Influence of Company Characteristics on Extent of Corporate Social Responsibility and Environmental Reporting by Libyan Companies

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Abstract

This study examines the influence of company characteristics (i.e., company age, company size, and industry type) on the extent of corporate social responsibility and environmental reporting (CSER) in the annual reports of Libyan firms. Quantitative and qualitative methods were used to analyze the data and determine the extent of CSER in these companies. The hypotheses of the sample that comprised 162 annual reports of 42 Libyan companies from 2006 to 2012 were tested via regression analysis. In addition, the opinions of 31 public relations and financial managers on the factors that influence CSER in Libya were investigated. Quantitative findings revealed a positive association between company size and industry type, and the extent of CSER. Qualitative findings revealed a positive relationship among the factors and the extent of CSER in Libyan companies.

Keywords: Corporate Social Responsibility and environmental reporting (CSER), Libya

1. Introduction

Awareness of corporate responsibility toward society has been growing (Hackston and Milne, 1996). Therefore, corporate social responsibility and environmental reporting (CSER) activities have been incorporated in the operations of firms. Many companies currently invest money and effort to disclose information on the CSER performance of the firms. CSER activities and disclosure vary across industry sectors (Gray, Javad, Power, and Sinclair, 2001; Gray, Kouhy, and Lavers 1995; Hackston & Milne, 1996;

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Waddock & Graves, 1997). For example, oil firms focus on environmental issues, whereas manufacturing firms are actively involved in social concerns (Bayoud, Kavanagh, and Slaughter, 2012). This study analyzes whether company size, company age, and industry type influence the extent of CSER disclosures by Libyan firms. This study focuses on the Libyan context for the following reasons. First, most of the present literature investigates developed countries; thus, evidence from developing countries is necessary. Second, studies on factors that affect CSER and explain these factors in Libyan firms are insufficient. Third, studies that attempt to explore developing countries are limited. Finally, factors that influence the extent of CSER in Libyan companies remain unknown. Therefore, this study aims to explore whether company characteristics (company age, company size, and industry type) can potentially affect the extent of CSER disclosure on the annual reports of Libyan companies.

2. Literature Review

Efforts have emerged to spread the social and environmental responsibility of companies, and the growing awareness of these environmental and social effects leads to real financial costs. CSER disclosure is a way for companies to perform appropriate social responsibility (Gray, Owen, and Adam, 1996). Gray and Bebbington (2001) have noted that CSER has been receiving greater academic attention for more than 30 years. However, CSER is a type of corporate social receptiveness by a company's directors and managers, which occurs alongside an attempt to influence the social environment. This increasing attention has been demonstrated by several academic researchers who are interested in CSER, and by the increased concentration of governments. CSER disclosure reveals how a company interacts with stakeholders, and commonly comprises environment-related disclosure, community participation-related disclosure, as well as product and consumer relations (Deegan, 2002; Epstein & Freedman, 1994; Gray et al., 1995; Hackston & Milne, 1996; Ng, L., 1985; Williams, 1999). The social and environmental aspects of business practices are associated in CSER (Imran, Rehman, Yilmaz, Nazir and Ali, 2010). In addition, Radebauh & Gray (2002) have revealed that CSER refers to the "general accountability to society with respect to public interest matters, such as community welfare, public safety, and the environment." In addition, the World Business Council for Sustainable Development (1998, p. 3) defines

CSER as "[t]he continuing commitment by a business to behave ethically and contribute to economic development, while improving the quality of life for the workforce and their families, as well as of the local community and society in general."

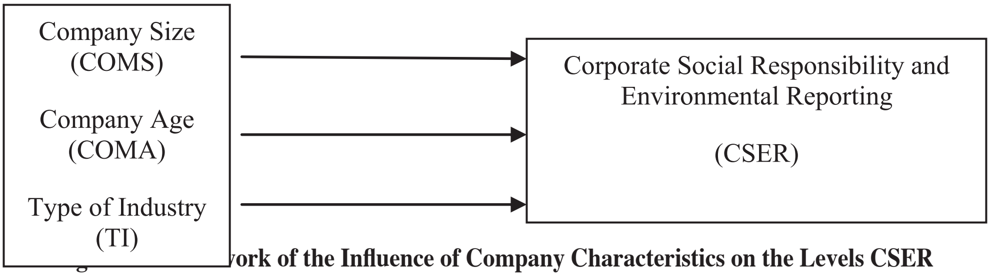
Many previous studies have examined the relationship between corporate characteristics and CSER (Branco & Rodrigues, 2008; Gray et al., 1995; Murray, Sinclair, Power & Gray, 2006; Richardson & Welker, 2001); most of these studies find a link between the extent of CSER and firm characteristics such as company age, company size, and industry type. Company size receives greater attention in the literature as a determinant of disclosure (Hassan, 2010). In addition, Cormier & Gordon (2001) have argued that legitimacy theory hypothesizes that larger companies are more politically sensitive than smaller companies. Company size is often used as a characteristic that affects CSER disclosure in many previous studies and generates different results. Corporate social activities can be affected by company size (Adams & Hardwick, 1998) because large companies have a greater CSER effect as a result of the scale of their activities (Cowen & Scott, 1987). Many studies have regarded company age as one of the most significant factors that can influence the extent of CSER disclosure (Rettab, Brik & Mellahi, 2009; Xianbing Liu & Anbumozhi, 2009). In addition, some studies have revealed a positive and significant association between the extent of CSER and company age (Khan, Muttakin & Siddiqui, 2012 and Lucyanda & Siagian, 2012). The findings of Bayoud et al. (2012) have shown that as company age increases, the extent of corporate social responsibility disclosure also increases, which means that company age has a positive relationship with the extent of corporate social responsibility.

In addition, the type of industry significantly influences the extent of disclosure and activities in corporate social responsibility (Waddock & Graves, 1997). For instance, the industrial sector discloses more information about community, safety, and health issues related to CSER, while the oil sector discloses more information on environmental and social issues. Therefore, the type of industry plays a significant role in determining disclosure of CSER (Bayoud et al., 2012). Boutin-Dufresne & Sacaris (2004) have argued that firms in a particular industry may be socially responsible for the nature of their activities. Since most empirical studies on CSER have focused on developed countries, few studies have examined developing countries such as Malaysia, Singapore, and Arabic countries (such as Egypt, Libya, and the United Arab Emirates). This study builds on previous research in developing countries by using content analysis of annual reports and personal interviews with managers to identify the influence of company characteristics on the extent of CSER in Libya.

3. Theoretical Framework

Several theories have been used to explain CSER, including agency, legitimacy, stakeholder, political, and social view theories. Certain similarities exist between the agency, legitimacy, and stakeholder theories, but they basically differ in primary assumptions. For instance, stakeholder theory suggests that some groups within a society are more powerful than shareholders and employees, while legitimacy theory looks at society as a whole (Bayoud et al, 2012). In legitimacy theory, firms in some industries are more likely to disclose more socially and environmental information because of social and political pressure (Manuel, 2006). In addition, legitimacy theory studies suggest that firms in industries with larger environmental impact are more likely to provide social and environmental information because of legitimacy reasons (Clarke & Gibson-Sweet, 1999). Therefore, companies in various industries have different levels of community involvement and environmental disclosure than others because these activities are conducted to attract consumers and to justify the existence of firms in society (Manuel, 2006).

The three major theories of CSER are agency, political, and social views. The social theory is related to the economic theory of institutions, which government-owned companies have established to address market defects when the social benefits exceed the costs (Atkinson & Stiglitz, 1980). The agency theory focuses on the wealth-maximizing individuals who operate within efficient capital markets (Bayoud et al., 2012). The stakeholder and legitimacy theories posit that boards take the needs of interest groups linked to social and environmental considerations (Donaldson & Preston, 1995; Freeman, 1984; Freeman, Wicks & Parmar, 2004 and Ranasinghe, 2012). Woodward, Edwards & Birkin (1996) have revealed that a firm is a significant part of the social system according to both stakeholder theory and legitimacy theory. In addition, the agency theory has shown that government-owned companies may be established to increase social benefits, but may cause corruption, poor distribution, and weak managerial incentives (Banerjee, 1997; Hart, Shleifer & Vishny, 1997 and Sapienza, 2002). Therefore, the researcher draws on legitimacy theory to explain CSER. Thus, theoretical framework development in this study incorporates both influences. The proposed model is presented in Figure 1, which explains the effects of company characteristics on CSER using legitimacy theory.



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4. Development Hypotheses

Several empirical studies have examined the factors that influence the extent of CSER. Most of these studies have found a relationship between company characteristics (i.e., company size, company age, and industry type) and CSER. Previous empirical studies have relied on various theories (e.g., legitimacy, stakeholder, and agency theories) to justify these relationships.

4.1 Company Size

Larger companies are becoming increasingly aware of the significance and benefits of CSER. In addition, prior studies have shown that large companies in Malaysia have more CSER disclosure and practices (Haniffa & Cooke, 2005). Large firms are also more politically sensitive than smaller firms, and therefore generate more disclosure (Cormier & Gordon, 2001). According to Daub (2007), large firms have greater responsibility for global problems, such as social inequality or environmental pollution, compared with smaller firms, and large companies are more pressured by stakeholders; these factors affect disclosure. Furthermore, Parsa & Deng (2008) have shown that a positive change in firm size produces a favourable and significant change in CSER disclosure. Most practical studies prove that company size influences or is significantly and positively related to the extent of CSER disclosure (Gao, Heravi & Xiao, 2005; Gray & Bebbington, 2001; Branco & Rodrigues, 2008;

and Haniffa & Cooke, 2005). In addition, company size positively affects CSER. This finding shows that larger firms have more resources that enable them to spread social responsibility (Sylvia & Yanivi, 2010). Additionally, Cowen & Scott (1987) have pointed out that company size significantly influences CSER, and CSER and company size are related because large firms have more stakeholders who are possibly concerned about the social activities of the firm. The ownership of large firms also vary more, which leads to higher agency costs that management attempts to reduce by disclosing more CSER information (Meek, Roberts & Gray, 1995). Moreover, some studies do not find a relationship between company size and the extent of CSER disclosure (Freedman & Jaggi, 1988 and Roberts, 1992). Furthermore, the findings of Romlah, Takiah, & Nordin (2002) have revealed that company size cannot influence the quality of environmental reporting but can influence reporting quality. The results of previous studies show that company size does not affect CSER disclosure. Thus, company size is affected by the extent of CSER disclosure and reveals different findings (Rahman & Widyasari, 2008; Yulita, 2010 and Lucyanda & Siagian, 2012). Therefore, the preceding discussion leads to the following hypothesis:

H1: Company size and the extent of CSER are positively correlated.

4.2 Company Age

Many studies use company age as one of the most significant factors that can affect the extent of CSER disclosure (Rettab, et al., 2009 and Xianbing Liu & Anbumozhi, 2009). In addition, some studies have shown that the extent of CSER and firm age are positively and significantly correlated (Khan et al., 2012; Lucyanda & Siagian, 2012). Moreover, most studies believe that company age can influence the extent of CSER information in annual reports. In addition, these studies reveal that older firms provide greater CSER disclosure than new firms. Some studies have also shown that company age and CSER disclosure are negatively correlated. For example, Rettab et al. (2009) and Xianbing Liu & Anbumozhi (2009) have demonstrated the negative correlation between CSER and company age. Therefore, the preceding discussion generates the following hypothesis:

H2: Company age and the extent of CSER are positively and significantly correlated.

4.3 Industry Type

The industry type of a company significantly affects the extent of disclosure and corporate social responsibility activities (Waddock & Graves, 1997). For example, the industrial sector discloses more about CSER-related community, safety, and health matters, whereas the oil sector discloses more environmental and social issues (Bayoud et al., 2012). Therefore, industry type is significant in determining CSER disclosure. Thus, industry type affects public expectations regarding the effect of an industry's activities on the community. Additionally, the findings of Bayoud (2012) indicate that the level and type of CSER disclosure are significantly different when firms are from various industries. Thus, manufacturing firms are subjected to more social pressure. Numerous studies have shown a positive and significant link between CSER and industry type (Branco & Rodrigues, 2008; Cowen & Scott, 1987; Gray & Bebbington, 2001; Newson & Deegan, 2002; Parsa & Deng, 2008; Wanderley, Lucian, Farache & de Sousa, 2008). This difference is caused by stakeholder pressure (Patten, 1991) and compulsory law on some industries (Dierkes & Preston, 1977). In addition, certain industries tend to disclose more CSER information because of the nature of these industries, and consumer-oriented firms are more likely to be concerned with demonstrating social responsibility to the community to enhance their image and increase profits (Cowen & Scott, 1987). Therefore, the preceding discussion leads to the following hypothesis:

H3: Industry type and the extent of CSER are positively and significantly correlated.

5. Research Methods

The objective of this study is to explore, understand, and explain the effects of company characteristics on the extent of CSER in different sectors (manufacturing, banking, insurance, services, engineering, and oil companies). Quantitative and qualitative research methods are used to collect and analyze data. The use of qualitative methods in this study supports the quantitative methods, allows a deeper understanding, and enables the application of the quantitative results to support the qualitative results (Creswell, 2009). Finally, the mixed methods generate strong results and avoid social bias (Gorard & Taylor, 2004; Johnson & Onwuegbuzie, 2004 and Kreuger & Neuman, 2006). In addition, this study uses content analysis of annual reports, thereby providing data via quantitative research. Public relations managers and financial managers of Libyan companies were interviewed to increase the validity of data gathering via qualitative research. An interview is the most commonly used method in qualitative studies (Bryman & Bell, 2004). It is a data collection method in which participants are selected, and the beliefs and thoughts of these participants on a particular issue are determined (Collis & Hussey, 2003).

5.1 Sample and Data Collection

The sample represented six different sectors. These sectors were based on the classification presented by the Libyan Public Control Office and included manufacturing, banking, insurance, services, engineering, and oil companies. These six sectors were chosen for this study because they were considered as the most important sectors in Libya (Mashat, 2005). The sample (population) for the current study included 42 Libyan companies across the 6 sectors (see Appendix 1). The sample comprised 12 (29%) manufacturing companies, 11 (26%) banking companies, 4 (10%) insurance companies, 1 (2%) services company, 2 (4%) engineering companies, and 12 (29%) oil companies (see Table 1).

Table 1. Summary of Companies, Sectors and Annual Reports

Sectors	Companies	Percentage	Annual Reports	Percentage
Manufacture	12	29%	20	13%
Services	1	2%	5	3%
Engineering	2	4%	2	1%
Insurance	4	10%	15	9%
Oil	12	29%	73	45%
Banks	11	26%	47	29%
Total	42	100%	162	100%

For the quantitative analysis, a six-year period from 2006 to 2012 was examined. The final sample comprised 42 companies. Annual reports were obtained from 42 companies for every year of the six-year period. The annual reports used in this study were collected from company Web pages and/or by visiting firm offices. This study also employed content analysis to categorize and analyze the textual content. The company characteristics and extent of CSER were collected from the annual reports through content analysis (Bayoud, 2012). For the qualitative analysis, this study gathered information using face-to-face interviews with public relations managers and financial managers. The information collected from literature reviews was used to formulate common questions for the interviewees. A total of 31 managers were interviewed to obtain their individual perceptions on the influence of company size, company age, and industry type on the extent of CSER in Libyan companies. The data gathered from the interviews with 4 public relations managers and 27 financial managers were recorded using notebooks and tape recorders to obtain deeper opinions for the purpose of this study (see Table 2). The interviews were conducted between March and June 2013. The meetings were held in the manager's office of a firm, and lasted between 60 and 90 minutes.

Table 2. Sample Profiles of Interviewees

Sector Name Managers	Financial Managers	Public Relations and percent	Total	
(Manufacturing	2	7	9	(29%
(Services	1	0	1	(3%
(Banks	1	10	11	(36%
(Insurance	1	2	3	(10%
(Engineering	1	0	1	(3%
(Oil	1	5	6	(19%
(Total	7	24	31	(100%
Participation rate	23%	77 %		100%

5.2 Empirical Models

Some studies used the quantitative method, which included statistical techniques to examine the influence of company characteristics on the extent of CSER (Branco & Rodrigues, 2008; Gray, et al., 2001; Hackston & Milne, 1996 and Reverte, 2009). According to Branco and Rodrigues (2008), linear regression was used to investigate the association among company size, industry, and environment with CSER in Portuguese firms. In addition, Reverte (2009) used statistical analysis by Spanish-listed firms to analyze the effect of company characteristics on the extent of CSER. Statistical analysis techniques were used in this study to examine the influence of company characteristics on the extent of CSER. Multivariate regression was employed to measure and explain the degree of linkage among the variables (Hair, Black, Babin, & Black, 2006). Before the analysis, all the variables were examined using the Statistical Package for the Social Sciences program, and then the Statistical/ Data Analysis (STATA) software package was also employed. The STATA software is the most comprehensive software for panel data methodology (Yaffee, 2003), which ensures accuracy of missing values, data entry, and fit between the assumptions of multivariate analysis and their distributions. Any data entry error was corrected. These programs were used to examine the influence of company characteristics on the extent of CSER. Therefore, this study used the following regression models.

$$ENVI = a + B1\,COMS + B2\,\mathrm{COMA} + B3\,TI + e \tag{1}$$

$$ENPL = a + B1\,COMS + B2\,COMA + B3\,TI + e \tag{2}$$

$$\mathrm{COMM} = a + B1\,COMS + B2\,COMA + B3\,TI + e \tag{3}$$

$$\mathrm{CUST} = a + B1\,COMS + B2\,COMA + B3\,TI + e \tag{4}$$

Where CSER represented the dependent variables [environment (ENVI), employee (EMPL), community (COMM), customer products (CUNT)], and measured by number of sentences or "yes/no" or (1, 0), COMS was the company size measured according to the total assets as an independent variable (Rettab et al., 2009), and COMA was the company age measured according to the number of years since the company was established in Libya as an independent variable (Branco & Rodrigues, 2008), TI was the industry type measured with the value of "1" if a company is in manufacturing and "0" if otherwise as an independent variable (Elsayed & Hoque, 2010), and B was the coefficient of the independent variables, e is error term, and B was the coefficient of the independent variables.

5.3 Analysis of the Interview

Egyptian Institute of Directors, Standard & Poor's, and CRISIL Index (S&P/EGX ESG, 2010) were used for CSER, where the Egyptian Index was the first index in Arabian countries that categorized CSER activities into four (environment, employee information, community investment, and customer and product). The analysis of the qualitative data was conducted in two steps. First, the interview transcripts were classified by a researcher into similar or different answers (Bayoud, 2012). Second, substantial points were identified, and then these points were classified into two main contexts (Gillham, 2000). In addition, the first analysis process determined a code in each transcript, all the transcripts were reviewed more than once by a researcher (Bayoud, 2012), and then the author reviewed the tape and transcripts to determine any information that was not highlighted (Kamla, 2007). Furthermore, the researcher provided the statement headings by deriving a set of categories (Gillham, 2000). However, to ensure that no categories and headings were missed, this process was repeated more than once (Hanafi, 2006). Each question then used a sheet as a matrix, which allowed the answers to be classified based on the headings (Gillham, 2000). In addition, the researcher transcribed the entire interview to determine the statements of the interviewees (Gillham, 2000). To transcribe the data, the author categorized the interview content into two based on similar or different responses (Gillham, 2000). The first analysis process identified a code for each transcript. The researcher then used a large sheet as a matrix. Thus, the matrix sheets were classified according to the heading and category (Bayoud, 2012).

6. Results

This study employed content analysis as a systematic method to categorize and analyze the textual contents. The form of content analysis analyzed the CSER of each category based on the number of sentences and a "yes/no" or (1, 0) scoring methodology. The subcategories acquired a score of 1 if information on the items existed, whereas a score of 0 was provided if no information was disclosed. The aggregate score for each company was determined by summing up the scores of 1 (Al-Tuwaijri, Christensen, & Hughes, 2004).

6.1 Quantitative Results

6.1.1 Descriptive Analysis

Table 3 presents the descriptive statistics of all the variables. These descriptive statistics showed the study population; the board independence in the Libyan companies was between 14 and 40 independent directors. The board size in the Libyan companies had a minimum of 4 and a maximum of 9 members. Furthermore, the values of the type of industry and CEO were 1 or 0. In addition, the company age in the study sample was between 1 and 57 years. The CSER disclosed was between 0 and 58 sentences. Finally, the respective maximum and minimum values of the company size were 313,000,000 and 1,180,000,000, as shown in Table 3.

Table 3. Main Score and Variation of Data of each Study Variable

Variable	Mean	Std. Dev.	Min	Max
COMS	313000000	1180000000	40496.6	1190 0000000
COMA	26 11728	15 61548	1	57
TI	0 648148	0 479029	0	1
CSER	4 654321	10 37994	0	58

COMS refers to company size, COMA refers to company age, TI refers to type of industry.

6.1.2 Correlation Analysis

The Pearson correlation coefficients results for the relationship between the company characteristics and the extent of CSER is reported in Table 4. The correlations between some independent variables and the CSER indices were significant and positive. Company age was significantly positively correlated with CSER disclosure (0.304 p-value < 0.01) than most of the other independent variables. Thus, as the company age increased, the extent of CSER also increased. However, company size and industry type were negatively correlated with CSER.

Table 4: Pearson Correlation Coefficients

Variables	COMS	COMA	TI	CSER
COMS	1			
COMA	-0 058-	1		
TI	.0 .007-	-0 077-	1	
CSER	-0 086-	0 304**	-0 324**	1

**Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level.

6.1.3 Multivariate Regression Analysis

This study examined three models, namely, pooled OLS, fixed effect, and random effect models (see Appendices 2, 3 and 4). To choose the proper model for this study, we used Hausman specification test to determine the compatibility of the random model or fixed effect model with this study. Also, the Breusch–Pagan or Langrangian multiplier test was performed to test the presence of random effects and decide whether to apply the pooled model or the random model. The Hausman test results showed the coefficients common to both models and the estimated difference of these models. Thus, the Hausman test was significant. The random effect model was then used in this study (see Table 5). Social scientists use 0.05 as the criterion for statistical significance. Thus, because the observed significance value was less than 0.05, the results indicated the significant effect of some factors that influenced the extent of CSER. Company age had a positive relationship with the extent of CSER; a higher age associated with (0.301886) increased the extent of CSER with (p = 0.017). Thus, these variables had the same directions, as hypothesized in H2. Moreover, company size and industry type were negatively correlated with the dependent variable. Therefore, H1 and H3 were not supported. However, the R^2 of this model was (0.205).

Table 5: Results of Random Effect Model

Variables	Coef	SE	t	p
COMS 479	-0 000000000603	0 000000000852	-0 71	0
COMA 017	0 301886	0 126813	2 38	0
TI 899	-0 268	2 108342	-0 13	0
R^2 0 205				

6.2 Qualitative Results

The literature review illustrated the influence of company size, company age, and industry type on the extent of CSER. Therefore, the following question was posed to all the interviewees:

Do company size, company age, and industry type affect the extent of CSER provided by your organization? If yes, how?

The results of interviews for this question are shown in Table 6 below.

Table 6: The influence of company characteristics on the extent of CSER

Factors	Number of interviews	The percentage of interviews
Company age	20 out of 31	65%
Company size	19 out of 31	61%
Type of industry	18 out of 31	58%

Table 6 presents the opinion of public relations managers and financial managers on the influence of some factors such as company size, company age, and industry type on the CSER of Libyan firms Among the interviewees, 20 (65%) believed that the extent of CSER information in annual reports could be influenced by company age because this factor enabled companies to acquire enough expertise to improve the preparation of all information. In addition, 19 (61%) of the interviewees believed that large firms disclosed more CSER information than small firms, and large companies realized the importance of CSER more than small firms to meet the requirements of stakeholders. Thus, company size had an important effect on the extent of CSER disclosure. Additionally, 18 (58%) interviewees mentioned that industry type significantly affected the extent of CSER disclosure in annual reports, as illustrated in the following comments

"I think that large companies have the highest level of CSER disclosure from realizing the importance of CSER activities."

"Company size does not only affect in terms of CSER but it affects volume of information and this is due to the administration being convinced of the importance of disclose this information in order to benefit from disclosure."

Furthermore, the majority of managers stated that one industry differed from another in terms of the extent of CSER information disclosed in annual reports, particularly regarding industrial companies, as illustrated in the following comments:

"I believe that industry type influences the extent of CSER disclosure greatly, particularly regarding industrial companies exposing all kinds of

CSER information."

However, two of the financial managers believed that the management policy on the importance of disclosing CSER information was important to increase the extent of CSER information in the annual reports of the company.

"The policy of senior management toward social disclosure significantly affects the quantity and quality of CSER disclosed in annual reports."

However, these results indicated that company age had a significant relationship with CSER disclosure; these findings were consistent with the research hypothesis mentioned in Section 4, which was related to this issue, denoting the positive relationship between company age and the extent of CSER information. Moreover, these results indicated that company size and industry type were positively correlated with the extent of CSER; these results were inconsistent with the quantitative findings, which implied that company size and industry type had no influence on the extent of CSER in Libyan companies.

7. Conclusion

Previous studies have shown that CSER activities vary across companies because of differences in age, size, and industry (Gray et al. 1995; Hackston & Milne 1996). The quantitative findings in this study prove that company age has a positive influence on the extent of CSER in Libyan companies. Older firms have higher CSER levels. However, company size and industry type do not influence the extent of CSER. In contrast to the quantitative findings in this study, the qualitative findings indicate a stronger effect of company age, company size, and industry type on the extent of CSER. In addition, manufacturing sectors, which belong to environmentally sensitive industries, have higher CSER levels compared with insensitive industries. Therefore, the results of this study indicated that legitimacy theory may be an explanation of CSER disclosure by Libyan companies.

Some limitations exist in any study, which should be followed when interpreting the findings. Particularly, although many studies have examined the influence of company characteristics on the extent of CSER, studies that examine this issue are insufficient in Arabic countries. This study uses annual reports as one of the important data sources in Libyan companies (Bayoud, 2012). According to Unerman (2000), and Zeghal & Ahmed (1990), only a small proportion of the total CSER can be reached exclusively through annual reports. Thus, the data used do not fully reveal the CSER practices of Libyan companies. Combined methods such as content analysis and interviews are employed to avoid different results from various analysts (Tilt, 1994). In addition, legitimacy theory is used to conduct this study, but this theory may be insufficient to explain the influence of company characteristics on the extent of CSER. Moreover, the sample is likely to be considered small, although the data in this study represent most of the relevant Libyan firms. Therefore, using a larger sample of Libyan firms can likely add new perspectives. This study contributes to the literature on CSER, which is considered limited in terms of detailed case studies in developing economies, especially in Arabian countries.

Theoretically, this study contributes to CSER knowledge by using legitimacy theory to evaluate CSER, which complements previous studies in developing countries. This study serves as a foundation for future research on CSER in Libya. The importance of this study lies on three important reasons. First, this study contributes to the existing literature by presenting modern CSER practices in Libya. Second, the results convey integrating environmental considerations to the community of investors in the decision-making process of investors. For practitioners, becoming more socially and environmentally responsible in the future is perhaps a challenge. Finally, for policy makers, this study provides indispensable evidence on the necessity of revisiting existing standards and regulations. The results of this study are significant for the Capital Market Authority or other authorities because evidence related to the influence of company characteristics on the extent of CSER is provided. In addition, this study contributes not only to Libya but also to the wider CSER research field.

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indexes

Appendix 1: List of the Libyan Surveyed Companies

1	Development Bank	22	National Commercial Bank
2	Mediterranean Bank	23	Inma Company for Engineering Industries
3	Al-Wehda Bank	24	Bank of Commerce and Development
4	AL-Jamhoria Bank	25	National Company of Mills and Fodder
5	Libyan Arab Foreign Bank	26	Al Erada Oil Srevices & Drilling Water Wells
6	Sahary Bank	27	Inma Company for Manufacture Pipes
7	AKAKUS Oil Operations	28	El Saray Bank for Commerce & Investment
8	Libya Insurance Company	29	Sahara Insurance Company
9	Melita Oil &Gas Company	30	Al Takaful Insurance Company
10	National Cement Company	31	Al Mutaheda Insurance Company
11	Al Ejmaa Alarabi Bank	32	National Company for pipes
12	Al-Omah Bank	33	Engineering Industries Company
13	Al Horoj Oil Operations	34	Arabian Golf Oil Company
14	Jabel Oil Services	35	Public Company for Chemical Industries
15	Mabruk Oil Operations	36	Trucks and Buses Company
16	Al Jurf Oil Operations	37	Al Rahela Oil Services Company
17	Sert Oil Company	38	Public Company for Pipeline
18	Raslanouf Oil Company	39	Zawya Refinery Oil Company
19	Al Zueitina Oil Company	40	Enmaa Company for Extracting & Refining Vegetable Oils Contribute
20	Al Waha Oil Company	41	Investment Company for Oil Services (AIKOS)
21	Al Beriga Oil Company	42	Public Electricity Company

Appendix 2: Results of Pooled OLS Model

Variables	coef.	SE	t	p
COMS	-0 000000000982	0 000000000812	-1 21	0 229
COMA	0 110478	0 081405	1 36	0 177
TI	3 86739	2 109809	-1 83	0 069
R2	0 28			

Appendix 3: Results of Fixed Effect Model

Variables	Coef	SE	t	p
COMS	-0 00000000204	0 00000000298	-0 69	0 495
COMA	0 712701	0 225956	3 15	0 002
TI	0 628683	2 434176	0 26	0 797
R2	0 098			

Appendix 4: Results of Comparison of the Three Models

Model	Pooled OLS		Fixed Effect		Random Effect	
Variables	Coef	p	Coef	p	Coef	p
COMS	-0 000000000982	0 229	-0 00000000204	0 495	-0 000000000603	0 479
COMA	0 110478	0 177	0 712701	0 002	0 301886	0 017
TI	-3 86739	0. 69	0 628683	0 797	-0 268	0 899
R2	0 281		0 098		0 205	