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DECADE-LONG OPERATIONS OF CHINESE CONSTRUCTION COMPANIES IN AFRICA, 2009-2018

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The potential bandwagon effect of the growing concern on the presence of Chinese construction companies (CCCs) in Africa calls for inter-textual coherence. This study aimed to establish the presence of CCCs in Africa and influence of their firm- and country-specific ownership, location, and internalization (OLI) advantages on their operations in Africa. The scoping review methodology revealed that CCCs have varying presence in the African countries: very compelling in 9, major in 7, moderate in 2, minimal in 9, not compelling in 14, and none in another 14. Using Cohen's kappa interrater reliability, the 74.5% agreement between this study and another on the presence of CCCs in Africa was not significant, which confirmed the bandwagon effect. Mann-Whitney test performed on the data from 22 Chinese managers of CCCs based in Africa revealed no significant difference on the level of influence of the country-specific OLI advantages of the Chinese state-owned enterprises (SOEs) and private-owned enterprises (POEs). There were significant differences between the SOEs and POEs on the firm-specific location and internalization (L&I) advantages. The implications include a paradigm shift from generalizing working relationships for the SOEs and POEs as well as in-depth study of their core L&I advantages.

Keywords: bandwagon, Chinese construction companies, interrater reliability, OLI advantages, scoping review

INTRODUCTION

Compounded by China's population and market size, Chinese construction companies are not immune to the challenges facing other construction companies in their respective domestic markets (Chen, 2006). The challenges also confront and shape the competitiveness of international construction companies working in China (Ling, Ibbs & Cuervo, 2005). These domestic challenges and competition have, on the flip side, honed the competitive skills of the Chinese construction companies (CCCs) (Deng, Liu & Jin, 2013). Domestic competition in China has influenced CCCs venturing overseas (Low & Jiang, 2003) as a portfolio diversification measure for business sustainability. CCCs are backed by the Chinese government go-global policy (Bräutigam & Tang, 2014). CCCs are self-aware of their strategic positioning in the global construction scene (Lu et al., 2009). CCCs

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also enjoy government-backed-demand-driven negotiating advantage for resources (Alves, 2013). The series of supports has culminated in CCCs alike making tremendous inroads into the African countries to the point of perceived dominance (Halper, 2010). As such, Chinese multinationals' and CCCs' entry and operational strategies in Africa dominated intellectual discourse pre-2010 in the wake of China's go-global policy (Chen et al., 2007; Chen & Orr, 2009; Corkin, 2007).

The tide has changed post-2010 since when the discourse has taken a new trajectory to the sustainability of China's burgeoning relationship with Africa. One of the major areas of concern is the underlying reason for the surge in CCCs multi-faceted operations in infrastructure delivery in Africa (Drogendijk & Blomkvist, 2013). Another major concern is the design of immediate measures by the African countries to recover from the trap of China's financial aid for an intervention-free economy and a sustainable infrastructure delivery (Asongu & Aminkeng, 2013). Lastly, the concern has also led to lessons learned (Abodohoui, Su & Da-Silva, 2018). These different perspectives for looking at the multifaceted nature of CCCs' operations in Africa present an opportunity to construct inter-textual rationality for better understanding and prediction of future operations of CCCs in Africa. There are at least 55 unique countries in Africa. State-owned enterprise (SOE) and private-owned enterprise (POE) CCCs also operate differently. The seeming overgeneralization of the presence of CCCs and their operational strategies without any distinction between the SOEs and POEs underscores a lack of significant agreement or coherence as supported by the Coherence Theory (Bonjour, 1975). The absence of a significant agreement and can potentially affect organizational alignment and excellence (Sender, 1997). Premised on this background, the research question addressed in this study is: how significant is the agreement on the presence of CCCs in Africa and the influence of firm-specific and country-specific advantages on the entry and operational strategies of the Chinese SOEs and POEs in Africa? This study aims to establish the level of presence of CCCs in Africa and difference in the level of influence of the advantages of SOE and POE CCCs on their strategies in Africa.

LITERATURE REVIEW

This study's research question mode is configuring inter-textual consistency (Hällgren, 2012, p.806). This is because the discourse on the operations of CCCs in Africa has been characterised by the bandwagon effect or theory (Henshel & Johnston, 1987; Leibenstein, 1950), fuelled by researchers' need to be at par or incongruent. The bandwagon effect accounts for the inconsistency in the entry and operational strategies on Chinese international joint ventures (Xia, J Tan & D Tan, 2008). Quasi scarcity (van Herpen, Pieters & Zeelenberg, 2009) and authority bias (Howard, 2019) that accompany the bandwagon effect are rooted in the quest by the actors involved to create and institutionalize management fashions (Perkmann & Spicer, 2008). The join-in or be-damned motive behind management fashions inspired Abrahamson (1996a) to label management fashions as swings. At the other end of the spectrum, Abrahamson (1996b) defended 'management fashion' as transcending merely spreading and establishing the 'management fashions' to deflating the anomalies contained therein. Consequently, this present study is not to undermine the existing studies on the operations of CCCs in Africa but rather to begin the drive towards inter-textual coherence among the studies. The focus is on

coherence on the level of presence of CCCs in Africa and influence of the firm- and country-specific advantages of the SOEs and POEs on their operations in Africa. The literature review type used is scoping review. Unlike the systematic review, a scoping review is distinguished by its quest to address a wider topic to gauge the quality of the studies reviewed (Peterson et al., 2017). A scoping review is best-suited for an exploratory research question intended to map the key conceptions and verifications to methodically expose evidence gaps (Colquhoun et al., 2014). The five-stage methodological framework advanced by Arksey and O'Malley (2005), which Levac, Colquhoun and O'Brien (2010) later developed into six stages, is used as discussed in detail later on under the section on methodology.

Conceptual framework and theoretical framework

Influenced by the need to establish inter-textual coherence, the conceptual framework used in this study is consensus building. Innes (2004, p.16) has justified the need to distinguish between consensus building that is based on a notion stranded in empirical proof and a grand social theory. The theoretical framework adopted is the Coherence Theory, based on the original intent of epistemic justification derived solely from empirical coherence (Bonjour, 1975, p.281). It should be expected that an epistemic optimal coherence (Amaya, 2011) exists on the level of presence of CCCs and the influence of their firm- and country-advantages on their operations in Africa. As an extension of the literature review, the subsequent section discusses the scoping review of CCCs activities based on a 10-year report (2009-18) by the Centre for Chinese Studies (CCS) (http://www0.sun.ac.za/ccs/).

METHODOLOGY

To establish the level of presence of CCCs in Africa, Levac, Colquhoun and O'Brien's (2010) methodological framework for a scoping review, based on Arksey and O'Malley's (2005) earlier framework, was adopted. Table 1 summarizes the actions taken for the six stages to gather data on the level of presence of CCCs in Africa.

Table 1: Scoping review on CCCs in Africa

Stage	Actions taken
1: Identifying the research question	As discussed towards the conclusion under the introduction section, the research question (RQ) is how significant is the agreement on the presence of CCCs in Africa and the influence of firm-specific and country-specific advantages on the entry and operational strategies of the Chinese SOEs and POEs in Africa? The RQ mode is inter-textual coherence/consistency as discussed at the onset of the literature review section.
2: Identifying relevant studies	There are stages involved: (1) integrative review (IR) and (2) scoping review (SR). The IR established the soaring interests among the existing main and grey studies on the presence and strategies of CCCs in Africa. It flagged the potential impact of a bandwagon effect to posit the need for inter-textual coherence. The SR focuses on representative studies on the presence of CCCs in Africa pre-2009 and 2009-18.
3: Study selection	The China International Contractor Association (CHINCA) (http://www.chinca.org/EN) backed empirical study by Chen et al. (2007), later published as Chen and Orr (2009), was selected to report on the presence of CCCs in Africa pre-2009. The Centre for Chinese Studies (CCS) (http://www0.sun.ac.za/ccs/) Weekly Briefing database was selected to report on the presence of CCCs in Africa from 2009 to 2018.

4: Charting the data	Chen et al. (2007) offers processed data on pre-2009 presence of CCCs in Africa. CCS briefing provides narrative review of the activities of CCCs in Africa. CCS database review focused on building and engineering (including oil & gas), manufacturing, information and communication technology, and services (e.g. banking). The review excluded defence and security, farming, political/peace talks, and relief efforts.
5: Collating, summarizing, and reporting results	The preceding criteria were used during the narrative review for the frequency of the report of CCCs' activities in the African countries from 2009 to 2018. Repetitions were eliminated during numerical analysis while establishing diplomatic ties were not counted as projects. Except where such coincided with an actual project. Due to the page limit constraint in this paper, the detailed result is available upon request.
6: Consultation (optional)	The result was transposed as a proxy for the level of presence of CCCs in different African countries as presented under Figure 1. This was done by adapting Witmer and Singer's (1998, p.231) scale, where 0 = non-existent, 1-2 = not compelling, 3-4 = minimally compelling, 5-6 = moderately compelling, 7-8 = majorly compelling, and 9 and above = very compelling. A Chinese manager validated Figure 1 as "almost 90% accurate".

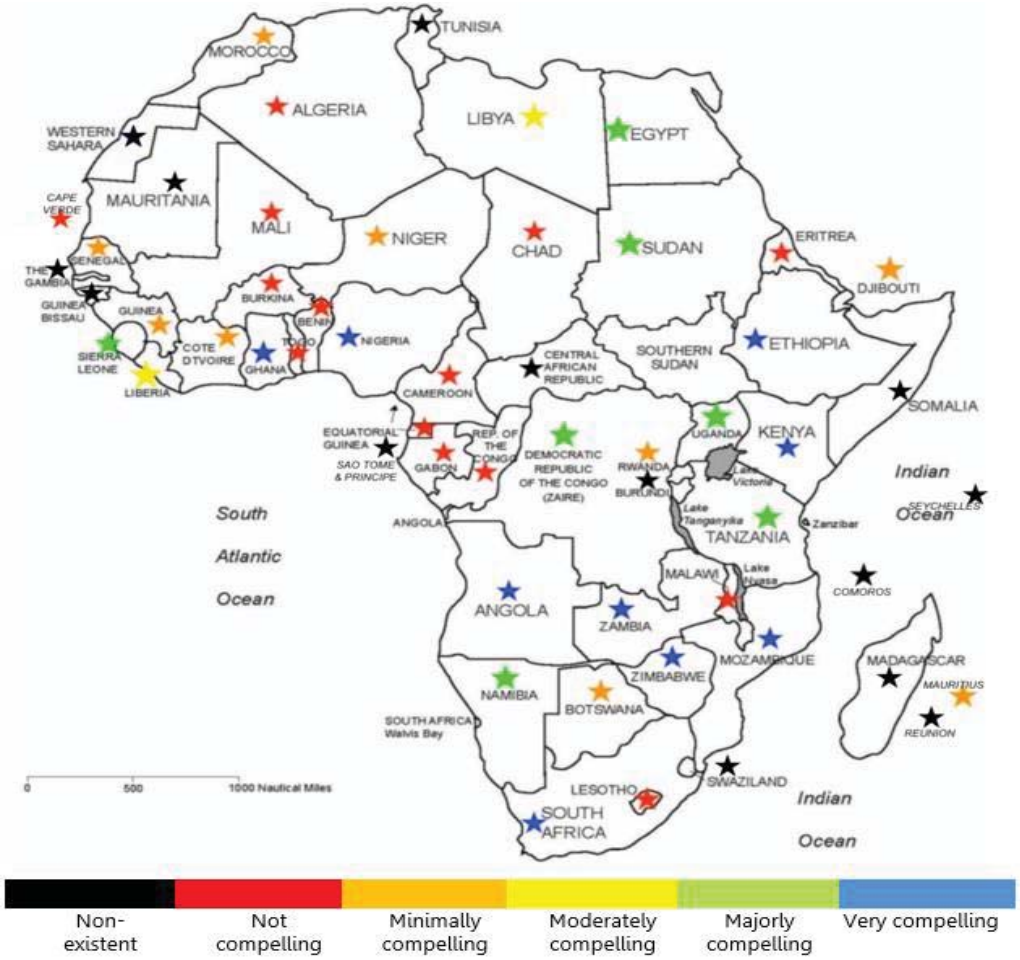

Figure 1: Level of presence of Chinese construction companies in Africa

To establish the level of influence of the advantages of the Chinese SOEs' and POEs' firm- and country-advantages on their strategies in Africa, a field study was conducted. Based on Saunders et al.'s (2016, p.125) onion model, the philosophy,

approach, and methodological choice adopted were, respectively, positivism, deductive, and quantitative.

Research design
A cross-sectional survey design of Chinese managers of CCCs operating in Algeria, Kenya, Nigeria, and South Africa was adopted to cover the four geographic zones in Africa. A cross-sectional study is easier to conduct but prone to non-response from some of the consented parties (Sedgwick 2014).

Research method
A 2-section-web-based structured questionnaire was used for anonymity and flexibility (Newman et al. 2002). The first section focused on the profile of the target population. The second section sought ordinal data on the level of influence of the OLI advantages based on Low and Jiang's (2006) study.

Population and sample
The target population of CCCs operating in Algeria, Kenya, Nigeria, and South Africa was purposively-sampled based on a self-designed sampling frame from previous studies (Babatunde & Low, 2013; Babatunde & Low, 2015). 109 CCCs were e-mailed the questionnaire while 22 questionnaires were returned.

RESULTS AND DISCUSSION

Descriptive analysis of the data obtained via the first section of the questionnaire revealed that the 22 respondents had an average of 8.5 years of working experience and included 13 SOE and 9 POE Chinese managers. Their primary roles included 54.55% management (8 SOEs and 4 POEs), 18.18% technical (2 SOEs and POEs), and 27.27% dual role as management and technical (3 SOEs and POEs). Based on McAdam and Reid's (2001) company categorization using employee size (w.r.t. local operations), the 22 respondents represented 68.18% large firms (10 SOEs and 5 POEs), 9.09% medium firms (2 POEs), and 22.73% small firms (3 SOEs and 2 POEs). Majority of the respondents (63.64%, 7 SOEs and POEs) had offices headquartered in Beijing, followed by the Shandong province (9.09%, 1 SOE and POE), and lastly 1 SOE each from Hangzhou, Guangzhou, Hebei, Gansu, and Guangxi provinces. One and the last POE is headquartered in Nairobi, Kenya. On aggregate, the predominant entry mode appeared to be contracts (11 respondents) followed by direct exports (8 respondents). Six (6) respondents (3 SOEs and POEs) indicated having used a combination of entry modes, mainly contracts and direct exports (4 respondents, 2 SOEs and POEs).

For the quantitative data, Annexure 1 presents the result of the level of influence of the firm- and country-specific OLI advantages on the operations of the SOEs and POEs in Africa. The mean (M) has been used to rank while the standard deviation (SD) has been used as a tie breaker. The coefficient of variation (CV) helps to better interpret the variability that the SD expresses. The z-score is the number of SDs from M, also referred to as the normal deviate (Colan, 2013). Using the non-parametric Mann-Whitney test (Nachar, 2008), Table 2 presents the statistical result on the significance of the difference of the level of influence of the OLI advantages between the SOEs and POEs at the 95% confidence level ($\alpha \leq 0.05$).

Table 2: Differences in the influence OLI factors of CCCs (SOEs and POEs) in Africa

OLI paradigm	u-value	z-score	p-value	Decision
Ownership advantages (firm-specific)	93	0.207	0.834	Non sig
Ownership advantages (country-specific)	31	0.795	0.430	Non sig
Location advantages (firm-specific)	17	2.031	0.042	Significant
Location advantages (country-specific)	125	-0.654	0.516	Non sig
Internalization advantages (firm specific)	18	-2.381	0.017	Significant
Internalization advantages (country specific)	16	-1.022	0.308	Non sig

Table 2 reveals significant differences between the SOEs and POEs on the levels of influence of the location advantages (firm specific) and internalization advantages (firm specific) on their operations. Both are firm-specific advantages, which validates the findings by Zhang, Wei and Liu (2013). There was no significant difference on ownership advantages (firm specific) and all the OLI advantages (country specific). This, on the one hand, validates the finding that developed countries' foreign companies cannot maximize the country-specific advantages of their emerging hosts like the host countries' domestic companies (Bauhmik, Driffield & Zhou, 2016). On the other hand, it corroborates the strategic advantages achieved through continuous development of the firm-specific advantages during the internationalization process (Deng, 2012).

These preceding results partly achieved the aim of this study, which was to establish the level of presence of CCCs in Africa and difference in the level of influence of the advantages of SOE and POE CCCs on their strategies in Africa.

Annexure 2 presents the result of the level of agreement on the presence of CCCs in Africa. Using Chen et al.'s (2007) pre-2009 results and this study's 2009-2018 results (Figure 1) on the presence of CCCs in Africa, inter-rater agreement was computed using Cohen's two-rater agreement coefficient/kappa (McHugh, 2012). Agreement was measured on the nominal scale; that is, agreed or disagreed on 'the presence' of CCCs irrespective of the frequency and ordinal scale; that is, agreed or disagreed on 'the level of presence' of CCCs within the tolerance level of up to ±5. For example, both studies agreed on the nominal scale for Algeria but disagreed on the ordinal scale because the difference between 13 (Chen et al., 2007) and 1 (this study) was outside the ±5 tolerance level. Kappa statistic (K) was then computed using the formulas in Table 3.

Po is the proportion of overall observed agreement, Pe is the proportion expected by chance, A is the number of times that both raters agree, D is the number of times that both raters disagree. N is the total sample size or number of cases, A1 and A2 and B1 and B2 are the corresponding column and row totals as shown and discussed subsequently using the confusion matrix, derived from Annexure 3. Lastly, z is to calculate the statistical significance of the observed percentage agreement, where SEk0 is the standard error for a one-sample test and k is the number of categories. Following, Table 4 presents the confusion matrix for calculating the percentage agreement between this study and Chen et al. (2007).

Table 3: Formulas for computing kappa statistic

Formula	Notation
$K = (P_o - P_e) / 1 - P_e$ where	Formula 1
$P_o = (A + D) / N$	Formula 2
$P_e = (A1/N)(B1/N) + (A2/N)(B2/N)$	Formula 3
$z = K/SE_{k0}$, and	Formula 4
$SE_{k0} = \sqrt{Pe/k(1 - P_e)}$	Formula 5

Table 4: Confusion matrix

Author's	Chen et al. (2007)		
	Agree (A)	Disagree (D)	Total
Agree (A)	39	4	43 = B1
Disagree (D)	10	2	12 = B2
Total	49 = A1	6 = A2	55 = N

Table 4 shows that the raters both agreed (A) and disagreed (D) on 39 and 2 countries respectively out of the total of 55 countries (N). Applying Formulas 1 to 5, Table 5 presents the result of the interrater reliability based on Cohen's kappa. Po shows 0.745, which corresponds to a 74.5% agreement to suggest that there is a strong agreement. However, the interrater reliability, K, indicates 0.073, which corresponds to none to slight agreement (McHugh 2012, p.279). Thus, the high percentage agreement provided by Po could have been by chance, attributable to the bandwagon effect or theory discussed earlier. Finally, since the z value is also lower than the critical value, it can also be concluded that the rater agreement is significantly different from what would be achieved by chance.

Table 5: Interrater reliability (Cohen's kappa)

Formula	Value
$P_o = (A + D) / N$	0.745
$P_e = (A1/N)(B1/N) + (A2/N)(B2/N)$	0.725
$K = (P_o - P_e) / 1 - P_e$	0.073
$z = K/SE_{k0}$, where $SE_{k0} = \sqrt{Pe/k(1 - P_e)}$	0.219
Critical value at $\alpha = 0.05$, one-tailed	1.960

To sum up, the scope review methodology showed that CCCs have varying presence in the African countries: very compelling in nine (9), major in seven (7), moderate in two (2), minimal in nine (9), not compelling in fourteen (14), and none in fourteen (14). The higher percentage agreement between this present study and Chen et al.'s (2007) on the level of presence is not significant (Tables 4 and 5), which could be due to the bandwagon effect. There is no significant difference on the country-specific OLI advantages between the Chinese SOEs and POEs (Table 2), attributable to the local knowledge home advantage of the host countries' domestic construction companies creating foreign liability for the CCCs. However, there is a significant difference on the level of influence of the firm-specific location

and internalization advantages on the operations of the SOEs and POEs in Africa (Table 2).

CONCLUSIONS

The aim of this study was to establish the level of presence of CCCs in Africa and the difference in the level of influence of the advantages of SOE and POE CCCs on their strategies in Africa. The results of the scope review methodology revealed that CCCs have varying presence in the African countries. This result presents a more graphic representation of the presence of the CCCs in Africa for subsequent practical decision making and future theoretical inclination. For example, an empirical evidence for the factors that account for clustering or spread of CCCs in Africa, which will also have implications for policy makers, investors, and researchers alike to question the taken-for-granted assumptions and knowledge. The practical implication of this result for policy and decision makers (including investors) is to avoid a one-size-fit all approach when dealing with the Chinese SOEs and POEs. The theoretical implication for a future study is an in-depth investigation into the African countries that the SOEs and POEs are concentrated and their respective core internalization advantages. More importantly, bearing in mind that the Chinese POEs are, arguably, not as backed by the Chinese government as their SOE counterparts. The limitation of this study has been restricted to the potential criticism from purists on the possibility of a selection bias during the scoping review having been performed by a single reviewer. All things being equal, a minimum of two reviewers is recommended. However, the interrater agreement/reliability performed nullifies this effect.

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Annexure 1: Ranking of OLI advantages of Chinese SOEs and POEs in Africa

Criteria		SOEs				POEs			
Paradigm	Description	Mean	SD	CV	Rank	Mean	SD	CV	Rank
Ownership Advantage (Firm Specific)	Size of the firm	4.385	0.961	0.219	1	4.111	0.928	0.226	3.5
	Marketing and project securing capability	4.231	1.166	0.276	2	3.222	1.302	0.404	13
	Product diversification	4.154	0.899	0.216	3	3.889	0.782	0.201	6
	Firm's reputation	4.077	0.954	0.234	4	3.667	0.866	0.236	8
	Accessibility to machinery and material	4.077	1.115	0.274	5	3.667	1.000	0.273	9
	Technological and R&D capacity	3.923	0.760	0.194	6	4.222	0.667	0.158	2
	Management expertise	3.923	1.115	0.284	7	3.556	1.130	0.318	11
	Networking flexibility of headquarter and other affiliated overseas branches	3.846	1.214	0.316	8	3.333	1.323	0.397	12
	Working quality and total quality management capability	3.846	1.281	0.333	9	3.222	1.394	0.433	14
	Experience and knowledge about international market	3.615	0.961	0.266	10	4.111	0.928	0.226	3.5
	Business development capacity	3.538	0.776	0.219	11	4.444	0.726	0.613	1
	Accessibility to technical resources	3.462	1.050	0.303	12	4.000	1.000	0.250	5
	Lower costs in production compared with other international competitors	3.385	1.387	0.410	13	3.667	1.414	0.386	10
	Accessibility to financial resources	3.077	1.038	0.337	14	3.889	0.928	0.239	7
		3.820	**0.366**	**0.096**		**3.790**	**0.376**	**0.099**	
Ownership Advantage (Country Specific)	Home government assistance and incentives on overseas contracting	3.846	0.987	0.257	1	3.556	1.333	0.375	2
	Governmental and historical relationship with developing countries	3.769	1.013	0.269	2	3.444	1.333	0.387	5.5
	Support from other related industries at home for international works	3.692	1.182	0.320	3.5	3.222	1.481	0.460	8

Criteria		SOEs				POEs			
Paradigm	Description	Mean	SD	CV	Rank	Mean	SD	CV	Rank
	Availability of capable sub-contractors from China	3.692	1.182	0.320	3.5	3.556	1.590	0.447	3
	Availability of professionals from China	3.538	1.198	0.339	5	3.111	1.537	0.494	9
	Size and growth of the domestic market in China	3.462	0.660	0.191	6	3.667	1.225	0.334	1
	Availability of low-cost workers from China	3.308	1.251	0.378	7	3.556	1.590	0.447	4
	Support from the financial sector and banking system at home	3.231	1.092	0.338	8	3.444	1.333	0.387	5.5
	Availability of low-cost machinery and material from China	3.077	1.320	0.429	9	3.444	1.590	0.462	7
		3.510	**0.263**	**0.075**		**3.440**	**0.176**	**0.051**	
	Intensive competition in the host country's market	3.769	1.301	0.345	1	3.111	1.453	0.467	4.5
	Relationship amongst international and local contractors in the host countries	3.769	1.423	0.378	2	4.000	1.581	0.395	1
	Large number of competitors from China in the host countries	3.538	1.198	0.339	3	2.333	1.323	0.567	9
Location Advantage (Firm Specific)	Large number of local competitors in the host countries	3.462	1.050	0.303	4	2.667	1.225	0.459	8
	Lower cost of other international contractors in the host countries	3.462	1.391	0.402	5	3.444	1.509	0.438	2
	Expatriate social and living conditions in the host countries	3.462	1.450	0.419	6	2.889	1.616	0.559	6
	Priority in the business strategy of your firm's headquarter relating to the host country market	3.385	1.557	0.460	7	2.889	1.787	0.619	7
	Lower cost of local contractors in the host countries	3.231	1.363	0.422	8	3.111	1.453	0.467	4.5

Criteria		SOEs				POEs			
Paradigm	Description	Mean	SD	CV	Rank	Mean	SD	CV	Rank
	Large number of other international competitor: in the host countries	2.846	1.281	0.450	9	3.222	1.394	0.433	3
		3.440	**0.280**	**0.081**		**3.050**	**0.503**	**0.165**	
	Local government attitudes, intervention and policies towards international contractors, including regulatory barriers of entry in the host countries	4.308	0.855	0.198	1	3.444	1.236	0.359	8
	Accessibility to local financing resources in the host countries	3.769	1.301	0.345	2	3.333	1.581	0.474	12
	Interference of local unofficial societies in the host countries	3.769	1.363	0.362	3	3.444	1.810	0.526	10
	Availability and costs of local workers in the hos countries	3.615	1.044	0.289	4	3.222	1.563	0.485	15
	Local income and corporate taxation levels in the host countries	3.615	1.193	0.330	5	3.667	1.581	0.431	4.5
Location Advantage (Country Specific)	Currency conditions and policies in the host countries, i.e., exchange rate fluctuation and control on transferring of funds	3.615	1.325	0.367	6.5	3.889	1.616	0.416	2
	Local government bureaucratic system and possible corruption in the host countries	3.615	1.325	0.367	6.5	3.667	1.658	0.452	6
	Local market demand and potential in the host countries	3.538	0.776	0.219	8	4.000	1.118	0.280	1
	Political and historical links between home and host countries	3.462	1.450	0.419	9	3.333	1.871	0.561	13
	Availability and capacity of local subcontractors in the host countries	3.385	0.961	0.284	10	3.556	1.509	0.424	7
	Availability and costs of local machinery and material in the host countries	3.308	1.109	0.335	11	3.222	1.563	0.485	15

Criteria		SOEs				POEs			
Paradigm	Description	Mean	SD	CV	Rank	Mean	SD	CV	Rank
	Local commodity price levels in the host countries	3.308	1.182	0.357	12	3.222	1.563	0.485	15
	Local import and export control and tariff levels for machinery, equipment, and material in the host countries	3.154	1.214	0.385	13	3.667	1.581	0.431	4.5
	Local governmental and regulatory protection for local contractors in the host countries	2.923	0.862	0.295	14	3.444	1.424	0.413	9
	Psychic distance between home and host countries, i.e., language, religion, culture differences, etc	2.923	0.954	0.326	15	3.333	1.500	0.450	11
	Political and social stability in the host countries	2.846	0.899	0.316	16	3.111	1.453	0.467	17
	Availability and costs of local professionals in the host countries	2.769	1.013	0.366	17	3.778	1.563	0.414	3
		3.410	**0.399**	**0.117**		**3.490**	**0.255**	**0.073**	
Internali-zation Advantage (Firm Specific)	To avoid the costs of breach of contracts and ensuing litigation	3.923	1.320	0.337	1	3.444	1.014	0.294	10
	To avoid or reduce information search and business negotiation costs	3.769	0.725	0.192	2	4.111	0.601	0.146	2
	To facilitate the need for alternative investments for the profits earned	3.692	1.437	0.389	3	4.111	1.269	0.309	3
	To better utilize and control resources (material, equipment, technology, human resources etc)	3.615	1.502	0.415	4	4.444	1.333	0.300	1
	To utilize international networking of the firm	3.462	0.877	0.253	5	3.778	0.833	0.221	5.5
	To ensure the quality of product and services provided	3.462	1.198	0.346	6	3.556	1.014	0.285	9
	To facilitate the increasing need for professionals and personnel	3.462	1.330	0.384	7	3.889	1.167	0.300	4
	To protect technological know-how of the firm	3.385	1.193	0.352	8	3.667	1.000	0.273	8

Criteria		SOEs				POEs			
Paradigm	Description	Mean	SD	CV	Rank	Mean	SD	CV	Rank
	To avoid the cost of moral hazard and adverse selection or under-performance of sub-contractors	3.308	1.109	0.335	9	3.778	0.833	0.221	5.5
	To protect the reputation of the firm	3.308	1.182	0.357	10	3.778	0.972	0.257	7
		3.540	**0.205**	**0.058**		**3.860**	**0.296**	**0.077**	
	To meet the host government's policy requirements relating to business operations	4.000	0.913	0.228	1	3.778	0.667	0.176	4
	To better facilitate strategic alliances, partnering and networking with others for the business	3.692	1.032	0.279	2	4.222	0.972	0.230	1
	To overcome price discrimination on projects in host country	3.692	1.377	0.373	3	3.556	1.333	0.375	5.5
Internali-zation Advantage (Country Specific)	To consolidate the market position and to facilitate the future growth and potential of the market	3.615	1.446	0.400	4	3.556	1.333	0.375	5.5
	To avoid client's uncertainty over the nature and value of services being sold and to better facilitate the client's needs	3.462	1.266	0.366	5	4.111	1.167	0.284	2
	To avoid or reduce the host government's intervention (quotas, tariffs, price controls, tax difference, etc)	3.385	1.502	0.444	6.5	4.111	1.364	0.332	3
	To exploit the host government's interventions (quotas, tariffs, price controls, tax difference, etc	3.385	1.502	0.444	6.5	3.222	1.394	0.433	7
		3.600	**0.219**	**0.061**		**3.790**	**0.371**	**0.098**	

Annexure 2: Level of agreement on the presence of CCCs in Africa

			Agreement based on:	
Country	Author's Estimate[1]	Chen et al. (2007)	Nominal scale (i.e., Yes/No)	Ordinal scale (i.e., up to ± 5)
Algeria	1	13	Agree	Disagree
Angola	9	10	Agree	Agree
Benin	2	2	Agree	Agree
Botswana	3	9	Agree	Disagree
Burkina Faso	1	2	Agree	Agree
Burundi	0	0	Agree	Agree
Cameroon	2	0	Disagree	Agree
Cape Verde	1	2	Agree	Agree
Central Afr. Rep.	0	1	Disagree	Agree
Chad	1	1	Agree	Agree
Comoros	0	2	Disagree	Agree
Congo (Braz)	1	8	Agree	Disagree
Congo (DRC)	8	5	Agree	Agree
Cote d'Ivoire	4	3	Agree	Agree
Djibouti	4	3	Agree	Agree
Egypt	7	5	Agree	Agree
Equitorial Guinea	1	7	Agree	Disagree
Eritrea	1	3	Agree	Agree
Ethiopia	9	7	Agree	Agree
Gabon	2	3	Agree	Agree
Gambia	1	1	Agree	Agree
Ghana	10	6	Agree	Agree
Guinea	4	3	Agree	Agree
Guinea-Bissau	0	3	Disagree	Agree
Kenya	10	6	Agree	Agree
Lesotho	1	4	Agree	Agree
Liberia	5	4	Agree	Agree
Libya	5	5	Agree	Agree
Madagascar	0	3	Disagree	Agree
Malawi	2	1	Agree	Agree
Mali	2	2	Agree	Agree
Mauritania	0	2	Disagree	Agree

[1] Estimates derived from the frequency count based on Annexure 1
[2] Complemented with the results presented by Chen and Orr (2009)

			Agreement based on:	
Country	Author's Estimate[1]	Chen et al. (2007)	Nominal scale (i.e., Yes/No)	Ordinal scale (i.e., up to ± 5)
Mauritius	4	4	Agree	Agree
Morocco	3	4	Agree	Agree
Mozambique	10	5	Agree	Agree
Namibia	7	6	Agree	Agree
Niger	3	1	Agree	Agree
Nigeria	10	10	Agree	Agree
Reunion	0	0	Agree	Agree
Rwanda	3	4	Agree	Agree
Sao Tome & Principe	0	0	Agree	Agree
Senegal	4	0	Disagree	Agree
Seychelles	0	2	Disagree	Agree
Sierra Leone	8	0	Disagree	Disagree
Somalia	0	7	Disagree	Disagree
South Africa	10	7	Agree	Agree
Sudan	8	12	Agree	Agree
Swaziland	0	1	Disagree	Agree
Tanzania	8	11	Agree	Agree
Togo	2	3	Agree	Agree
Tunisia	0	1	Disagree	Agree
Uganda	8	7	Agree	Agree
Western Sahara	0	0	Agree	Agree
Zambia	9	6	Agree	Agree
Zimbabwe	10	5	Agree	Agree