Corporate social responsibility disclosure and company characteristics: insights and empirical evidence from the Libyan extractive sector

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Abstract: This study investigates the corporate social responsibility disclosure (CSRD) practices of Libyan extractive companies from 2009 to 2014, discerning the most appropriate theoretical explanation of such practices in light of the relationship between levels of CSRD practice and specific company characteristics. The study uses the content analysis technique to analyse the annual reports of companies. The study finds that whether a company is public or private, country of ownership structure and activity location are the major significant determinants influencing and correlating with CSRD levels in Libya. Conversely, company size, age and industry concentration are not positively correlated with CSRD levels in Libya. The study highlights the lack of explanatory power of the existing CSRD theories within this specific context. The implications of this study suggest that without international influence, it is less likely that institutional forces in Libya would be effective in dealing with CSRD issues.

Keywords: corporate social responsibility disclosure; CSRD; corporate characteristics; extractive companies; Libya.

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1 Introduction

Libya is considered to be one of the most important members of the Organisation for Petroleum Exporting Countries (OPEC), having proven crude oil reserves of 48 billion barrels as of January 2014, the largest endowment in Africa, and being counted amongst the nine largest global producers [Oil and Gas Journal (2014) cited in US Energy Information Administration (2014)]. The extractive sector is considered to be a high-level competitive industry due to its significant contribution to gross domestic product (GDP) growth in the country (Central Bank of Libya, 2006). This sector represents 73% of Libyan's GDP, more than 97% of exports, and generates approximately 95% of government revenue (Central Bank of Libya, 2012). Despite spending a large amount of the oil revenues on developing the diversification of the economy, the extractive sector still represents the main contributor to the Libyan economy.

A company's environmental disclosure has a significant influence of on economic performance, suggesting that the better the economic performance of a company, the greater its social responsibility (Mahmes, 2016). Such challenges compel corporations to move beyond the traditional and conventional accounting disclosure systems and to employ a novel strategy for managing their businesses towards continuous developments, primarily in the form of CSRD (Hokoma and Hussain, 2008). Much debate has taken place concerning the demand for developments in social and environmental accounting and reporting (Lodhia, 2003; Kuasirikun, 2005). This is encompassed within the issue of corporate social responsibility disclosure (CSRD).

CSRD has received increased attention for the last three decades, and it is now considered as one of the most significant types of social disclosure amongst researchers (Islam et al., 2005). However, studies regarding CSRD practices in the developing, underdeveloped and newly industrialised world are few in number compared with developed countries, with more focus on the Asian region (Xiao et al., 2005; Narwal, 2007; Potluri et al., 2010). Very little attention has been given to the African nations (Dawkins and Ngunjiri, 2008). There is a general lack of knowledge on the state of CSRD in the Arabic world, of which Libya constitutes an important part, as only small numbers of studies on CSRD have been undertaken in this region (Aribi and Gao, 2010; Mahmes, 2016; Ahmad and Mohmes, 20).

Accounting researchers have articulated various theoretical approaches on why companies undertake CSRD, including agency theory, stakeholder theory, legitimacy theory, political economy theory (Roberts, 1992; Gray et al., 1995a; Adams, 2002; van der laan, 2009). These theories explain CSRD practices from different standpoints and assumptions. However, there is no universally accepted theoretical framework of corporate social accounting (Gray et al., 1995a). This study presents an empirical investigation into CSRD practices of extractive companies operating in Libya. It aims to investigate the current state of CSRD practice in Libya from the period of 2009–2014, with a view to testing the relationship between the quantity and quality of CSRD practice and a company's characteristics namely: size, age, whether a company is public or private, country of ownership structure, industry concentration and activity location. This study will suggest a number of implications for theory and practice. The intention is also to highlight the existence of a number of variables which are not captured by the present theories of CSRD.

The study is structured as follows. The next section outlines the theoretical development of the study. The third section looks briefly at the literature review on CSRD as well as the hypotheses development. The fourth section addresses the research design.

The penultimate section then provides the analysis of CSRD according to company characteristics. The final section is the discussion and conclusion of the implications of the empirical results for the theoretical development of the field and a diagram is presented summarising the variables known to influence CSRD examined in both the previous literature and in this study.

2 Theoretical development

The development of CSRD can be based on one of various theories proposed to account for companies' adopting or rejecting this type of information disclosure. The following well known theories are considered in this paper, with respect to our hypotheses: agency theory, legitimacy theory, stakeholder theory and political economy theory.

CSRD is undertaken to enhance a company's image within the community and to avoid possible pressure on corporations from government regulatory bodies to be more responsible for their social and environmental activities. This potential regulation is seen as costly and restrictive on business decision making. According to agency theory, information disclosure reduces the agency costs arising from conflicts of interest between managers and different stakeholders. The decision to report social and environmental information is positively associated with economic performance or profitability (Al-Tuwaijri et al., 2004). Managers will only disclose social and environmental information if it increases their welfare (Noreen, 1988). Due to increased expenditure as a result of the disclosure, the authors suggest that CSRD is used as an accounting method to reduce net income and thus political visibility.

Since the interrelationship amongst the shareholders and managers of a company fits the definition of an agency relationship, two problems are associated with agency relationships. Firstly, there are conflicting objectives between the agent and the principal. This is because each party chooses its actions optimally in regard to its self-determined goals (Ince, 1998). The decision to disclose social and environmental information depends on what objectives they want to achieve, that is, maximising profit for stockholders or fulfilling their personal satisfaction. Secondly, the differences in the propensity to accept risk between each party (Haniffa, 1999). One way of mitigating such conflicts and reducing cost may be by reporting extensive social disclosures in the annual reports (Haji, 2013).

CSRD is a function of social pressure on companies concerning their social responsibility. Improving CSRD requires effort from communities to better identify the potential benefits of the practice (Cho et al., 2014). Companies provide CSRD to seek congruence between the social expectation of a firm and the firm's appropriate social conduct (Patten, 1992; Deegan, 2002). The main notion of legitimacy theory is predicated on the hypothesis that an organisation's continued survival needs support from its society. To justify its continued existence, firms should legitimise their behaviour towards the society in which they operate and create communication channels with it. O'Donovan (2002) found a support for legitimacy theory as an interpretation of the decision to include CSRD practices and information in the annual report. Legitimising disclosures mean that the company is responding to particular concerns that have arisen regarding their operations.

Managers act as both decision makers and actors within a society where decisions are to be implemented. Companies in Libya seem to be undertaking CSRD to justify their continued existence, enhancing their image and reputation within society and avoiding social pressure. They compete for reputational status in institutional fields and attempt to influence stakeholders' assessments by signalling firms' salient advantages. On the other hand, they may not want to disclose more than the minimum to avoid any intervention by central agencies and increased expectation on the part of the general public. If society's perception of the company is aligned with the way the company wishes to be perceived, there is no legitimacy gap and hence no motivation to disclose or seek to legitimise a company's output, methods or goals (van der Laan, 2009).

Apart from financial responsibility to stakeholders, any organisation should have social and environmental responsibility. Stakeholder theory offers an explanation of accountability to stakeholders (van der Laan, 2009). The main advantage of the stakeholder explanation is that it provides a means of dealing with multiple stakeholders with multiple conflicting interests. Organisations need to better understand the extent and nature of the stakeholders with which they operate in order that suitably tailored strategies can be developed (Jenkins, 2004). If any relevant interest group is dissatisfied with the performance of an organisation, they can apply pressure to the firm to meet expectations or use the legal system to require improved performance (Patten, 1992). This pressure directly concerns the expectations of the global society and in turn drives the industry's social and environmental policies and related reporting practices (Islam and Deegan, 2008). For solicited disclosures, the impetus is provided by a direct request from the identified stakeholders (van der Laan, 2009). CSRD can be seen as a kind of reciprocal relationship among the company and its stakeholders, and therefore the lack of stakeholder engagement is predicted to result in low levels of CSRD (Liu and Anbumozhi, 2009).

For a complete picture of CSRD more consideration needs to be paid to economic, political and social contexts, i.e., external factors surrounding the organisations. The sociopolitical and economic systems are thought to be important factors influencing the extent of disclosure practices (see, e.g., Cooke and Wallace, 1990; Gray et al., 1995b; Tilt, 1997; Haniffa and Cooke, 2002). According to Guthrie and Parker (1990), the political economy perspective perceives accounting reports as economic, political and social documents. The relationship between economic, political and social contexts should thus be considered in CSRD studies (Gray et al., 1995b). This may help in explaining CSRD practice from the rich social, political and economic domain in which disclosure take place. Ince (1998) argues that the principle of political economy theory is that the economic interacts with the social, political and institutional. That is, as a part of an economic system, a corporation's social and environmental disclosure could be investigated by political economy theory. According to Gray et al. (1996, p.47), political economy theory is "the social political and economic framework within which human life takes place". Social and political theories that focus on the role of disclosure in the relationships between corporations, the state, individuals and groups are considered most appropriate in explaining and understanding CSRD (Gray et al., 1995a; van der Laan, 2009).

3 Literature review and hypotheses development

Since the 1970s, CSRD has attracted tremendous attention and has been a significant area of academic interest. The literature suggests that many different determinants which may influence CSRD practices. The first is 'company characteristics' including size, age, whether a company is public or private, country of ownership structure, industry concentration and activity location. Previous studies intended to test the relationship between corporate characteristics and CSRD practice but failed to provide conclusive evidence for supporting these characteristics. The majority of studies of the relationship between CSRD and company characteristics have focused on developed countries and neglected developing countries such as Libya. It may be misleading to apply the results of studies conducted in developed countries to less developed or developing countries since CSRD practice varies from one nation to another due to economic, social, political and cultural differences (Archambault and Archambault, 2003). The following hypotheses are developed based on the prior literature and on selected CSRD theory explanations and contextual aspects.

3.1 Company size

Ghazali, 2007 argues that larger corporations tend to disclose more CSRD information to show their corporate citizenship, thereby legitimising their existence. The increase in public and political statements being made by corporations on social and environmental disclosure issues is positively related to more social and political pressures applied by stakeholders (Williams, 1999). This is because additional disclosure may have a greater impact on society (Neu et al., 1998). Larger companies may have more stakeholders who might be concerned with social activities undertaken by companies (Rettab et al., 2009). Therefore, there may be greater demands on them to provide information for stakeholders. Most previous studies suggest a positive relationship between size and social disclosure. Liu and Anbumozhi (2009) identify the determinant factors affecting the level of CSRD on the basis of stakeholder theory and give an empirical observation of Chinese listed companies. They suggest that CSRD increases with company size and that company size is currently the major significant factor influencing CSRD. Hackston and Milne (1996) also found evidence that size has a significant effect on CSRD practice in New Zealand. Adams et al. (1998) investigate, among a group of six Western European countries, whether company size has any influence on all categories of CSRD information. They found a difference in the level of CSRD between large and small firms and this difference seems to be in favour of larger companies. Gao et al., (2005) have similar a conclusion. More recently, Goncalves et al. (2014), Dienes et al. (2016) and Ali et al. (2017) found company size to be one of the most important drivers of the disclosure of sustainability reports.

However, the results of the above studies are contradicted by others. Roberts (1992), for example, empirically tested the ability of stakeholder theory to explain one specific corporate social responsibility activity: social responsibility disclosure and found no relationship between company size and amount of disclosure. De Villiers and van Staden (2011) found no positive correlation between CSRD in annual report and company's size. Halme and Huse (1997) examined the annual reports of companies for 1992 from

Sweden, Finland, Spain and Norway and found no significant association between social disclosure and company' size. Based on the results of prior studies, larger companies operating in Libya are expected to disclose more CSRD information in their annual reports. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practice and company size.

3.2 Company age

Old companies may have improved their disclosure practices over time (Alsaeed, 2006); with more experience they try to enhance their reputation and image within society (Akhtaruddin, 2005). There is a general explanation that a company's willingness to disclose information is positively related to societal requirements (Reich, 1998; O'Donovan, 2002). The explanation for this can be derived from legitimacy theory. The competition argument suggests that young companies are not likely to disclose extensive information about their social and environmental activities. It may be detrimental if sensitive information is disclosed to the public (Ishwerf, 2012).

Using different theoretical perspectives, many empirical studies have investigated the relationship between company age and the level of disclosure in general and CSRD in particular (Akhtaruddin, 2005; Liu and Anbumozhi, 2009; Rettab et al., 2009). Company age has been found to be significant and positively associated with the extent of social disclosure in previous studies (Roberts, 1992). However, some recent studies found that the age of a company does not have a significant influence on CSRD (e.g., Akhtaruddin, 2005; Liu and Anbumozhi, 2009. In systematising the research field of sustainability reporting, Dienes et al. (2016) find that company age does not influence the disclosure of sustainability reports. However, in the Libyan context, it is expected that long-established companies engage more with CSRD practices than new companies. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practice and company age.

3.3 Whether a company is public or private

Stakeholders' perceptions can be a further reason for the reporting of social information (Burritt et al., 2016; Esken et al., 2018). Corporate disclosure from the approach of political economy is a proactive process of information provided from the management' perspective (Guthrie and Parker, 1989). In addition to the significance of government in the determination of accounting reports and policies, the theory recognises power and conflict in society and the potential effects on the distribution of income, wealth and power in the society of accounting reports (Cooper and Sherer, 1984). Wang et al. (2004) state that there is an inverse relationship between whether a company is public or private and CSRD practices. Public companies have a greater incentive to provide social information than private companies. Publicly-owned firms are expected to be more politically sensitive as their activities are more in the public eye (Ghazali, 2007). They face more pressure to report additional information due to accountability issues resulting from having a larger group of stakeholders than privately-owned firms (Janggu et al., 2007).

A small number of studies use whether a company is public or private as one of the most important factors affecting the level of CSRD disclosure (Cormier and Gordon, 2001; Eng and Mak, 2003; Rizk et al., 2008). They reveal that whether a company is public or private has a significant positive impact on the level of CSRD in companies. Based on the previous discussion, whether a company is public or private is expected to be associated with the level of CSRD in Libya. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practice and whether a company is public or private.

3.4 Country of ownership structure

Best practice is specific to the sector and country where the company is incorporated or listed. These differences are taken into consideration when analysing and engaging with a company (Baillie Gifford, 2016/2017). It is postulated that where there is a separation of ownership and control of a company the potential for agency costs exists because of the conflicts of interest between principals and agents (Hossain et al., 1995). Particular nation state ownership of a company is also found to be a key determinant of CSRD (Zarzeski, 1996; Saida, 2009). There are also differences in the nature of social and environmental disclosure depending on the company's country of ultimate ownership (Janggu et al., 2007). Companies from countries with high levels of social consciousness such as Sweden and Canada are expected to disclose more CSRD information (Moneva and Llena, 2000) to portray their corporate citizenship, thereby legitimising their existence (Ghazali, 2007), to showcase the quality of their operations, and to compete for international resources (Zarzeski, 1996). Saida (2009) compares the disclosure of environmental issues in the annual reports of US and European multinational companies. The study found a difference in the level of disclosure between the two types of companies but this difference seems to be in favour of European multinational companies. The nationality of multinational companies seems to have an effect on the level of environmental communication. Saleh et al. (2010) reveal that that there are positive and significant relationships between CSRD and institutional ownership. Their results suggest that Malaysian public listed companies are able to attract and maintain their institutional investors while they engage in social activities. Dienes et al. (2016) and Garas and ElMassah (2018) found ownership structure of a company to be an important driver of the disclosure of social and sustainability reports.

However, others have found contradictory results (Moneva and Llena, 2000; Hossain et al., 2006; Monteiro and Guzmán, 2010). Janggu et al. (2007) investigated the relationship between the extent of CSRD and firms owned by individuals and corporations in Malaysia using content analysis of annual reports. Corporate companies were found to be more socially responsible than individual-owned companies in terms of the amount of disclosure. Comparing CSRD by local and foreign companies, they found that local firms are more socially responsible than their foreign counterparts. Hossain et al. (2006) tested the hypothesis that firms with multinational connections produce CSRD information to a greater extent than do those of their domestic counterparts in Bangladesh. They found no clear evidence that this is the case.

From the political economy theory perspective, CSRD does not exist in a vacuum but acts together with the environment in which it exists. Each region has its own environment, which plays an important role in formulating its accounting and reporting system and practice. A proper investigation of a country's environment, in which CSRD practice exists, will provide the necessary background for understanding the characteristics of such an environment. This also can assist in determining what might be thought of as an appropriate theoretical explanation of corporate reporting and disclosure practices in a given environment.

Previous studies have focused on ownership concentration and director ownership on one side, and social disclosure on the other side. However, this thesis will look at ownership from a different point of view, i.e., based on ownership structure. This area needs more attention and analysis. Companies operating in the Libyan extractive sector are classified as national, joint venture or international. To date, there is no empirical evidence on this in Libya. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practices and ownership structure.

3.5 Industry concentration

To justify its continued existence, a company should appear to operate within the bounds of those activities which are deemed appropriate by society, create communication channels with society, and legitimise its behaviour and attitudes towards the society in which it operates (Brown and Deegan, 1998; Farache and Perks, 2010; Perks et al., 2013). Companies with certain types of activities may face different degrees of pressure to disclose certain type of information (Ghazali, 2007). Many researchers have recognised industry concentration as a factor that affects CSRD practice. Cowen et al. (1987) found an association between industry concentration and a certain category of CSRD reporting. Waddock and Graves (1997) also found evidence to support the hypothesis that the level of CSRD largely depends on the industry concentration. By investigating the determination of environmental reporting by French firms, Cormier and Magnan (2003) conclude that company activity type has an effect on corporate environmental reporting. Gao et al. (2005) found a positive correlation between industry concentration and volume of CSRD. They acknowledge that companies with social and environmentally sensitive activities are more likely to provide CSRD information than less social and environmentally sensitive companies. Yu et al. (2017) suggest that the difference in competitive advantage impairment between environmentally sensitive industries and non-environmentally sensitive industries is significant. On the other hand, Eng and Mak (2003) found no significant relationship between disclosure and type of activity. Using the stakeholder approach, Ishwerf (2012) found that the sensitivity and confidentiality of the information appeared to be impeding corporate environmental reporting practices. Based on the previous discussion, industry concentration is expected to be associated with the level of CSRD in Libya. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practices and industry concentration (exploration, production or both).

3.6 Company location

Companies operating in onshore locations disclosed less HR information than companies operating in other locations (offshore locations and both locations). Adams et al. (1998) demonstrate that a company's original location has an impact on CSRD patterns. Applying a multi-theoretical perspective, Adams (2002) found that the process of reporting and decision making appears to depend on the original location of the company. Griffin and Sun (2018) found that managers make firm-value-increasing CSRD decisions that cater to the religious and social norms of the local community. They believe that local norms (measured at the country level) can affect companies' disclosure practices and firm value, especially voluntary disclosure on climate change and environmental and social responsibility. One of the reasons for this result may be the different forms of socioeconomic situation, political culture, freedom of the press, legislation and business competition in each location, and the influence these factors have on CSRD practices. To date, there is no empirical evidence on this in Libya. Consequently, it is hypothesised that:

- There is a positive relationship between levels of CSRD practices and the location where companies operate (onshore or offshore or both).

4 Research method

Considering the aims and objectives of this study, content analysis was selected as the research method to gather the required data on a longitudinal horizon. Only annual reports were used in this study because they were found to be the exclusive means utilised by corporations operating in the Libyan extractive sector to disclose social and environmental related information. CSRD was measured using the number of words disclosed in these reports. The most usual measurement techniques of analysis in written communications tend to be word count, sentence count and page proportion count or a mix of these units (Gray et al., 1995b). Each method has its advantages and disadvantages (Campbell, 2004). Using the word method is supported by the literature (e.g., Campbell, 2004; Xiao et al., 2005; Aribi and Gao, 2010), that is, a word as a measurement unit is more of an accurate and reliable approach as it reduces the scope for human error, suggesting that the smaller the recording unit, the more reliable it is (Weber, 1990). The word as the smallest unit of measurement for analysis can be expected to provide the maximum robustness to a study in assessing the quantity of disclosure (Campbell, 2004).

Employing content analysis to analyse documents can be subjective as the same document can be interpreted differently by different researchers (Tilt, 1998). To minimise the subjectivity, the categories and the decision rules defining these categories, as presented by Gray et al. (1995a), and the Centre for Social and Environmental Accounting Research (CSEAR, 2004), are employed with some adoption from the previous relevant literature. This is because of their rigour and ability to capture social disclosure practices in Libyan corporations' annual reports. These were pre-tested and adjustments were made to align them with the Libyan context (see Appendix). Based on the components of CSRD identified in the mainstream literature (Gray et al., 1995b; Hackston and Milne, 1996; CSEAR, 2004), this study considers seven main mutually exclusive themes of CSRD to formulate the main categories of CSRD. These are environmental disclosure, consumer disclosure, human resources and employee disclosure (HR&E), community disclosure. Directors' data and corporate governance categories are also employed following developments by Chambers (2003), CSEAR (2004), the United Nations Environment Programme (UNEP), KPMG, the Global Reporting Initiative (GRI) and the Unit for Corporate Governance in Africa (UCGA) (2010), the European Commission (2014) and Chambers (2017). A general other category is needed to capture other CSRD themes which occur over time or are particular to Libya because of the different country context. Varieties of sub-categories, which fall within these main categories, have also been attached. However, as the level of interest in social matters might be influenced by the different context, environment and country in which this study is conducted (Azzone et al., 1997; Haniffa, 1999; Gray et al., 2001), some of the decision rules required certain adjustments to be aligned to the Libyan context.

A total of 64 annual reports for 2009–2014 were collected through the assistance of NOC, representing 17 out of 22 companies. No complete sets of annual reports were available; collecting these was one of the most challenging tasks of the study. A number of annual reports were missing, since some companies did not store their annual reports, especially those whose premises were damaged and/or destroyed as a result of the civil war that Libya witnessed.

This study uses the following multivariate model. The Statistical Package for the Social Sciences (SPSS) is used for performing the statistical analyses including descriptive statistics, independent two sample T-test and one-way ANOVA tests. Table 1 shows variables data list.

$$\text{CSRD} = f(SIZE, AGE, PRIVAT, LEVER, OWNSHIP, INDCON, LOCT)$$

Table 1 Variables data list

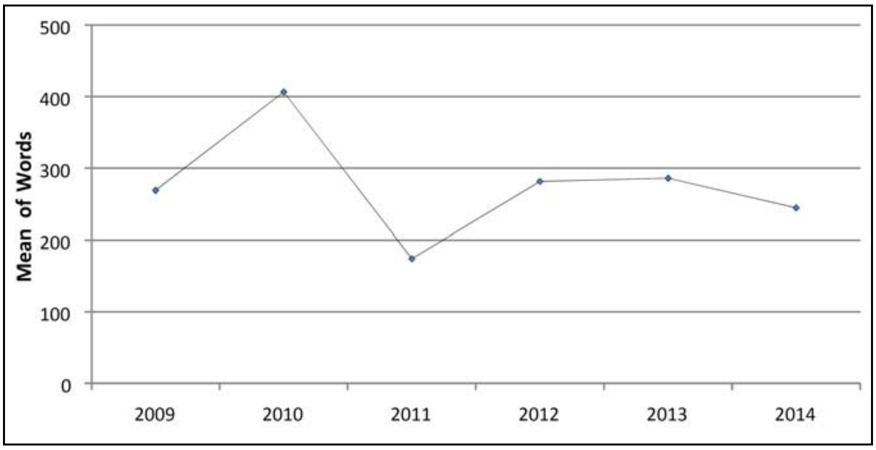
Data element no.	*Data elements*	*Data label*	*Variable nature*	*Measurement scale*	*Dependent or independent*
1	CSRD	CSRD	Quantitative	Continuous	Dependent
2	Size	SIZE	Quantitative	Interval	Explanatory
3	Age	AGE	Quantitative	Interval	Explanatory
4	Whether a company is public or private	PRIVAT	Quantitative	Interval	Explanatory
5	Country of ownership structure	OWSHIP	Quantitative	Interval	Explanatory
6	Industry concentration	INDCON	Quantitative	Interval	Explanatory
7	Location of activity	LOCT	Quantitative	Interval	Explanatory

5 Analysis

5.1 Overall practice of CSRD in Libya

The results indicate that all companies provide some CSRD. Total CSRD declined as a proportion of the corporate annual report during the period. CSRD consists of mostly good disclosure and having a declarative nature. The mean volume and trends of CSRD are depicted in Figure 1.

Figure 1 The volume of total CSRD word disclosure over the six-year period (see online version for colours)



5.2 Analysis of CSRD according to company' size

Company size has been identified in the CSRD literature using a range of different measurements (e.g., the number of employees, total asset value, sales volume, the market value of equity, capital employed and turnover, etc.)[1]. Obtaining information on Libyan companies' total assets value, equity market value or sales volume can be difficult. The confidentiality associated with obtaining such information makes the measurement of these values problematic. Table 2 provides the mean volume of CSRD practices, as calculated from the number of words devoted to CSRD in the annual reports published by small, medium and large companies. From data in the companies' annual reports, around 41% of companies' sampled (seven companies) are large in size, 35% (six companies) are medium and 24% (four companies) are small.

Looking at the means and percentages of CSRD for each year, clearly, a difference in the level of CSRD between small, medium and large companies can be identified, and this difference is in favour of large companies. In order to determine whether the difference in the amount of CSRD published by small, medium and large extractive companies is or is not significant, the One-Way ANOVA test was undertaken. The results indicate that there is no statistically significant difference between these groups (p-value = 0.520, F 0.677). The calculated F value is less than the critical F (3.55) and the p-value is greater than 0.05. The results of the Pearson Correlation test (r = 0.264 and p-value = 0.204) demonstrate that there is no significant relationship between company size and the level of CSRD in Libya. Accordingly, the first hypothesis is rejected.

Table 2 Descriptive statistics for CSRD practice by size

Company size	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
	N. of sources	1	2	1	4	2	0	10
	N. of words	440	640	252	795	389	0	2,516
	Mean	440	320	252	198.75	194.5	-	251.60
Small	%	20.45%	9.84%	20.69%	4.41%	4.86%	-	14.12%
	Minimum	0	201	0	25	61	0	
	Maximum	440	439	252	539	328	0	
	SD	311.13	168.29	178.19	232.94	188.80	-	
	N. of sources	5	4	4	6	6	4	29
	N. of words	1,373	1,636	301	1,713	2,004	876	7,903
	Mean	274.6	409	75.25	285.50	334	219	272.52
Medium	%	63.80%	50.29%	24.71%	38.03%	50.05%	32.57%	44.35%
	Minimum	100	53	18	77	98	51	
	Maximum	535	832	112	543	627	347	
	SD	179.37	331.33	40.90	175.69	216.90	144.58	
	N. of sources	2	2	2	6	6	7	25
	N. of words	339	977	665	1,996	1,611	1,814	7,402
	Mean	169.5	488.5	332.5	332.7	268.5	259.1	296.1
Large	%	15.75%	30.03%	54.60%	44.32%	40.23%	67.43%	41.53%
	Minimum	90	213	190	139	116	37	
	Maximum	249	764	475	473	438	552	
	SD	112.43	389.62	201.53	149.64	123.03	187.45	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

5.3 Analysis of CSRD according to company' age

This section seeks to examine whether CSRD practice differs in old and new companies. Company age is divided into old and new[2]. The analysis of the mean volume of disclosure made by each group indicates that nearly 47% of companies sampled (eight companies) are old and 53% (nine companies) are new. The mean volume of CSRD for each group is demonstrated in Table 3.

Table 3 Descriptive statistics for CSRD practice by age

Company age	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
	N. of sources	2	2	2	7	7	7	27
	N. of words	784	1,596	266	2,434	2,082	1,698	8,860
	Mean	392	798	133	347.71	297.43	242.57	328.15
Old	%	63.23%	74.29%	41.13%	60.19%	52%	49.45%	57.54%
	Minimum	90	213	76	132	105	37	
	Maximum	535	832	475	543	627	552	
	SD	202.23	48.08	80.61	150.65	168.22	170.81	
	N. of sources	6	6	5	9	7	4	37
	N. of words	1,368	1,657	952	2,070	1,922	992	8,961
	Mean	228	276.17	190.4	230	274.57	248	242.19
New	%	36.77%	25.71%	58.87%	39.81%	48%	50.55%	42.46%
	Minimum	100	53	18	25	61	51	
	Maximum	196	272	95	380	364	146	
	SD	147.85	159.45	180.11	187.60	185.89	184.84	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

The difference in the amount of CSRD being provided by various companies may be significant, and this difference is in favour of old companies. A T-test was undertaken to test the influence of company age on the level of CSRD. The result indicates that there is no significant difference between the two groups. The calculated T value is less than 2.160 and the p-value is higher than 0.05 (T score significance is T-statistic = 1.52, p-value = 0.155). Pearson Correlation results (r = –.401 and p-value = 0.155) indicate that the relationship between company age and levels of CSRD does not appear to be significant. Accordingly, the second hypothesis is rejected.

5.4 Analysis of CSRD according to whether a company is public or private

The descriptive statistics for CSRD practices as presented in the annual reports of public and private extractive companies in Libya and the distribution between different companies are presented in Table 4.

To determine whether there is a significant difference regarding the volume of CSRD between the different kinds of company in terms of whether a company is public or private, a T-test was undertaken between the two groups of companies. The test shows that the calculated T value is greater than 2.160 and the level of significance is less than 0.05 (T score significance is T-statistic = 7.53, p-value = 6.98E-006). Therefore, the difference in disclosure between public and private companies is found to be significant. The results of a Pearson Correlation test (r = –0.908 and p-value = 0.000007) show that there is a significant relationship between whether a company is public or private and the level of CSRD in Libya. Accordingly, the third hypothesis is accepted.

Table 4 Descriptive statistics for CSRD practice by public/private

Public or Private	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
Public	N. of sources	7	7	6	15	13	10	58
	N. of words	2,052	3,200	1,200	4,427	3,906	2,639	17,424
	Mean	293.14	457.14	200	295.13	300.46	263.9	300.41
	%	74.56%	89.61%	91.74%	79.31%	75.41%	83.80%	81.95%
	Minimum	90	201	76	25	61	37	
	Maximum	535	832	475	543	627	552	
	SD	162.22	256.57	150.05	174.78	168.55	162.08	
Private	N. of sources	1	1	1	1	1	1	6
	N. of words	100	53	18	77	98	51	397
	Mean	100	53	18	77	98	51	66.17
	%	25.44%	10.39%	8.26%	20.69%	24.59%	16.20%	18.05%
	Minimum	100	53	18	77	98	51	
	Maximum	100	53	18	77	98	51	
	SD	0	0	0	0	0	0	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

5.5 Analysis of CSRD according to a country of ownership structure

The level of CSRD was examined across the ownership groups operating in the Libyan extractive sector (CFO, CJV and CESPA[3]). Table 5 summaries the descriptive statistics for CSRD practices in the reports and their distribution across the different company types. The difference in the amount of CSRD being provided by various companies may be significant, and this difference favours CJV companies.

Table 5 Descriptive statistics for CSRD practice by country of ownership structure

Country of ownership structure	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
CFO	N. of sources	3	3	4	9	7	5	31
	N. of words	892	1,305	473	2,028	1,699	669	7,066
	Mean	297.33	435	118.25	225.33	242.71	133.8	227.94
	%	43.26%	45.23%	23.66%	32.09%	34.26%	23.12%	33.63%
	Minimum	161	201	76	25	61	37	
	Maximum	535	832	190	543	627	222	
	SD	206.57	345.64	50.04	177.76	199.55	66.08	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

Table 5 Descriptive statistics for CSRD practice by country of ownership structure (continued)

Country of ownership structure	*Year / Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
CJV	N. of sources	4	4	2	6	6	5	27
	N. of words	1,160	1,895	727	2,399	2,207	1,970	10,358
	Mean	290	473.75	363.5	399.83	367.83	394	383.63
	%	42.19%	49.26%	72.74%	56.94%	51.91%	68.07%	56.60%
	Minimum	90	213	252	213	259	276	
	Maximum	440	764	475	539	528	552	
	SD	155.42	226.18	157.68	114.25	101.38	111.47	
CESPA	N. of sources	1	1	1	1	1	1	6
	N. of words	100	53	18	77	98	51	397
	Mean	100	53	18	77	98	51	66.17
	%	14.55%	5.51%	3.60%	10.97%	13.83%	8.81%	9.76%
	Minimum	100	53	18	77	98	51	
	Maximum	100	53	18	77	98	51	
	SD	0	0	0	0	0	0	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

A one-way ANOVA test was conducted to identify whether the difference in the amount of CSRD practices between the three types of companies is significant. The results show that there is a statistically significant difference between these groups (p-value = 6.62E-007, F = 34.73). The calculated F-value is higher than critical F (3.55) and the p-value is less than 0.05. The results of Pearson correlation test (r = –0.490 and p-value = 0.024) imply that there is a significant relationship between country of ownership and the level of CSRD in Libya. Accordingly, the fourth hypothesis is accepted.

5.6 Analysis of CSRD according to industry concentration

Industry concentration in the Libyan extractive sector can be divided into four types namely production, exploration, production and exploration or service and refining. Analysis of the mean level of disclosure made by each group indicates that nearly half of the sample (seven companies) are involved in both the production and exploration activities, seven companies in the service and refining activities, one company in the production activities only and the final two companies in the exploration activities only. Table 6 presents the descriptive statistics for CSRD practices reported by different company activities. From the table, companies involved in the production activities were found to report the highest levels of CSRD.

Table 6 Descriptive statistics for CSRD practice by industry concentration

Industry concentration	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
Production	N. of sources	1	1	1	1	1	1	6
	N. of words	90	213	475	473	438	463	2,152
	Mean	90	213	475	473	438	463	358.67
	%	10.66%	16.88%	58.76%	41.62%	38.73%	49.91%	35.11%
	Minimum	90	213	475	473	438	463	
	Maximum	90	213	475	473	438	463	
	SD	0	0	0	0	0	0	
Exploration	N. of sources	1	1	1	2	2	1	8
	N. of words	100	53	18	154	159	51	535
	Mean	100	53	18	77	79.5	51	66.88
	%	11.85%	4.20%	2.23%	6.77%	7.03%	5.50%	6.55%
	Minimum	100	53	18	77	98	51	
	Maximum	100	53	18	77	61	51	
	SD	0	0	0	0	26.16	0	
Production and exploration	N. of sources	3	3	2	7	6	6	27
	N. of words	1,070	1,682	442	2,504	2,040	1,870	9,608
	Mean	356.67	560.67	221	357.71	340	311.67	355.85
	%	42.26%	44.44%	27.34%	31.47%	30.06%	33.60%	34.83%
	Minimum	249	439	19	154	259	141	
	Maximum	440	764	252	539	528	552	
	SD	97.80	177.22	43.84	134.48	101.19	139.90	
Service and refining	N. of sources	3	3	3	6	5	3	23
	N. of words	892	1,305	283	1,373	1,367	306	5,526
	Mean	297.33	435	94.33	228.83	273.4	102	240.26
	%	35.23%	34.48%	11.67%	20.13%	24.18%	11.00%	23.52%
	Minimum	161	201	76	25	105	37	
	Maximum	535	832	112	543	627	146	
	SD	206.57	345.64	18.01	192.95	223.83	57.45	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

The difference in the amount of CSRD being provided by the various groups may be significant, and this difference is in favour of the production group. In order to determine whether there is or is not a significant difference regarding the level of CSRD between the various groups' activities, a one-way ANOVA test was conducted. The results revealed that there is indeed a statistically significant difference between these groups (p-value = 7.78E005, F = 11.37). The calculated F value is higher than critical F (3.01) and the p-value is less than 0.05. However, the results of a Pearson correlation test (r = –0.047 and p-value = 0.813) revealed that there is no significant relationship between industry concentration and the level of CSRD in Libya. Accordingly, the third hypothesis is rejected.

5.7 Analysis of CSRD according to company location of activity

Companies are divided into two groups according to the location of their activities: onshore or both on and offshore. This section aims to establish whether CSRD practice differs between these groups. It seeks to identify whether there is a relationship between the level of CSRD and the location a company's activities. The amount of CSRD practices reported by different groups and the associated descriptive statistics are presented in Table 7.

Table 7 Descriptive statistics for CSRD Practice by activity location

Activity location	*Year* / *Statistics*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*Total 2009–2014*
Onshore	N. of sources	6	6	6	14	12	10	54
	N. of words	1,463	2,050	966	3,514	3,304	2,138	13,435
	Mean	243.8	341.67	161	251	275.3	213.8	248.80
	%	41.44%	36.23%	38.98%	33.65%	44.03%	27.92%	36.19%
	Minimum	90	53	18	25	98	37	
	Maximum	535	832	475	543	627	463	
	SD	177.25	277.06	163.63	167.38	183.01	138.91	
On and offshore	N. of sources	2	2	1	2	2	1	10
	N. of words	689	1,203	252	990	700	552	4,386
	Mean	344.5	601.5	252	495	350	552	438.6
	%	58.56%	63.77%	61.02%	66.35%	55.97%	72.08%	63.81%
	Minimum	249	439	0	451	328	0	
	Maximum	440	764	252	539	372	552	
	SD	135.06	229.81	178.19	62.23	31.11	390.32	

Notes: N – number of annual reports; % – the percentage of disclosure; SD – standard deviation.

The mean scores and percentages of CSRD for each group show a clear difference can be identified between them in terms of their level of CSRD. This difference seems to be in favour of companies operating in both on and offshore locations. In order to ascertain whether there is a significant difference regarding the volume of CSRD between these groups, a T-test was conducted. The result reveals that there is a statistically significant difference between the location groups; the T score is significant at (T statistic = 3.59, p-value = 0.004), the calculated T value is greater than 2.160 and the p-value is less than 0.05. The results of a Pearson correlation test (r = –0.719 and p-value = 0.004) show that there is a significant relationship between company activity location and the level of CSRD in Libya. Accordingly, the fourth hypothesis is accepted.

6 Conclusions

This study aimed to investigate the relationship between levels of CSRD practice and a company's characteristics, namely size, age, whether a company is public or private, country of ownership structure, industry concentration and activity location. This was achieved by examining the annual reports of companies operating in the Libyan extractive sector from the period of 2009 to 2014. The analysis above confirms that whether a company is public or private, country of ownership structure and activity location are the major significant determinants influencing and correlating with CSRD levels in Libya. Conversely, company size, age and industry concentration are not positively correlated with CSRD levels in Libya.

CSRD, as commonly defined, appears to be predicated on the assumption that companies do have wider responsibilities outside those owed to stockholders (Gray et al., 1996) and can be viewed as a process whereby firms may account for activities related to these wider responsibilities. It is a complex activity that may not be fully explained or understood by using single theoretical approach (Gray et al., 1995b). There has to date been little empirical work on the reason why companies undertake CSRD practice. The lack of a comprehensive and sufficient theory to interpret why companies engage in social responsibility may also explain the conflicting results of many studies (Ullmann, 1985). The theories of CSRD have been developed without an explicit attempt to engage those companies which do disclose. Results in this study tend to support the social contract theories of CSRD to varying degrees, but such a conclusion would not be particularly helpful in achieving the key goal of many researchers in this field. Explaining CSRD practices in Libya through present popular theories requires caution.

This study takes a view that no single theoretical perspective can interpret the whole pattern and extent of CSRD observed in Libya. Advantages can accrue from integrating more than one theoretical explanation. Such a comprehensive approach will have a more appropriate basis for explanation and exploration of the absence or presence of CSRD practices in a given country. This will also help to bring about a complete understanding and interpretation of why companies engage (or not) with CSRD practices. If there is no single motivation to disclose, then many theories could be considered adequate as explanations for disclosure (van der Laan, 2009). In addition, the use of the application of theories that were developed in a social, political and economic setting to explain disclosure practices in a different social, political and economic setting such as Libya is questionable. For example, the existing CSRD theories, which are dominated by Western views, cannot address certain Islamic issues that have been endemic to the West because of the different philosophy and notions (Tilt and Rahin, 2015).

It would be unrealistic to ignore the presence of self-interest and expectation of wealth maximisation behaviour. However, relying upon such behaviour as the main or sole rationale for CSRD can be criticised, especially in a public-owned market such as in Libya. Agency theory is based on utilitarian ethical behaviour (self-interest) which is not acceptable from the perspective of Islamic religion where people are expected to be responsible for others in the community. Profit maximisation has a lower priority for Libyan companies. The major objective of Libyan corporations is to achieve social welfare and the means to do so are through collective effort. This approach focuses only on the causes of conflict between managers (agents) and shareholders, neglecting the other interested parties in the society. It is a financial-purpose-oriented perspective.

Managers would issue such items to influence the stock price movements in the market-place and to obtain financial rewards.

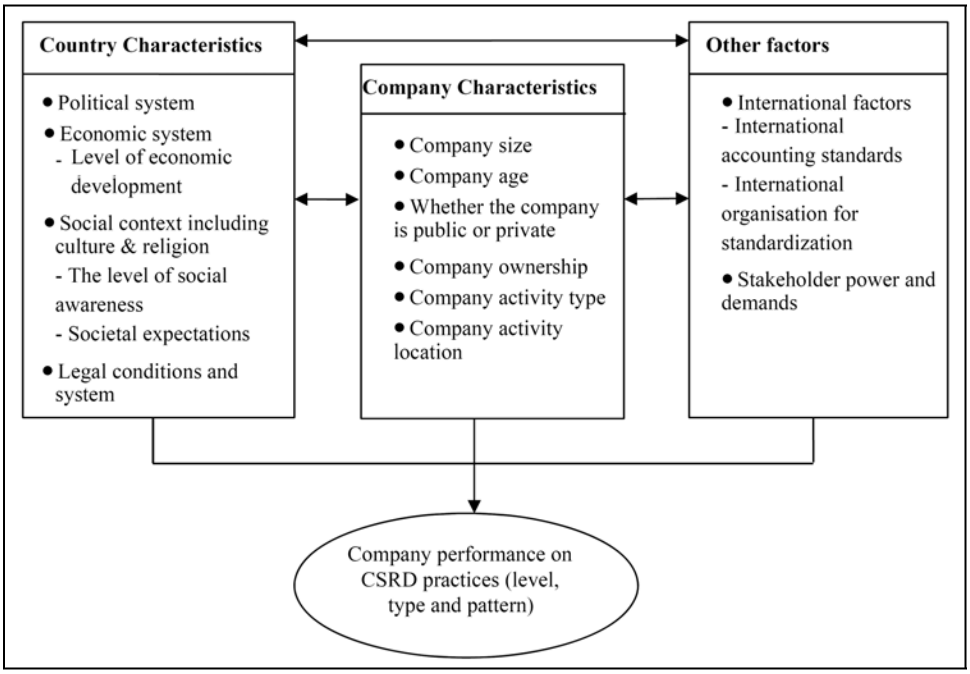
Companies in Libya appear to be using CSRD to justify their continued existence, enhancing their images within society in order to avoid any social pressure. This was supported by the results of the content analysis where more attention was paid to the good news by surveyed companies. However, the absence of CSRD paradoxically reflects the desire of the management to avoid future pressure in terms of increased expectations from society rather than using CSRD as a successful legitimacy means to mitigate pressure. This was also supported by the results of the content analysis where companies in the Libyan extractive sector decreased their level of CSRD from 2009 to 2014. CSRD practice in Libya was not recognised as a method by which corporations can enhance the skill and effectiveness with which they dealt with social and environmental issues.

Stakeholder theory sees the world only from the perspective of management rather than environmental contexts of the country. It focuses on the way the corporation manages its stakeholders. Even when companies recognise broader stakeholders pro-actively, such recognition is found to be secondary importance. Companies' management perceived reporting to these wider groups on social and environmental issues as counterproductive to the economic interests of the company in general and far from the expected function of the corporate reports in particular. This, in turn, means that while companies understood the need for actions of responsibility to wider groups of society, they were not pro-actively inclined to account for these actions through CSRD in Libya.

The political economy theory of CSRD in Libya seems to be supported by the absence rather than the presence of disclosure. A company discretionally refrains from disclosure if it is not consistent with or is detrimental to its business interests and social image, therefore it hides many issues of social and environmental concern and provides little information. The lack of disclosure found in the practices of companies' annual reports appears to support this. There is also evidence that CSRD consists of mostly positive news with relatively small amounts of bad news that could hamper the economic interests and social image of corporations. Although a notion of political economy theory exists, this theory fails to consider the corporation-specific social internal determinants such as the company characteristics and the management attitudes and perception. It fails to explain certain aspects of a company's strategic attitude and the structure of management stakeholder contracts.

This study also takes a view that including the interaction between both the corporate internal and external factors will enhance the explanation of CSRD. The influence of the external factors reflects the indirect impact on the CSRD practice such as international standards of accounting and disclosure, socio-political and economic system, culture, religion, societal expectations. These factors have a significant effect on the applicability of theories such as stakeholder theory, legitimacy theory and accountability theory, which are commonly used to explain the phenomenon of reporting (Tilt, 2016). The internal factors, namely company characteristics, corporate managers and stakeholders' attitudes, reflect the direct impact of those involved in the disclosure process as they have the final decision on what information to disclose. Such a theoretical approach will have a more appropriate basis for explanation and exploration of the absence or presence of CSRD practices in a given country. This will also help to bring about a complete understanding and interpretation of why companies engage (or not) with CSRD practices. Figure 2 summarises the various influences on the nature, patterns and practice of CSRD which have been examined in this study and the prior literature. The figure illustrates how the various factors which have been found to influence CSRD have been grouped in the study. It shows the two-way influence between the groups of factors and the interrelationship between these variables and CSRD practice. The figure is not intended to represent a full picture of CSRD but highlights the influential factors and the relationships between them.

Figure 2 Diagrammatic portrayal of the influences on CSRD



The findings of this study suggest that without international influence, from where the concept of CSRD originated, it is less likely that institutional forces in Libya will be effective in dealing with social and environmental issues.

This study is based on the notion that the CSRD has a role beyond merely that of enhancing company image. It has implications for the firms as well as the wider society. This study considers the CSRD as a social device in addition to its customary economic role.

This study has some limitations which suggest further research. It is limited to content analysis technique only. A combination of using content analysis with other research methods such as surveys and interviews will afford a richer understanding of the subject. Annual reports were exclusively used in this study since all the sample companies located their disclosure within the annual report. Other communication media for CSRD such as the website, advertising, promotional leaflets and specific social and environmental reports are still very much in their infancy. Therefore, the study does not make any claims to have analysed all the CSRD made by the companies sampled and some CSRD practices, which may be located in other media, were not captured by this study. The study is also limited to content analysis over a period of six years and any explanation or conclusions drawn regarding long-term trends must be viewed with caution although this longitudinal data is much richer than other studies which tend to be a cross-sectional covering only a single period.

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Appendix

Categories and the decision rules for the categories of CSRD utilised in content analysis

The following seven main categories and the further sub-categories broadly follow the categorisation of Gray et al. (1995b, pp.95–99) and as updated from CSEAR website with slight adoption as relevant to the Libyan context.

1 The total volume of CSRD issues = environment disclosure + consumers disclosure + human resources and employee disclosure (HR&E) + community disclosure + directors' data + corporate governance + general others.

  a Environmental disclosure

  In the current study this category was broken down into:

  - environmental policy
  - compliance with environmental laws and standards
  - product and process-related environmental issues (waste, packaging, pollution, spills, emissions, etc.)
  - environmental audit
  - energy
  - sustainability development
  - environmental other.

  b Customer disclosure

  - information relating to consumers/customers/prod.

  c Human resources and employees (HR&E)

  In the current study this category was broken down into:

  - employee data
  - pension data
  - consultation with employees
  - training programme
  - employment of disabled persons
  - value-added statement
  - health and safety at work
  - shares employees
  - equal opportunities
  - employee other.

  d Community disclosure

  - involvement with community, excluding charitable donation
  - charitable and political donations.

e Directors' data

- details of directors' emoluments and remuneration including pensions and share options.

f Corporate governance

- details concerning arrangements for corporate governance.

g General other

- catch any references that regarded as CSRD in Libyan annual reports but cannot be classified into the above categories.

2 Decision rules for the categories of CSRD

a Environmental disclosure

1 Environmental policies:

- actual statement of policy
- statements of formal intentions
- general statements of the company will/wills, the company does nature.

2 Compliance with environmental laws and standards[4]

- discussion of environmental regulations and requirements
- compliance with pollution laws and regulations
- compliance status with environmental standards such as ISO, EMAS and PAS.

3 Environmental audit

- reference to environmental review, scoping, audit, assessment, including independent attestation
- environmental management systems (ISO 14000) including efforts and contracts
- targets in general (specific details likely to fall into next section).

4 Product and process-related environmental issues

- waste(s)
- eco-efficiency
- packaging and take-back
- recycling
- pollution emissions and effluent discharges
- products and product development
- land contamination and remediation (financial below)
- except insofar as it is part of the business (e.g., waste disposal or environmental technology).

5 Environmental financially-related data

- reference to financial/economic impact
- environmental investment and investment appraisal
- discussion of areas with financial/economic impact

- discussion of environmental-economic interaction
- contingencies, provision; liabilities;
- environmentally-related loans, grants; costs of purchasing and installing environmental friendly machines and equipment; maintenance and consultancy costs[5].

6 Sustainability

- any mention of sustainability
- any mention of sustainable development, UNCED, Rio etc
- discussion of the full cost accounting, EU 5thAction programme[6], formal consideration of externalities, ecological footprint.

7 Energy

- energy usage, (split with climate change)
- energy saving and conservation
- use/development/exploration of new sources, efficiency, insulation, etc.
- except as insofar as it is part of the business (e.g., oil exploration companies).

8 Environmental other: references that cannot be classified into the above categories such as:

- landscaping
- public amenity provision
- wildlife conservation
- environmental education and training (note: care with overlap with community)
- environmental awards; employee environmental training and awareness; partnerships between environmental research institutions and business
- environmental actions/lawsuits against the company[7]
- global warming, bio-diversity[8].

b Consumers' disclosure[9]

- product and customer safety
- consumer complaints
- specific consumer relations (over and beyond our duty to the customer)
- provision for disabled, aged, etc. customers
- provision for difficult-to-reach customers (e.g., BT[10]);
- product quality certification information (e.g., ISO 9000 and 9001)[11].

c Human resources and employee disclosure

1 Employee data[12]

- statutory (average) numbers employed by category
- statutory wages (salaries) excluding pension and social security costs.

2 Pension commit[13]
- commitments for pensions
- pension and social security costs.

3 Consultation with employees[14]
- action regarding informing employees, consulting employees, encouraging (and engaging in) employee participation and communication
- increasing employee financial and economic awareness
- excludes profit sharing and employee share option plans (ESOPs).

4 Training programme[15]
- a policy of promoting and upgrading the skills of personnel
- any reference to participation of employees in training programmes
- discussion of training areas
- any statement of training distribution.

5 Employment of disabled[16]
- employment of disabled persons (including retraining)
- the distinction between registered/unregistered disabled is not relevant here.

6 Value Added Statement[17]
- any reference to the creation and distribution of value added
- any statement headed value added or added value
- any statement with distribution to employees and state (not including shareholders).

7 Health and safety
- health and safety at work;
- toxic hazards to employees and the public
- any reference to health and safety law and/or inspection[18]
- accidents, injuries.

8 Employees shares ownership[19]
- participation of employees in share schemes, employee share option plans (ESOP) where employees do not mean directors
- schemes/reference must be to employees (exclude if reference is to executive or directors only)
- loans for this purpose but not directors
- SAYE options[20].

9 Equal opportunities[21]
- equal opportunities
- racial equality
- sexual equality.

10 Employee other[22]

- anything else on employees not covered above
- for example: staff turnover; thanks to employees; length of service; racial and sexual equality (to be separated out), pensioners; pensions beyond coverage of statutory material; employee trends/statistics by sex, age for more than two years and more than statutory; statement of employment policy(ies), employee training20; redundancy; changes in salaries/wages
- industrial relation policy, post-retirement benefits other than pensions, employee motivation and attitude survey score, recognition to employees and loans, awards and prises provided to employee[23].

d Community disclosure

1 Community involvement (excluding charities)

- any reference to community and/or social involvement outside the labour force
- employee involvement with above if company support is apparent
- Schools, arts, sport, sponsorship
- YTS (or equivalent), business-in-the-community, secondment of staff[24].

2 Charity and political donations[25]

- donations in Libyan dinar or in kind to registered charities within the Company Act
- donations ditto by/through employees, (e.g., GAYE schemes)[26]
- Include references and amounts of political donations (as they fall within the same Company Act requirement).

e Directors' data[27]

- statutory disclosure of directors' emoluments, remuneration, short-term benefits, bonuses including pensions
- directors and executives share option scheme and share benefits
- loans to directors
- interests in shares
- any options granted to directors
- long-term incentive schemes (e.g., share related)
- any share related issue redirectors
- remuneration policy
- directors pension data (exclude personal, responsibility details and pictures).

f Corporate governance:

General statements with compliance and non-compliance with various codes:

- separate report by auditors on corporate governance

- section(s) of main audit and report indicating compliance/non-compliance with codes
- committee structure and governance structure.

g General other:

- any other relevant disclosure that cannot be captured elsewhere
- for example: corporate objectives, mission statement; statement of social responsibility; code of practice on behaviour including transnational corporations; ethics; political statements (need/approval/disapproval of government policy, control of unions); value of transnationals/ companies – misunderstood; value of company to community, society, nation, economy, money transactions with government/inland revenue authorities; any national, political and social issues that interact with the business; appreciation to any social & economic institution involved with the business.

3 Measurement rules and general guidelines in recording the disclosure for content analysis

- The productivity of employees is not included at all, as it is regarded as an economic measure.
- Discussion of 'training' activities is not to be included as a discussion on 'employee other' but rather in the separate sub-category 'training programme'.
- All discussions that fit into the categories and its sub-categories are to be counted regardless how much it is advertising.
- Some annual reports are divided into two sections, the first is prepared and issued in Arabic while the second is prepared and issued in English. The English version section is mainly reported to particular users whose native language is not Arabic. For consistency issue and as it is unfair to count the same information twice, it should be mentioned that the Arabic version was only taken into consideration in this study.
- News categorisation (CSRD type): The categorisation of news must be subjective but it generally complies with the following:
    1. *bad:* any statement which reflects/might reflect discredit on the company. Include, for example, numbers made redundant (if redundancy is spoken of as a human rather than an economic act), and any increase in accidents
    2. *neutral:* statement of policy or intent within statutory minimum with no details of what or how; statement of facts whose credit/discredit to the company is not obvious which are unaccompanied by editorialising
    3. *good:* statements beyond the minimum which include (for example) specific details where these details have a creditable or neutral reflection on the company; any statements which reflect credit on the company; upbeat analysis/discussion/statements.
- CSRD evidence is classified as:
    1. *monetary quantitative:* if it contains and is related primarily to financial disclosure of actual financial numbers

2 *non-monetary quantitative:* if it contains and is primarily related to actual numbers of a non-financial nature

3 *declarative:* if it is not fitting into the above categories.

Notes

1 In this study, number of employees was used as the measurement of company size. The NOC's definition of company size was adopted to classify companies. A small enterprise is defined as an enterprise which employs fewer than 2,000-persons. A medium-sized enterprise is defined as an enterprise which employs fewer than 5,000-persons. A large-sized enterprise is defined as an enterprise which employs more than 5,000 persons. This measure was based on an interview with the Head of the Investment and Management Committees, Department Management in the NOC, October 2016.

2 According to the NOC, a company is classified as old if it has exceeded the useful life of 36 years (i.e., it was established before 1980). This was the measure used to classify companies: old companies are those that reached more than 36 years working in Libya, while new companies are 36 years old or less. This measure was based on an interview with the Head of the Investment and Management Committees, Department Management in the NOC, October 2016.

3 It should be noted that three type of companies that represent the Libyan extractive sector. These can be classified into CFO = companies fully owned by national companies (NOC), CJV = companies having a joint venture and CEPSA= companies having exploration and participation sharing agreement with NOC (international companies). For the purpose of current study acronyms are used (i.e., CFO, CJV and CEPSA).

4 This is a newly added decision rule in the research instrument used for this study. The rule was added after consulting and in agreement with a research in CSEAR. This rule can be classified under the category of environmental policy. In the current study, this rule found in many annual reports disclosing anything related to environmental issues.

5 This is a newly added decision rule in the research instrument used for this study of environmental financially-related data. This was added in line with consultation and in agreement with CSEAR personnel.

6 This programme, which is originally found in CSEAR website, was omitted from the decision rules for this study as it is not relevant to the Libyan context.

7 Consistent with AbuRaya's (2012) suggestion, this rule is newly added to 'environmental other' decision rules used in this study.

8 This sub-category is vastly absent in the annual reports of companies operating in the Libyan extractive sector.

9 This category is entirely absent in annual reports of companies operating in the Libyan extractive sector.

10 BT as an example of provision for difficult-to-reach customers which is originally included in Gray et al.'s (1995b) decision rules, is not applicable in the Libyan context and therefore is excluded in this study.

11 Consistent with Hackston and Milne (1996) (see also Gao et al., 2005), this rule is newly added to 'consumer' decision rules in this study. In this respect, Hackston and Milne (1996) indicate that data relating to the quality of products and services are only included as a CSRD if it contains verifiable change in quality.

12 The Companies Act disclosure requirements in Libya regarding employee data are broadly different to those in the UK which are included in the original decision rules of Gray et al. (1995b). In this study, the decision rules of this category, therefore, was omitted with consultation with researchers in CSEAR website who were restored - to capture any related voluntary disclosure but without reference to the statutory nature of these decision rules.

13 The Gray et al. (1995b) decision rules referred to the reporting of statutory particulars of commitments for pensions that conform to the UK Companies Act. As there is no equivalent piece of legislation with reference to the disclosure of pension data in Libya, reference to the statutory nature of this disclosure is excluded in the decision rules of the current study. In addition, this disclosure was not found in extractive companies' annual report operating in Libya.

14 Similarly, as the above footnote, there is no equivalent legislation with reference to consultation with employees in Libya, unlike in the UK. The decision rules in this category are voluntary in the Libyan context and efforts are still made to capture any related disclosure, if found, without reference to its statutory nature. Therefore, any reference to the statutory nature of this disclosure is excluded in the decision rules of this study. In addition, this disclosure was not found in extractive companies' annual report operating in Libya.

15 In the original decision rules (Gray et al., 1995b), training programme of employees is kept under employee other. In the current study, it was decided that any information related to training programme of employee would fall under the sub-category of training programme which is classified under the HR&E category.

16 This was not found to be common in the Libyan context.

17 Value-added data was not found in extractive companies' annual report operating in Libya.

18 There are no regulations in Libya relating to health and safety by companies, as it is in the UK. This rule of decision was excluded in the present study. Although there is no statutory requirement that companies must disclose health and safety information in Libya, this category was found to be vastly provided in companies' annual reports in the Libyan extractive sector.

19 This category is entirely absent in annual reports of companies operating in the Libyan extractive sector.

20 Reference was made to SAYE (Save As You Earn) options in the Gray et al. (1995b) decision rules. This was, however, excluded from the decision rules for this study as it was not found to be common in Libya. Rather it uses to capture data for UK firms.

21 This category is entirely absent in annual reports of companies operating in the Libyan extractive sector.

22 Most of these items, which were adapted from the Gray et al. (1995b) study, are considered to be relevant to the Libyan context. Some examples were not as so were dropped from the decision rules for this study.

23 It has been mentioned above that this item is recorded separately in this study.

24 After consulting and in agreement with a research in CSEAR, these are newly added to the decision rules of this study as they found to be uncommon in the annual reports of the extractive companies in Libya.

25 This was excluded in the decision rules utilised in this study as it is made to a particular scheme relevant only to the UK in the Gray et al.'s (1995b) decision rules.

26 In the original decision rules (Gray et al., 1995b), reference was made to the disclosure of Charitable and Political Donations in compliance with the UK companies Act. However, charity and political donations in Libya is kept voluntary as an equivalent legislation was not found in the country. Thus, any reference to the statutory nature of such disclosure is not indicated in the decision rules applied in this study. In addition, this category was found to be provided in companies' annual reports in the Libyan extractive sector.

27 This is also excluded for the similar reason to the previous footnote.

28 In the Gray et al. (1995b) decision rules, reference was made to the reporting on directors' information under the category of employees. In the decision rules used in this study, directors' information is recorded separately as a new category that made through consultation with a CSEAR researcher. Consequently, any disclosures related to directors' would fall under the category of Directors' data.