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Sustainability reporting in construction contractors: a case study

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ABSTRACT

Construction activities have significant impacts on the environment, economy and society. As a result, sustainability has become an agenda in construction related business. This is evidenced by an increasingly number of construction related companies adopting sustainability reporting practice. Construction contractors are no exception. This study aims to investigate the sustainability reporting practices adopted by top Chinese contractors active in the international arena. The focus is placed on those Chinese contractors ranked top 50 by the Engineering News Record (ENR) top 225 international contractors. The results showed that the sustainability reporting practices of these top Chinese contractors, in terms of both approaches and the depth, varied significantly however there is a clear trend of growing level of disclosure of sustainability related information. Similarly, environmental sustainability seems the predominate focus of sustainability reporting exercises of top international contractors from China. These findings help to assist senior management of construction contractors to form business strategies to facilitate disclosure and other sustainability related practices.

Keyword: Sustainability reporting, China, contractors

Introduction

It is well recognized that the construction activities have significant environmental, social and economic impacts. These impacts are two-folded. The positive impacts include the contributions toward the national and local economy; employment opportunities; and providing various types of facilities to fulfil human beings' requirements (Giang & Sui Pheng 2011; Ortiz et al. 2009). On the other hand, the negative impacts of construction activities have attracted growing public concerns. These impacts include: construction and demolition waste, carbon emissions, and disturbance to the local community (e.g. noise, dust, traffic congestion) (Sev 2009; Yuan 2013). From a life cycle perspective, buildings, as end product of construction activities, continue to consume energy and emit greenhouse gas (Gustavsson

et al. 2010). As a result, there is a growing number of construction related companies pay attention to sustainability and incorporate its principles into their activities. Of these practices, the disclosure of sustainability commitments and performance emerges. This is a response of construction companies to pressing demands on sustainability following leading practices of large companies worldwide. A KPMG survey found that 80% of the largest 250 companies released sustainability reports in 2008 which is a significant grow compared to the level in 2005 (KPMG 2008). An analysis of sustainability practice of the Global Fortune 250 companies showed that other issues than financial have been paid more attention such as environment, employee welfare, health and safety, engagement of community, and workplace diversity (Kolk 2003). Indeed, the integrated reporting practice has been called upon following the extensive debate of what a sustainability report should cover (Eccles & Krzus 2010).

Sustainability reporting is defined by the World Business Council for Sustainable Development (WBCSD) as: "...public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions" (WBCSD 2003, p.7). Leading sustainability disclosure initiatives include: Global Reporting Initiatives, Dow Jones Sustainability Index, and the UN Global Impact.

The sustainability reporting practice is mainly driven by perceived benefits such as the long term success of the business due to improved communication between stakeholders (Bos-Brouwers 2010). Other drivers include a variety issues related to the regulatory, political, social and ethical (Vormedal & Ruud 2009). The quality of sustainability disclosure is heavily influenced by the senior management (Price et al. 2011).

However, construction industry falls behind to other sectors in terms of sustainability reporting practice (Glass 2012). The aim of this research is to examine the sustainability reporting practice adopted by Chinese contractors that are active in the international arena. A qualitative approach is adopted to satisfy this research aim.

Research methodology

This research adopted a similar approach of Zuo et al. (2012)'s study. The Top 225 International Contractors list is published by the Engineering News Record (ENR) every year. This data set has been used in a number of studies (e.g. Lu et al. 2009; Zhao et al. 2009; Li et al. 2013; Ye et al. 2013).

52 Chinese contractors were listed in the ENR Top 225 International Contractors 2012. This study placed focus on those ranked into top 50. As shown in Table 1, there are 9 Chinese contractors falling into this category with total revenue of more than US 36.6 billion in 2011. This is, nevertheless, just over the revenue of top ranked international contractors, i.e. HOCHTIEF AG (Germany). A content analysis approach was utilized in a bid to highlight the common practices adopted by these companies in terms of disclosure of their sustainability commitments.

Table 1 Chinese contractors listed by ENR

Rank		Company	2011 Revenue (US\$ million)
2012	2011		
10	11	China Communications Construction Group	9,546.9
22	20	China State Construction Eng'g Corp.	4,509.6
23	24	Sinohydro Group	4,399.6
24	26	China National Machinery Industry Corp.	4,307.4
30	29	China Railway Construction Corp.	3,782.0
39	33	China Railway Group	2,826.9
42	61	China Metallurgical Group Corp.	2,623.3
46	32	CITIC Construction Co.	2,417.2
48	27	China Petroleum Engineering & Construction Corp.	2,230.8

Similar to Zuo et al. (2012), the research questions of this study are:

1. The approaches adopted by these companies to disclose their commitments toward sustainable development;
2. The depth and coverage of these practices; and
3. The compliance of these practices to leading sustainability initiatives such as the Global Reporting Initiatives, Dow Jones Sustainability Index, and the UN Global Impact.

It should be noted that the data related to sustainability reporting practices of these companies were collected between April and May 2013. Any data available beyond this time frame were not considered in this study. Similarly, these firms provide both English and Chinese versions of their website. A preliminary analysis found that the Chinese version website contains much more comprehensive information than the English version. Therefore, the Chinese version websites were sought for sustainability reporting related information.

Findings

Online disclosure

Vast majority of these top Chinese international contractors have dedicated website to disclose their sustainability practice. These websites were given different titles such as: sustainability, sustainable development, corporate sustainability, CSR, and social responsibility. The common topics of these online disclosures include: governance, philanthropy, environment, employee welfare, and local community. However, the coverage and depth of information provided varied significantly. For instance, the China State Construction Corporation has a wide coverage of sustainability topics on its website such as green building, society, staff development, quality, health and safety where case studies were

provided as exemplars. By contrast, the China National Machinery Industry Corporation and China Railway Group have a specific focus on CSR in terms of online disclosure. The China Communications Construction Group, the top ranked Chinese international contractor, regards the Corporate Social Responsibility as critical component of its corporate culture. China Petroleum Engineering & Construction Corporation placed social responsibility into safety and environmental protection field of interest.

The sustainability related principles were embedded into the business vision. For instance, the China National Machinery Industry Corporation's CSR vision is (CNMIC 2013):

“...Put the people first, safeguard the rights and interests of the employees and build up the channel of the growth so that the employees can work and live in a harmonious and safe and productive environment and enjoy the development results of the enterprise.

...Adhering to the strong sense of the environmental protection, efforts should be made to bring the environmental responsibility into merge with our own operational activities and fully utilize the R&D strength so that contributions can be made to the sustainable development of the nature and the human society with green technologies, green products, green designs and green engineering projects.

...With benevolent loving cares, warm helping hands should be extended for the public charity affairs so as to serve the construction of a harmonious society.”

As shown in Fig.1, China State Construction Corporation has set up a committee dedicated for social responsibility which is in charge of developing, implementing and auditing of related company policies and management regulations. The members of this committee are the Board Chairman, General managers, and Head of divisions and functional departments.

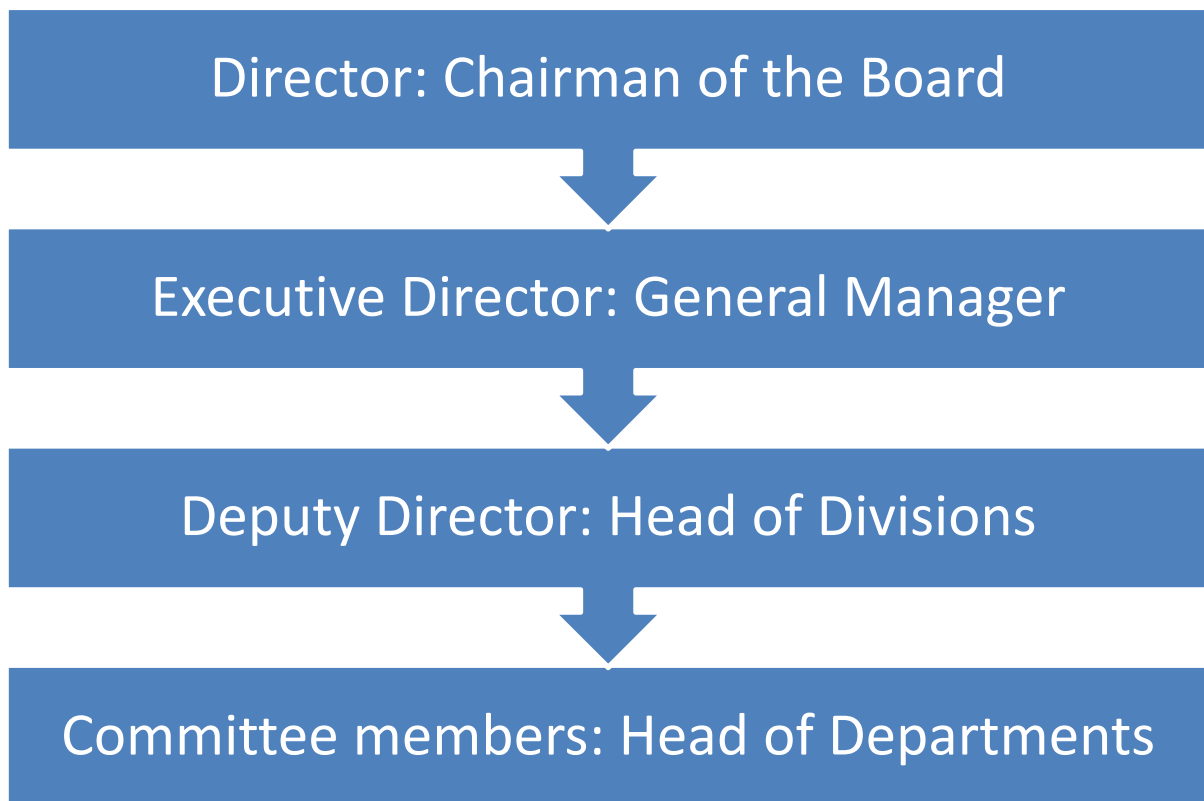


Fig.1 Corporate sustainability governance in China State Construction Corporation

Sustainability reporting

All these top Chinese international contractors publish standalone sustainability reports on a regular basis, normally every year. The only exception is the China Petroleum Engineering & Construction Corporation, which has its sustainability information as part of CSR report of its parent company, China National Petroleum Corporation.

One of key components of these sustainability reports is the identification of related stakeholders. For instance, the 2011 CSR Report of China State Construction Corporation listed the following stakeholders: employees, government, strategic partners, supply chain, shareholders, customers, financial institutions, community and public. These stakeholders sit in the centre of all responsibilities of the corporation (see Fig. 2). Effective communication with all stakeholders is required.



Fig.2 Sustainability principles adopted by China State Construction Corporation

Another key component is the sustainability performance of the firm. In its 2011 CSR Report, China National Machinery Industry Corporation provided the following performance data: revenue and profit, taxation, energy consumption per unit of output, COD emission, SO₂ emission, number of employees, number of safety accidents, investment on safety, and donation. These performance criteria are shared with other top Chinese international contractors.

The strategic goal of the corporation is also a common item of sustainability report. For example, China State Construction Corporation defines its strategic goal as (CSCC 2012, p.5):

“One Most: most international competitive building real estate enterprise integration group

Two Entries: by 2015, aiming to enter the top fifth of the Top 500 Global Enterprises, and one of the world’s three strongest construction and real estate groups”

It is interesting to note that majority of these top Chinese international contractors specifically listed the evaluation outcomes released by third party as part of their sustainability report. Very detailed case studies were also provided to show the sustainability commitments and performance of the corporation.

Global Reporting Initiatives (GRI) compliance

The examination of Sustainability Disclosure Database of the Global Reporting Initiatives showed that, by the time of this study, 55.6% of top Chinese international contractors have their sustainability reports endorsed by the GRI. It is worth noting this percentage is much higher than that of ENR top 50 international contractors 2009 (see Zuo et al. 2012). Table 2 shows that a trend that Chinese international contractors with higher ENR ranking pursuit external certification of their sustainability reports. For instance, China State Construction Engineering Corporation's sustainability report has been included in the GRI list by 2011. Dongfang Electric Corporation has its Social Responsibility Report endorsed by GRI since 2009.

Table 2 GRI endorsement of sustainability reports

ENR ranking	Number of Chinese international contractors with GRI endorsement
1 st -30 th	4 (5)*
31 th -50 th	1 (4)

Note: 4 (5) indicates 4 out of 5 companies have their sustainability reports listed by GRI

Dow Jones Sustainability Index

According to the Sustainability Yearbook recently released by RobecoSAM AG, none of top Chinese international contractors were listed in the Dow Jones Sustainability Index in 2012 (RobecoSAM AG 2013). By contrast, the top two ranked ENR international contractors, HOCHTIEF AG and Grupo ACS were identified as sustainability leaders in the heavy construction industry which covers the delivery of infrastructure, commercial and residential buildings.

UN Global Impact

There are only two top Chinese international contractors that participated into the UN Global Impact initiative. China National Machinery Industry Corporation and China Railway Construction Corporation commenced their participation since 2011 and 2010 respectively. This percentage is much lower than that of top 50 ENR international contractors in 2009. None of Chinese international contractors ranked below 30th have participated into the UN Global Impact initiative.

Conclusions

This study examined the sustainability disclosure practices adopted by top Chinese international contractors that are listed in the ENR top 225 International Contractors. The results showed that these Chinese international contractors are very active on sustainability policy in terms of both online disclosure and releasing sustainability reports regularly. However, only half of these companies' sustainability reports were listed by GRI. None of top Chinese international contractors were listed by Dow Jones Sustainability Index and only 9% of them participated into UN Global Impact. It appears that Chinese international contractors lag behind of their fellow ENR Top International Contractors in terms of having their sustainability disclosure practice scrutinized by the third party with international standings such as GRI and Dow Jones Sustainability Index.

The results also showed that the sustainability reporting practices adopted by top Chinese international contractors varied significantly from one to the other. However, a clear trend emerges which is a growing level of disclosure of sustainability related information. In addition, environmental aspects of sustainability such as energy efficiency and pollution control were placed as the predominate focus in sustainability reports of top international contractors from China. However, social and financial aspects of sustainability have received growing attention, particularly from those with top ranking.

It is worth noting that the disaster relief / aid also featured in sustainability disclosure of top Chinese international contractors. This is arguably due to massive-scale natural disasters occurred in last a few years. Many top Chinese international contractors list it as a key component of corporate sustainability / social responsibility and provide case studies to show how the corporation involved in the disaster recovery process.

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