THE BUSINESS LOGIC OF CHINESE CONSTRUCTION COMPANIES INVESTING IN THE UK INFRASTRUCTURE SECTOR

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The expansion of global construction markets has substantial implications for companies engaged in cross-border transactions and financing. The convergence of the UK and the People’s Republic of China (PRC) infrastructure policy agendas has led to significant investment from Chinese construction companies in the UK infrastructure sector. On the demand side, the UK Government’s National Infrastructure Plan sets out a wide range of investment priorities. The PRC Government’s One Belt, One Road strategy, on the supply side, has prioritized outward foreign investment into Eurasia. The international business literature on foreign market entry with a specific organizational capability perspective is drawn upon to understand the rationale for Chinese construction companies to invest in the UK infrastructure market. Two Chinese construction multinational companies currently engaging in UK infrastructure projects are studied through interpreting secondary sources. Findings indicate that their pursuit of hybrid market entry modes are underpinned by corresponding hybrid capability exploitation and acquisition motivations.

Keywords: Chinese construction companies, infrastructure, investment

INTRODUCTION

Construction multinational companies (MNCs) are rapidly expanding their global activities. The top 250 international contractors, which are typical MNCs in terms of organization and management, grew their contracting revenue from projects outside their home countries from £99.77 billion in 2005 to £274.73 billion in 2014 (Engineering News-Record, 2015). Among them, 65 contractors are Chinese companies. There are a growing number of Chinese construction MNCs operating in the UK. The expansion of Chinese MNC activity has been facilitated to a significant degree by the establishment of bilateral agreements between the People’s Republic of China (PRC) and the United Kingdom (UK). The UK Government initiated the National Infrastructure Plan, which set out a wide range of investment opportunities (HM Treasury, 2015). At the same time, the PRC Government’s Belt and Road Initiative has prioritised outward foreign direct investment (FDI) into Eurasia (National Development and Reform Commission of the People’s Republic of China, 2015). There are indications that China will “commit to the UK economy, with 112 projects, including 13 investments from Hong Kong” (UK Trade and Investment, 2015: 13). The value of construction projects in the UK by Chinese contractors has

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The increasingly active status of Chinese construction companies in the international market has been recognised by academic scholars. Zhao and Shen (2008), for example, claim that the competitiveness of Chinese construction companies is a product of the encouragement and support from the Chinese government, financial support from Chinese state-owned banks, and the demand from Chinese clients. Chen and Orr (2009) analysed the specific mechanisms established by the Chinese government to promote Chinese construction companies going overseas and their foreign market entry strategies. However, previous studies are mainly based on African or Asian countries which were then the priority overseas markets for Chinese contractors (Chen and Orr, 2009). Pinsent Masons (2014) has reported the increase of Chinese investment and its impact on the UK infrastructure and real estate. This research has furthered academic understanding of the overall volume of Chinese construction MNC activity in the UK, but scholars have yet to fully explore the business logic that underpins the investment decisions. The aim of this paper is to further understanding of the business logic by examining the market entry motivations and modes of two Chinese construction companies investing in the UK infrastructure sector. The case study findings contribute by theoretically extending the role of market entry strategies to understand the business logic of FDI decisions by MNCs.

The structure of this paper is organised as follows. First, the organisational capability perspective is drawn upon to understand the general business logic of MNCs. Second, the research method for the case study is described. Third, the findings from the case study are given. Finally, discussion and conclusions are offered on the implications of the case results for market entry motivations and modes of Chinese construction MNCs.

THEORETICAL FRAMING

Foreign market entry has been a significant issue in the international business research and has focused on the organisational arrangements that companies adopt to conduct international business, such as joint ventures and wholly owned subsidiaries (Andersen, 1997). Early research developed an internationalisation model to describe the stages that companies enter a new country: no regular exports, export through agents, setting up sales subsidiaries and, finally, building local production plants (Johanson and Wiedersheim-Paul, 1975). Later, the internationalisation pattern was further explained as a gradual process of acquiring, integrating and utilising knowledge (Johanson and Vahlne, 1977).

The interest in the knowledge incentives of internationalisation led to the incorporation of the organisational capability perspective to explain the underpinning business logic for different market entry modes. This perspective recognises a company as a package of relatively static resources, which can be transformed into capabilities through interactions of individuals, organisations and technology (Andersen, 1997). These distinctive capabilities are characterised as company specific, difficult for others to imitate and being able to produce abnormal profit (Luo, 2002).

The organisational capability perspective framed the strategic decision-making about market entry mode as one based on the contribution to a company’s capabilities (Madhok, 1997). From this perspective, companies’ selection of market entry mode is
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governed by whether the motivation is capability exploitation (to exploit existing capabilities), or capability acquisition (to acquire new capabilities from the host company) (Madhok, 1997). Commentators have argued that for the capability exploitation logic, the appropriate organisational arrangement is the independent mode (often in the form of a wholly owned subsidiary); and, for capability acquisition the collaborative mode (commonly through the establishment of a joint venture) (Anderson, 1997; Madhok, 1997; Luo, 2002).

Research has shed some useful light on the market entry motivation / mode dynamic within an infrastructure sector context. Walker and Johannes (2003), for example, found that many infrastructure projects in Hong Kong were delivered using joint ventures (collaborative modes), and the principal motivation to adopt the collaborative mode was to provide adequate financial strength for a specific “capital-hungry” infrastructures project. Other research has concluded that the independent market entry mode is appropriate in particular situations. Chen and Orr (2009), for instance, noted that Chinese construction MNCs in the African market tended to set up wholly owned subsidiaries rather than joint ventures, as local firms did not possess capabilities that they wanted to acquire.

In summary, the general and construction-specific MNC literatures are consistent in their assertion that there may be a link between capability exploitation and the independent entry mode, and between capability acquisition and the collaborative mode. This assertion is drawn on to interpret the business logic of Chinese construction MNCs, so the research question is framed as: what are the foreign market entry motivations of Chinese construction MNCs in the UK infrastructure sectors, and whether corresponding modes are adopted.

METHOD

The research findings are based on a case study of two Chinese MNCs operating in the UK: Beijing Construction Engineering Group International Company (BCEGI) and China General Nuclear Power Company (CGN). The cases were selected on the basis that they are Chinese construction companies involved in the two highest profile UK infrastructure projects in terms of project value and significance for UK security. Besides, BCEGI and CGN are among top Chinese contractors in annul contract avenue (Engineering News-Record, 2015). Secondary data were collected for each case from a diverse range of English and Chinese sources, including company official websites, company annual reports, online news reports, and research reports, searched by using each case company’s name and project name as keywords. The time period of data collected was from 2013, when the UK project starts, to 2016. In total, about 93 articles were gathered for the BCEGI case, and 17 for the CGN case as it was still in an initial stage. The data were closely read and interpreted to identify capabilities that case study companies were seeking or exploiting and market enter modes that were utilized. A category of capabilities was developed and the supporting data were cited or quoted.

KEY RESULTS

Case 1: Beijing Construction Engineering Group International Company (BCEGI)

At present, BCEGI has set up branches in over twenty countries and undertakes housing and infrastructure construction in host countries. The BCEGI joined the Manchester Airport City project in October 2013, which is a £800 million expansion
of Manchester Airport and currently under construction. The project is developed through a joint venture partnership between the Manchester Airports Group Plc (MAG), BCEG, Carillion, and Greater Manchester Pension Fund, who hold the stake of 50%, 20%, 20% and 10% respectively (Construction Manager, 2013). The BCEGI is also acting as co-contractor with Carillion and undertaking half of the construction work (Construction Manager, 2013). Moreover, in November 2013, BCEGI founded a wholly owned subsidiary, BCEG International (UK) Ltd, whose function is not restricted to the Manchester Airport City project but is growing with some new business interests in and around the UK. Key results regarding which capabilities BCEGI can exploit and/or want to acquire are discussed below.

**Exploit financing capability**
One of the main reasons BCEGI was chosen as a partner by MAG is BCEGI’s ability to directly invest in the project and potentially help with project financing. This view is captured by the Chief Executive of MAG stating that MAG had sought financial support from the state-owned Industrial and Commercial Bank of China (ICBC) (Beijing Construction Engineering Group, 2014).

**Utilise government support**
The reach of the UK-PRC business cooperation is partly due to the UK's willingness to accept foreign investment and the support from local governments. This is evident in BCEGI’s confirmation of the cooperation during the UK Chancellor George Osborne’s visit to the PRC in 2013 (Beijing Construction Engineering Group, 2014). Chinese investment in Manchester is recognised by the UK government as boosting the economy in the northern part of the UK (Prime Minister's Office, 2015). Furthermore, when BCEGI is searching for new business opportunities in the UK, it takes the availability of local government support into consideration (Beijing Construction Engineering Group, 2015).

**Utilise being close to the consumer market**
As an enterprise zone, Manchester Airport City needs to attract business into the area, and Chinese investors or manufacturers are targeted as the vast audience. This mission is showed in practice by making roadshows across three cities in the PRC in June 2014 (Beijing Construction Engineering Group, 2014). Having a Chinese contractor is helpful to bring Chinese consumers to Manchester Airport City as well as to Manchester Airport which is in need of Chinese tourists and students (Travelmail, 2013). When the partnership agreement between MAG and BCEGI was made, the Chief Executive of MAG ensured that the airport could secure a direct flight service to the Far East (Travelmail, 2013).

**Exploit international experiences**
The exploitation of international experiences that BCEGI has gathered in recent decades, particularly through working in the US and Canada, played an important role for BCEGI to secure the project in the UK (Beijing Construction Engineering Group, 2014). The international advantage is described by the President of BCEGI as “Now, we can get construction contract in the US, employ designers from the UK, let the Chinese team to optimize the design, and purchase cheap and fine Chinese material. In the head office at Beijing, we can mobilize global resources” (Economic Daily, 2015).

**Understand local laws, regulations and contract systems**
One of the main capabilities that Chinese companies need to develop is to understand and navigate the UK's complex regulations about project delivery and construction as
well as to understand relevant policies of European Union (EU) which the UK is a member country of (Pinsent Masons, 2014). As an international contractor, BCEGI is committed to act in the way of “Do in Rome as Rome does” in order to get familiar with local laws, contracts and regulations in project development (Construction Manager, 2013).

Learn and absorb project management skills
The BCEGI takes the Manchester Airport City project, its first project in the Europe, as an opportunity to learn UK project management practices; and, by doing so, to transform and upgrade its business operation to expand market in developed countries (Construction Manager, 2013). This is further explained by an economist at the think tank Centre for Economics and Business Research noting that “Chinese companies are now using their capacity to invest abroad as an opportunity to not only make lucrative financial returns, but also to get hold of valuable know-how in terms of project management in the operation of key infrastructure and other projects” (Liu, 2015).

Develop cross-cultural cooperation skills
The diversity of operation environments provides BCEGI a competitive knowledge base, and the cooperation with UK offers BCEGI an opportunity to develop its cross-cultural communication skills (Beijing Construction Engineering Group, 2014). The Manchester Airport City project is characterised as an extension of understanding between China and the UK (The Guardian, 2013). Furthermore, a new type of international project management model may be developed as both BCEGI and Carillion are acting as two different roles: the owner and contractor (Construction Manager, 2013).

Case 2: China General Nuclear Power Company (CGN)
The CGN is one of the largest nuclear operators in the PRC. The CGN started to investigate the UK nuclear market in 2011, and bid for Horizon Nuclear Power, a British energy company, in 2012 without success (The Paper, 2015). In October 2015, CGN signed a strategic investment agreement with Electricité de France (EDF) to develop nuclear projects together in the UK by the witness of David Cameron and the Chinese President Xi Jinping during President Xi’s UK state visit (BBC News, 2015). While the final investment agreement has not been finalised, it may involve a bundle of three nuclear plants and may cooperate through a joint venture or a consortium according to the initial agreement (The Paper, 2015). This collaboration tends to start with Hinkley Point C in Somerset, followed by Sizewell C in Suffolk and Bradwell B in Essex (CGN and EDF Energy, 2015). The CGN tends to get one third share of the £18 billion Hinkley C project, while EDF may hold the remaining stake but it might sell another 15% stake (BBC News, 2015). The Sizewell C project may follow a similar investment structure, while the Bradwell B project tends to be led by CGN with a two thirds stakes (BBC News, 2015). The CGN has set up four wholly owned subsidiaries in the UK in February 2016 (Ministry of Commerce of the People's Republic of China, Undated). Three of subsidiaries are named after the three future nuclear projects in the UK, and the fourth one is to carry out the UK Generic Design Assessment for CGN’s Hualong One nuclear power technology. Key findings from data analysis about capabilities that CGN may exploit and / or want to acquire are given below.

Exploit financing capability
EDF’s nuclear project plan has been delayed, partly because of its financing position, which led the way to the Chinese investor CGN coming in. It is evident in that “EDF
needs the Chinese investment because it is burdened with high levels of debt and is expected to sell about £7.4 billion of assets in the next five years. Earlier in October, two of the world’s biggest ratings agencies warned the company it faced credit-rating downgrades if Hinkley Point went ahead” (The Guardian, 2015).

**Utilize government support**

CGN’s financing ability partly owes to the support from Chinese state-owned banks. In October 2015, CGN and China Development Bank signed a memorandum of understanding in London for the Hinkley C project financing, which means China Development Bank will provide CGN with low-cost financing and a full range of financial services for the Hinkley C project (China General Nuclear Power Company, 2015).

**Exploit existing nuclear technology**

According to the initial agreement between CGN and EDF, the first two nuclear projects will be built with the French technology, while the Bradwell B project, is intended to use Chinese technology (CGN and EDF Energy, 2015). Hualong One is developed by CGN and its Chinese partners, and it is claimed to have an equivalent safety level with the third-generation nuclear technology of the US, France and Russia (China News Service, 2015). Hualong One can be used in the UK only if it passes the Generic Design Assessment (CGN and EDF Energy, 2015). A nuclear power station in Guangxi, PRC is being built with Hualong One, and it tends to be the reference station for the Bradwell B project (China News Service, 2015). It is recognised that Bradwell B will be the first project that Chinese nuclear technology is imported to the western countries (China News Service, 2015). Furthermore, the technology will be used in the first two projects of the UK is not new to CGN as it is similar with the two nuclear reactors in Taishan, PRC which are developed by CGN and EDF (Rivaz, 2015).

**Understand local regulations**

CGN and EDF have had 30 years of cooperation since the Daya Bay Nuclear Power Plant in the PRC. Indeed, a global partnership agreement between CGN and EDF was signed in November 2007 for joint investment and technology development (The Paper, 2015). The UK has one of the most robust independent nuclear regulators in the world, which is the Office for Nuclear Regulation, and it took EDF four years to pass the Generic Design Assessment (Rivaz, 2015). The EDF intends to assist CGN to take the Chinese technology through the assessment by sharing its own experience (CGN and EDF Energy, 2015).

**DISCUSSION**

The results show that both case companies are motivated by both capability exploitation and capability acquisition. Correspondingly, both the independent mode and the collaborative mode are used in two cases. Table 1 summarises the specific business logic of Chinese construction MNCs that underpinned their decision to enter the UK infrastructure sector and what organisational arrangements are being used.

**Market entry motivations**

Both cases show that case study companies are motivated to exploit their financing ability supported by Chinese state-owned banks, which is consistent with the argument of Zhao and Shen (2008). In addition to the financial support, the Chinese government also facilitates project agreements through its state visit activities. This was evident in case 2 that CGN and EDF signed the agreement during the PRC
President Xi’s UK state visit. It is consistent with the research of Zhao and Shen (2008) who argue that the Chinese government has been encouraging Chinese companies to enter into overseas markets by making bilateral and multilateral agreements with foreign countries, improving administration efficiency and reducing custom duties. Moreover, we find the support from governments is not unilateral. The state visit of the UK government also promotes the cooperation between Chinese and British companies. Besides, both case study companies intend to acquire new capabilities. As argued by Meyer (2015), MNCs from emerging economy countries tend to pursue foreign market by investment in order to build capability to enhance the operations in other markets, especially the home country market.

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<th>Case no.</th>
<th>The market entry motivation</th>
<th>Capability acquisition</th>
<th>The market entry mode</th>
<th>Collaborative mode</th>
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<tbody>
<tr>
<td>Case 1</td>
<td>- Exploit financing capability</td>
<td>- Understand local laws, regulations and contract systems</td>
<td>Wholly owned subsidiaries are founded</td>
<td>A joint venture is set up</td>
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<td>- Utilise government support</td>
<td>- Learn and absorb project management skills</td>
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<td>- Utilise being close to the consumer market</td>
<td>- Develop cross-cultural cooperation skills</td>
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<td>- Exploit international experiences</td>
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<tr>
<td>Case 2</td>
<td>- Exploit financing capability</td>
<td>- Understand local regulations</td>
<td>Wholly owned subsidiaries are founded</td>
<td>A joint venture or a consortium tends to be built</td>
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<td>- Utilise government support</td>
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<td>- Exploit exiting nuclear technology</td>
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**Market entry modes**

How organizational arrangements are used to fulfil the capability aim is consistent with the literature. In other words, the collaborative mode can be used to acquire knowledge about local regulation environments or to learn advanced management skills, and the independent mode can be used to exploit its existing capabilities (Madhok, 1997). However, in our cases, we find that the two modes are not an either-or situation as both are used in our two case companies. Both companies tend to get shares from projects through joining a joint venture or a consortium, and at the same time wholly owned subsidiaries were set up for seeking further project opportunities.

Chen and Messner (2011) have similar observation in construction projects where subsidiaries are used to track project opportunities on the behalf of parent companies, and a joint venture with a local company will be built after the project is granted. Partnering with existing market participants can facilitate MNCs successfully bid for projects and get into a new market to export its existing capabilities, and the wholly owned subsidiaries can be the carrier of new capabilities acquired. The hybrid combination of two motivations and two market entry modes may be the special characteristics for project-based companies, as Walker and Johannes (2003) argue that choosing joint ventures partnership in infrastructure projects can offer an integrated service package to customers. Through the joint venture, profits and other responsibilities are assigned among shareholders of a specific project. At the same time, the independent role can be maintained by owning wholly owned subsidiaries to build reputation and explore further opportunities in the UK or even the Europe.
CONCLUSION

The research offers new empirical and theoretical insights. Empirically, previous understanding about the business logic of Chinese construction MNCs is based primarily on the African and Asian markets. The case study results indicate that the business logic underpinning the Chinese MNCs’ decision to enter the UK infrastructure sector were found to be driven by both capability exploitation and acquisition, and this motivation leads to both independent and collaborative market entry modes mobilized by the case companies. The findings complement and extend previous research on Chinese construction MNCs which identified different market entry strategies (cf. Chen and Orr, 2009; Walker and Johannes, 2003) by showing that Chinese MNCs tend to pursue multiple strategies on the same infrastructure projects to secure simultaneous capability exploitation and acquisition goals.

Theoretically, the results have extended the prevailing binary independent versus collaborative market entry modes articulated in the MNC literature (cf. Madhok, 1997, Luo, 2002) by demonstrating that companies can operate hybrid strategies consisting of both modes. The hybrid strategies led theoretical colouring to the argument that MNCs create competitive advantage by both leveraging core capabilities across all their international operations (capability exploitation) whilst developing new capabilities from those international activities (capability acquisition).

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