



The Emergence of International Urban Planning and Design Firms in China from an OLI Perspective

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Abstract. *There has been high demand for planning and design services at various scales in Chinese cities. International urban planning and design (UPD) firms have taken some of these opportunities. Despite the direct relevance of UPD industries for urbanisation and the important role of international UPD firms, little attention has been paid to their spatial and operational strategies. What are the drivers for international UPD firms appearing in China? What role have they played in China's urbanisation? This research analysed the overall trend of international UPD firms operating in China based on an extensive survey and in-depth interviews with a number of these firms. The findings suggest that the emergence of international UPD firms is largely attributable to planning system reform and internal and global forces that can be understood by the advantages that comprise the OLI framework (ownership-, location-, and internalisation-specific advantages). Ownership-specific advantages such as high-quality urban planning and design skills are the most important element for these firms, contributing to globalised urbanisation. A high locational concentration of the international UPD firms has been observed in the largest Chinese cities, i.e. Shanghai and Beijing. The establishment of international UPD offices is not limited to single Chinese cities but is spreading as further opportunities are sought in and beyond China.*

Keywords. *Urban planning and design firms, globalised urbanisation, foreign direct investment, producer services, China, OLI paradigm.*

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Abstrak. *Ada permintaan tinggi untuk layanan perencanaan dan desain di berbagai skala di kota-kota Cina. Perusahaan Perencanaan dan Perancangan Kota (PPK) Internasional telah menangkap beberapa peluang ini. Terlepas dari relevansi langsung industri-industri PPK dengan urbanisasi dan peran signifikan perusahaan-perusahaan PPK internasional, sedikit perhatian diberikan pada strategi spasial dan operasional mereka. Apakah yang mendorong kemunculan PPK internasional di Cina? Peran apa yang telah mereka mainkan dalam urbanisasi Tiongkok? Penelitian ini menganalisis tren keseluruhan perusahaan PPK internasional yang beroperasi di Cina dengan survei ekstensif dan studi kasus melalui wawancara mendalam dengan perusahaan. Temuannya menunjukkan bahwa munculnya perusahaan-perusahaan PPK internasional sebagian besar disebabkan oleh perencanaan reformasi sistem dan kekuatan internal dan global yang dapat dipahami dengan menggunakan kerangka kerja OLI (kepemilikan-, lokasi-, dan keuntungan internalisasi khusus). Keuntungan khusus kepemilikan seperti perencanaan kota dan keterampilan desain berkualitas tinggi adalah unsur yang paling penting bagi perusahaan-perusahaan ini yang berkontribusi terhadap urbanisasi global.*

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Konsentrasi lokasi perusahaan-perusahaan PPK internasional yang tinggi telah diamati di kota-kota Cina terbesar seperti Shanghai dan Beijing. Pembentukan kantor-kantor PPK internasional tidak terbatas pada satu kota di Cina tetapi menyebar ketika peluang lebih lanjut dicari di dalam dan luar Cina.

Kata Kunci. *Perusahaan perencanaan dan perancangan kota, urbanisasi global, penanaman modal asing, layanan produsen, cina, paradigma OLI.*

Introduction

Large-scale urbanisation has taken place at an unprecedented pace in China since the introduction of the nationwide reform and opening-up policy. In 2011, more than half of China's total population lived in urban areas, compared with 21% in the early 1980s (Friedmann, 2005; Gu, Kesteloot, & Cook, 2015). In conjunction with urban expansion, there has been high demand for consultation services at various scales. International urban planning and design (UPD) firms have also found business opportunities in rapidly transforming Chinese cities. China has a relatively short history of modern-style urban planning and design. The socialist regime emphasised planned economies and strict regulations, with a focus on physical design and technical feasibility.³ China embraced market mechanisms in 1978 but comprehensive urban planning and design skills were limited. When Chinese local governments and developers were looking for new types of urban development projects, international UPD firms had relatively advantageous skills, accumulated through international experience in a wide range of cities.

UPD firms are primary agents in the transformation of cities and regions. Despite the direct relevance of UPD industries for urbanisation and the significant role of international UPD firms, little attention has been paid to their spatial and operational strategies. As advanced producer services, UPD firms need strategies for successful business operation in China. UPD requires in-depth local knowledge and connections, which could be a barrier to international firms. The following questions can therefore be raised: what is the institutional background of the international UPD firms that have appeared in China and what strategies and roles have they adopted? By addressing these questions, with reference to the OLI framework (ownership-specific advantages, location-specific advantages and internalisation-specific advantages) this research provides a better understanding of these firms' behaviours, strategies and spatial outcomes in the UPD industry as facilitators and agents for Chinese globalised urbanisation. The analysis is supported by a list of international UPD firms in China, a survey questionnaire and in-depth interviews.

A Theoretical Framework

This section outlines a theoretical framework that explains the emergence of international UPD firms in China with reference to the OLI paradigm. These firms, as advanced producer services, have emerged through global business expansion strategies associated with foreign direct investment (FDI), following the adaptation of market mechanisms which, in turn, have triggered rapid urbanisation. The emergence of international UPD firms is largely attributable to planning system reforms, internal urban dynamics and global forces (Figure 1).

³ Indeed, during the Cultural Revolution (1966-76), planning was completely abandoned, and planners were forcibly sent to the countryside to undertake non-planning jobs (Yeh and Wu, 1999).

Institutional Background: Economic Reforms and Planning Systems

In Mao's era, when urban planning was absent or only technical aspects were favoured, population concentration was strictly regulated through anti-urban policies (Li & Wu, 2012; Tang, 2000; Zhang, 2002). Deng Xiaoping's reform and opening-up policy saw the onset of an unprecedented urban transformation. This nationwide reform led to significant changes in the planning system (Figure 1).⁴ Urban planning was aligned to the overall economic planning system, the primary expression of which were the five-year economic plans. In the pre-reform period, the built environment was effectively an expression of these economic plans (Wu, 2007). A two-tier planning system, comprised of a 'master plan' and a 'detailed construction plan', focused on technical feasibility. Physical design and planning were purely government activities (Wu, 2007; Yeh & Wu, 1999). However, the post-reform era witnessed a shift in functionality of urban planning, from materialising economic planning to improving competitiveness of cities (Wu, 2007). In 1989, the first Urban Planning Act was passed, which legalised planning systems and strengthened planning processes. Planning law saw further development with the City and Rural Planning Act 2008 (Chen, 2016; Yu, 2014; Zhao, 2015). A power shift from the central government to local governments encouraged the latter to proactively promote the competitiveness of cities. This decentralisation approach created a new demand for professional knowledge and skills in planning and design. Beyond the two-tier planning system, concept plans, strategic development plans and project-based urban design have been favoured by local governments, resulting in the proliferation of planning and design consultation. Project-based urban design is manifested at a hierarchy of levels, beginning with the master plan, followed by the district level, specific area level and finally the level of groups of land plots (Chen, 2016: p. 83; Wu, 2007). Foreign planners have become involved through consultation as well as through successfully winning competitions; the Pudong development is an early example (Olds, 1997). With the growing openness of Chinese society and economy, and greater demand, international UPD firms have established on-site offices. Wu (2007) addressed the question why international UPD firms have been welcomed in China. Firstly, the focus of planning is no longer upon the purely physical and technical aspects. Rather, plans have come to express the importance of modernity and success. The involvement of these international firms was, then, a status symbol generating positive publicity. Secondly, Chinese planners were mostly trained in architecture and physical design and therefore their capacity to embrace emerging planning concepts was limited. Thirdly, local governments believed that the expertise of international UPD firms could effectively enhance city promotion, in spite of their lack of local knowledge.

Internal Dynamics

The increase of the Chinese urban population is considerable. It is driven by rural-to-urban migration, creating a high demand for urban land and new infrastructure. To accommodate the growing population and urban activities, land use has been converted from rural to urban functions. The search for available, affordable land leads to peri-urban regions, hence, spatial expansion. With population increase and spatial expansion comes high demand for residential and commercial space. Housing developers are active in these rapidly expanding urban areas as they seek profitable development projects. In addition to housing development projects there is high demand for a variety of urban development projects, including mixed-use development, office buildings, shopping centres, heritage preservation-related urban development and sport centres.

⁴ For detailed reviews of the planning system in China, see Yu (2014), Zhao (2015) and Chen (2016).

With a growing urban population, governments have incorporated new ideas and planning concepts into new development projects. Eco-city development, smart city making, and western-style new town development are typical examples. There have been more than 101 eco-city development projects across China in 2012 (Li, 2012). Forty-nine projects involved smart-city development in 2013.⁵ When Shanghai constructed new towns to decentralise urban functions, the Shanghai government embraced western-style themes in the shape of ‘German’, ‘Italian’, ‘British’ and ‘Scandinavian’ towns (Shen & Wu, 2012). The success of these development projects is critical to the entrepreneurial aspirations of local governments in terms of public revenue generation and the promotion of a city’s image. Local political leaders have been keen to cooperate with planners and investors for political success; urban planning has become a marketing tool for investment that is believed to contribute to economic growth (Leaf & Hou, 2006). Both the public and the private sector look for high quality UPD firms, providing opportunities for international firms.

Global Market Forces: FDI Flows of Advanced Producer Services

FDI is an outcome of cross-border corporate strategies that seek out production activities in other countries in the pursuit of profit. The volume of worldwide FDI flows has increased significantly with deregulation policies in global trade and business. Dunning’s (1993) eclectic OLI paradigm, referring to ownership-specific advantages, location-specific advantages and internalisation-specific advantages, provides a theoretical framework to understand why, where and how corporations become transnational. The O-factors refer to the competitive advantage of the firm; the L-factors refer to locational advantages of alternative countries or regions, and the I-factors are associated with greater benefits of internalising cross-border intermediate product markets (Dunning, 2000). These multinational enterprises (MNEs) are driven by the quest for natural resources, markets, efficiencies and strategic assets, such as managerial skills (Dunning, 1997). For instance, investment in offshore manufacturing production in developing countries seeks low-cost human and natural resources, which has been a recurrent strategy for investments in developing countries from developed countries. These OLI advantages are not mutually exclusive but interconnected. Whereas Dunning’s OLI primarily focused on reasons to become multinational, this research employed broadly defined perspectives for understanding spatial and operational strategies used by international UPD firms.

O-factor: Any intrinsic advantage of an international firm is regarded as an O-factor in this study. The Chinese government has been keen to attract inward FDI to enable economic growth and technology transfer (Airriess, 2008; Wu & Radbone, 2005). Ownership-specific advantages in manufacturing include skills and knowledge in production. While Chinese production was controlled by the government under the socialist regime, China experienced limited technological innovation justifying policies towards technological transfer. In the urban sector, socialist ideals were expressed in built environments as represented in *danwei*, i.e. work-units that offered workplaces, housing and basic services (Yeh & Wu, 1999). The spatial manifestation of socialist thinking was largely homogeneous in design, poor in quality, and beyond human scale in public space, which is not desirable for built environments in new economies (Ma & Wu, 2005). UPD firms with international experience are in an advantageous position by virtue of their skills and reputation that have accumulated along with engagement in market economies.

⁵ http://www.gov.cn/gzdt/201308/05/content_2461584.htm

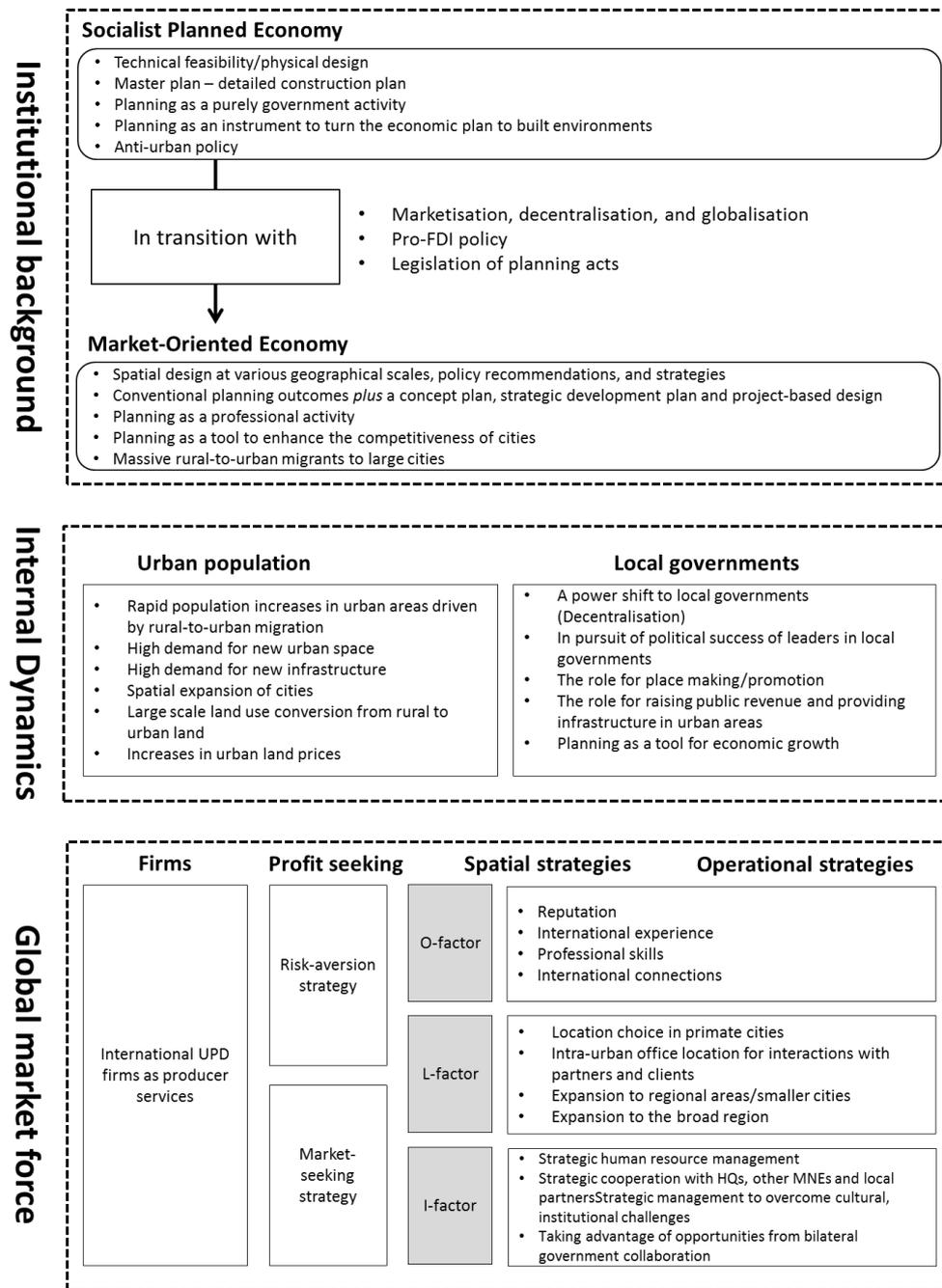


Figure 1. Contexts of international UPD firms from an OLI perspective.

L-factors: The growth of FDI flows has spatial implications. L-factors are location-associated factors. The global city literature, including Friedman (1986) and Sassen (2001), claims that global capital, channelled via MNEs, is likely to be concentrated in globally important cities, i.e. cities that have accumulated command-and-control functions as centres for financial institutions (Sassen, 1999; Sassen, 1995), regional headquarters (Taylor & Csomós, 2012; Yeung, Poon, & Perry, 2001), and advanced producer services (Beaverstock, Smith, & Taylor, 1999). The role of producer services, of which UPD firms are a part, in the formation of global cities has been underwritten referring to their reputation, professional skills, international experience and global

connections, which are fundamental to securing new markets in a highly globalised era (Daniels, 1995; O'Connor & Daniels, 2001). Developing countries have also witnessed manifest growth in advanced producer services in primate cities (Han & Qin, 2009; Morshidi, 2000; Yeh, Yang, & Wang, 2015; Zhao & Liu, 2015).

Transnational producer service firms seeking profit pursue corporate strategies to minimise business risk and maximise market accessibility and their geographical business scope. These strategies have led to the emergence of producer services in primate cities such as Shanghai and the Pearl River Delta in China (Han & Qin, 2009; Yeh, et al., 2015), Kuala Lumpur in Malaysia (Morshidi, 2000), Seoul in Korea (Kim & Han, 2012) and Ho Chi Minh City in Vietnam (Nguyen, 2008). In an intra-urban context, FDI in advanced producer services has appeared in core business districts in spatially concentrated ways to enhance proximity to clients, quality information, casual communication, and learning opportunities from other innovative firms (Grant & Nijman, 2002; Kim & Han, 2014). These strategies have encouraged firms to seek out business opportunities beyond their present office location, tapping into markets in a wider region. These firms have established new offices for business expansion in target cities although a permanent office involves higher levels of risk when stable business opportunities are not guaranteed.

I-Factors: Non-spatial and operational approaches have been also undertaken by advanced producer services and these are considered here as I-factors. MNEs seek to promote efficient human resources management, build strategic cooperative relations with their headquarters, other MNEs (Wei, Yuan, & Liao, 2013) and local partners (Kim & Zhang, 2008), establish localisation strategies (Martek & Chen, 2014), implement strategic management to overcome cultural and institutional barriers (Peng, 2000), and take advantage of business opportunities from bi-lateral (or multi-lateral) governmental collaboration (Phelps & Wu, 2009). Figure 1 presents a theoretical framework to encapsulate these developments.

International UPD firms have grown as part of advanced producer services. However, the UPD industry has distinctive features due to citywide impacts, built environmental knowledge as major intermediate input, and tight industrial networks comprising the public sector and urban professionals (Table 1).

Table 1. Urban planning and design firms in contrast to producer service firms.

Similarities as a producer service provider	Differences as an urbanisation facilitator
<ul style="list-style-type: none"> • O-factor: global networks, professional skill sets, international reputation • L-factor: high presence in global cities and CBDs • I-factor: operational strategies 	<ul style="list-style-type: none"> • Citywide impacts: city-reshaping products • Intermediate input: knowledge about built environments • Industrial networks: close ties with public sectors and built environment professionals

In summary, new planning systems have established institutional fundamentals for international UPD firms, internal urban dynamics have created new demand for international UPD firms, and global forces have stimulated them to seek business opportunities. International UPD firms are, in turn, creating citywide impacts and facilitating globalised urbanisation by taking advantage of their ownership-specific assets and by geographically expanding their offices to Chinese cities with growing regional significance.

Data Collection

This research was aimed at outlining the overall trend in international UPD firms operational in China based on an extensive survey and in-depth interviews with these firms. Three sets of information were used. Firstly, a list of international UPD firms was established by online search:

1. The initial search started with MNEs in the UPD industry.
2. The websites of each firm from the initial search were found in the Chinese portal website, Baidu (www.baidu.com).
3. Detailed information of the firms was collected, including address, contact details and China office information.
4. The websites were screened for projects and the like to confirm operation of the UPD firms in China.
5. In addition to projects, profiles of the firms were outlined from the websites.
6. If no detailed information about the firms could be retrieved, a second attempt was made to search on the portal.
7. If still no detailed information was unavailable, the firms concerned were removed from the list.

The list includes 100 international UPD firms with key information such as English and Chinese names, the year of establishment in China, size of the firm, address of the China offices and webpage.

Despite some missing information, the list provides an overview of international UPD firms in China in terms of chronological evolvement and nationwide location patterns of their offices. Forty-eight firms provided information on the year of establishment in China, which was used to describe the historical development. Two hundred and seventeen offices were identified, with several of these being multiple office locations of one firm.

Secondly, a questionnaire survey was conducted. The online survey questionnaire, both in Chinese and English, was sent to the contact person(s) in the identified international UPD firms. Participation was also sought through industrial networks, academic networks, 'cold calling' and a 'snowball approach'. This research surveyed 11 international UPD firms in total. The results of the survey were tabulated.

Thirdly, some survey respondents provided further information through in-depth interviews. The interview questions were semi-structured and designed to collect firm-specific information regarding business strategies. In total, five in-depth interviews were carried out. Each interview lasted for about one hour. Due to the massive presence of the target firms in Shanghai, interviews were conducted in English in the Shanghai conurbation (including one in Suzhou), in the period 2014-2015. The interviews were recorded and/or transcribed if appropriate. Interviewees were high-level managers, planners/designers, and one founder. In addition, more specific information was collected from published brochures and the websites of the firms.

An Overview of International UPD Firms in China

Chronological Evolvement, Origins and Spatial Patterns

This section outlines the chronological evolution, origins, and spatial distribution of international UPD firms in China using the dataset of this research. International UPD firms have appeared in

China since the early 1980s, with three American firms establishing offices in this decade. These firms were originally founded in the 1950s. Initially, the offices targeting China were located in Hong Kong and then expanded into Beijing, Shanghai and Shenzhen. The first firms were medium-sized, such as John Portman & Associates, with 800-1600 employees worldwide. The 1990s witnessed inflow from a wider range of origins, but still firms from North American countries (USA and Canada) dominated. The size of the firms diversified with the appearance of larger firms. The largest of these was Atkins, headquartered in the UK. The vast majority of the international UPD firms currently operating in China were established in the 2000s. From the available data, it can be identified that 63%, or 30 out of 48 firms, arrived in this period. Shanghai was the location for most of the early arrivals. American firms were identified as the largest group (34%), followed by France (13%), Australia (10%), Japan (8%), Germany (8%), Singapore (8%), and the UK (7%). Most American firms had their offices in Shanghai and Beijing starting from the 1990s and the 2000s. Representative examples from the USA are JY Design Planning, EDSA and the USA W&R Group. Firms from France began their planning and design businesses in the 2000s. These were medium-sized, with less than 10 offices world-wide, and include C&P Architecture, Aube Conception SARL d'Architecture, and ARTX ARCANE. Australian firms appeared also in the 2000s. Except for GHD, most Australian firms were small and medium-sized and headquartered in the major Australian cities of Sydney and Melbourne. The location distribution of international UPD firms shows highly concentrated patterns. Among the 217 China offices identified from the 100 firms, 35% were found in Shanghai, followed by Beijing (24%).⁶

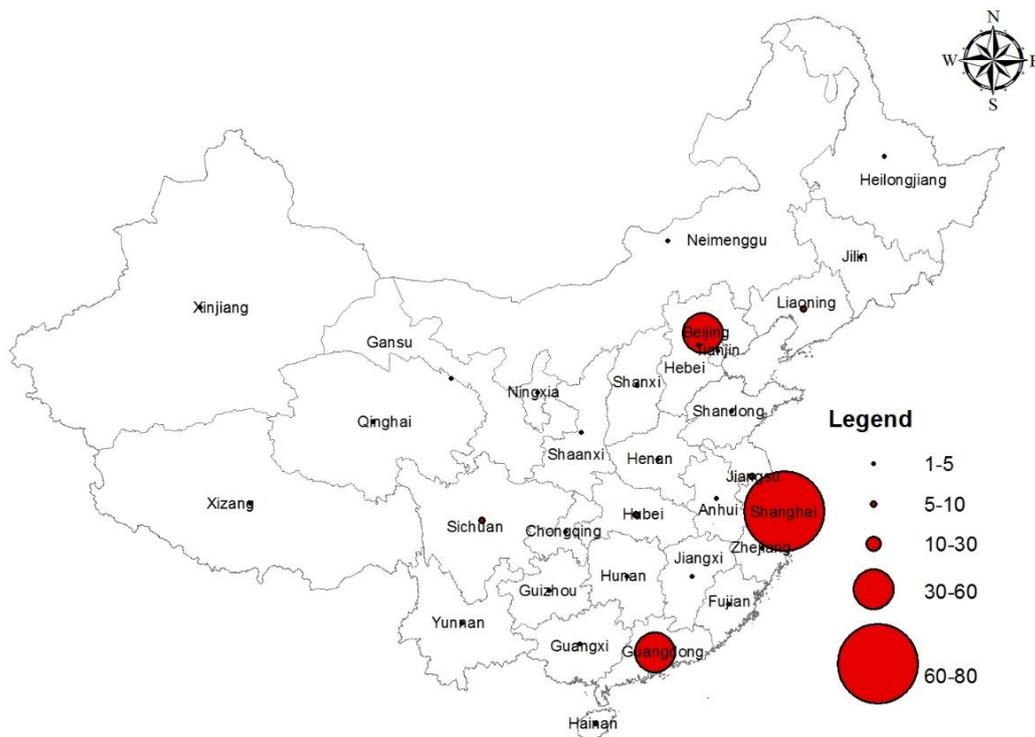


Figure 2. Location distribution of international UPD offices in China.
Unit: numbers of offices.

⁶ Figure 2 exhibits the number of offices, but the number of the total employees might represent higher levels of concentration patterns. Precise data are unavailable.

The spatial concentration in core cities, particularly Shanghai, aligns with the locational choice of other producer services in China (Zhao & Liu, 2015). While there are strong centrifugal forces at play with the location of manufacturing, seeking low-cost land and labour, proximity to clients is the key to the locational preferences of advanced services, who favour face-to-face communications, frequent meetings and easy access to both explicit and implicit information. Even within Shanghai, international UPD firms are highly concentrated in the CBD. As discussed below, these firms both compete and collaborate with each other. They share business information, jointly bid for projects, sign joint contracts and often outsource to other international UPD firms. These inter-related business networks drive co-location in urban cores.

*Operations of International UPD Firms*⁷

This section draws on the survey results to investigate the firms' strategies. Six of the 11 surveyed firms were from the U.S.A. with the remainder from the UK, Australia, New Zealand, the Netherlands, and Singapore. Globally, the size of the firms ranged from 2 staff members to 100,000. In the sample, the average number of staff members for China offices was 341, ranging from 2 to 2000. In the interviews, the average number of employees was 111. Approximately 19% of staff members were foreign nationals. All respondents were located in Shanghai, except 1 in Beijing and 1 in Suzhou.

The major activity of the firms was master planning (81.8%), landscape architecture (72.7%), strategic planning (63.6%), architecture design (54.5%), and interior design (45.5%). Their major clients are predominantly private development companies (90.9%) and local governments (72.7%). The central government (27.3%) and individuals (18.2%) are relatively rare. The primary reason for international UPD business location was to source urban development (planning and design) projects in China (81.8%), followed by seeking urban development projects in Asia (27.3%). Due to the nature of the UPD industry, resource seeking (such as cheap labour/land and natural resources) was not a concern. Also, due to their advantages as international UPD firms, talent seeking was irrelevant to the surveyed firms. 63.6% of the surveyed firms were planning to expand their business operation within the next three years, while 36.4% reported they had no plans for expansion. No firms reported plans to decrease their activity. These results suggest that further growth can be expected. The surveyed firms specified other international UPD firms as their major competitors in China (54.5%), followed by UPD firms elsewhere in the world (36.4%). No firm identified local Chinese UPD companies as competitors. The majority of the firms (63.6%) had less than 20% of their projects within the city where their office was located. Only two firms chose the 20-40% range. In other words, UPD firms are seeking out projects across China. 72.8% of the Chinese offices had projects outside China and 9.1% are planning to expand to other Asian countries. The active business operation by international UPD firms with China offices displays the growing roles of Shanghai as a command-and-control centre in Asia. From their Shanghai base, the international UPD firms attempted to seek out further opportunities in the Asian region more broadly. In this sense, Shanghai plays a role as a regional headquarters that is a key to global city development (Yeung et al., 2001).

Table 2 outlines important OLI elements. Quality design and planning skills were identified as the most important element for success, followed by an understanding of the Chinese cultural context, international experience, and international reputation (Table 2). Understanding the Chinese context was seen as important for localised planning outcomes such as reflecting Chinese

⁷ This section is based on information from the 11 surveyed firms. Due to the small sample size, interpretation of the survey result needs to be careful.

historic and cultural significance and residents' preferences. Less important for firms' localisation strategies are links to local authorities (9.1%), Chinese language skills (9.1%) and connections to local Chinese firms, which were not identified by any firm. Meanwhile, other research has indicated that connections to government through personal and business networks, or *guanxi*, are seen as important for firms' success (Luo, 1998; Peng, 2000; Pereira, 2004). The survey results indicate that international UPD firms see their skill sets as more significant than a localisation strategy. These firms have taken advantage of ownership-specific assets such as international experience and reputation to compensate for weak local connections. Most surveyed firms stressed ownership-specific advantages more than localisation strategies, although this emphasis varied depending on their strength and the focus of business expansion into China.

Table 2. Key OLI elements for UPD businesses in China.

Key elements	Percentage	Category
Quality design/planning skills	81.8%	O-Factor
Understanding of Chinese contexts	54.5%	I-Factor
International experience	45.5%	O-Factor
International reputation	36.4%	O-Factor
Connections with international UPD firms	9.1%	I and L-Factor
Connections with local authority	9.1%	I and L-Factor
Chinese language skills	9.1%	I-Factor
Connections with local Chinese firms	0.0%	I and L-Factor
Capital investment	0.0%	O-Factor

Narratives

From the in-depth interviews, three types of international UPD firms were identified. The first were large MNEs operational across many countries. They took advantage of economies of scale for China's business. The second were small- and medium-size firms that have established business networks through Chinese partners and/or by recruiting Chinese employees. For small-size firms, family consideration was one of the reasons to seek out the Chinese market. For instance, those who have married a Chinese national have a good reason to stay in China other than for professional reasons. The third were firms with opportunities arising from collaborations between governments. For instance, the Tianjin Eco-City, a large-scale urban development project, is a collaborative project between China and Singapore (Caprotti, 2014). Due to massive investment from the Singapore government, Singapore firms found opportunities in Chinese cities, with Suzhou Industrial Park as a notable example. The narratives are structured by broadly defined OLI factors.

MNEs: a case study of ARUP Shanghai

ARUP, headquartered in London, is an MNE in engineering, urban planning and design. Founded in 1946, its Asian regional headquarters was established in Hong Kong in 1976.

O-factor: ARUP Shanghai entered the UPD field in 2006, having previously only focused on building structure and engineering. As Chinese construction engineering technology was limited at that time, ARUP was asked to provide technical support in engineering and construction. The Hilton was a high-rise building constructed in what was then the low-rise district of Xintiandi. Xintiandi has been since developed into a dynamic business centre by converting post-revolution buildings (formerly used by the Chinese Communist Party). It can be seen from this example that

ARUP set the scene for the transformation of Xintiandi and in so doing impacted the modern skyline and landscape of Shanghai. After the Hilton project, ARUP worked for large-scale development projects especially in the engineering sector, including the Shanghai Lippo Centre, the 278m-high New World Centre, and in the 1990s, the Shenzhen Citizen Centre. Shanghai ARUP now operates in a wide range of UPD sectors, including eco-city development, transit-oriented development (TOD), renewable energy, and ecological planning. ARUP introduced advanced planning concepts currently implemented worldwide. For instance, it incorporated principles of eco-city development. One example is the Low-Carbon City Index, which was incorporated into the Beijing eco-city development. By virtue of international connections through the intranet within the firm, information is shared among worldwide offices. Active cross-office interactions through the intranet contributes to the efficiency of the project in terms of time and the reflection of new ideas.

L-factor: The first project in China was construction engineering work for the high-rise Hilton Hotel located in Shanghai, in 1984. ARUP then expanded China operations by establishing offices in Chongqing, Guangzhou, Macao, Shenzhen, Tianjin and Wuhan. Currently ARUP has over 10,000 employees worldwide with over 90 offices in 37 countries. There are approximately 350 employees in Shanghai and 1000 employees in China offices overall. In concert with planning initiatives for balanced nationwide development, the Chinese central government pursued development in central and western China. ARUP Shanghai followed this lead, seeking out new business opportunities in less developed regions.

L-factor: Shanghai ARUP began with 6 staff members in 2006. Since the establishment of the UPD department, Shanghai ARUP has worked on approximately 120 projects in some 50 Chinese cities, including the Dongtan Eco City in Shanghai and the Changxindian Low-Carbon City Community. As Shanghai ARUP undertook more projects, the number of staff in the UPD department increased to 42. With extra office space, this number will grow. Six of the 42 employees are foreign nationals. About 50% of Chinese nationals working for the firm studied or were trained overseas. Initially, a key strategy was to provide high quality services at low consultation fees to tap into the market and improve market share. As the planning sector in ARUP Shanghai was new to clients, this strategy was acted upon especially for the first two years. By providing quality services, ARUP Shanghai built up trustworthy relationships with clients and expanded its pool of clients. In the beginning, contracts were made through competitive bidding, which accounted for as much as 80% of the contracts acquired by ARUP. However, as ARUP Shanghai became more well-known, it started to acquire more contracts through direct invitation, i.e. without competitive tendering. At the time of survey, only 10% of current projects were acquired through competitive tender. ARUP Shanghai found that Chinese governments are open-minded towards new planning ideas, despite strict bureaucratic regulations. Facing competition between local governments, active promotion of and engagement with internationally renowned planning concepts arguably raise public revenue and promote a positive image of the city.

As stated by the interviewed urban planner, this firm has created tight networks comprising the public sector and local urban professionals, contributing to the reshaping of urban space:

70-80% of our current clients are governments and government agencies.... More recently, most of our clients have been looking to implement a project. It is not just having a concept. Most of time we have to collaborate with local design agencies to carry out the actual process from concept design to getting approval to move towards implementing the infrastructure (Interview on 25 November 2014).

Small and Medium-Size Firms: Case Studies of Boffa China and Urban Language Research

Boffa China

Boffa Miskel, an urban design company, was established in 1972, headquartered in Oakland, New Zealand. Apart from Oakland it also has offices in Tauranga, Wellington, and Christchurch. There were 170-180 employees in total. In the beginning there were only three staff members at Boffa Shanghai. It had a small office nearby the director's house. As the business grew, it sought a larger office space. There were 15 employees in China, including four foreign nationals.

O-factor:

Superior planning and design skills were the key factors for Boffa Shanghai. The Boffa Shanghai office originally focused on master planning and landscape architecture across the whole of China. The company used ideas and skills gained from experience in New Zealand for projects in China. New Zealand has strict environmental regulations and a strong tradition of environmental planning in areas such as stormwater management. Thus, Boffa Shanghai drew on their experience with stormwater management for China projects. Apart from advanced planning and design skills, understanding local customs was identified as a crucial factor.

L-factor: Thanks to the suggestion by an Australian UPD firm, the Boffa Shanghai office relocated to its current address in the same building as this Australian firm. Boffa China both compete and collaborate with other international UPD firms. It has completed two projects in collaboration with the Australian company, a clear indication of the benefits of co-location. Boffa Shanghai became the base for expansion beyond China, with the firm currently seeking out urban planning and design projects in Vietnam, Cambodia and the Philippines, using the Shanghai office as a stepping stone. Due to the significance of this business expansion, then New Zealand Prime Minister John Key visited Boffa Shanghai on his official trip to China in 2010.

I-factor: Before the establishment of the China office, Boffa Miskel had two projects in China. The first was in response to a request by a Chinese real estate developer who had approached Boffa Miskel in Oakland to proceed with a development project. A second project emerged through the ethnic networks of a Chinese designer who studied in Oakland and worked for Boffa Miskel. The designer was the conduit between developers in the home country and her employer in Oakland. By virtue of these two projects, Boffa Miskel gained understanding of the Chinese context. When a third project emerged, the client requested Boffa Miskel to establish an office in China. As a result, it established the office in Shanghai as a wholly foreign-owned enterprise in 2010. Boffa Shanghai was the only New Zealand UPD firm operational in China.

The Shanghai headquarters was the focus of a human resources management strategy that placed outsourcing central to labour requirements. As large-scale projects occurred occasionally rather than regularly, recruiting a high number of permanent planners and designers was risky. In contrast, spontaneous project contracts brought high workloads; these were difficult to manage with a limited number of core employees. Accordingly, some international UPD firms often sign business contracts with local partners to secure human resources and manage local issues:

Because these are jobs for the government, they require a license... So, we have to partner with local design companies... Currently we work with a range of people depending on where we are. We tend to work together with companies that are local to the area (Interview on 25 November 2014).

Thus, Boffa Shanghai makes full use of headquarters and/or outsourced certain types of tasks that can be completed by local firms. Thus, there is a division of labour: the Shanghai office transfers tasks such as geographic information system (GIS) and ecological planning back to HQ. Urban design is completed in either Shanghai or at headquarters. Rendering tasks, however, are more likely to be outsourced to local firms.

Urban Language Research

Urban Language for Urban and Rural Studies (hereafter Urban Language) is a small-size research institute in Shanghai founded by a Dutch national in 2008.

O-factor: The main activity is strategic plan making and research. The founder in question was motivated by a personal interest in Chinese cities, hence his decision to establish an agency in China. Urban Language has done research projects and design projects for clients, including institutions located in Europe and research institutions and universities in China. As the founder is a European living in China, European institutions have made use of his presence for consultation. The agency does not compete with UPD firms but plays a role in providing professional knowledge. Urban Language functions as a bridge between the West and China. Conversely, when Chinese developers seek information about western-style development, they consult with Urban Language. Shopping malls, for example, which are rapidly proliferating, increasingly assume modern Western styles rather than Chinese traditional design. Although the direct transplantation of western design to Chinese cities has been limited, developers of new buildings such as shopping centres, hotels and offices are adopting modern design with western styles.

L-factor: Due to the economic emergence of China, European countries are trying to strengthen connections, but they are, of course, still geographically distant. In order for European countries to access updated information, Urban Language is useful due to its presence in Shanghai. Furthermore, Urban Language is internationalising its research scope. Recently, the research scope has expanded to Indian cities where developers and planners are seeking implications from the Chinese experience, including new town strategies.

I-factors: The original staff comprised of the founder (who is married to a Chinese national) and two Chinese administration staff members. I-factors include the following three aspects. Firstly, practitioner-based research links practical planning and design to the research sector, making use of the founder's experience in Europe. Secondly, Urban Language disseminates research findings through their webpage and print publications. One example is the book *Shanghai New Towns: searching for community and in a sprawling metropolis*, published bilingually in English and Chinese. It illustrates the development process of new towns intended to decentralise urban functions. It was published in a timely manner, which improved the reliability of the firm. The webpage of the firm describes China's current urban transformation and reports research and design projects conducted by the agency. The webpage is in English only, implying its target group are English-speaking people. Thirdly, Urban Language has a close connection with universities and research institutions. The founder has frequent interactions with universities located in Shanghai and Jiangsu Province, offering lectures and disseminating research outcomes.

Firms Associated with Governmental Collaboration: The Case Study of SCP

In 1994 the Chinese government and the Singapore government agreed to construct an industrial park. When the Singapore government disengaged in 2002, China-Singapore Suzhou Industrial

Park (SIP) was already at the stages of construction, development, and mature growth beyond the planning stage. SIP is located in Suzhou, Jiangsu Province, with a total land area of 288km² (Kim & Cocks, 2018; Pereira, 2003, 2004).

O-factor: Singapore was eager to export the FDI-orientated Singapore urban development model to Asian regions (Phelps & Wu, 2009), while the Chinese government was interested in employing Singapore's experience and skills in urban development. The Chinese government provided land, while the Singapore government was in charge of large-scale investment, planning and design of SIP and even trained planners and government officials. The development of SIP was led by Singapore until 2002, when the Singapore government pulled out due to seemingly unfair competition with another industrial park, managed by the Suzhou government. Although the Singapore government reduced the share in the development from 65% to 20%, China Singapore Suzhou Development (CSSD) left an indelible mark. SIP was recognised as one of the most successful industrial parks in China. There has been massive inward FDI from Taiwan, Japan, the USA, Korea, and Singapore, leading to drastic economic growth (Kim, 2018; Kim & Cocks, 2017; Kim & O'Connor, 2019). Per capita GDP was more than USD 37,000 in 2013.⁸ Major Singapore government planning agencies participated in SIP, including the Urban Redevelopment Authority (URA), Jurong Town Corporation (JTC, an industrial development agency) and the Housing Development Board (HDB). Chan Soo Sen, a Singapore national, was the former CEO of CSSD. In 2004, he founded State and City Planning (SCP), a UPD company, owing to his know-how and experience in SIP as a top-level planner.⁹

L-factor: SCP Suzhou, headquartered in Singapore, plays a role as China regional headquarters, where the number of employees outnumbers that at the head office. Since its establishment, SCP has grown and expanded across China. In addition to the Suzhou office, SCP has established China offices in Beijing, Shanghai, Shenzhen, Chengdu, and Taipei. SCP is expanding its scope across China, establishing offices in key cities. This extends beyond large cities, with SCP looking for business opportunities in locations in western China such as Xinjiang Province, where there are many on-going government-funded urban development projects. Moreover, SCP is internationalising beyond Singapore and China. When other developing nations seek out industrial park development, SCP is able to provide consultation on planning, design and implementation by virtue of its experience in SIP. This has extended to industrial park projects in Vietnam and African countries. As a medium-size MNE, SCP takes advantage of its experience in Singapore and Suzhou when expanding its business in and beyond China.

I-factor: SCP, as a foreign-invested enterprise, gained a Certificate of Qualifications of Foreign-Funded Enterprises for Urban Planning Service from the Chinese government, which helped to increase its business scope due to enhanced publicity. SCP has a focus on planning, strategy development, transport planning, and landscape architecture. In addition, it has departments for GIS, media and research and development. The R&D department publishes journals for practitioners and arranges conferences facilitating interaction between academics and the industry.

Conclusion

This research outlines international UPD firm operations in China, detailing their activities from an OLI perspective. These firms have tapped into markets in which planning and design project

⁸ SIP website, www.sipac.gov.cn

⁹ SCP webpage, www.scp.com

opportunities emerge due to dynamic urban transformation. The evolution of planning systems in China has created a positive institutional environment for international UPD firms. These firms appeared in the 1980s and the 1990s and grew rapidly in the 2000s, establishing solid business networks. International UPD firms have played a role in bringing new concepts and skills to urban development projects.

Large international UPD firms have emphasised new concepts and advanced urban planning and design skills. These are core ownership-specific advantages. For instance, Chinese governments have embraced new forms of urban development models such as eco-cities and smart cities, opening the way for international business opportunities for international UPD firms. MNEs in UPD have led the implementation of these planning ideas by virtue of their know-how, which they accumulated worldwide. The high quality of planning and design outcomes are recognised as the most important element for MNEs. Thanks to their advanced planning and design skills, they have expanded their business in China, despite weak local connections. These ownership-specific advantages have played a role in bringing new planning and design ideas to Chinese cities. Knowledge transfer has been observed to various extents in the urban planning and design sector, as was seen in the in-depth interviews with international UPD firms.

These firms have utilised location-specific advantages that were beyond the comparative benefits between the home and host locations. As foreign firms, they magnify the benefits of their office's presence by locating them in firmly established large cities where there are already other foreign firms and their clients, as manifested in a high geographical concentration in Shanghai. Due to frequent interactions with other advanced producer services firms and UPD firms, these firms are likely to cluster in the core business areas of primate cities. Moreover, they have undertaken spatial expansion of their business scope into the broader Chinese region and even Asian regions by using the presence of their China offices. All firms from the case study make use of their China offices for further spatial expansion into China and elsewhere in Asia, which implies that Chinese cities are gaining international command-and-control functions. International UPD firms are facilitating globalised urbanisation directly by bringing international planning and design concepts and indirectly by locating their regional offices in globalising Chinese cities to manage the broader Asian region. To strategically operate their UPD business, international UPD firms employ operational and non-spatial strategies such as flexible human resources management, localisation, and partnerships with local firms.

The OLI paradigm provided the framework for understanding emerging international UPD firms in China in this research. How local sectors have been catching up and developing their ownership-specific assets is an interesting and important research question for future work, in view of China's recent effort to 'go abroad'. The broadly defined and conceptualised OLI framework will require further rigorous theorisation.

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