

1 **Corporate social responsibility disclosures in international construction business:**  
2 **trends and prospects**

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4

5 **Abstract**

6 There is increasing sophistication in corporate social responsibility (CSR) disclosures by  
7 international construction companies (ICCs). Nevertheless, a systematic analysis of the trends  
8 and prospects is yet to appear. This study fills that knowledge gap by providing an understanding  
9 of the idiosyncrasies of CSR disclosure and by offering suggestions for future reporting exercises.  
10 By examining the top fifty ICCs' CSR/sustainability reports using content analysis, it found that  
11 the more negative impacts a company may have, the more remedial strategies it will disclose in  
12 a CSR report. ICCs from economically more developed countries maintain a high level of CSR  
13 disclosure, while their counterparts from developing countries have caught up in this CSR cause.  
14 As a way to improve the consistency and integrity of disclosed information, ICCs are  
15 increasingly adopting CSR reporting guidance frameworks and using third-party assurances.  
16 CSR disclosures present a high degree of uniformity while they also show nuanced and intriguing  
17 diversity. This research helps understand comprehensively the trends of CSR disclosure in  
18 international construction. It will help ICCs extrapolate their future CSR reporting exercises.

19

20 **Keywords:** Corporate social responsibility; Disclosure; International construction business;  
21 Trends; Prospects; Content analysis

22

23 **Introduction**

24 Probably no industry offers as many paradoxes as construction corporate social responsibility  
25 (CSR). On the one hand, the construction industry has an inherent social responsibility; it  
26 materializes the built environment, which influences human health, economic activities, social  
27 behavior as well as cultural identity and civic pride (Pearce 2003). The industry makes an  
28 important contribution to the national economy, and provides a large number of jobs. It is a  
29 hugely important industry in scope and scale; Flanagan and Jewell (2014) estimate global

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30 construction output of US\$6.8 trillion in 2013, which contributes between 8-10% to the annual  
31 global gross domestic product. The industry provides employment for a substantial number of  
32 the working population, e.g. around 30 million people in China are employed in construction  
33 activities (National Bureau of Statistics of China 2014), 7.2 million in the USA (US Bureau of  
34 Labor Statistics 2014), and 11 million in the European Union (EU Construction Statistics 2014).  
35 On the other hand, construction is intrinsically ‘irresponsible’; it competes with the natural  
36 environment and can have an adverse impact upon it, including land degradation, resource  
37 depletion, waste generation, and various forms of pollution (Lu and Tam 2013; Zhao et al. 2012;  
38 Ofori 1993). Buildings are responsible for more than 40 percent of global energy use and one  
39 third of global greenhouse gas emissions (Rode et al. 2011). Corrupt practices are also an issue  
40 with Transparency International suggesting that construction is one of the top three most corrupt  
41 industries in the world. Competition in the construction industry is notoriously fierce. To survive,  
42 companies sometimes operate at the expense of societal well-being; producing unsatisfactory  
43 work, offering a harsh working environment, and maintaining poor occupational health and  
44 safety standards. The conjunction of these paradoxes has brought CSR to the fore; it is now  
45 growing in prominence as a core issue confronting the construction industry and its organizations  
46 (Murray et al. 2008).

47  
48 The above paradoxes relating to construction CSR are evident on an international scale. In recent  
49 years, advanced technology, fast transportation, convenient communications, effective  
50 knowledge transfer, integrated markets, and trade liberalization have all helped the construction  
51 business traverse traditional national boundaries into the international arena (Lu et al. 2013). This  
52 has formed a new business sector known as international construction, which is defined as the  
53 part of construction business that is undertaken by companies working on projects outside their  
54 home country (Ngowi et al. 2005). As an example of the scale of this business, *Engineering*  
55 *News-Record* (ENR) statistics show that the ENR Top 250 International Contractors had  
56 US\$511.05 billion in contracting revenue in 2012 from projects outside their home countries,  
57 along with US\$813.55 billion in revenue from domestic projects (Tulacz 2013). With the  
58 increasing globalization of construction business, the social responsibility of international  
59 construction companies (ICCs) extends beyond their home country. For example, ICCs  
60 undertaking construction business in a host country may also help build a hospital or school for  
61 the benefit of the local community. The international construction business is a positive  
62 development in terms of value creation, knowledge exchange, and resource configuration and

63 optimization. However, it is also criticized as being relatively irresponsible, given the embodied  
64 energy and the carbon emissions associated with mobilizing resources across continents. CSR  
65 has immediate material relevance for ICCs in their head and regional offices, at site locations  
66 and through extensive supply chains. They increasingly face the effects of extreme poverty,  
67 unacceptable working conditions, environmental degradation, systemic corruption or eruptions  
68 of violence. In this environment, companies can choose one of two routes: uphold high standards,  
69 or try to ignore the situation. Major ICCs will always take the former route.

70  
71 A conspicuous trend in recent years is that ICCs, similar to companies in other business sectors  
72 (e.g. mining, food, and investment), have published CSR disclosure reports to communicate their  
73 CSR commitment and achievements to stakeholders. Unlike other businesses however, an  
74 extensive literature review showed that, despite of CSR issues having been discussed in the  
75 construction industry (e.g. Petrovic-Lazarevic 2008; Murray and Dainty 2008; Griffith 2011;  
76 Bowen et al. 2007; Fox 2000; Liu et al. 2004; and Hill and Bowen 1997), no study has been  
77 conducted to analyze ICCs' reporting practices systematically. Jenkins and Yakovleva (2006)  
78 explored the trends of CSR disclosures in the mining industry using a case study of the world's  
79 10 largest mining companies. Waller and Lanis (2009) analyzed CSR disclosure patterns in the  
80 advertising sector, while Cuganesan et al. (2010) examined CSR disclosures within the  
81 Australian food and beverage industry. Jones et al. (2010) investigated corporate approaches to  
82 sustainability in the US engineering and construction industry. As elaborated later, sustainability  
83 is not quite equal to CSR, although companies at times perceive them as similar. Zhao et al.  
84 (2012) provided a set of indicators that can be used to implement CSR in the construction  
85 industry and help companies methodically assess their CSR performance. There are pressures on  
86 all companies to improve CSR reporting. For example, the Global Reporting Initiative (GRI) sets  
87 out minimum requirements in key areas of CSR and companies sign up to report in accordance  
88 with the requirements. The ISO26000 defines good practice and establishes standards. There is  
89 legislation to ensure corruption does not occur, such as the UK Bribery Act 2010 and the US  
90 Foreign Corrupt Practices Act 2004 and the US Anti-Corruption Act, and there are voluntary  
91 codes on ethical behavior. However, the trends and prospects of CSR disclosures have not been  
92 adequately articulated, despite the relevance of the two issues to an understanding of how CSR  
93 is actually interpreted, practiced, and reported in international construction.

94

95 The aim of the study was to explore the trends and prospects in CSR reporting conducted by  
96 ICCs. The research is of significant academic and practical value. Firstly, the trends can reveal  
97 how the concept of CSR has been interpreted and practiced by ICCs. Jenkins and Yakovleva  
98 (2006) noticed that companies show considerable variations in the maturity of the content and  
99 style of their CSR reporting. The research will provide an ‘epistemological link’ (Zhao et al.  
100 2012) between the concept of CSR and the real CSR strategies implemented by ICCs. Secondly,  
101 exploring the trends of CSR disclosure will help reveal how CSR reporting is standardized. Zhao  
102 et al. (2012, p. 279) discovered that there is little uniformity in CSR indicator frameworks, as  
103 “these initiatives have evolved in a manner specific to the needs of the jurisdiction at that time  
104 and place”. Standardization of CSR reporting is advocated as an effective way of communicating  
105 CSR strategies and performance to stakeholders, and efforts to increase uniformity are evident  
106 in various international standards in this area, e.g. ISO 26000 and Social Accountability 8000.  
107 Thirdly, the trends to be identified provide useful references against which the idiosyncrasies of  
108 CSR disclosures in the international construction business and other sectors can be compared.  
109 This study is contextualized within international construction not only because it is an important  
110 business sector received scant attention from researchers, but also because it provides a  
111 contrasting lens through which CSR can be fruitfully investigated. Lastly, examining the  
112 prospects of CSR disclosure will help ICCs extrapolate their future CSR reporting exercises.  
113 Companies spend important resources on producing CSR reports; the research will help them to  
114 use the resources more wisely and effectively in disclosing their CSR excellence.

115  
116 The remainder of this paper is structured into four sections. Subsequent to this introductory  
117 section, the theoretical foundation of this study and research hypotheses are elaborated in Section  
118 2. Section 3 provides a detailed description of the research methods, whereby content analysis  
119 of the CSR reports disclosed by ICCs is adopted. The fourth section presents the results,  
120 discussion, and findings. Section 5 provides conclusions and limitation, and implications for  
121 further research.

122  
123 **Theoretical foundation and research questions**  
124 Corporate Social Responsibility (CSR) disclosure is seen as “the process of providing  
125 information designed to discharge social accountability. Typically this act would ... be  
126 undertaken by the accountable organization and thus might include information in the annual  
127 report, special publications or even socially oriented advertising” (Gray et al. 1987, p. 4). The

128 most widely embraced theoretical perspectives explaining motivations for CSR reporting are  
129 legitimacy theory and stakeholder theory. According to Waller and Lanis (2009), CSR disclosure  
130 is a means of legitimization. Companies do not operate in a vacuum; rather, they impact and are  
131 impacted upon by the socio-political context and the stakeholders. Here, stakeholders are any  
132 individual, group, organization, member or system that affects or can be affected by an  
133 organization's actions (Freeman 1983). Stakeholder theory holds that stakeholders have different  
134 interests in, and thus have different impacts on a corporation, either positive or negative, and the  
135 corporation is seen to be responsible for meeting their interests even though they are outside of  
136 the corporation (Freeman 1983). There is a 'social contract' between a company and society  
137 formed by various stakeholders (Deegan 2002; Mathews 1993; Patten 1992). Bound by this  
138 contract, firms agree to perform various socially desired actions in return for societal approval  
139 of their objectives and other rewards, and this ultimately guarantees their continued existence  
140 (Deegan 2002; Brown and Deegan 1998; Guthrie and Parker 1989). In this sense, CSR disclosure  
141 is a method by which management can interact with society to influence society's perceptions of  
142 their organization (Deegan 2002), and discharge their obligations (Farook et al. 2011; Campbell  
143 2000). In addition to achieving legitimacy, there are other motivations for a company to engage  
144 in CSR disclosure. They are: (1) enhancing corporate reputation and brand value; (2) gaining a  
145 competitive advantage; (3) signaling superior competitiveness; (4) allowing comparison with  
146 and benchmarking against competitors; (5) increasing transparency and accountability within the  
147 company; and (6) establishing and supporting employee motivation as well as internal  
148 information and control processes (Herzig and Schaltegger 2006). To this can be added the  
149 opportunity to attract new customers, to attract new investors, to increase trust, to influence  
150 government policy makers, and to establish a reputation of being a socially responsible company.

151  
152 Nevertheless, there is little consensus on what should be included in CSR disclosures. The terms  
153 of the 'social contract', or what CSR entails, cannot be known with any precision (Farook et al.  
154 2011). This is further exacerbated by the confusion caused by terminology in CSR. Dahlsrud  
155 (2008) identified 37 definitions of CSR and found that the existing definitions are to a large  
156 degree congruent, but Carroll and Shabana (2010), contended that this figure is an  
157 underestimation, as many academically derived definitional constructs were not included in  
158 Dahlsrud's research. The UN Global Compact (2013) suggests the terms 'corporate sustainability'  
159 and 'corporate responsibility' are interchangeable; whereas the term 'corporate social  
160 responsibility' is used to reflect an organization's recognition of its social responsibility. Lu et al.

161 (2014) reported that there is no single, agreed definition of the term CSR. This has resulted in a  
162 diversity of CSR strategies and reporting amongst companies. Managers have different  
163 perceptions about these terms, and their CSR disclosures will vary (Waller and Lanis 2009).

164  
165 Cuganesan et al. (2010) pointed out that one issue of increasing importance is the need to  
166 recognize industry specificity when formulating and assessing CSR disclosure. This is in line  
167 with Windsor (2001), which argued that how CSR is understood and perceived still largely  
168 depends on the business context and the managerial dispositions of each corporation. This also  
169 resonates with studies that have identified the nature of a company's industry as a factor affecting  
170 CSR disclosure (e.g. Cho and Patten 2007; Yongvanich and Guthrie 2005; Halme and Huse 1997;  
171 Roberts 1992). "Industries exhibit special uniqueness in that the internal competencies or  
172 external pressures inherent in the industry create a 'specialization' of social interests" (Griffin  
173 and Mahon 1997, p. 10). It is to be expected that the heterogeneities of the international  
174 construction business, the aforementioned paradoxes in particular, will lead to idiosyncrasies in  
175 CSR reporting.

176  
177 According to one theoretical perspective, higher levels of CSR disclosure occur concurrently  
178 with increased focus on the problems a company may cause, or the threats of litigation and fines  
179 it may face (Cho and Patten 2007; Yongvanich and Guthrie 2005). In other words, the more  
180 'irresponsible' impacts a company may have, the more remedial strategies it will disclose in a  
181 CSR report. It has been well articulated that international construction witnesses many CSR  
182 paradoxes, e.g. it providing the built environment by competing against the natural environment,  
183 and it causing many nuisance to the community. An immediate relevant research question is "*Do*  
184 *ICCs disclose more about their commitment to CSR remedial strategies such as energy saving,*  
185 *carbon emission reduction, community care, transparency, occupational health and safety*  
186 *(OHS), logistic and supply chain management, transparency, and anti-competitive behavior*  
187 *(QI)?"* Answering this research question is of both theoretical and practical significance. It  
188 enables confirmation whether legitimacy theory and stakeholder theory can be applied to explain  
189 the motivation for CSR disclosure and reveal the issues that should be entailed in the 'social  
190 contract'.

191  
192 In view of growing global concerns over CSR, it is with no doubt that ICCs will increase their  
193 CSR disclosure level, which reflects the extent to which ICCs have reported their CSR strategies

194 and consequently, the performance achieved. Previous studies (e.g. Kolk et al. 2001; Maignan  
195 and Ralston 2002) have suggested that there are country-specific and industry-specific  
196 differences in the extent of CSR reporting. The industry-specific differences and their impact on  
197 CSR disclosures, as described above, are to be examined by linking them to the heterogeneities  
198 of international construction, in particular the CSR paradoxes. Given that companies in  
199 developed countries have been striving for some time to meet escalating legal requirements, there  
200 is a view that developing countries have more potential in terms of introducing CSR strategies  
201 (Lu et al. 2014). The contemporary CSR movement is primarily pushed by the civil society in  
202 more economically developed countries, but the movement has great impact on less developed  
203 countries in the age of globalization. It is thus posited that ICCs from more economically  
204 developed countries will maintain a high level of CSR disclosure, while their counterparts from  
205 less developed countries will try to improve their CSR disclosure levels. An immediate research  
206 question is *“Do ICCs from more economically developed countries maintain a higher level of*  
207 *CSR disclosure than their counterparts from less developed countries? (Q2)”*

208  
209 In parallel with these differing reporting levels, there has been found no uniformity in method of  
210 CSR reporting. International organizations such as the ISO, the World Resources Institute and  
211 the GRI have therefore started developing frameworks to standardize CSR reporting. The move  
212 towards standardization represents not only a convergence in the language and transparency of  
213 CSR, but also convergence of CSR into an agreed concept and a credible form of self-regulatory  
214 governance over issues that are not externally regulated (Chiu 2010). The GRI, for example, aims  
215 to develop a voluntary reporting framework that will elevate sustainability reporting practices to  
216 a level equivalent to that of financial reporting in rigor, comparability, auditability and general  
217 acceptance (Willis 2003). It has recently published the Construction & Real Estate Sector  
218 Supplement (CRESS) with the aim of providing sustainability performance indicators and  
219 disclosures that are important or unique to the sector. This research is conducted at an opportune  
220 time, as it is straddling a period that is before and after the publication of an international  
221 construction relevant CSR reporting guidance, i.e., CRESS. It would be interesting to find out  
222 *“Are there more ICCs reporting their CSR performance in accordance with the GRI reporting*  
223 *guidelines and using more third-party assurance to enhance the credibility of the disclosed*  
224 *information? (Q3)”*

225

226 Standardization unnecessarily means no nuanced and intriguing diversity allowed in CSR  
227 reporting undertaken by ICCs. The ‘social contract’ between a corporation and society, which in  
228 turn influences CSR disclosures, depends not only on industry specificity, but also on countries.  
229 Other than categorizing countries into developed and developing countries in Q2, it needs to  
230 further examine countries with different cultures and institutions. The international construction  
231 business is subject to many onerous regulatory and cultural differences, such as controls on land  
232 use; building regulations and technical requirements; building permits and inspection, and  
233 environmental regulations. In face of the culture (Kogut and Singh 1988; Tjihuis and Fellows  
234 2011) or institutional distance (Bae and Salomon 2010; Lu et al. 2013) between the home and  
235 host countries, ICCs would not be able to adopt ‘one-size-fit-all’ CSR strategies. For example,  
236 the culture distance or institutional distance may bring tension and force ICCs to deliberate CSR  
237 strategies in host countries, e.g. to reduce poverty, or to improve community health. The cultural  
238 characteristics of a home country may lead to interesting nuanced difference in CSR disclosures  
239 although standardization is advocated. A natural thinking is that they may tailor their CSR  
240 strategies with respect to the cultural or institutional profile of host countries. It is thus interesting  
241 to find out “*What are the idiosyncrasies in CSR reporting impacted by cultural or institutional*  
242 *difference? (Q4)*”

243  
244 It is expected that, by examining the above four research questions retrospectively, the prospects  
245 of CSR disclosures by ICCs can be regressed. To understand the trends of CSR disclosure as  
246 stated in CSR reports is important, while the more meaningful research inquiry is to considering  
247 their impact on the future, although it is often risk-prone to extrapolate into the future. To  
248 maintain the consistency of presentation, the sixth research question is proposed: “*What are the*  
249 *possible prospects of CSR disclosures by ICCs? (Q5)*”.

250

## 251 **Research methods**

252 The sample of international construction companies (ICCs) was determined by reference to the  
253 top international contractors (TIC) lists compiled by *Engineering News-Record (ENR)*, an US-  
254 based construction, building and engineering-oriented magazine. Since the late 1970s, *ENR* has  
255 ranked the 225 (250 in recent years) largest ICCs based on general construction contracting  
256 revenues generated from projects outside each firm's respective home country. The top 50 on the  
257 2013 ENR TIC list were selected as the sample (See Table 1). Among the sample ICCs, twenty-  
258 one companies are from Europe, twenty from Asia and Australia, eight from the USA, and one



259 from Brazil. It might not be entirely valid to identify the ‘nationality’ of a company, owing to  
 260 frequent mergers and acquisitions across country borders in the international construction  
 261 business. For example, the No. 1 company by the name of ‘Grupo ACS’ in Spain is the majority  
 262 shareholder in the second highest company named ‘Hochtief AG’ from Germany; and meanwhile  
 263 these two companies are the principal shareholders of ‘Leighton Holding’ from Australia.  
 264 Nationalities are thus better seen as the ‘national origins’ of a company. The ICCs’ main line of  
 265 business is based on ENR 2013 (Tulacz 2013), which states that a business taking up 20% or  
 266 above of the company’s total revenue is deemed to be the company’s main line of business.

267

268 **Table 1. Profiles of the top 50 international construction companies in the selected sample**

Rank*	Name	National origin	Main business lines <sup>#</sup>	Rank*	Name	National origin	Main business lines <sup>#</sup>
1	Grupo ACS	Spain	GB, TA	26	Daelim	S. Korea	IP
2	Hochtief	Germany	GB, TA	27	Salini	Italy	TA, WS
3	Bechtel	USA	IP, TA	28	GS E&C	S. Korea	IP
4	Vinci	France	TA	29	KBR	USA	TA
5	Flour	USA	IP	30	Abeinsa	Spain	PO
6	Strabag	Austria	TA	31	Leighton	Australia	GB, IP, TA
7	Bouygues	France	TA	32	JGC	Japan	IP
8	Saipem	Italy	IP	33	Lend Lease	Australia	GB
9	Skanska	Sweden	GB, TA	34	CREC	China	TA, GB
10	CCCC	China	TA	35	SK E&C	S. Korea	IP
11	Technip	France	IP	36	Samsung C&T	S. Korea	PO
12	Odebrecht Organization	Brazil	TA, IP	37	CB&I	U.S.A.	IP
13	Samsung Engineering	S. Korea	IP	38	Tecnicas Reunidas	Spain	IP
14	FCC	Spain	GB, TA	39	Kiewit	U.S.A.	IP, PO
15	Hyundai E&C	S. Korea	PO, IP	40	Daewoo E&C	S. Korea	IP, PO
16	Bilfinger	Germany	IP	41	Danieli & C	Italy	IP
17	Balfour Beatty	UK	GB, TA	42	McDermott	U.S.A.	IP
18	Petrofac	UK	IP	43	CITIC	China	GB
19	Royal BAM	The Netherlands	GB, TA	44	Foster Wheeler	U.S.A.	IP, PO
20	Sinohydro	China	PO, TA	45	Isolux Corsan	Spain	PO, TA
21	CCG	Greece	IP, TA	46	POSCO	S. Korea	IP, PO
22	PCL	USA	GB, IP	47	Obayashi	Japan	GB, TA
23	OHL	Spain	TA	48	Larsen	India	IP, PO
24	CSCEC	China	GB, TA	49	Acciona	Spain	TA, GB

25	China	China	PO, IP	50	Kajima	Japan	GB, MA
	Machinery						

269 \* The ranks are based on the year 2013.

270 # GB=General Building; MA=Manufacturing; PO=Power; WS=Water Supply; SW=Sewer/Waste;

271 IP=Industrial/Petroleum; TA=Transportation; HW=Hazardous Waste; and TE=Telecom.

272

273 CSR reports of the sample ICCs over the past five years (2008–2012) were retrieved from their  
 274 websites. The TIC 50 is not a static group; they will change each year on the list dependent upon  
 275 performance; some firms even drop off the lists in certain years. It is common practice for ICCs  
 276 to communicate their CSR strategy and performance through the Internet as a major channel with  
 277 some having developed a themed website for this purpose. Companies published either  
 278 sustainable development/sustainability reports or CSR reports, which is not particularly  
 279 unexpected given that there is no clear boundary between the two concepts (Ebner and  
 280 Baumgartner 2006). Two ICCs named ‘JGC’ and ‘SK E&C’ publish environment reports to  
 281 show their CSR performances with regard to the environment. A total of 155 CSR/sustainability  
 282 reports were collected for analysis, putting aside the question of whether the two concepts are  
 283 one and the same.

284

285 The CSR/sustainability reports were coded using content analysis; an approach adopted by many  
 286 researchers to analyze CSR reporting (e.g. Roca and Searcy 2012; Jenkins and Yakovleva 2006;  
 287 Wilmshurst and Frost 2000). Content analysis is a systematic, replicable technique for  
 288 compressing many words of text into fewer content categories based on explicit rules of coding  
 289 (Krippendorff 2012; Stemler 2001). It is a continuous and iterative process characterized by two  
 290 key stages, the first of which requires managing the data, and the second stage involving making  
 291 sense of the evidence through descriptive or explanatory accounts (Burden and Roodt 2007).

292

293 An instrument as shown in Table 2 has been developed as the protocol for decoding CSR reports.  
 294 The instrument includes indicators, which are not specifically included in the CRESS G3.1 but  
 295 are frequently mentioned in reports, such as Information Transparency (IT). There are six groups  
 296 with 23 sub-categories of performance indicators in total listed in Table 2: (1) EN- Environment  
 297 (5 sub-categories); (2) SO- Society (4 sub-categories); (3) LA- Labor Practices and Human  
 298 Rights (6 sub-categories); (4) PR- Product Responsibility (2 sub-categories); (5) IT- Information  
 299 Transparency (3 sub-categories); and (6) EI- Economic Indicators (3 sub-categories).

300

301

302 **Table 2. The protocol for decoding CSR reports**

Codes	Categories	Codes	Sub-categories	Stakeholders related
EN	Environment	EN1	Materials	The Public
		EN2	Energy	The Public
		EN3	Water	The Public
		EN4	Biodiversity	The Public
		EN5	Emissions, effluents and waste	The Public
SO	Society	SO1	Community	Local Communities
		SO2	Code of Conduct/ Ethic	Local Communities
		SO3	Anti-Corruption	Local Communities
		SO4	Anti-Competitive Behavior	Competitors
LA	Labor Practices and Human Rights	LA1	Diversity and Equal Opportunity	Employees
		LA2	Training and Education	Employees
		LA3	Occupational Health and Safety	Employees
		LA4*	Work- Life balance	Employees
		LA5*	Salary policy/ Benefits	Employees
		LA6*	Employee Feedback	Employees
PR	Product Responsibility	PR1	Customer Health and Safety /Quality	Clients and future users
		PR2	Product and Service Labeling	Clients and future users
IT*	Information Transparency	IT1*	Media	The Public
		IT2*	Intra-corporate	Employees
		IT3*	Reported to markets	Shareholders
EI	Economic Indicators	EI1	Economic performance	Shareholders
		EI2	Market presence	Suppliers and Local Communities
		EI3	Indirect economic impacts	Local Communities

303 \*Aspects summarized from the corporate reports

304

305 The 23 CSR performance indicators in each of the 155 SD/CSR reports were manually coded

306 into a MS Excel file. If a report disclosed a certain indicator, it was noted with a “√” in the Excel

307 file; otherwise, the indicator was marked with a “-“. This laborious coding process produced a

308 very large table (called Table A), a part of which is shown in Table 3. The table describes the

309 CSR performance reported by ICCs over the past five years. The process was also with the

310 assistance of qualitative data analysis software “Leximancer” that automatically identified high

311 level concepts in the documents. To reduce the inherent subjectivity and potential variance, a

312 second coder repeated the process independently and produced another table (called Table B).

313 To ensure the consistency of the works from the two independent coders, Cohen's Kappa

314 coefficient could have been applied, but a more straightforward method was adopted. The two

315 excel tables, having an identical structure, were subtracted from each other, i.e. Table A-Table

316 B. Those cells/indicators scoring a result other than “0” meant an inconsistency between the two  
317 coders. The reports were then analyzed again to determine whether the indicator in question had  
318 in fact been reported. This process was repeated until all the cells scored a “0”, meaning that full  
319 agreement between the two coders had been achieved. The finalized Excel table, formed an  
320 information hub for data analyses.  
321

322 Table 3. An excerpt of the data table generated from the content analyses of the CSR reports

Company			Years	Types of Report	EN-Environmental Performance Indicators					SO-Society				
Ranking	Name	Country			EN1	EN2	EN3	EN4	EN5	SO1	SO2	SO3	SO4	
				Materials	Energy	Water	Biodiversity	Emissions, effluents and waste	Community	Code of Conduct/ethic	Anti-Corruption	Anti-Competitive Behaviour		
1	Grupo ACS	Madrid, Spain	2008	Corporate Responsibility/ Annual Report	√	√	√	√	√	√	√	—	—	
			2009	Corporate Responsibility/ Annual Report	√	√	√	√	√	√	√	—	—	
			2010	Corporate Responsibility/ Annual Report	√	√	√	√	√	√	√	√	—	—
			2011	Corporate Responsibility/ Annual Report	√	√	√	√	√	√	√	√	—	—
			2012	Corporate Responsibility/ Annual Report	√	√	√	√	√	√	√	√	√	√
2	HOCHTIEF AG (Hochtief Aktiengesellschaft)	Essen, Germany	2009	Sustainability Report	√	√	√	√	√	√	√	√	—	
			2011	Sustainability Report	√	√	√	√	√	√	√	√	—	
			2012	Sustainability Report	√	√	√	√	√	√	√	√	√	√
3	Bechtel	San Francisco,U.S.A.	2008	The Bechtel Report	√	—	—	—	√	—	—	—	—	
			2009	The Bechtel Report	—	—	—	—	√	—	—	—	—	
			2010	The Bechtel Report	—	—	—	—	—	√	√	—	—	
			2011	The Bechtel Report	√	√	—	—	√	√	√	—	—	
			2012	The Bechtel Report	√	√	—	—	√	√	√	—	—	
4	Vinci	Rueil-Malmaison,France	2008	Annual Report	—	—	—	—	√	√	—	—	—	
			2009	Annual Report	—	√	√	√	√	√	√	—	—	
			2010	Annual Report	—	√	—	√	√	√	√	—	—	
			2011	Annual Report	—	√	—	√	√	√	√	—	—	
			2012	Annual Report	—	—	—	√	√	√	√	√	—	—

323

324

325 Based on the analyses of the quantitative data in the table, CSR reports were used as qualitative  
 326 data to deepen the understanding of CSR strategies and their performance reported by the ICCs.  
 327 The authors have conducted a few informal discussions with executives of top ICCs different  
 328 occasions over the past years to solicit their insights on CSR. This was used as qualitative data  
 329 to be triangulated with the quantitative and qualitative data decoded from the CSR reports. The  
 330 data will be analyzed and blended together in this paper to ensure an uninterrupted reading  
 331 journey in understanding the trends and prospects of CSR disclosures by ICCs.

332

### 333 **Results, analysis and discussion**

#### 334 *Profile disclosure*

335 Table 4 shows that CSR disclosure reports have a diverse range of titles. They may be referred  
 336 to as CSR reports (e.g. CCCC), corporate responsibility reports (e.g. Grupo ACS), sustainability  
 337 reports (e.g. Fluor Corporation), environment reports (e.g. JGC), annual reports (e.g. Vinci), or  
 338 named after the company name (e.g. the Bechtel reports). Some of the ICCs (e.g. Skanska AB)  
 339 published part of their annual report on their CSR/sustainability disclosure website. The diversity  
 340 of these titles reflects the absence of a single and agreed definition of the term CSR (Carroll and  
 341 Shabana 2010), and the blurred boundary between sustainability and CSR (Ebner and  
 342 Baumgartner 2006). It was ascertained that all of them do disclose CSR/sustainability strategies  
 343 and performance, and can thus be treated as a homogeneous group.

344

345 **Table 4. Types of reports used by ICCs for CSR disclosure**

Years	Types of Reports					Total reports (?/50)
	CSR reports	Sustainability reports	Environment reports	Annual reports	Incomplete report/website	
<b>2008</b>	6	9	0	4	1	20
<b>2009</b>	7	12	2	3	1	25
<b>2010</b>	6	16	2	5	1	30
<b>2011</b>	8	15	2	6	2	33
<b>2012</b>	9	19	2	7	10	47

346

347 The last column of Table 4 shows that the total number of CSR reports disclosed by ICCs has  
 348 increased over the period, i.e. five years from 2008 to 2012 inclusive. In 2012, 47 out of the 50  
 349 sample ICCs published a CSR report or its equivalent. CSR reporting, while not mandatory in  
 350 most countries, has been adopted by many large ICCs around the world. This trend may reflect

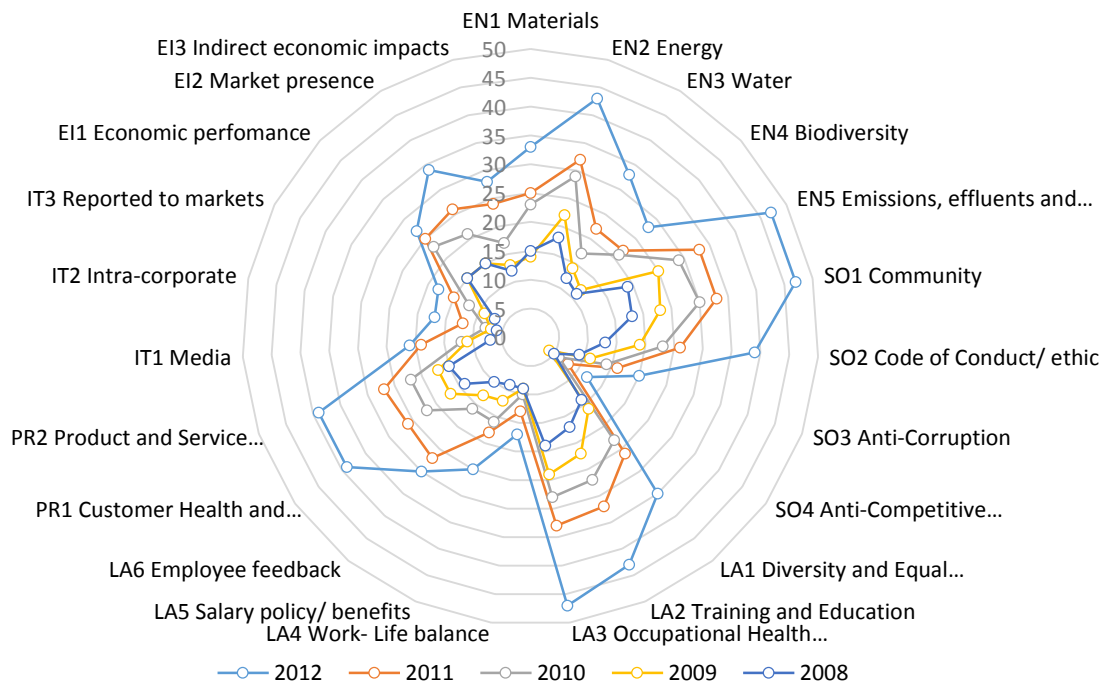
351 on one hand stakeholders' increasing influence on the operation of corporations and, on the other  
352 hand corporations are becoming more willing to use CSR disclosure as a means of interacting  
353 with society.

354

355 ***Q1: Do ICCs disclose more about their commitment to CSR remedial strategies?***

356 Based on the basic data in Table 3, specific types of CSR strategy and performance disclosure  
357 were analyzed. This involved counting each “√” of a specific indicator as 1 point across all the  
358 sample reports, and plotting the total points in the spider diagram as shown in Fig. 1. The total  
359 points of a specific indicator reflect the number of companies that have reported the indicator in  
360 a given year. The diagram shows that EN5 (Emissions, effluents and waste), SO1 (Community),  
361 and LA3 (Occupational Health and Safety) are the three most frequently reported CSR indicators.  
362 All the reports in 2011(33/33) and 2012(47/47) included these three indicators, and in the years  
363 from 2008 to 2010, over 90% of the companies elaborated these three strategies in their reports.  
364 The analytical results support the assumption that the more negative impacts a company may  
365 cause, the more remedial strategies it will disclose in a CSR report. The indicators with a long  
366 axis in the spider diagram are all problematic aspects that ICCs can improve upon for the benefit  
367 of society, or their legitimacy of existence as a company will be challenged. The CSR reports  
368 have frequently mentioned their commitment to stakeholders such as employees, clients and  
369 future users, shareholders, suppliers, and particularly, local community and the general public  
370 (Table 2), even though the latter are outside of the corporation. Legitimacy theory and  
371 stakeholder theory do hold in ICCs' CSR reporting practice.

372



**Fig. 1. CSR performance indicators disclosed by ICCs (2008-2012)**

373

374

375

376 Construction is a major contributor to environmental degradation, e.g., by generating greenhouse

377 gas emissions, discharged water, and waste. The ICCs reported their CSR policies and

378 technologies, for dealing with these issues. Construction also has a significant impact on the local

379 community and so the ICCs devise their CSR commitment to deal with the nuisances and help

380 the community. Construction is notorious for the hardship of its working environment: many

381 view it as a 3D (dangerous, dirty, and demanding) industry, and OHS incidents are sometimes

382 reported. The ICCs in the sample disclosed CSR strategies to address these issues, which include

383 ensuring that employees have adequate training in the safe use of all plant, machinery, substances,

384 and other OHS issues. EN2 (Energy), SO2 (Code of Conduct/Ethic) and LA2 (Training and

385 Education) also attracted much attention in the CSR disclosures. It can be seen from Fig. 1 that

386 80%–90% of the sample companies reported these indicators in the past five years. Table 5 lists

387 examples of the detailed CSR strategies and performance disclosure on the above frequently

388 reported aspects. For example, Vinci disclosed quantified performance in reducing emissions,

389 effluents and waste. Skanska highlighted it being the world’s largest investment in OHS

390 implemented by a single company.

391

392



393  
394

**Table 5 Examples of CSR strategies and performance frequently reported by international construction companies**

Company	CSR strategies and performance
Emissions, effluents and waste (EN5)	
<b>Vinci</b>	Vinci has been measuring its GHG emissions according to the ISO 14064 standard across its worldwide scope since 2007. Its greenhouse gas emissions amounted to 62 tons of CO <sub>2</sub> per million euros of revenue in 2012, which constitutes a 13% fall from 2009. In the annual Carbon Disclosure Project review, Vinci obtained a score of 80/C, up five points from 2011.
<b>Fluor</b>	Fluor established its global carbon footprint baseline in 2006 for its offices, fleets at those offices and air travel, so that it can effectively manage operations in an environmentally responsible manner.
Communities (SO1)	
<b>Hochtief</b>	The company focuses its activities on two main issues: educating and promoting young talent, and shaping the maintaining living spaces.
<b>Bechtel</b>	Partnerships have been formed with five nonprofit organizations (NGOs) to enhance the company's positive impact in communities. Bechtel volunteers engage in the global work of these partners, focusing on the education of children, particularly in the areas of science, technology, engineering, and mathematics.
<b>Strabag SE</b>	The Concordia aid organization has been caring for abandoned children in Romania, Moldova and Bulgaria. The group also cares for older people in need.
OHS (LA3)	
<b>Skanska</b>	For the eighth consecutive year, a Skanska Safety Week has been organized, which according to Skanska (2014) is the world's largest investment in occupational health and safety implemented by a single company.
<b>GS</b>	GS has established formal joint management-worker health and safety committees in which a certain percentage of the total workforce must be represented.
<b>CCCC</b>	CCCC protects establishes a sound labor protection mechanism and systems on employees' regular annual physical examination and special examination of special trades and harmful types of work.
Energy (EN2), Code of Conduct/Ethic (SO2), and Training and Education (LA2)	
<b>Saipem</b>	Saipem installed 49 solar water heater panels on Saipem Karimun base in Indonesia, which will help save 97,000kWh energy and reduce CO <sub>2</sub> emissions by approximately 20 tons.
<b>Balfour Beatty</b>	To conduct business with integrity, Balfour Beatty requires its employees to take an online Code of Conduct training module. The company has introduced an Ethics Helpline and opened other channels so that employees and others can report behavior that is or is suspected to be unethical or in breach of the Code of Conduct.
<b>Grupo ACS</b>	The company has programmes for continuous training and skills development, aimed at meeting employees' training needs for correct execution of their work and for personal and professional development.

395

396 A similar phenomenon that companies disclose more about their strategies that can help remedy  
397 the negative impacts they may cause can also be witnessed in other industries. For example, in  
398 the beverage industry, Starbucks and Coca-Cola promote fair trade of coffee beans and cocoa  
399 beans respectively (Argenti 2004), while the food industry mainly focuses on product  
400 responsibility (Cuganesan et al. 2010). The finance industry mainly concentrates on socially  
401 responsible investing (SRI) (Hillman and Keim 2001; Renneboog et al. 2008). Although there is  
402 perpetual concern that investing in CSR will jeopardize corporate financial performance (CFP)  
403 (Lu et al. 2014; Margolis and Walsh 2001; Orlitzky et al. 2003), CSR strategies that are  
404 embedded in the companies' business lines may create a 'win-win' CSR/CFP situation. Notably,  
405 some of the ICCs highlighted construction as a direct contributor to CSR. CCCC sees its  
406 transportation infrastructure business as playing a positive role in promoting regional economic  
407 development, providing more employment opportunities, and encouraging the development of  
408 relevant materials and equipment supply.

409  
410 Nevertheless, this research discovered findings that are against our previous assumption about  
411 CSR disclosures - some of the reported CSR strategies, such as providing training for the local  
412 community, appear not to be linked to the ICCs' construction business. Although education is  
413 recognized as a universal value, comments from top ICC executives implies that this CSR  
414 strategy, similar to philanthropy, is seen as an indirect strategy bringing immediate benefit while  
415 causing 'less trouble' to the company at a later stage. Moreover, the theoretic perspective that  
416 companies tend to disclose more about their commitment to CSR remedial strategies does not  
417 hold in the aspects coded SO3 (Anti-Corruption), SO4 (Anti-Competitive Behavior), LA4  
418 (Work-life balance), and IT2 (Intra-corporate Information Transparency). For example, although  
419 corruption issues have not diminished in recent years, there have been fewer disclosures of  
420 corruption issues in ICCs' CSR reports, suggesting this is a sensitive issue that ICCs do not wish  
421 to be publically discussed. This accords with the view of O'Donovan (2002) that CSR disclosures  
422 vary according to the intent of the discloser.

423  
424 ***Q2: Do ICCs from more economically developed countries maintain a higher level of CSR***  
425 ***disclosure than their counterparts from less developed countries?***

426 Based on the basic data in Table 3, CSR disclosure levels were analyzed. Each "√" for a specific  
427 indicator in a report was counted as 1 point; the total points for a report in a specific year could  
428 then be viewed as the company's CSR disclosure level, i.e. the extent to which an ICC reported

429 their CSR performance. Whereas previous studies (e.g. Cuganesan et al. 2010; Jenkins and  
 430 Yakovleva 2006) used number of pages as proxies for disclosure levels, appearance of the  
 431 indicators is believed to be more helpful for probing into CSR disclosure. Since there are 23  
 432 indicators (see Table 2), the maximum disclosure level a company can possess is 23. Table 6 and  
 433 Fig. 2 show the total disclosure levels contributed by the ICCs as a whole on a yearly basis,  
 434 showing both the number of reports and the reporting levels increasing. ICCs as a whole have  
 435 increasingly enriched the content of their CSR disclosure, evidenced by the increasing average  
 436 disclosure levels per report and the converging standard deviation. Table 7 shows the annual  
 437 numbers of reports by region from 2008 to 2012, from which it can be clearly seen that ICCs in  
 438 European countries pay more attention to the disclosure of CSR activities while Asian companies  
 439 are catching up in this regard.

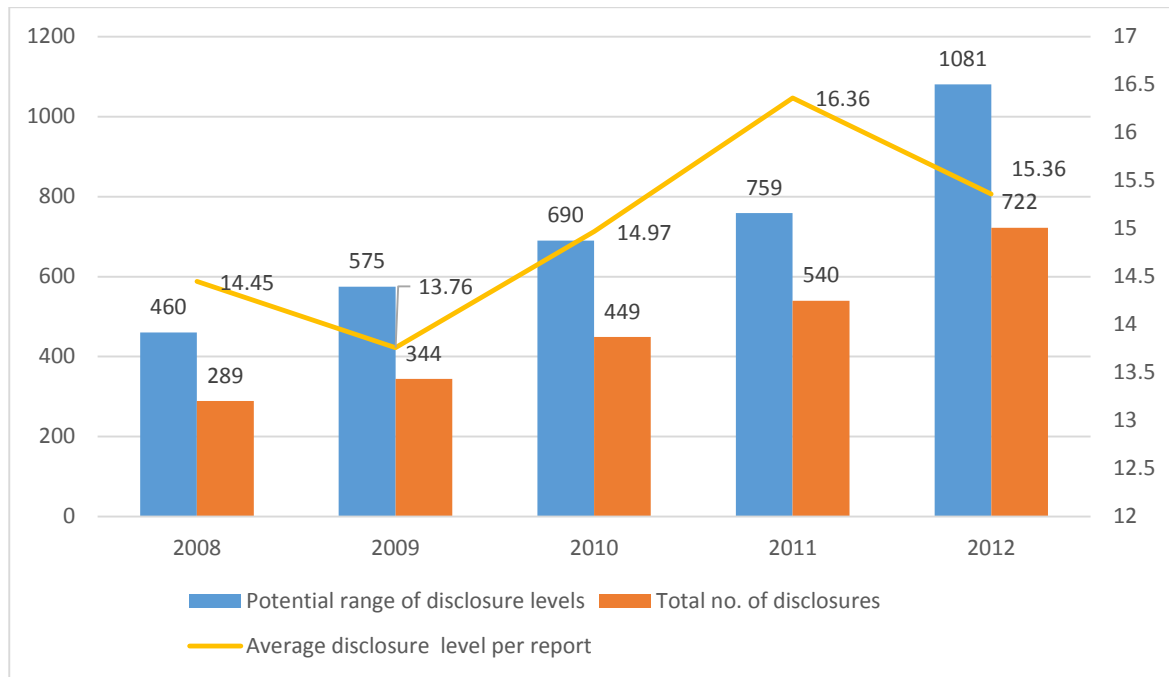
440

441 **Table 6. ICCs' CSR disclosure levels on a yearly basis**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>No. of reports</b>	20	25	30	33	47
<b>Potential range of disclosure levels*</b>	[0-460]	[0-575]	[0-690]	[0-759]	[0-1081]
<b>Total no. of disclosures</b>	289	344	449	540	722
<b>Average disclosure level per report</b>	14.45	13.76	14.97	16.36	15.36
<b>Standard deviation</b>	5.40	5.46	4.67	4.11	4.54

442 \* Potential range of disclosure level= No. of reports\*23, since the maximum disclosure level for each  
 443 report is 23.

444



**Fig. 2. CSR disclosure levels by ICCs (2008-2012)**

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448

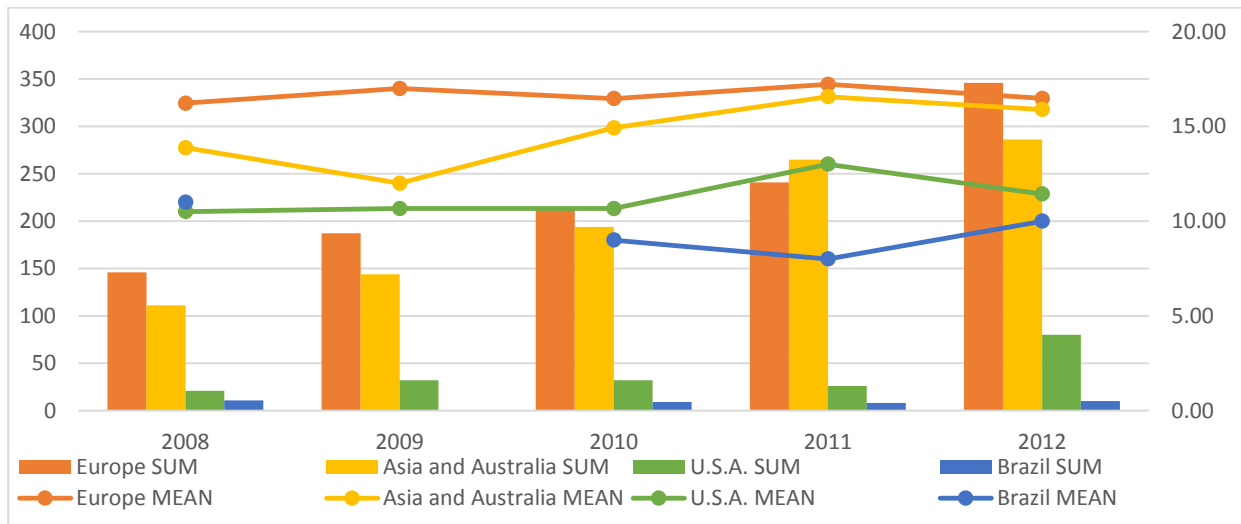
**Table 7. The numbers of reports disclosed by ICCs from different countries or regions**

Years	Countries/ Regions				Total Reports (?/50)
	Europe <sup>a</sup> (21) <sup>c</sup>	Asia and Australia <sup>b</sup> (20) <sup>c</sup>	U.S.A (8) <sup>c</sup>	Brazil (1) <sup>c</sup>	
<b>2008</b>	9	8	2	1	20
<b>2009</b>	11	12	2	0	25
<b>2010</b>	13	13	3	1	30
<b>2011</b>	14	16	2	1	33
<b>2012</b>	21	18	7	1	47

449 a. Reports from companies in Spain, France, Germany, Italy, U.K, Sweden, Netherlands, Greece and Austria are  
450 included in this column.  
451 b. Twenty ICCs from four Asian countries (China, South Korea, Japan and India) and Australia were ranked as top  
452 50 by ENR in 2013.  
453 c. The numbers in the brackets are the numbers of ICCs from that country/region.  
454

455 To further examine the impact of country-specific differences on the extent of CSR reports, the  
456 companies have been arranged into four groups according to different regions divided by ENR:  
457 (1) Europe; (2) Asia and Australia; (3) the USA; and (4) Latin America (Brazil). Fig. 3 illustrates  
458 the annual CSR disclosure levels by the different regions, and Figs. 4, 5, and 6 illustrates the  
459 levels at individual company level. European ICCs all have high levels of CSR disclosure, which  
460 they have maintained over the past five years. Through this disclosure, they are seemingly more  
461 willing to interact with society, making themselves more ‘caring’ companies. ACS and Abeinsa

462 from Spain, and Balfour Beatty from the UK are the three top ICCs which possess highest CSR  
 463 disclosures levels. Asian and Brazilian ICCs are catching up and increasing their CSR disclosure  
 464 levels to an extent that is similar to developed world ICCs. Larsen from India, Kajima from Japan,  
 465 and CREC from China are the three top Asian ICCs having high CSR disclosure levels. With  
 466 globalization, and in view of the heightening concerns surrounding the international construction  
 467 business, ICCs from non-Western countries have joined the CSR cause. For example, Chinese  
 468 ICCs, irrespective of the fact that they are emerging as amongst the strongest contenders in the  
 469 global construction market (Lu et al. 2009; Low and Jiang 2003), have made significant strides  
 470 in reporting CSR since 2010. Partly, this is due to pressure from the Chinese government to make  
 471 their State Owned Enterprises more socially responsible, and partly a recognition that socially  
 472 responsible investment influences the share price of a business, although the structure of the  
 473 Chinese capital market poses serious questions for the SRI development in China. Chinese  
 474 investors have not yet developed an appetite for SRI. The Chinese securities market has been  
 475 famous for excessive speculation. Indigenous Chinese investors are obsessed with short-term  
 476 profits, rather than long-term investment (Lin 2010). In the face of the criticism, for example,  
 477 the US Secretary of State Hillary Clinton warning of a creeping “new colonialism” in Africa  
 478 (Lee 2011), Chinese ICCs have started to publish CSR reports in English. Strangely, the large  
 479 group of American ICCs seems to publish CSR reports only on an *ad hoc* basis. Only Flour and  
 480 Bechtel disclose their CSR performance regularly (See Fig. 6).



481 **Fig. 3 CSR disclosure levels per annum by ICCs from different regions (2008-2012)**

482  
483

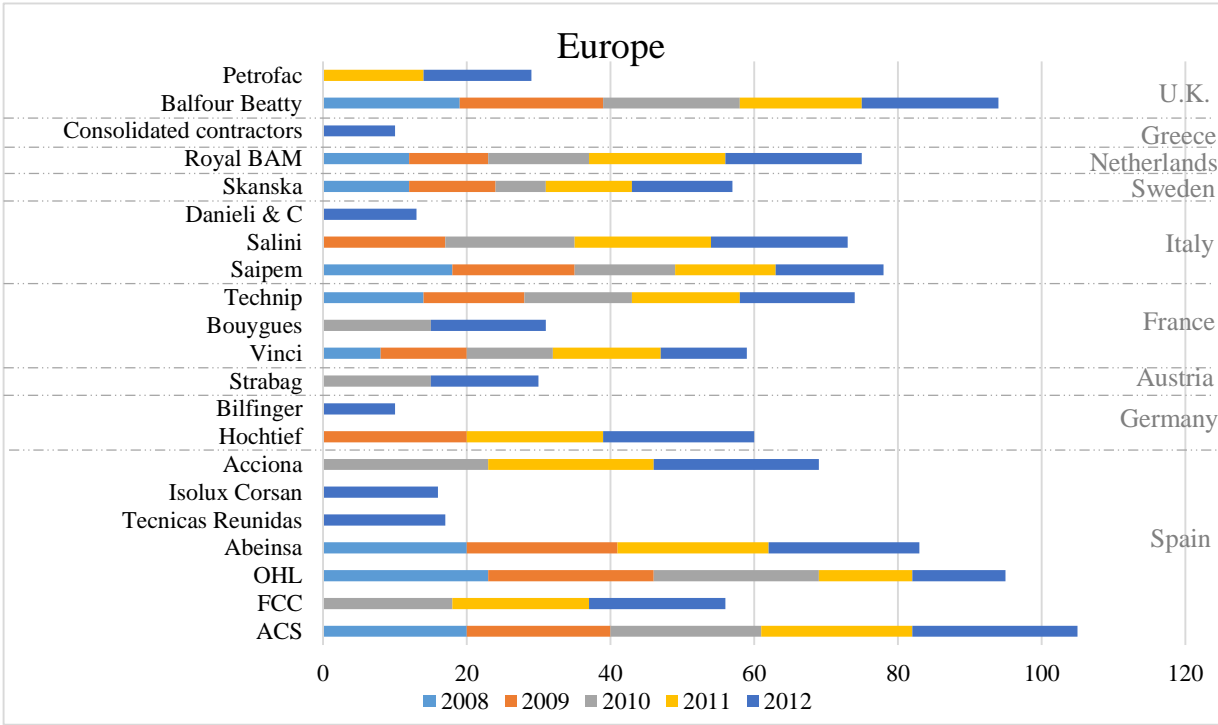


Fig. 4. CSR disclosure levels per annum by European ICCs (2008-2012)

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485

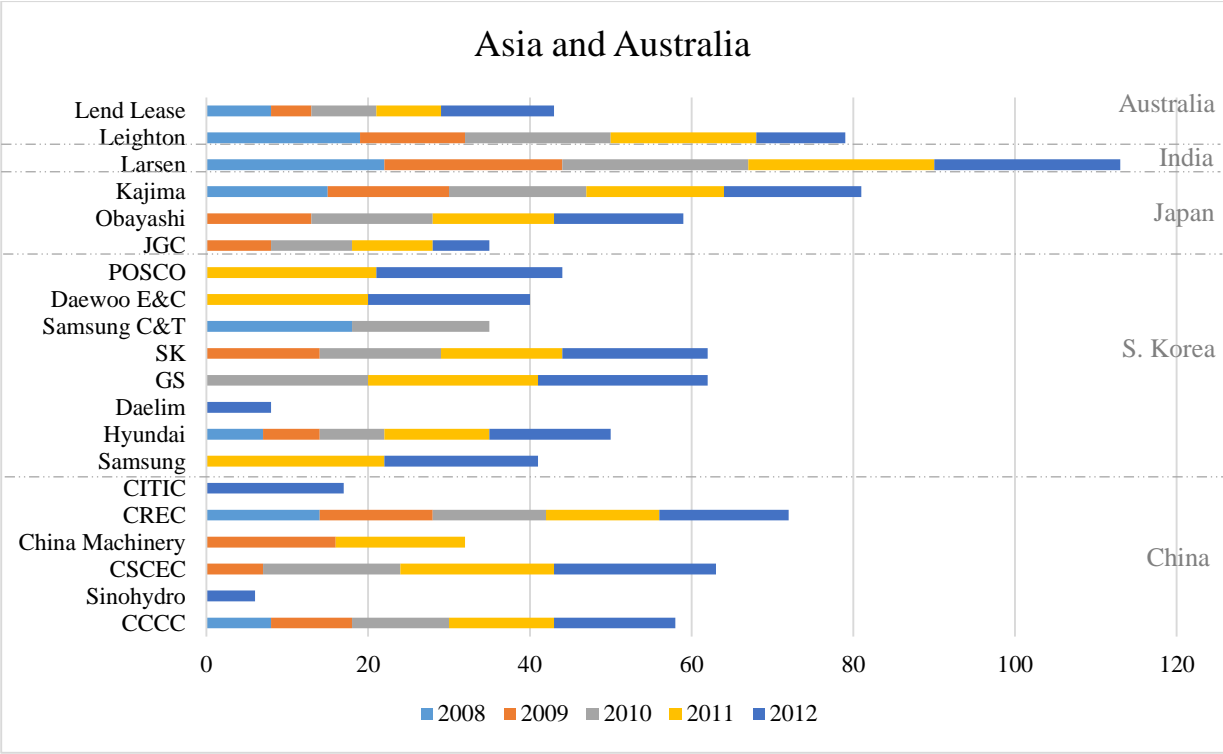
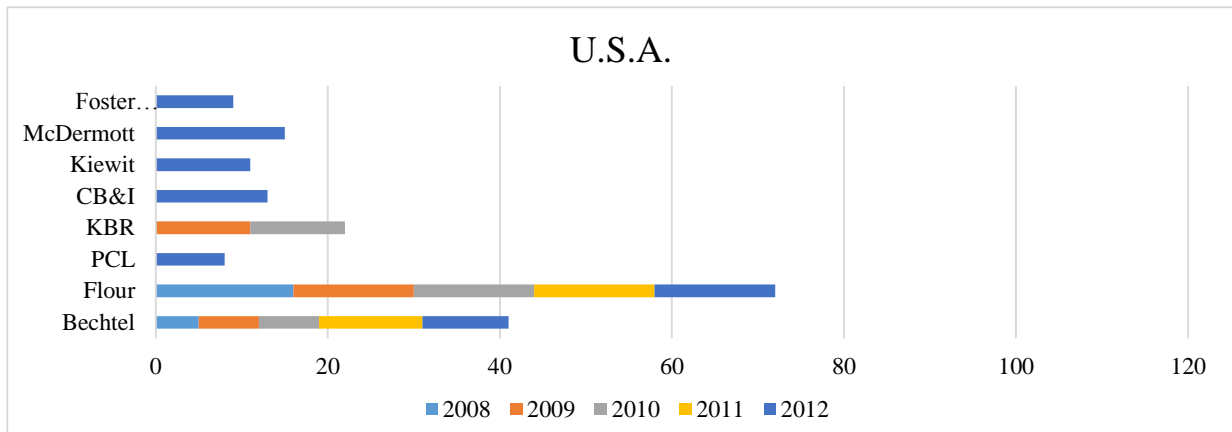


Fig. 5. CSR disclosure levels per annum by all Asian and Australian ICCs (2008-2012)

486  
487  
488  
489  
490



491 **Fig. 6. CSR disclosure levels per annum by US ICCs (2008–2012)**

492

493 **Q3: Are there more ICCs reporting their CSR performance in accordance with the GRI**  
 494 **reporting guidelines and using third-party assurance to enhance the credibility of the disclosed**  
 495 **information?**

496 Table 8 shows that ICCs are increasingly reporting their CSR strategies and performance in  
 497 accordance with the GRI Sustainability Reporting Guidelines. Usually, companies state  
 498 explicitly their compliance with GRI guidelines in their reports, e.g. “the ACS Group’s Corporate  
 499 Responsibility Report is prepared according to the GRI’s A+ standard and is verified annually”.  
 500 The reports published in 2012 largely follow the G3.1 Guidelines. Some companies (e.g.  
 501 Hochtief AG) have followed the CRESS recently published by the GRI. Standardization of CSR  
 502 reporting is seen as particularly necessary by the GRI, which aims to develop a reporting system  
 503 framework to provide metrics and methods for measuring and reporting sustainability-related  
 504 impacts and performance. The emergence of the guidelines provides a useful tool for ICCs to  
 505 organize the contents of their CSR reporting. By providing the indicative aspects of CSR  
 506 reporting, they can even impact the CSR strategies a company may adopt, although currently  
 507 there is no evidence to support this assumption. While it is observed that ICCs’ CSR disclosures  
 508 are converging to the GRI and its guidelines, it is found out that companies also frequently  
 509 reported their own CSR commitment in aspects such as work-life balance, and information  
 510 transparency, which have not been clearly included in the guidelines. In part, this is because CSR  
 511 is not specifically embodied in company law, although there is a requirement for disclosure of  
 512 certain CSR activities, hence ICC disclosure is based on company priorities. There has been  
 513 debate about the inclusion of CSR in company law as it would help to clarify the purposes of a  
 514 company: profit-making and social responsibility. However, a different viewpoint is that the  
 515 inclusion of CSR in company law would endanger the for-profit nature of corporations.

516 **Table 8. The numbers of total CSR reports, those following the GRI standard, and those**  
 517 **using third-party assurance**

	2008	2009	2010	2011	2012
<b>Total No. of reports</b>	20	25	30	33	47
<b>No. of reports in accordance with the GRI reporting guidelines</b>	14	19	21	24	27
<b>No. of reports using third-party assurance</b>	6	7	10	12	13

518  
 519 Another interesting finding is that the ICCs are increasingly including third-party assurance in  
 520 their CSR reports to enhance the credibility of the disclosed information. GRI external assurance  
 521 normally assesses a report in terms of its application levels, and does not provide an opinion on  
 522 the sustainability performance of the reporter nor the quality of the information in the report. For  
 523 example, the ACS Group used KPMG to perform a limited assurance review on the non-financial  
 524 information contained in its CSR reports. While it has been common practice for financial  
 525 information to be verified through internal and external audits by an independent auditor,  
 526 verification of CSR information is relatively new in the international construction business. This  
 527 resonates with Jenkins and Yakovleva's (2006) finding that there has been a gradual increase in  
 528 levels of assurance in the mining industry, but even where assurance exists, it usually audits  
 529 quantifiable environmental and health and safety indicators, while avoiding the more complex  
 530 qualitative social measures.

531  
 532 ***Q4: What are the idiosyncrasies in CSR reporting impacted by cultural and institutional***  
 533 ***difference?***

534 The pattern of performance indicators is further examined by linking it to ICCs'  
 535 cultural/institutional profiles. Interesting research findings are discovered. As can be seen from  
 536 Table 9, Japanese ICCs particularly emphasize the importance of 'work-life balance' (LA4) in  
 537 their CSR disclosure. Obayashi prefers to promote work-life balance by reducing overall work  
 538 time, acquiring a certification from the Japanese government and promoting the healthy minds  
 539 and bodies of employees and their families. This is attributable to the profound influence of  
 540 Confucianism. Lu et al. (2009) reported that Confucianism shaped the foundation of social values,  
 541 which admire loyalty, obedience, hardworking, modesty, and so on, in not only China but also  
 542 other East Asian countries. Under this culture background, hardworking is widely accepted as  
 543 the norm across a swathe of business sectors, particularly in construction. The hardworking



544 culture, however, has evolved into a certain stage that ‘work-life balance’ should be upheld.  
545 Interestingly, ‘work-life balance’ has not frequently mentioned by Chinese or Korean ICCs (see  
546 Table 9). The temptation is to further examine it by connecting it to the construction productivity  
547 in different countries. Similarly, within Europe, a Greek registered company will have different  
548 values to a Swedish company. ‘Code of conducts/ethics’ (SO2) is most frequently reported by  
549 ICCs from Western European countries such as UK, Germany, Spain, and Italy. All the seven  
550 Spanish companies, the three Italian companies, and the two UK companies disclosed the ‘Code  
551 of conduct/ethics’ in the investigated years. It is generally considered that these countries have a  
552 relatively high ethical standard as a guide for the professional practices especially in ethical,  
553 social and environmental matters. The standard must not be lessened when they conduct  
554 construction business in host countries. A characteristic of ICCs is that they are domiciled and  
555 registered in their home country with a regulatory and social framework that must be complied  
556 with, they are also working in countries with very different regulatory and social requirements.  
557 When they publish CSR reports, their audience is the shareholders, customers, and society in  
558 their home domicile, and customers and society in the other countries in which they operate.  
559 Contrasting operational standards of the USA with Indonesia are very different, yet cannot be  
560 ignored. ‘Market presence’ (EI2), which includes procedures for local hiring for all direct  
561 employees from contractors and sub-contractors (CRESS 2014), is also an indicator that is  
562 particularly disclosed by EU countries’ ICCs. They are strong in construction ‘know-how’ and  
563 do not have a large group of directly hired workers. They also source their construction materials  
564 and machinery on a global scale. These provide an opportunity for the ICCs to achieve CSR  
565 excellence throughout their global logistics and supply chain. Notably, for unknown reason, the  
566 American ICCs are not particularly remarkable in disclosing their commitment in either ‘Code  
567 of conduct/ethics’ or ‘Market presence’.

568

569 **Table 9. Analyses of unique CSR disclosure by countries/regions**

<b>Indicator</b>	<b>Countries/Regions</b>	<b>No. of Companies<sup>a</sup></b>	<b>No. of Reports<sup>a</sup></b>	<b>Disclosure Levels<sup>a</sup></b>	<b>Proportion</b>
<b>LA4 Work-life balance</b>	Japan	3	13	12	92.31%
	China	6	18	7	38.89%
	S. Korea	8	21	8	38.10%
<b>SO2 Code of Conduct/Ethics</b>	Europe <sup>b</sup>	15	49	47	95.92%
	U.S.A.	9	20	14	70.00%
<b>EI2 Market Presence</b>	Europe <sup>b</sup>	15	49	46	93.88%
	U.S.A.	9	20	14	70.00%

- 570 a. Number of companies, Number of Reports and Disclosure Levels include the data of 5 years from  
571 2008 to 2012 inclusive;  
572 b. Four countries' companies (Spain, France, Italy, and UK) are included in the group of "Europe".  
573

574 Other interesting idiosyncrasies in CSR reporting impacted by cultural and institutional  
575 difference have been discovered. For example, the oxymoron of CSR might be doubled when it  
576 comes to China, as CSR is perceived as volunteering in many cultures while in China assuming  
577 CSR is regulated by Article 5 in its Company Law revised in 2005. In the UK, anti-corruption  
578 actions are particularly promoted. Balfour Beatty is the corporate supporter of TI, the Institute  
579 of Business Ethics and the UK Anti-Corruption Forum by working with all three organizations  
580 to help develop and share best practice and promote the objectives. One notable trend is that  
581 ICCs would not adopt 'one-size-fit-all' CSR strategies; rather, they devise tailor-made CSR  
582 strategies to possibly shorten the cultural/institutional distance between home and host countries.  
583 Differences in philanthropical activities result mainly from the differences in the regions in which  
584 ICCs operate and the prevailing social welfare policies and cultural norms of the regions. Usually,  
585 ICCs aim to gear the social commitment toward the needs of the society. For example, Hochtief  
586 Asia Pacific is highly involved in working for the rights of Indigenous Australians; its Americas  
587 division undertakes a variety of measures to help ethnic minorities and the Europe division  
588 supports talented young people from a migrant background. There are other examples that ICCs  
589 would have different CSR strategies due to different culture of host countries. Balfour Beatty,  
590 for example, is a lead sponsor for the London Youth Games, which works with some of the most  
591 disadvantaged young people in London, while in Philadelphia, they have been funding a  
592 mathematics programme for children of destitute families to help them keep pace with more  
593 fortunate social groups in the race for high school and college places; in South Africa, they give  
594 financial and practical support to the Compass Care Centre in Edenvale which provides food and  
595 shelter to poor, homeless, and unemployed mothers and their children. CSR, in a sense, has been  
596 employed by ICCs as a 'soft power' when undertaking their international construction business.  
597 ICCs adopt CSR strategies that are mostly desired by host countries in line with their cultural  
598 and institutional difference.

599

600 ***Q5: What are the possible prospects of CSR disclosures by ICCs?***

601 Based on the above analyses of the trends of CSR disclosures, it can be reasonably expected that  
602 the number of companies disclosing their CSR performance using CSR/SD reports will increase  
603 in the future. ICCs from developed countries will continue to maintain a high level of CSR

604 disclosure. The average disclosure level of Asian and Australian ICCs shows a dramatic rise in  
605 the past years to an extent that is similar to Europe's ICCs. In line with the trend that ICCs from  
606 developing countries increasingly become an emerging force in built environment provision in  
607 the international arena, they will also join in this CSR cause, either self-consciously or forcedly  
608 by external pressure. This echoes with Porter and Kramer (2006) that CSR has emerged as "an  
609 inescapable priority for business leaders in every country". ICCs view CSR reporting an effective  
610 way of interacting with society and influencing external perceptions of their organizations. The  
611 idea that all organizations should realize and discharge their social responsibility for sustainable  
612 development of society, a concept demonstrated by ISO 26000, has spread around the world.

613  
614 Theorists suggested that there is a 'social contract' between companies and society, bound by  
615 which companies agree to perform various socially desired actions in return for societal approval  
616 of their objectives and other rewards. Whilst the 'social contract' is gradually accepted as the  
617 rationale behind CSR disclosure, ICCs are still struggling with what should be entailed in it. This  
618 is further exacerbated by the absence of a single and agreed definition of CSR. Increasingly,  
619 ICCs adopt the GRI as the guidelines of their CSR disclosure and this is expected to be the  
620 prospect in the future. Although standardization of CSR disclosure is advocated, diversity of  
621 CSR disclosure contents will continue and should be allowed. The diversity lies in the cultural  
622 and institutional distance between the home and host countries, a particular issue that ICCs must  
623 deal with when they undertake the international construction business by using CSR as a 'soft  
624 power'. There are some items that have been frequently disclosed by ICCs but have not been  
625 included in CRESS. It would be a reasonable move for the GRI to expand their guideline to  
626 include the items in the future.

627  
628 Third-party assurance is expected to continue in ICCs' CSR reporting to enhance the credibility  
629 of the disclosed information. Nevertheless, verification of CSR information, which is largely  
630 non-financial in nature, will remain as a challenge in CSR reporting in the international  
631 construction business. How to quantify and report CSR information consistently to allow society  
632 to monitor it longitudinally is a challenge to not only the third-party auditors, but also the ICCs  
633 which perceive CSR reporting as an effective way of communication. This was also echoed by  
634 McKinsey (2011) that the challenge for CSR reporting is the measurement of tangible outcomes  
635 and explaining the integration of external engagement.

636

637 **Conclusions**

638 This research explored the trends and prospects of CSR disclosure in the international  
639 construction businesses. Analysis of the CSR/sustainability reports over a period of five years  
640 (2008-2012) of the 50 top international construction companies (ICCs) ranked by *Engineering*  
641 *News-Record* showed that there is increasing CSR disclosure. ICCs are enriching the contents of  
642 their CSR disclosure reports, viewing this an effective way of interacting with society and  
643 influencing external perceptions of their organizations. ‘Emissions, effluents and waste’,  
644 ‘Community’, and ‘Occupational health and safety’, are the three most frequently reported CSR  
645 indicators. This largely confirmed legitimacy theory and stakeholder theory, which imply that  
646 higher levels of CSR disclosure occur concurrently with increased focus on the potential  
647 problems a company may cause, or increased threat of litigation or fines. Nevertheless, there  
648 have been fewer disclosures in sensitive aspects such as anti-corruption, anti-competitive  
649 behavior, and intra-corporate information transparency. These are the aspects that ICCs can  
650 perform better and should have more disclosure.

651  
652 This research further discovered that ICCs from the more economically developed countries  
653 maintain a high level of CSR disclosure, while ICCs from the less economically developed  
654 countries are beginning to adopt this practice. Emerging from the both sides of the Atlantic, CSR  
655 has travelled to the world with the internationalization of construction business; so have CSR  
656 disclosure practices. The research found that ICCs increasingly report their CSR strategies in  
657 accordance with the GRI reporting guidelines, although there is no way to identify whether this  
658 compliance is effective or not. Increasingly, ICCs are using third-party auditors in their CSR  
659 reports to ensure the credibility of the disclosed information. While CSR disclosures by ICCs  
660 present a higher degree of uniformity, they also show nuanced and intriguing diversity in their  
661 CSR reporting. ICCs from EU highlighted their compliance of code of conducts/ethics, and their  
662 ‘Market presence’ which means achieve CSR excellence throughout their global logistics and  
663 supply chain of construction business resources. East Asian ICCs are promoting work-life  
664 balance while inherently they uphold a merit of ‘hard working’ in their value system.

665  
666 By providing an international and paradoxical lens through which CSR issues can be investigated,  
667 the research contributes to the relevant body of knowledge by helping confirm or refute various  
668 theoretical perspectives on CSR disclosure in international construction. The insights offered by  
669 this research will allow ICCs to consider the contents that a CSR disclosure report should include.

670 For scholars interested in CSR, the approaches used to measure the extent and levels of disclosure  
671 are useful references. The limitations to this paper are: firstly, the analysis was based solely on  
672 one type of communication – CSR reports published on websites. Some CSR reports could not  
673 be found despite our best efforts. Secondly, the longitudinal study’s five-year time frame may  
674 not be long enough for the emergence of meaningful trends. Third, the CSR reporting practices  
675 of only the top 50 large ICCs might not be representative of the international construction  
676 business in general, because smaller international companies have not been included in the study.  
677

## 678 **Acknowledgement**

679 The work is supported by the Hong Kong Research Grants Council (RGC) General Research  
680 Fund (GRF) (Project No.: HKU 749312B).  
681

## 682 **References**

- 683 Argenti, P.A. (2004). “Collaborating with Activists: How Starbucks works with NGOs”.  
684 *California Management Review*, 47(1), 91-116.
- 685 Bae, J.H., and Salomon, R.M. (2010). “Institutional distance in international business  
686 research”. *Advances in International Management: The Past, Present and Future of*  
687 *International Business and Management*, Vol. 23, Devinney *et al.*, eds., New York, NY:  
688 Emerald, 2010.
- 689 Brown, N., and Deegan, C. (1998). “The public disclosure of environmental performance  
690 information—a dual test of media agenda setting theory and legitimacy theory”. *Accounting*  
691 *and Business Research*, 29(1), 21-41.
- 692 Bowen, P., Akintola, A., Rober, P., and Edwards, P. (2007), “Ethical behavior in the South  
693 African Construction industry”. *Construction Management and Economics*, 25, 631-664.
- 694 Burden, J., and Roodt, G. (2007). “Grounded theory and its application in a recent study on  
695 organisational redesign: some reflections and guidelines”. *SA Journal of Human Resource*  
696 *Management*, 5(3), 11-18.
- 697 Campbell, D.J. (2000). “Legitimacy theory or managerial reality construction? Corporate social  
698 disclosure in Marks and Spencer Plc corporate reports, 1969–1997”. *Accounting Forum*,  
699 24(1), 80-100.
- 700 Carroll, A.B., and Shabana, K.M. (2010). “The business case for corporate social responsibility:  
701 a review of concepts, research and practice”. *International Journal of Management Reviews*,  
702 12(1), 85-105.

703 Chiu, I.H. (2010). "Standardization in corporate social responsibility reporting and a universalist  
704 concept of CSR—a path paved with good intentions". *Florida Journal of International Law*,  
705 22, 361.

706 Cho, C.H., and Patten, D.M. (2007). "The role of environmental disclosures as tools of  
707 legitimacy: A research note". *Accounting, Organizations and Society*, 32(7), 639-647.

708 Cuganesan, S., Guthrie, J., and Ward, L. (2010). "Examining CSR disclosure strategies within  
709 the Australian food and beverage industry". *Accounting Forum*, 34, 169-183.

710 Dahlsrud, A. (2008). "How corporate social responsibility is defined: an analysis of 37  
711 definitions". *Corporate Social Responsibility and Environmental Management*, 15(1), 1-13.

712 Deegan, C. (2002). "Introduction: the legitimizing effect of social and environmental  
713 disclosures—a theoretical foundation". *Accounting, Auditing and Accountability Journal*,  
714 15(3), 282-311.

715 Ebner, D., and Baumgartner, R.J. (2006). "The relationship between sustainable development  
716 and corporate social responsibility". *Corporate Responsibility Research Conference*  
717 (CRRC), Dublin, Ireland.

718 EU Construction Statistics (2014). "The Construction Activity in Europe". *The European*  
719 *Construction Industry Federation*

720 Farook, S., Hassan, M.K., and Lanis, R. (2011). "Determinants of corporate social responsibility  
721 disclosure: The case of Islamic banks". *Journal of Islamic Accounting and Business*  
722 *Research*, 2(2), 114-141.

723 Flanagan, R., and Jewell, C. (2014). "The future is now-Improving Construction Performance,  
724 Productivity, Process, and Profits- the China Perspective". *Keynote speech at the 19th*  
725 *International Symposium on the Advancement of Construction Management and Real Estate*,  
726 Chongqing, China

727 Fox, E. (2000). *Ethics and the Built Environment*. Routledge, Oxon.

728 Freeman, R. E. (1983). "Strategic management: A stakeholder approach". *Advances in Strategic*  
729 *Management*, 1(1), 31-60.

730 Gray, R., Owen, D., and Maunders, K. (1987). *Corporate Social Reporting: Accounting and*  
731 *Accountability*. Prentice-Hall, London.

732 Griffin, J.J., and Mahon, J.F. (1997). "The corporate social performance and corporate financial  
733 performance debate: Twenty-five years of incomparable research". *Business and Society*,  
734 36(1), 5-31.

735 Griffith, A. (2011). "Fulfilling contractors' corporate social responsibilities using standards-  
736 based management systems". *The International Journal of Construction Management*,  
737 11(2), 37-47.

738 Guthrie, J., and Parker, L.D. (1989). "Corporate social reporting: a rebuttal of legitimacy theory".  
739 *Accounting and Business Research*, 19(76), 343-352.

740 Halme, M., and Huse, M. (1997). "The influence of corporate governance, industry and country  
741 factors on environmental reporting". *Scandinavian Journal of Management*, 13(2), 137-157.

742 Herzig, C., and Schaltegger, S. (2006). "Corporate sustainability reporting: an overview".  
743 *Sustainability Accounting and Reporting*, 21, 301-324.

744 Hill, R. C., and Bowen, P. A. (1997). "Sustainable construction: principles and a framework for  
745 attainment". *Construction Management and Economics*, 15(3),

746 Hillman, A.J., and Keim, G.D. (2001). "Shareholder value, stakeholder management, and social  
747 issues: what's the bottom line?" *Strategic Management Journal*, 22(2), 125-139.

748 Hofstede, G. (1984). *Culture's Consequences: International Differences in Work-Related*  
749 *Values (2nd ed.)*. Beverly Hills CA.

750 International Standards Office (2010) *ISO 26000:2010 Social Responsibility*

751 Jenkins, H., and Yakovleva, N. (2006). "Corporate social responsibility in the mining industry:  
752 Exploring trends in social and environmental disclosure". *Journal of Cleaner Production*,  
753 14(3), 271-284.

754 Jones, T., Shan, Y., and Goodrum, P. M. (2010). "An investigation of corporate approaches to  
755 sustainability in the US engineering and construction industry." *Construction Management*  
756 *and Economics*, 28(9), 971-983.

757 Kogut, B., and Singh, H. (1988). "The effect of national culture on the choice of entry mode".  
758 *Journal of International Business Studies*, 19(3), 411-432.

759 Kolk, A., Walhain, S., and Van de Wateringen, S. (2001). "Environmental Reporting by the  
760 Fortune Global 250: Exploring the Influence of Nationality and Sector". *Business Strategy*  
761 *and the Environment*, 10, 15-28.

762 Krippendorff, K. (2012). *Content analysis: An introduction to its methodology*, Sage: London.

763 Lee, M. (2011). *Hillary Clinton Warns Africa Of 'New Colonialism'*. Huffington Post, 11-Jun-  
764 2011.

765 Lin, L.W. (2010). Corporate Social Responsibility in China: Window dressing or structural  
766 change. *Berkeley Journal of International Law*, 28(1), 64-100.

767 Liu, A.M.M., Fellows, R., and Ng, J. (2004), "Surveyors perspectives on ethics in organizational  
768 culture, engineering". *Construction and Architecture management*, 11(6), 438-444.

769 Low, S.P., and Jiang, H.B. (2003). "Internationalization of Chinese construction enterprises". *J.*  
770 *Constr. Eng. Manage.*, 10.1061/(ASCE)0733-9364(2003)129:6(589), 589-598.

771 Lu, W.S., Chau, K.W., Wang, H.D., and Pan, W. (2014). "A decade's debate on the nexus  
772 between corporate social and corporate financial performance: a critical review of empirical  
773 studies 2002 – 2011". *Journal of Cleaner Production*, 79, 195-206.

774 Lu, W.S., and Tam, V.W.Y. (2013). "Construction waste management policies and their  
775 effectiveness in Hong Kong: A longitudinal review". *Renewable and Sustainable Energy*  
776 *Reviews*, 23, 214-223.

777 Lu, W.S., Li, H., Shen, L., and Huang, T. (2009). "Strengths, Weaknesses, Opportunities, and  
778 Threats Analysis of Chinese Construction Companies in the Global Market". *J. Manage.*  
779 *Eng.*, 10.1061/(ASCE)0742-597X(2009)25:4(166), 166-176.

780 Lu, W.S., Liu, A.M.M., Rowlinson, S., and Poon, S.W. (2013). "Sharpening competitive edge  
781 through procurement innovation: Perspectives from Chinese international construction  
782 companies". *J. Constr. Eng. Manage.*, 10.1061/(ASCE)CO.1943-7862.0000614, 347-  
783 351.

784 Lu, W.S., Ye, K.H., Flanagan, R., and Jewell, C. (2013). "Developing Construction Professional  
785 Services in the International Market: SWOT Analysis of China". *J. Manage. Eng.*,  
786 10.1061/(ASCE)ME.1943-5479.0000144, 302-313.

787 Maignan, I., and Ralston, D.A. (2002). "Corporate social responsibility in Europe and the U.S.:  
788 insights from businesses' self-representations". *Journal of International Business Studies*,  
789 33(3), 497–514.

790 Margolis, J.D., and Walsh, J.P. (2001). *People and Profits? the Search for a Link between a*  
791 *Company's Social and Financial Performance*. Lawrence Erlbaum, Mahwah, NJ.

792 Mathews, M.R. (1993). *Socially Responsible Accounting*. Chapman and Hall: London.

793 McKinsey & Company (2011). "The Business of Sustainability: McKinsey global survey  
794 results". *McKinsey Quarterly (October)*.

795 Murray, M., and Dainty, A. (2008). "Corporate Social Responsibility: Challenging the  
796 construction industry, in: Murray M, Dainty A (ed.)" *Corporate Social Responsibility in the*  
797 *Construction Industry*, 23-118. Taylor & Francis.

798 National Bureau of Statistics PRC. (2014). "China Statistical Yearbook 2014 (Chinese-English  
799 Edition)". *China Statistics Press*.



800 Ngowi, A., Pienaar, E., Talukhaba, A., and Mbachu, J. (2005). "The globalisation of the  
801 construction industry—a review". *Building and Environment*, 40(1), 135-141.

802 O'Donovan, G. (2002). "Environmental disclosures in the annual report: extending the  
803 applicability and predictive power of legitimacy theory". *Accounting, Auditing and*  
804 *Accountability Journal*, 15(3), 344-371.

805 Ofori, G. (1993). "Research on construction industry development at the crossroads".  
806 *Construction Management and Economics*, 11(3), 175-185.

807 Orlitzky, M., Schmidt, F.L., and Rynes, S.L. (2003). "Corporate social and financial performance:  
808 A meta-analysis". *Organization Studies*, 24(3), 403-441.

809 Patten, D.M. (1992). "Exposure, legitimacy, and social disclosure". *Journal of Accounting and*  
810 *Public Policy*, 10(4), 297-308.

811 Pearce, D.W. (2003), "Environment and business: socially responsible but privately profitable?  
812 In J. Hirst (ed)". *The Challenge of Change: Fifty Years of Business Economics*, 54-65,  
813 London: Profile Books.

814 Petrovic - Lazarevic, S. (2008). "The development of corporate social responsibility in the  
815 Australian construction industry". *Construction Management and Economics*, 26(2), 93-  
816 101

817 Porter, M.E., and Kramer, M.R. (2006), "Strategy and Society: The Link between Competitive  
818 Advantage and Corporate Social Responsibility". *Harvard Business Review*, Dec 2006, 78-  
819 92.

820 Renneboog, L., Ter Horst, J., and Zhang, C. (2008). "Socially responsible investments:  
821 Institutional aspects, performance, and investor behavior". *Journal of Banking and Finance*,  
822 32(9), 1723-1742.

823 Roberts, R.W. (1992). "Determinants of corporate social responsibility disclosure: an application  
824 of stakeholder theory". *Accounting, Organizations and Society*, 17(6), 595-612.

825 Roca, L.C., and Searcy, C. (2012). "An analysis of indicators disclosed in corporate sustainability  
826 reports". *Journal of Cleaner Production*, 20(1), 103-118.

827 Rode, P., Burdett, R., and Gonçalves, J.C.S. (2011). *Buildings: investing in energy and resource*  
828 *efficiency*. United Nations Environment Programme.

829 Stemler, S. (2001). "An overview of content analysis". *Practical Assessment, Research and*  
830 *Evaluation*, 7(17), 137-146.

831 Tjihuis, W., and Fellows, R. (2011). *Culture in International Construction*. Spon Press, London.

832 Transparency International (2008). "Bribe payers index 2008." <[http://](http://archive.transparency.org/policy_research/surveys_indices/bpi/bpi_2008)  
833 [archive.transparency.org/policy\\_research/surveys\\_indices/bpi/bpi\\_2008](http://archive.transparency.org/policy_research/surveys_indices/bpi/bpi_2008)> (Aug. 3, 2014).

834 Tulacz, G.J. (2013). "The top 250 international contractors 2013". *Engineering News Record*,  
835 21-Aug-2013.

836 UN Global Compact (2013). "Global Compact International Yearbook, 2013". <[http://csr-](http://csr-manager.org/yearbook-2013/)  
837 [manager.org/yearbook-2013/](http://csr-manager.org/yearbook-2013/)>

838 US Bureau of Labor Statistics (2014). "Current Employment Statistics Highlights: Detailed  
839 Industry Employment Analysis" *Washington, DC: Staff of the National Estimates Branch*.

840 Van Beurden, P., and Gössling, T. (2008). "The worth of values—a literature review on the  
841 relation between corporate social and financial performance". *Journal of Business Ethics*,  
842 82(2), 407-424.

843 Waller, D.S., and Lanis, R. (2009). "Corporate social responsibility (CSR) disclosure of  
844 advertising agencies: an exploratory analysis of six holding companies' annual reports".  
845 *Journal of Advertising*, 38(1), 109-122.

846 Willis, A. (2003). "The role of the global reporting initiative's sustainability reporting guidelines  
847 in the social screening of investments". *Journal of Business Ethics*, 43(3), 233-237.

848 Wilmshurst, T.D., and Frost, G.R. (2000). "Corporate environmental reporting: a test of  
849 legitimacy theory". *Accounting, Auditing and Accountability Journal*, 13(1), 10-26.

850 Windsor, D. (2001). "The future of corporate social responsibility". *International Journal of*  
851 *Organizational Analysis*, 9(3), 225-256.

852 Yongvanich, K., and Guthrie, J. (2005). "Extended performance reporting: an examination of the  
853 Australian mining industry". *Accounting Forum*, 29 (1), 103-119.

854 Zhao, Z.Y., Zhao, X.J., Davidson, K., and Zuo, J. (2012). "A corporate social responsibility  
855 indicator system for construction enterprises". *Journal of Cleaner Production*, 29/30, 277-  
856 289.