Change and continuity in the Chinese construction sector: practitioner responses to bidding and tendering

CHANGE AND CONTINUITY IN THE CHINESE CONSTRUCTION SECTOR: PRACTITIONER RESPONSES TO BIDDING AND TENDERING

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Despite the phenomenal growth of the Chinese construction sector there is a notable absence of practice-based research relating to bidding and tendering. The broader context is provided by the introduction of marketization through a series of policy announcements dating back to the 1980s. A sensemaking perspective is adopted as a means of bridging between macro-level policy announcements and micro-processes of bidding and tendering. The selected case study is a large state-owned construction enterprise in the Chongqing city region in South West China. A mixed-methods approach includes semi-structured interviews with senior practitioners and documentary analysis. The findings illustrate how the introduction of bidding and tendering has resulted in a complex plethora of hybrid practices. The pace of change is such that the construction sector in the People's Republic of China is best understood in terms of continuous adjustment to an ever-changing landscape. Hence it requires research approaches which privilege change over stability.

Keywords: bidding, China, contracting, marketization, sensemaking

INTRODUCTION

Since the foundation of the People's Republic of China (PRC) in October 1949, the Chinese construction sector has experienced a series of significant transitions. The announcement of the Open Door strategy by the Chinese government in 1978 was an especially important turning point in the transition from a centrally-planned economy towards the espoused 'social market'. China more generally has experienced unprecedented levels of economic growth accompanied by extensive urbanization. It is within this context that central government has issued a series of policies relating to the construction sector, including both contractors and professional services. Of particular importance is the advocated adoption of bidding and tendering as a means of invoking market competition. The aim of the described exploratory research is to provide insights into the way senior managers within contracting firms interpret and enact bidding and tendering. Strangely, the existing literature relating to the Chinese construction sector accords little in the way of agency to practising managers. There is also a pronounced lack of emphasis on the macro processes through which bidding and tendering have been promoted through policy. The described research adopts a sensemaking perspective to bridge between macro-level policy announcements and the micro-processes through which biding, and tendering is enacted.

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Qin, B and Green, S (2019) Change and Continuity in the Chinese Construction Sector: Practitioner Responses to Bidding and Tendering *In:* Gorse, C and Neilson, C J (Eds) *Proceedings of the 35th Annual ARCOM Conference,* 2-4 September 2019, Leeds, UK, Association of Researchers in Construction Management, 355-364.

The paper commences with a summary of the changing policy landscape since 1949. It is argued that to understand the Chinese construction sector today it is necessary to understand the path it has travelled. Particular emphasis is given to the projectification of construction as an essential precondition for the introduction of market mechanisms such as bidding and tendering. This is followed by a critical review of the current research literature relating to the Chinese contracting sector. On the basis of this review the adopted sensemaking perspective is justified. The research method is then described prior to the presentation of the research results. Finally, the broader implications are discussed, and recommendations are made for further research.

Change and Transition: The Policy Landscape

The Legacy of the Soviet System

Any longitudinal analysis of the evolution of the Chinese construction sector has to begin in the immediate aftermath of the second phase of the Chinese Civil War (1945-1949). The Soviet Union was at the time perceived as the exemplar of a communist state. Hence the Chinese government sought to follow the Soviet Union's path of heavy industry development implemented through a series of 5-year plans. The prioritised industries of steel, coal, electricity and machine manufacturing collectively accounted for 58.2% of planned investment in the first 5-year plan approved in 1955.

Construction operations were at the time organised through the engineering divisions of the People's Liberation Army (PLA). Such divisions were populated by rural peasant conscripts under the direction of a cadre of politically-trained officers. Construction work was allocated by the Ministry of Construction Engineering on the basis of command-and-control. PLA divisions were routinely named after the type of work to which they were assigned. For example, the 10th Division for Railway Engineering would serve the needs of the railway sector. Each division typically provided welfare services such as schools, nurseries and hospitals.

The Great Leap Forward takes a stumble

The targets set out in the second five-year plan (1958-1962) reflected a growing confidence amongst Chinese policy makers. By 1958 private ownership had finally been completely abolished and the aim going forward was to transform the agrarian economy into a socialist society by means of rapid industrialisation. The Great Leap Forward is now widely recognised to have been ill-conceived in promoting too much change too quickly (Liu, 2018). Construction output notably declined and did not return to previous levels until 1970.

The failure of the Great Leap Forward led directly to the Cultural Revolution (1966-1976). The period was characterised by further economic disruption with the closure of many factories. Chaos prevailed until the political faction known as the Gang of Four were removed from power in October 1976 following the death of Chairman Mao. The economy which emerged from the chaos of the Cultural Revolution was grossly imbalanced and still reliant upon a militarised construction sector.

The Open Door Policy of Deng Xiaoping

The Third Plenary Session of the 11th Central Committee of the Communist Party of China in 1978 marked a radical departure from the era of the Cultural Revolution. The new strategy placed a strong emphasis on economic development with an associated openness to the West. Policy announcements by Deng Xiaoping in 1980 specifically re-positioned the construction sector as being of central importance to the

economy. Construction was no longer seen as a service operation in support of heavy industrial projects but was seen as an important mechanism of wealth generation in its own right. This policy shift led directly to the subsequent prolonged boom in urbanisation. All of a sudden, the construction sector was in the front line of policy. The reform agenda which followed was extensive and was characterised by the rapid introduction of a plethora of market mechanisms. This was re-engineering of the Chinese economy on a massive scale, the effects of which are still being worked through the system. The shift was justified in terms of the 'social market'. The espoused aim was the mobilisation of market mechanisms in the cause of socialism. The Open Door Policy resulted in economic targets gaining primacy over the expressed ideological goals of the Chinese Communist Party (CCP) (Child, 1996).

Construction sector reform

The Open Door policy resulted in the introduction of market-based terminology through a series of policy announcements. Reforms introduced by the Chinese State Council in 1984 also started to designate key roles which had not existed in the previous system of command-and-control. Of particular note is the emergence of engineering contractors as quasi-autonomous entities. The newly-created state-owned construction firms were formed from the PLA's 'engineering army'. Some of the newly-designated 'enterprises' were allocated to specific cities or regions, others were assigned to sectoral ministries within central government. Perhaps of most significance was the way soldiers of the PLA were unilaterally re-designated as construction workers.

Markets of course are dependent upon competition; but even more fundamentally they are reliant on quasi-independent entities which engage in competition. The policy discourse emphasised the importance of 'energising' state-owned construction enterprises to be more efficient. Phrases such as ‘output value’, ‘revenue’, ‘profit’ and ‘loss’ were progressively introduced into the lexicon of the construction sector. Of particular importance was the introduction of bidding and tendering practices as the essential means of competition, although it would be naïve to expect these to become operational overnight. Nevertheless, the direction of travel was clear. State-owned construction enterprises were expected to operate with a degree of autonomy in competing for contracts independently from the centralised mechanisms of allocation. But the precise arrangements varied significantly across different city regions. Even within specific cities, a myriad of hybrid processes emerged as part of a continuously evolving transition. Even more controversial than the creation of the state-owned enterprises was the acceptance by the China State Council in 1984 that some enterprises should be privately owned. Many Party members continued to argue that private ownership was in contradiction to Marxist doctrine. Others were concerned that state-owned firms would be less competitive than those in private ownership (Ahlstrom and Bruton, 2001). Statistical data on the number of privately-owned firms notably only appeared in 1995. It is easy to imagine the extent to which such issues were debated at length in the higher echelons of the CCP.

'Project way construction'

Concurrent with the above was the progressive shift towards the projectification of the Chinese construction sector, otherwise phrased as the normalisation of the 'project' as the essential unit of production. The notion of projectification as a process has of course long since been of interest to the so-called Scandinavian school of project management (Söderlund, 2004). More recently, interest has extended beyond the increased primacy of projects towards a broader interest in the cultural and discursive

processes by means of which the notion of projects is invoked (Packendorff and Lindgren, 2014). Of particular note within China is the way the policy discourse progressively promoted the terminology of 'projects'. The main official proponent of ‘project way construction’ was Qinglin Zhang, director of the Construction Management Department in the Ministry of Construction from 1984 to 1993. The essence of the policy was ‘the adoption of the project as the essential unit of production for contracting firms, thereby creating an inner market of labour, material, equipment, capital and technology’ (Zhang, 1992; p.2). This was indeed a decisive break from Soviet-style methods of resource allocation towards a reliance on market mechanisms such as bidding and tendering. ‘Project management’ was subsequently promoted by the Ministry of Construction as the preferred means of organising construction, although few details were offered in terms of how it was supposed to work.

The projectification of construction also had clear implications for the employment status of construction operatives. Under the previous Soviet-style system, the system of lifelong state support was referred to as the 'iron rice bowl'. However, the emerging reality was that the livelihoods of construction operatives became increasingly subject to the dynamics of market competition. Construction workers were exposed to unprecedented levels of change compressed into a relatively short period of time. The experienced realities of market competition can be equated directly with Toffler's (1971) notion of 'future shock'. Significant numbers of construction workers were suddenly deemed surplus to requirements as euphemisms such as 'reducing the burden' became commonplace. The recently designated state-owned construction enterprises were subject to extensive downsizing as they sought to make themselves competitive. Zou and Zhang (1999) report the extensive stripping out of non-production activities within 30 state-owned enterprises. In response to the challenge of making themselves more competitive, inherited in-house services such as schools, nurseries and hospitals were routinely outsourced to local government.

The widespread downsizing of construction enterprises marked the erosion of long-established expectations associated with the 'iron rice bowl'. Figures presented by Gao (1999) suggest that in 1997 alone 9.40 million workers were laid off across the Chinese economy at large. The declining levels of employees in contracting firms under different forms of ownership are illustrated in Figure 1. This was undoubtedly change on a massive scale.

The picture which emerges is clear, such that it is easy to envisage the 'future shock' experienced by construction workers who suddenly found themselves surplus to requirements. This would have been especially severe given that only a few years previously they had been classified as soldiers in the PLA. Managers were also faced with a significant shift in the behaviours that were expected of them and could likewise no longer take continued employment for granted.

Construction-Related Research Literature

Taking change seriously

Surprisingly, the above described processes of change are only occasionally cited in the research literature relating to the Chinese construction sector. Even more rarely are they central to the research questions being asked. Yan *et al.,* (2019) are typical in vaguely alluding to 'drastic change' in the Chinese construction sector while focusing on a research question which is essentially static. Their specific interest relates to how large Chinese construction companies have apparently turned to program management

techniques as a means of managing multiple projects. The described parameters of change include issues such as risk, construction techniques, complexity and shortened schedules. Strangely, there is no mention of the root-and-branch reorganisation of the sector as part of the espoused policy of marketisation. Yan et al.'s (2019) stated research aim of identifying critical success criteria as a means of achieving better performance would seem well-intentioned, but it notably fails to engage with the material and discursive practices of construction practitioners. The research does however implicitly legitimise the 'project' as the essential unit of production. Yan *et al.,* refer directly to President Xi Jinping's "Thought on Socialism with Chinese Characteristics for a New Era". They are therefore seemingly aware of the policy level recognition that unregulated market competition too easily sits in tension with social harmony. Many in the West would of course make similar arguments.

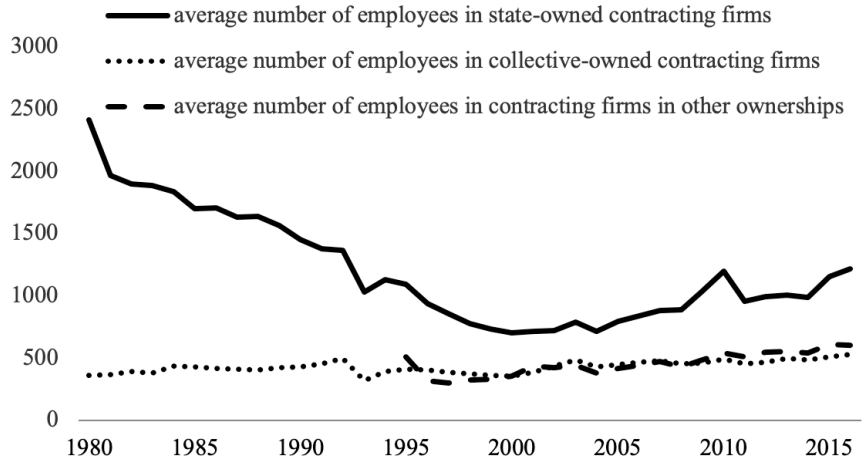

Figure 1 The average number of employees in contracting firms in different ownerships (Source: National Bureau of Statistics of China, 2016)

Recurring obsession with critical success factors

The methodology adopted by Yan *et al.,* (2019) is typical of many such studies. The pre-designed questionnaire notably requires the respondents to prioritise a list of issues derived from the literature. There is seemingly little interest in how practitioners might themselves describe the challenges with which they are faced. Of particular note is the assumption that the listed success factors continue to be valid over time despite the rapidly evolving landscape which they are claimed to represent. Neither is there any recognition of the know-how which is required to translate the identified critical success factors into feasible courses of action.

Lu *et al.,* (2008) similarly focus on critical success factors which supposedly contribute to the competitiveness of contractors. The methodology again relies on a questionnaire survey based upon a predetermined list of factors purportedly validated by means of a participative seminar. There is once again little recognition of the extent to which such factors might be overtaken by the rapid pace of change within the sector. The focus on competitiveness is self-evidently dependent upon the acceptance of market competition. Yet there is an apparent lack of recognition that markets ultimately comprise winners and losers. Paradoxically, the advocacy of critical success factors seems to imply that all firms within a given market can be in some way equally competitive.

The above two described studies of critical success factors are by no means isolated examples. Indeed, they are indicative of the most commonly adopted research

approach in respect of the Chinese construction sector. Different studies simply carve out slightly different issues to be factorised. For example, Zhao *et al.,* (2013) focus on critical success factors for enterprise risk management whereas Li *et al.,* (2009) consider competitiveness factors in the real estate market. In similar vein, Chan *et al.,* (2010) focus on critical success factors for public-private partnerships (PPPs) in infrastructure development.

There is much to be learned from the above-cited studies, not least in terms of the parameters within which the debate is conducted. But the extent to which the extracted factors are representative of a supposed external reality is at best questionable. The described processes of prioritisation are notably entirely dependent on the respondents ascribing the same meaning to the listed terms. Given that the terminology of the social market has only relatively recently been introduced, this would seem to be a significant assumption. There also seems to be a stark absence of qualitative research orientated towards accessing the interpretations of Chinese construction practitioners.

An alternative research approach would explore how different meanings are negotiated around the evolving terminology of the social market. Such an approach would ascribe a greater degree of agency to construction practitioners, thereby recognising that differing practices are likely to develop in different places in response to the same policy initiatives. The recent popularity of practice-based research approaches in the West would seem to have been neglected among those interested in the Chinese construction sector. At the very least, there is a need for a greater degree of methodological diversity.

METHODOLOGY

The Principles of Sensemaking

Sensemaking is concerned with the processes by which people seek to understand ambiguous, equivocal or confusing events (Colville *et al.,* 2012; Weick, 1995). In contrast to the studies described above, it focuses attention onto the processes of change from the perspective of the participants. The research aim is to understand how senior managers in Chinese contracting firms impose order on their day-to-day activities by applying patterns learned from their previous experience. Sensemaking notably privileges processes of change over stability. Such a perspective is conspicuously missing from the existing research literature relating to the Chinese construction sector. Of particular interest is the way practising managers make sense of the plethora of policy initiatives relating to the social market, and the roles which they create for themselves in its enactment. It is important to emphasise that sensemaking is not only about interpretation, it is also about taking action through ongoing processes of enactment and social interaction. Sensemaking is further held to be inseparable from issues of self-identity. Perhaps most importantly, sensemaking is seen to be a continuous activity through which individuals interact with the world around them. The combined focus on material and discursive practices positions sensemaking within the broad spectrum of practice-based research. Of particular note is the recognition that the micro processes of sensemaking frequently draw from macro-level scripts (Abolafia, 2010). To the authors' best knowledge, there is no previous study of bidding and tendering practice within the Chinese construction sector which draws from a sensemaking perspective.

Research method

The research comprised a case study of a construction enterprise operating within the Chongqing city region. Qualitative data was collected through a combination of semi-structured interviews and documentary analysis of company reports and available official statistics. This combination of methods enabled the researchers to judge the extent to which the interviewees offered plausible interpretations of key events derived from their previous experience. It was on this basis that the research method sought to bridge between macro-level processes of policy and the micro-processes of sensemaking. The aim was to understand sensemaking in flight rather than to access any sort of assumed static positivist reality. Sensemaking is in no small way concerned with the social construction of the localised realities within which practitioners operate. Abolafia (2010) argue that any failure to invoke broader institutionalised policy discourses would increase risk and reduce legitimacy. The latter is especially important within China given the regulating role of the CCP.

The selected construction enterprise, hereafter referred to as Yangtze Construction, is one of the largest state-owned contracting firms in the Chongqing city region. It was originally established in 1965 to serve the localised needs of the Chinese military. Yangtze Construction currently comprises 30 operating companies and in 2016 had a combined turnover of 16 billion yuan. The firm has experienced exponential growth since 2000, punctuated only by a period of relative stagnation from 2010-2013. It currently operates throughout China and has extensive overseas operations in countries such as Nigeria and Georgia.

The latest company report quotes the number of employees within Yangtze Construction as 5,000, having peaked previously at over 14,000 in 1988. The reduction in the number of employees despite the exponential growth in output is indicative of the extensive restructuring of state-owned enterprise as they strive to become more competitive. Interviews were conducted with 20 senior/middle managers including the General Manager, the Director of the Engineering Bureau and the Director of the Technology and Innovation Centre. Access was also gained to the Party secretaries with responsibility for specific operating companies. The questions were deliberately open-ended in order to ascertain the issues which the interviewees considered most important. However, the questions routinely encouraged them to identify what they considered to be the key events in shaping current practice. The description which follows focuses in particular on how practitioners seek to make sense of bidding and tendering.

EMPIRICAL FINDINGS

Loss of Control

The opening line of questioning related to the way the company secured work. The interviewees were seemingly accepting of the reality of operating within a market, and of the basic principles of market competition. Of particular note was the acceptance that the firm had to win work if they were to prosper. In the words of one interviewee: ‘we have to take part in market competition; it is crucial’. Bidding and tendering were also widely accepted as the primary mechanisms of market competition. They were seen to apply not only to the appointment of the main contractor, but also to the appointment of sub-contractors. In both cases, the shift towards market competition was equated to a loss of control. In the words of one interviewee:

> We all have problems with his (the chairman of board) over-emphasis on 'control'. If the staff in charge of marketing are not valued by a contracting firm, who will go out to win projects? (Director of Marketing Bureau)

More fundamentally, there was a widespread implicit acceptance of the project as the essential unit of production. Interviewees would frequently refer to the Open Door policies of Deng Xiaoping. Most saw the introduction of market competition as having had a direct influence on the way construction enterprises are organised. They also often alluded to the loss of control which results from the introduction of market mechanisms. This was an especially recurrent theme when talking about the appointment of sub-contractors:

> The project manager previously had the right to choose sub-contractors and decide the price. They had too much autonomy. But now it is the market that decides how to distribute work, not the project manager. We introduced bid and tender. (Deputy General Manager).

Project managers have seemingly been forced to relinquish much of their personal control in respect of the appointment of sub-contractors. The interviewees seemed to be consistently searching for legitimate roles for themselves within the changing landscape. Such issues are notably ignored by the existing research literature.

Continued Importance of Guanxi

Notwithstanding the above, there were some interviewees who were resistant to the suggestion that bidding, and tendering comprises a radical shift in the way work is distributed. Several felt that it often comprises a bureaucratic process disconnected from any actual decision-making process. The culturally embedded system of social networks known as 'guanxi' was held to be the basis upon which managers strive to remain in control despite the introduction of market competition. Several interviewees suggested that clients often select a preferred contractor on the basis of guanxi, thereafter manipulating the tendering process to confirm the required outcome. Some referred to the need to 'run in the market', thereby implying some physical sense of having to go to different places to talk to different people in order to win projects. Activities such as collecting information, communicating with clients, inviting clients to visit construction sites and engaging in bidding and tendering processes were all described as falling within the remit of increasingly well-resourced 'marketing departments'. However, many of these activities are seemingly orientated towards preserving an 'inside track' with identified clients. Of particular interest is the suggestion that bidding, and tendering is a procedure which is commonly manipulated to confirm a pre-determined preference. Most firms in the West would also prefer to have an inside-track rather than being forced to engage in 'hard-ball' tendering.

Incomplete Project Information

Several interviewees referred to the advantages of privileged access to information in respect of tenders. Indeed, there was a broad consensus that the information provided at the time of tender is very often incomplete, thereby creating a necessity for clarification. The view was also expressed that clients use information as a means of ensuring that the preferred candidate is successful in the bidding process. In the words of one interviewee:

> We are still working on this project. Our guanxi helped us to get involved, but we are still discussing conditions. If the client favours you, they will give you more information. The chances of winning the bid then become bigger. (Party Secretary of engineering subsidiary).

Hence the key issue which determines the information provided is the extent to which the client favours the company. It should also be emphasised that tenders are not routinely awarded to the lowest bidder. Some clients were reported to be following a policy of awarding the project to the bid, which is closest to the average, while others award the project to the bid which is closest to the client's own in-house estimate. Both of these approaches are of course open to abuse. In the first case, the challenge for the contractor is to ascertain the value of the client's estimate. The contractor which is in possession of this most crucial piece of information is most likely to be successful. What tends to happen in these cases is that the client simply leaks the required information to the preferred bidder. In the second case, there is an opportunity for the pre-qualified contractors to engage in collusion to determine whose turn it is to be successful. On occasion, such collusion seemingly takes place with the tacit approval of the client. Such apparent abuses of competitive tendering should not necessarily be linked with corruption. Indeed, this was categorically not the impression gained. The pivotal issue seemed to be a fear of losing control to the 'hidden hand of the market'. Hence practitioners are prone to manipulating the outcome of the tendering process to secure preferred outcomes.

CONCLUSIONS

The qualitative findings presented above are persuasive in pointing towards an alternative research agenda which emphasises the way practitioners make sense of the changing landscape within which they operate. In methodological terms, the research has illustrated how sensemaking can be used as a means of bridging between macro-level policy announcements and micro-level practices. The interpretation of the structural realignment of the Chinese construction sector as a process of projectification is also held to be an original contribution. It therefore opens up new avenues of research which go beyond the current fixation with critical success factors. Practice-based research approaches such as that described cannot be conducted at a distance; they require detailed engagement with the worldviews of practitioners.

Despite the limitations of a single case study, the research has provided new insights into current practices associated with bidding and tendering. Of key importance is the recognition that the introduction of market mechanisms such as bidding and tendering routinely cause practitioners to rethink their roles and the way they interact with others. Bidding and tendering cannot be understood in isolation of the implementation of the social market and associated ongoing processes of projectification. It has further been suggested that bidding and tendering are routinely distorted by deeply-embedded practices of guanxi. Practitioners seemingly feel diminished by the apparent necessity to relinquish control to the marketplace. Hence bidding and tendering is often perceived as a bureaucratic process which lends itself to manipulation in the cause of reducing uncertainty. Further research is necessary, but there is little to suggest that such tendencies are necessarily corrupt. The practices portrayed are perhaps best described as pragmatic responses to the enactment of the social market. It must also be recognised that the legal and regulatory framework within China is still under development. The transition is therefore not only about the introduction of market mechanisms, it is also about the ways in which such mechanisms should be regulated.

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