Institutional Complexity for Chinese International Contractors

Yafan Fu and Roine Leiringer
Department of Real Estate and Construction, University of Hong Kong, Pokfulam, Hong Kong

Abstract

Purpose – *The paper aims to investigate the prevailing institutional logics that underpin the organisational behaviours of Chinese contractors and the institutional complexity they face across several strategic areas when they undertake projects abroad.*

Design/Methodology/Approach – *The paper draws mainly on industry literature, reports and government websites to develop a typology of two ideal types of institutional logics that prevail among Chinese international contractors. The configurations of institutional complexity in different strategic areas are analysed through pattern-matching.*

Findings – *Two main logics are identified, namely, construction and investment logics. These logics in turn lead to patterns of volatile complexity in the strategic areas of business, technology, human resources and marketing; patterns of aligned complexity in operational and information technology strategic areas; and patterns of segregated complexity in financial strategic area.*

Research Limitations/Implications – *The paper presents an ongoing doctoral research. It provides a preliminary understanding of the institutional logics affecting Chinese international contractors and sets out the first step to understand the relationship between complex institutional environments and organisational responses.*

Practical Implications – *Chinese international contractors commonly face resistance, and at times resentment, from the local industries in the countries they operate. The findings of this paper are a first step towards a better understanding of why this is the case and what can be done to rectify the situation and improve long and short-term project performance.*

Originality/Value – *This paper provides practical implications for Chinese contractors to understand their internal context of institutional complexity and provides the basis for further understanding of Chinese contractors' strategic responses.*

Keywords Institutional logics, Institutional complexity, Infrastructure projects, Chinese contractors, International construction, Strategic areas

All papers within this proceedings volume have been peer reviewed by the scientific committee of the 10th Nordic Conference on Construction Economics and Organization (CEO 2019).

1. Introduction

Governments all around the world are developing and re-developing infrastructure facilities to provide solid a foundation for the ever-increasing needs for economic growth. Concomitantly, an increasing number of contractor firms are enlarging their business scope

Emerald Reach Proceedings Series
Vol. 2
pp. 445–451
Emerald Publishing Limited
2516-2853
DOI 10.1108/S2516-285320190000002026

to global markets to seek greater opportunities. Notably, Chinese international contractors have become active and competitive participants in the international construction arena during the past two decades.

Major infrastructure projects refer to large-scale engineering facilities, such as transportation systems, hydropower projects and gas pipeline projects. Although often desperately needed, these projects are notorious for their poor performance. Additional to the continuous attention to governance mechanisms internal to projects, scholars and practitioners alike have come to realise the significance of the impact of the surrounding social context on project organising. Undertaking major infrastructure projects in overseas markets means that contractors are confronted with different institutional demands; including political and legal systems, norms and social values, and cultural backgrounds. The external institutional environments for contractors are diverse and fragmented, and not seldom in conflict. Add to this the complex internal environments, including spatial, cultural, organizational distance (Kostova *et al.*, 2008), and it is clear that great challenges are posited in front of contractors.

Chinese international contractors are emerging as a competitive force in the international construction market; however, their process of exploring global markets is consistently problematic. For example, Chinese contractors are not completely accepted, and even resisted, in many overseas markets partially due to their perceptions of corporative social responsibility. For example, Auffray and Fu (2015) show how there is a distinct lack of local employees at a managerial level in their projects in Ghana and argue that this leads to insufficient knowledge spill-over. Thus, coping with internal managerial complexities as well as responding to externally institutional complexity is of significant importance to Chinese contractors.

This paper, which is conceptual in nature and based on a literature review, starts by reviewing the constructs of institutional logic and institutional complexity. Particular attention is given to the factors contributing to the formation of different types of institutional complexity. Attention is then turned to identifying the main institutional logics in the Chinese construction industry. Two institutional logics, namely, the construction logic and investment logic, are identified and elaborated upon using the framework of Thornton (2004). Through a pattern-matching method, characteristics of different types of institutional complexity in major strategic areas of contractor firms are identified, which help to better understand current practice.

2. Institutional logics and institutional complexity

Institutional logics are

> "the socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences" (Thornton and Ocasio, 2008: 175).

Hence, institutional logics depict frames of reference that determine actors' choices for sense-making, the vocabulary they use for action, and their sense of identity. Each institutional order has distinguished principles, practices and symbols. Although current studies provide various definitions, it is still problematic to clearly instantiate and explain what an institutional logic is. However, the development of ideal types offers an advanced tool for studying institutional logics. In this paper we adapt the general model developed by Thornton (2004), which includes five elemental categories of institutional logics: basis of attention, organisational identity, legitimacy, sources of authority and mission.

Organisations encounter institutional complexity when multiple competing, and at times contradictory, institutional logics are present (Thornton, 2004). This inevitably brings challenges and tensions to the organisations exposed. To decompose institutional complexity, three key areas have been identified, namely, incompatibility (Besharov and Smith, 2014), unsettled prioritisation (Reay and Hinings, 2009), and jurisdictional overlap (Smets and Jarzabkowski, 2013). Logic incompatibility refers to the situation where institutional demands from multiple logics are not easily combined. Unsettled prioritization refers to the situation where it is not immediately clear how to prioritize between the multiple institutional demands originating from different logics. Jurisdictional overlap occurs when institutional demands of different logics affect the same domain.

The three key areas can in turn be configured into four main types of institutional complexity. (i) Restrained complexity refers to the circumstance where incompatible institutional logics have jurisdictional impact on the same domain while having a well-settled prioritisation. In such contexts, it is quite clear to audiences which logic is dominant over others. (ii) Aligned complexity, in turn, refers to cases when where is overlap between the jurisdictional domains of different logics and the prioritisation between them is unsettled, yet the prescriptions of these logics may be compatible and possibly mutually enhancing. (iii) Segregated complexity refers to the situation where all the institutional demands from different logics have clear jurisdictional boundaries. (iv) Finally, volatile complexity is characterized by ambiguous jurisdictional boundaries and unsettled prioritisation of incompatible logics and is argued to be the most challenging context for organisation to navigate. Each type of institutional complexity provides unique opportunities and challenges for organisations.

3. Building up two ideal types of institutional logics for Chinese contractors

By reviewing and analysing industry literature, reports, official websites of governments and contractor firms and national statistics, two ideal types of institutional logics, prevailing in Chinese international construction industry, are built up. We have chosen to call these "construction logic" and "investment logic". The traditional ideology of the Chinese international construction industry is based on the construction logic. However, things have changed with the development of the Chinese economy, especially after China's entry into WTO and the rise of "Belt and Road" Initiatives, which has led to the evolution of the investment logic. Undertaking construction projects, especially infrastructure projects, is increasingly related to State strategies. Chinese government or related government departments play a significant role through various processes of projects, such as awarding, negotiating and operating. Five categorical elements are selected from the general model developed by Thornton (2004) for comparing the two industrial-level institutional logics.

(1) *Basis of attention:* Firms guided by construction logic, adopt a traditional short-term focus on the project at hand. Focus of attention is on cash-flow and on profit and there is commonly no long-term strategy at play. As a result, firms following this logic do not engage in establishing and maintaining mutually beneficial relationships with local stakeholders. In contrast, the investment logic is related to a long-term view. Firms go into overseas markets with the aim of getting returns from long-term investment on construction projects. Sometimes gaining long-term investment return means sacrificing current profit. Under this situation, firms tend to compromise for more returns in the future.

(2) *Organisational identity:* Under the construction logic, international construction is considered as the business of the individual firm. Firms are identified as independent

commercial entities. They make strategic decisions for their own benefits. In contrast under investment logic undertaking construction projects in overseas markets, especially major and complex infrastructure projects, is considered not only as a business, but the firms and the projects undertaken are an extension of State image and strategy. The role of China's central government is significant under the investment logic.

(3) *Legitimacy:* Identified as independent commercial entities, firms following the construction logic mainly gain legitimacy through rank in performance or revenue. Firms tend to focus on improving performance and establishing a stronger market position. Following the investment logic firms seek legitimacy from acceptance by their most immediate constituents, even seeking for affirmative backing for their firms. Undertaking infrastructure projects inevitably needs support and resource from local constituents. Thus, being considered trustworthy and predictable in the eyes of most immediate audiences is of crucial importance.

(4) *Sources of authority:* As commercial entities, sources of authority on projects under the construction logic mainly come from the top managerial level of the corporate parent firm. In contrast, the Chinese government plays a critical role under investment logic, as undertaking construction projects is often deeply intertwined with state political strategies. This means that there is an added layer of bureaucratic domination to the authority held by the corporate parent firms.

(5) *Mission:* Firms under the construction logic go into overseas markets with the mission of increasing profit and firm size, so that stronger market positions can be achieved. In contrast, firms under the investment logic firms go into overseas markets with dual missions. They also need to consider integrating China's economy into global economies and establish cooperative relationships with host countries.

The two institutional logics in the Chinese international construction provide different frames of reference for organizations. Although they emerged sequentially along with the development of the industry, the two logics co-exist. The logic that prevails and is acted upon depends on the specific project contexts and the attributes of organizations (*cf.* Greenwood *et al.*, 2011). Chinese contractors are trying hard to explore back and forth along and beyond the supply chain, such as adopting different modes and expanding business scope. During the exploration process, the contention of the two logics provides both challenges and opportunities for them.

4. Types of Institutional complexity in major strategic areas of Chinese contractors

Although the two ideal logics identified above in general terms are in conflict, they can still co-exist owing to different patterns of jurisdictional overlap, prioritisation and incompatibility. Indeed, the two logics converge in different ways to present the features of different types of institutional complexity. Deconstructing institutional complexity in different strategic areas helps in our understanding of the challenges faced on international projects driven by Chinese contractors. To illustrate this point we draw on the model of strategic areas proposed by Cheah and Chew (2005).

4.1. Volatile complexity in business, technology, human resource and marketing strategic areas

The two logics claim at jurisdictional spaces of business, technology, human resource and marketing strategies at the same time. Business strategies are closely related to the success

of individual business units, the development of competitive advantages and core competencies. Under the guidance of the construction logic, contractor firms consider the competency of reducing costs and increasing the profit margin from current physical construction work as the source of competitive advantages. On the contrary, firms under the investment logic consider their competitive advantages coming from long-term deployment of resources in a larger global market. With the increased opportunities offered for international construction work Chinese contractors are trying out new ways on global markets for survival, resulting in unsettled prioritisation of the two logics. Some firms are trying to build up core capacities along the construction supply chain, so that they can reach scale effects economically and reduce costs to the minimal level. Others try to build up key capacities beyond the construction supply chain. They perform planning, design and engineering, or even financing functions, so that they can provide more comprehensive services and add more value to clients, which is in accordance with the investment logic.

Regarding the technology strategic area, developing and applying new technology is not so entirely predictable. Investments lead to more sunken costs, and could if it fails lead to a series of negative outcomes such as cost overruns, delays and client dissatisfaction. Being a pioneer in applying new and immature technology might therefore not lead to increased profit from the individual project. Instead, under the construction logic it is very likely that costs increase from a short-term view. However, under the investment logic, firms would regard introducing new technologies as key strategies to build up their professional images on the market.

Human resource strategy is concerned with managing human assets to systematically carry out business operations. Under the investment logic, firms would consider investing in human resource as essential for long-term gain. Competitive and skilled personnel work with higher efficiency, which would bring "tacit" benefits to firms in a long-term run. Additionally, building up good local relationships help to reduce cost of negotiating and conflicts. On the contrary, when guided by the construction logic, firms would regard investment in human resource as a cost.

Marketing strategy requires looking at the entire marketing mix in light of the strategy of a firm. As the construction logic departs from a rather short-sighted view, it narrowly focuses on construction as a business, and tends to neglect the importance of branding and reputation building consequently. The construction logic limits firms' acquisition of the view of deployment of targeting markets in the long-term. In stark contrast, the investment logic provides a broad view of value creation, not only for the firm itself. Firms guided by the investment logic would take the value they could add to the clients (and in extension to the local communities) into consideration, and invest time, money and effort in relationship marketing.

4.2. Aligned complexity in operational and information technology strategic areas

Aligned complexity emerges in operational and information technology strategic areas. Operational strategies concern the physical construction of the structure, while IT strategies concern the internal information transfer that provides basic support to the progress of the physical construction work. Both the construction and investment logics are compatible in the operational and IT strategic areas. Completing the physical construction of projects is the first and foremost aim, no matter if a short-term or long-term view is taken.

4.3. Segregated complexity in financial strategic area

Segregated complexity emerges in the strategic area of financing. Generally, in traditional modes of construction, financial issues commonly boil down to surety bonds and insurance

policies (Cheah *et al.*, 2004). Only when the investment logic comes into play, would firms take a step further to consider adopting new project financing modes and providing additional services to clients in terms of structuring innovative financial packages. Financial strategies under the construction logic are quite simple and straightforward. Contractors would commonly undertake projects under traditional modes and not put much effort on structuring innovative financial packages. Thus, although the two logics are incompatible and have unsettled prioritization in nature, they do not have jurisdiction over the same space in respect to financial strategies, which makes the situation of segregated complexity much easier to handle.

4.4. Implications for contractor firms

Although volatile complexity presents a contentious and unstable context for firms, it also provides opportunities, because there is no need to set clear jurisdictional boundaries and prioritize logics in a certain manner. This enables firms to adopt flexible and idiosyncratic structures according to their particular interests and constraints. Firms can also choose symbolic compliance, which means signalling compliance to certain logics ceremonially without engaging in actual actions. Together, the responding strategies mentioned above suggest a purposeful combination of elements from different logics to accommodate demands from different participants (Raynard, 2016).

In the situation of aligned complexity, the greatest challenge for organizations is developing productive tensions between compatible logics (Besharov and Smith, 2014). At the core of solutions to aligned complexity is integrating individuals with different logics into a unit to create spaces for negotiation. In this way, consistent and mutually reinforcing action can be generated to promote better cross-fertilisation and learning.

Segregated complexity is the least challenging context for firms as it presents the lowest level of contestation between the logics. Adopting a dedicated unitary structure that is grounded in one logic allows firms to disengage the complexity and gain legitimacy from disparate participants.

5. Conclusions

With the high speed of development of China's economy and change in institutional environment both in China and global construction industry, some Chinese international contractors are experiencing difficulties in entering global markets. To provide a clear understanding of the complex institutional environments, we have identified the prevailing institutional logics existing within Chinese international construction industry. Two ideal types of institutional logics are built and compared based on the framework provided by Thornton (2004). We have then attempted to deconstruct institutional complexity in seven major strategic areas for Chinese international contractors to provide a deeper understanding of the circumstance they are faced with. The attempts help to make the institutional logics concrete instead of "floating in the air" as a vague construct.

This paper is theoretical in nature and provides a preliminary understanding of the institutional logics existing within Chinese international contractors. It sets out the first step to understand the institutional logics and complexity existing within Chinese contractor firms. The next stage of this study will be to investigate institutional pressures and organisational responses on specific projects. Micro-foundations of institutional logics are to be developed to explain the mechanisms of how actors perceive and take actions, through the iteration of empirical and theoretical investigation. Both of these steps for future research will be conducted as part of this PhD research in the near future.

References

Auffray, C. and Fu, X. (2015), "Chinese MNEs and managerial knowledge transfer in Africa: the case of the construction sector in Ghana", *Journal of Chinese Economic and Business Studies*, Vol. 13, No.4, pp. 285–310.

Besharov, M. L., and Smith, W. K. (2014), "Multiple institutional logics in organizations: Explaining their varied nature and implications", *Academy of Management Review*, Vol. 39, No. 3, pp. 364–381.

Cheah, C.Y. and Chew, D.A., (2005), "Dynamics of strategic management in the Chinese construction industry", *Management Decision*, Vol. 43, No. 4, pp. 551–567.

Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. R., and Lounsbury, M. (2011), "Institutional complexity and organizational responses", *Academy of Management annals*, Vol. 5, No. 1, pp. 317–371.

Kostova, T., Roth, K., and Dacin, M. T. (2008), "Institutional theory in the study of multinational corporations: A critique and new directions", *Academy of management review*, Vol. 33, No. 4, pp. 994–1,006.

Raynard, M. (2016), "Deconstructing complexity: Configurations of institutional complexity and structural hybridity", *Strategic Organization*, Vol. 14, No. 4, pp. 310–335.

Reay, T., and Hinings, C. R. (2009), "Managing the rivalry of competing institutional logics", *Organization studies*, Vol. 30, No. 6, pp. 629–652.

Smets, M., and Jarzabkowski, P. (2013), "Reconstructing institutional complexity in practice: A relational model of institutional work and complexity", *Human Relations*, Vol. 66, No. 10, pp. 1,279–1,309.

Thornton, P. H. (2004), "Markets from culture: Institutional logics and organizational decisions in higher education publishing", Stanford University Press.

Thornton, P. H., and Ocasio, W. (2008), "Institutional logics", in R. Greenwood, C. Oliver, K. Sahlin-Andersson, and R. Suddaby (Eds.) (2017), *The Sage handbook of organizational institutionalism*, Thousand Oaks, CA: Sage, pp. 99–128.