Diamond and Verrecchia (1991) show that a low level of reporting or a lack of disclosure can encourage investors to withhold information and keep it secret; thus, this results in a great deal of information asymmetry.

We can formulate the following hypothesis:

Hypothesis 5 *The more Saudi companies disclose in the process of CSR reporting, the more they can avoid information asymmetry.*

5. Research design

5.1. Population and sample

The choice to include Saudi companies in the study is based on the regional place of the Kingdom of Saudi Arabia and the existence of its oil and petroleum resources. These companies, which belong to industries which are often perceived as being polluters, represent the best and the most effective proof of their capability to disclose social and environmental information in the presence of the ISO 26000 standard (Raufflet et al., 2014).

“During the decade of 2003 to 2013, it almost doubled in size on the back of a protracted oil boom” (McKinsey Company, 2015).

Therefore, the sample is extracted from a population of Saudi-listed companies that excludes financial institutions, service industries, and firms that do not have updated websites (see the appendix).

The final list of the companies included in the sample includes 89 companies belonging to 7 industries during a 3-year period (2015–2017), resulting in 267 observations. Our data was collected from “tadawul,” “argaam,” and “asmainfo”¹ Saudi websites and the annual reports of the sample companies.

5.2. Models

Before focusing on variable measurement, we first present the two empirical models that were used to examine the causal relationships between our variables. We added two control variables, audit quality (AUDT) and volume of sales (SALS), to increase the robustness of the model.

Model 1:

$$DISC_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 INDS_{it} + \alpha_3 LVRG_{it} + \alpha_4 AUDT_{it} + \alpha_5 SALS + \beta_{it}$$

$$i = 1, 2, 3, \dots, 89.$$

$$t = 1, 2, 3.$$

Where:

DISC = level of CSR disclosure through ISO 26000

SIZE = size of firm *i* in year *t*

INDS = the firm *i* among the sensitive industries or not

LVRG: Leverage of firm *i* in year *t*

SALS: amount of sales of firm i in year t

AUDT: audit quality, binary variable (1 if auditor from big four auditors, 0 otherwise)

To test the second model, which determines the effect of CSR reporting through ISO 26000 on information asymmetry, we suggest that some of the control variables used in prior studies and an equation in which the dependent variable represents the degree of information asymmetry (INAS) and the explanatory “CSR reporting through ISO 26000” (DISC) are applicable to our research:

Model 2:

$$INAS_{it} = \alpha 0 + \alpha 1 DISC_{it} + \alpha 2 SIZE_{it} + \alpha 3 AUDT_{it} + \alpha 4 SALS_{it} + \alpha 4 LVRG_{it} + \beta_{it}.$$

All variables are described previously.

5.3. Variables measurement

5.3.1. CSR reporting through ISO 26000

Chapter six of ISO 26000, called “Guidance on Social Responsibility Core Subjects,” is dedicated to the core subjects of societal responsibility and the issues of each. The most commonly used method to measure this variable is content analysis. Content analysis is a qualitative methodology used in the social sciences and humanities. We find, for example, content analysis approaches used in sociology, communication, linguistics, and psychology research (Duff (2016) and Liao, Xu, Cheng, and Dong (2018)).

Content analysis is a coding process used when searching for required information about CSR and ISO 26000 in the annual and/or special reports (social responsibility reports, sustainable development reports, etc.) published by companies (Mahjoub & Khamoussi, 2013). The measurement of CSR reporting through ISO 26000 is based on an index (Appendix 2) that contains items related to different subjects associated with CSR, sustainability, GRI guidelines, and the core subjects of ISO 26000. These items are based on Omair Alotaibi and Hussainey (2016) and ISO 26000 core subjects.

We attempt to rate these items by assigning them values for existing or inexistent information; the given values are between zero and three. Three points are conferred to items described in monetary or quantitative terms, two points go to items that are described explicitly, one point is awarded to items presented in general terms (without specific details), and zero points are given to inexistent items (Lassaad & Khamoussi, 2012a, 2012b; Mahjoub & Khamoussi, 2013).

5.3.2. Measure of explanatory variables and control variables

a) Firm size (SIZE)

The firm size has been measured in previous studies by different parameters such as market capitalisation, total revenues, and total assets (Pütter, 2017). Reverte (2009) measured the firm size by the logarithm of market capitalization. On the other hand, many studies use the logarithm of total assets (Cormier and Magnan (2015), Ibrahim et al. (2015), Timbate and Park (2018)). For this reason, authors have the necessary arguments to justify their choices, which correspond to their studies; in our case, we choose to use the total assets logarithm.

b) Sensitive industry (INDS)

After reviewing the literature, we attempt to measure the “sensitive industry” variable using a dummy variable. Timbate and Park (2018) use Compustat’s one-digit SIC² as source of industries classification, Cormier and Magnan (2015) used a sensitive industry as a binary variable (one if

a company belongs to an environmentally sensitive industry, zero otherwise). According to the study of (Reverte, 2009), the list of “more sensitive” industries are: “mining, oil and gas, chemicals, forestry and paper, steel and other metals, electricity, gas distribution, and water”. The rest of the sectors are classified under “less sensitive”, the author measures also this variable by a one/zero. Therefore, we adopt this measure in our study. So, we assign a value of one to the group of companies categorised as sensitive industries and a value of zero to the group of companies categorised as non-sensitive industries.

c) Leverage (LVRG)

In general, leverage is measured through many ratios (such as the debt-to-equity ratio, the debt-to-capital ratio, and the debt-to-EBITDA ratio). For example, Martínez-Ferrero, Ruiz-Cano, and García-Sánchez (2016) and Husted and de Sousa-Filho (2018) measured the leverage by the ratio of total debts to total equity. In others studies such as Timbate and Park (2018) and Fuente, García-Sánchez, and Lozano (2017) the variable of leverage equal to total liabilities scaled by total assets.

Due to the availability of the data, we will use in this research the use the ratio of total liabilities to total assets.

d) Information Asymmetry (INAS)

After a review of the literature on information asymmetry, we choose a measure: the absolute value of earnings per share (EPS) minus the median of forecasted EPS. The result is scaled to share prices. Recently, this measure was used by Martínez-Ferrero et al. (2016), who were inspired by Lang and Lundholm (1996), Marquardt and Wiedman (1998), and Lang and Lundholm (2000). Below, we present the equation used to measure information asymmetry:

$$\text{Information Asymmetry} = \frac{|\text{EPS} - \text{median of forecasted EPS}|}{\text{Share price}}$$

When this ratio returns lower values, it indicates a greater disposal of information and, consequently, less asymmetric information.

6. Empirical results and discussion

6.1. Result of “CSR reporting through ISO 26000” rating

6.1.1. Descriptive analysis

Upon examining the results in Table 1, we note that the dependent variable (CSR reporting through ISO 26000) has a mean score of 1.503 (scoring values fall between 0 and 3). This score reveals an average level of information disclosure on CSR through ISO 26000. We compare this finding to similar results in Saudi contexts; for example, the study by Habbash (2016) conducted from 2007 to 2011 (just after the implementation of ISO 26000). In this study, the author found a 24% disclosure. Other studies also reported levels of disclosure inferior to that found in our study. This may be due to Saudi companies’ awareness of social and environmental concerns and the large period to get around the guidelines of ISO 26000.

In our sample we have 186 observations classified as sensitive industry from 267 observations, this affirmation confirms the importance of rules and legislations established by Saudi government in reinforcing the reporting about CSR and the protection of environment.

Conversely, the percentage of companies audited by the Big Four auditors is 38.20%. This is insufficient, particularly because we understand the roles of large auditing firms in improving levels of disclosure (Duff, 2016).

Table 1. Descriptive analysis of the variables of the Model 1

Model 1					
Continuous Variables	Obs.	Mean	Std.dev.	Min.	Max.
DISC	267	1.503	0.650	0.143	2.714
SIZE		9.14	0.951	6.160	11.649
LVRG		0.994	1.163	0	8.080
SALS		8.907	0.934	0	11.175
dichotomous variables			Freq.	Percent.	Cum.
INDS	0	81		30.34%	30.34%
	1	186		69.66%	100%
	Total		267		100%
AUDT			Freq.	Percent.	Cum.
	0	165		61.80%	61.80%
	1	102		38.20%	100%
	Total		267		100%

Using Figure 3, we notice that levels of disclosure increased from 2015 to 2017; this may have resulted from the Corporate Governance Code in Saudi Arabia, the rigor of the Saudi Capital Market Law, and the Presidency of Metrology and Environment. To better steward and highlight environmental issues, the Saudi government established King Abdullah University of Science and Technology in 2009, which focuses on researching renewable energies.

By analyzing the disclosure over the sector of activity (Table 2), we note that the mean score of the disclosure in the Energy & Utilities sector is higher than the mean score of all other sectors. This result makes sense: we know that this sector is most concerned about communication regarding the effects of these activities on the company and the community in general and that

Figure 3. Evolution of Disclosure about CSR and ISO 26000 among 2015–2017.

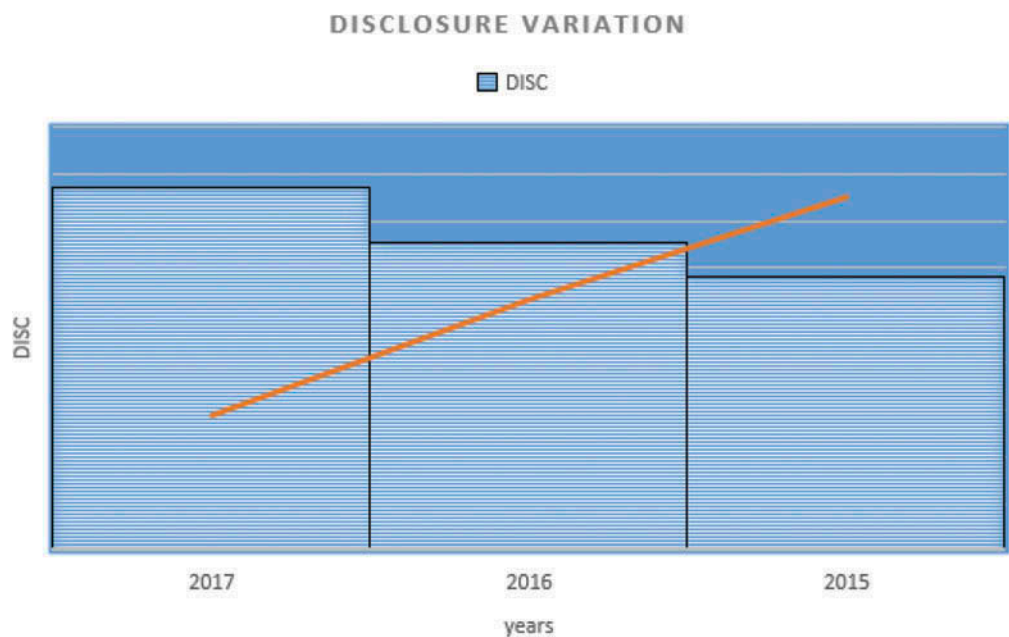


Table 2. Mean of disclosure about CSR and ISO 26000 over sectors of activity, audit quality and industry sensitivity

Over		Mean
Sector of activity	Cement	1.462
	Building & Construction	1.202
	Retail	1.346
	Petrochemical Industries	1.809
	Industrial Investment	1.504
	Agriculture & Food Industries	1.663
	Energy & Utilities	2.071
Audit Quality	Non-Big four Companies	1.342
	Big Four companies	1.761
Industry Sensitivity	Non-Sensitive Industry	1.430
	Sensitive Industry	1.534

it is controlled most by the government. On the other hand, the laws and regulations for the protection of society and the environment are especially intended for polluting sectors.

6.1.2. Pre-tests (multi-collinearity and autocorrelation problems)

Concerning the problem of auto-correlation, Table 3 shows a good result for a majority of relationships between variables. For the remaining instances of auto-correlation, we will choose a suitable tool for multiple regression (a suitable predictor in the Stata software) in Model 1.

Multi-collinearity is detected when explanatory variables in the model are correlated. Regarding Table 4, in which we used a vector of inflation factor, there is no serious problem of multi-collinearity in our study.

6.1.3. Result of multiple regression for the model 1

Results of the first model, as shown in Table 5, prove that the disclosure about CSR through the ISO 26000 made by Saudi-listed companies is affected significantly by the sensitivity of the industry, firm size, sales, and quality of the audit. These relationships are all significant at 1%. Concerning

Table 3. Test of autocorrelation for the Model 1

	DISC	SIZE	INDS	LVRG	INAS	AUDT	SALS
DISC	1						
SIZE	0.337	1					
	0.000						
INDS	0.073	0.069	1				
	0.229	0.257					
LVRG	0.111	0.172	0.138	1			
	0.068	0.004	0.023				
INAS	0.035	-0.119	-0.0346	-0.229	1		
	0.568	0.051	0.000	0.000			
AUDT	0.313	0.195	-0.084	0.106	0.165	1	
	0.000	0.001	0.167	0.083	0.006		
SALS	0.377	0.373	-0.063	0.277	-0.045	0.363	1
	0.000	0.000	0.000	0.000	0.457	0.000	

Table 4. Test of multi-Collinearity for the Model 1

Test of multi-Collinearity		
Variables	VIF	1/VIF
SALS	1.37	0.727
SIZE	1.19	0.843
AUDT	1.16	0.859
LVRG	1.12	0.895
INDS	1.05	0.956
Mean VIF	1.18	

the effect of the size, our findings support previous studies in developing countries, which postulate that firm size positively affects the CSR (Colaço & Simão, 2018; Khasharmeh & Desoky, 2013). Therefore, implementation of the new standard ISO 26000 further strengthens the role of firm size (Moratis, 2017). The second positive concerns the quality of the audit (AUDT); this result is justified by the presence of four big audit companies in Saudi Arabia (our sample includes 102 observations from 267 companies). Many other studies in the field, including Appuhami and Tashakor (2017), LópezPuertas-Lamy, Desender, and Epure (2017), and Alotaibi and Hussainey (2016), support this finding.

We also noted that leverage does not significantly affect this disclosure; this result stems from a poor level of leverage in the Saudi companies. Our finding is aligned with the majority of previous research. For example, the study by Bae, El Ghouli, Guedhami, Kwok, and Zheng (2018) found that leverage plays a moderator role in the relationship between CSR and the loss in market share. In the same context, Sheikh (2018) argues that the link between CSR and leverage is affected by competitiveness in the market. Reverte (2009) affirms that companies whose disclose more about CSR have a lower leverage because these companies are listed in foreign stock markets, this is the case of some Saudi companies (such as Sabic and Kingdom Holding Company).

6.2. Test of the model 2: effect of disclosure about CSR through ISO 26000 on information asymmetry

We recall the statistical model that studied the effects of the disclosure about CSR through the ISO 26000 in Saudi Arabia. We reinforce this model through the use of control variables. The results of the Stata 15 software output for this model are shown in Table 6.

$$INAS_{it} = \alpha_0 + \alpha_1 DISC_{it} + \alpha_2 SIZE_{it} + \alpha_3 LVRG_{it} + \alpha_4 SALS_{it} + \alpha_5 INDS_{it} + \beta_{it}$$

Regarding Table 6, we note a positive and significant effect of disclosure for CSR on information asymmetry (signification at the level of 5%). This finding is consistent with the results of the study on different countries by Martínez-Ferrero et al. (2016), which postulates that the firms communicate more information about the effects of their activities and their adherence to environmental regulations, especially after ISO 26000 implementation. This explains the reduction in information asymmetry.

6.3. Complementary analysis: bidirectional relationship between CSR disclosure and information asymmetry

Based on previous claims, Healy and Palepu (2001) advocated that firm reporting arises from the presence of information asymmetry and agency conflicts. In the presence of asymmetric information, companies tend to disclose more non-financial information, and this has the effect of helping investors make decisions based on optimal conditions while avoiding potential risks (Elliott & Jacobson, 1994). On the other hand, increased disclosure can reduce the price range of the market

Table 5. Results of regression of Model 1

Group variable:	n		Number of obs.	267	
		t			
Time variable:			Number of groups	89	
Panels:	Correlated (balanced)		Obs. per group: min.	3	
Autocorrelation:	No		avg.	3	
			Max.	3	
Estimated covariance:		4005	R-squared	0.227	
Estimated autocorrelations:		0	Wald chi2(5)	476.08	
Estimated coefficients:		6	Prob<chi2	0.000	
Panel-corrected					
DISC	Coef.	Std.err.	z	P< z 	[95% conf. Intervall]
Const.	-1.473	0.360	-4.10	0.000	-2.178 -0.768
INDS	0.134	0.024	5.69	0.000	0.088 0.180
SIZE	0.141	0.029	4.76	0.000	0.083 0.199
SALS	0.168	0.055	3.06	0.002	0.061 0.276
AUDT	0.261	0.032	8.17	0.000	0.198 0.324
LVRG	-0.013	0.012	1.09	0.278	-0.039 0.011

Table 6. Test of Model 2—Effect of disclosure about CSR through ISO 26000 on Information Asymmetry

Group variable:		n			Number of obs.		267
Time variable:		t			Number of groups		89
Panels:		homoscedastic			Obs. per group:		3
Autocorrelation:		No			Log likelihood		-464.778
Estimated covariance:		1			R-squared		0.1696
Estimated autocorrelations:		0			Wald chi2(5)		54.54
Estimated coefficients:		6			Prob>chi2		0.000
INAS	Coef.	Std.err.	z	P< z 	[95% conf. Intervall]		
Const.	4.346	1.048	4.15	0.000	2.291	6.401	
DISC	0.285	0.145	1.97	0.049	0.001	0.569	
SIZE	-0.156	0.099	-1.58	0.115	-0.350	0.037	
SALS	-0.045	0.106	-0.43	0.669	-0.252	0.162	
LVRG	-0.225	0.076	-2.93	0.003	-0.376	-0.074	
INDS	-1.073	0.188	-5.71	0.000	-1.442	0.705	

Table 7. Result of Model 3 test (Effect of INAS on DISC)

Group variable:	n		Number of obs.	267	
	t				
Time variable:			Number of groups	89	
Panels:	homoscedastic		Obs. per group:	3	
Autocorrelation:	No		Log likelihood	-232.8042	
Estimated covariance:		1	R-squared	0.2056	
Estimated autocorrelations:		0	Wald chi2(5)	69.09	
Estimated coefficients:		6	Prob>chi2	0.000	
DISC	Coef.	Std. err.	z	P< z 	[95% conf. Intervall]
Const.	-2.042	0.436	-4.68	0.000	-2.897 -1.187
INAS	0.050	0.025	1.97	0.049	0.001 0.100
SIZE	0.157	0.040	3.87	0.000	0.077 0.237
SALS	0.212	0.042	5.00	0.000	0.129 0.295
LVRG	-0.001	0.032	-0.04	0.971	-0.065 0.063
INDS	0.166	0.082	2.01	0.045	0.003 0.328

and can help policymakers protect themselves from more informed agents because of the asymmetry of information.

Thus, we will content ourselves with testing the effect of asymmetrical information on the level of societal disclosure after the implementation of the ISO 26000 standard. That is, we construct the following empirical model, with control some variables:

Model 3:

$$DISC_{it} = \eta_0 + \eta_1 INAS_{it} + \eta_2 INDS_{it} + \eta_3 SIZE_{it} + \eta_4 LVRG + \eta_5 SALS + \Omega_{it}$$

All variables are previously explained.

The output of Stata software shown in Table 7 presents a significant and positive effect of information asymmetry on the disclosure of CSR through ISO 26000. Our finding is contradictory to many other studies of this bidirectional relationship. For example, the studies of Cuadrado-Ballesteros, Garcia-Sanchez, and Martinez Ferrero (2016) and Cormier, Ledoux, and Magnan (2011) found a negative relationship between CSR reporting and information asymmetry.

7. Summary and conclusion

In this research, we conducted an analysis of the role of implementing ISO 26000 in reinforcing the level of CSR reporting in Saudi Arabia. We obtained acceptable results, with our descriptive analysis showing an increase in CSR reporting through ISO 26000. The determinants of this reporting are not different from the majority of studies in the field: we found significant effects of the firm size, sales, and sector sensitivity, but no significant role regarding leverage. Second, we tested the bidirectional relationship between CSR disclosure and information asymmetry and obtained a reciprocal effect between the both variables.

In summary, this study is of great importance and a challenge for us, given the difficulty of context and the scarcity of data. We believe the results obtained will capture the current literature, serve as good guides for practitioners, and, essentially, open new avenues of research. These tracks come from anomalies of the research, especially concerning the reduced size of the sample. For this purpose, studies with a larger sample or in other countries in the region (Gulf countries for example) are suggested.

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Notes

1. <https://www.argaam.com/en>, <https://www.tadawul.com.sa/>, www.asmainfo.com/.
2. The Standard Industrial Classification (SIC) is an US system for classifying industries by a four-digit code.

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Appendices

Appendix 1. List of companies (the sample)	
COMPANY	SECTOR
City Cement Co.	Cement
Abdullah A. M. Al-Khodari Sons Co.	Building & Construction
Abdullah Al Othaim Markets Co.	retail
Advanced Petrochemical Co.	Petrochemical Industries
Al Abdullatif Industrial Investment Co.	Industrial Investment
Al Hammadi Company for Development and Investment	retail
Al Hassan Ghazi Ibrahim Shaker Co.	Industrial Investment
Al Jouf Cement Co.	Cement
Al Sorayai Trading and Industrial Group	Industrial Investment
Al-Babtain Power and Telecommunication Co.	Building & Construction
Aldrees Petroleum and Transport Services Co.	retail
Al-Jouf Agricultural Development Co.	Agriculture & Food Industries
Alkhaleej Training and Education Co.	retail
Almarai Co.	Agriculture & Food Industries
Alujain Corp.	Petrochemical Industries
Anaam International Holding Group	Agriculture & Food Industries
Arabian Cement Co.	Cement
Arabian Pipes Co.	Building & Construction
Ash-Sharqiyah Development Co.	Agriculture & Food Industries
Astra Industrial Group	Industrial Investment
Basic Chemical Industries Co.	Industrial Investment
Bawan Co.	Building & Construction
Dallah Healthcare Holding Co.	retail
Eastern Province Cement Co.	Cement
Electrical Industries Co.	Building & Construction
Filing and Packing Materials Manufacturing Co.	Industrial Investment
Fitaihi Holding Group	retail
Hail Cement Co.	Cement
Halwani Bros. Co.	Agriculture & Food Industries
Herfy Food Services Co.	Agriculture & Food Industries
Jarir Marketing Co.	retail
Jazan Development Co.	Agriculture & Food Industries
Methanol Chemicals Co.	Petrochemical Industries
Middle East Paper Co.	Industrial Investment

(Continued)

COMPANY	SECTOR
Middle East Specialized Cables Co.	Building & Construction
Mouwasat Medical Services Co.	retail
Najran Cement Co.	Cement
Nama Chemicals Co.	Petrochemical Industries
National Agricultural Development Co.	Agriculture & Food Industries
National Agricultural Marketing Co.	retail
National Gas and Industrialization Co.	Energy & Utilities
National Gypsum Co.	Building & Construction
National Industrialization Co.	Petrochemical Industries
National Medical Care Co.	retail
National Metal Manufacturing and Casting Co.	Industrial Investment
National Petrochemical Co.	Petrochemical Industries
Northern Region Cement Co.	Cement
Qassim Agricultural Co.	Agriculture & Food Industries
Qassim Cement Co.	Cement
Rabigh Refining and Petrochemical Co.	Petrochemical Industries
Red Sea Housing Services Co.	Building & Construction
Sahara Petrochemical Co.	Petrochemical Industries
Saudi Airlines Catering Co.	Agriculture & Food Industries
Saudi Arabia Fertilizers Co.	Petrochemical Industries
Saudi Arabian Amiantit Co.	Building & Construction
Saudi Arabian Mining Co.	Industrial Investment
Saudi Automotive Services Co.	retail
Saudi Basic Industries Corp.	Petrochemical Industries
Saudi Cable Co.	Building & Construction
Saudi Cement Co.	Cement
Saudi Ceramic Co.	Building & Construction
Saudi Chemical Co.	Industrial Investment
Saudi Company for Hardware	retail
Saudi Electricity Co.	Energy & Utilities
Saudi Fisheries Co.	Agriculture & Food Industries
Saudi Industrial Development Co.	Building & Construction
Saudi Industrial Export Co.	Industrial Investment
Saudi Industrial Investment Group	Petrochemical Industries
Saudi International Petrochemical Co.	Petrochemical Industries
Saudi Kayan Petrochemical Co.	Petrochemical Industries

(Continued)

Appendix 1. (Continued)

COMPANY	SECTOR
Saudi Marketing Co.	retail
Saudi Paper Manufacturing Co.	Industrial Investment
Saudi Pharmaceutical Industries and Medical Appliances Corp.	Industrial Investment
Saudi Steel Pipe Co.	Building & Construction
Saudi Vitriified Clay Pipes Co.	Building & Construction
Savola Group	Agriculture & Food Industries
Southern Province Cement Co.	Cement
Tabuk Agricultural Development Co.	Agriculture & Food Industries
Tabuk Cement Co.	Cement
Takween Advanced Industries Co.	Industrial Investment
The National Company for Glass Industries	Industrial Investment
Umm Al-Qura Cement Co.	Cement
United Electronics Co.	retail
United Wire Factories Co.	Building & Construction
Wafrah for Industry and Development Co.	Agriculture & Food Industries
Yamama Cement Co.	Cement
Yanbu Cement Co.	Cement
Yanbu National Petrochemical Co.	Petrochemical Industries
Zamil Industrial Investment Co.	Building & Construction

Appendix 2. CSR disclosure through ISO 26000 index based on Omair Alotaibi and Hussainey (2016), GRI guideline and ISO 26000 core subjects

1. Employee	4. Customer
Employee data	Commercial and marketing information
Training & development	Meeting customers' needs
Employee benefits	Customer feedback
Pension	Customer service
Workplace	Customer satisfaction
2. Community	Existing certificated systems of quality
Community investment	5. Environmental Issues
Contribution to national economy	Environmental policy statement
Education	Designing facilities harmonious with environment
Health and safety	Using recycling material
Social loan	Sponsoring environmental activities
Social activities support	Pollution
Funding scholarship programmes	Waste management

(Continued)

Human rights	Conservation of natural resources
Charity, donations, Zakah, Hajj, for Quran and Ongoing Charity (WAGFF)	6. Energy
Others disclosure related to Shariah activities	Disclosing the company's energy policies
Volunteering	Conservation of energy
Establishing non-profit projects	Disclosing increased energy efficiency of products
3- Products and Services	
Developing & innovating new products	
Product & service quality	
ISO & other awards	
Guidance campaigns	



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