

TOWARDS THE SUSTAINABLE IMPROVEMENT IN CONSTRUCTION LABOUR'S EMPLOYMENT IN CHINA: CULTIVATING SUBCONTRACTOR'S ROLE

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Since the Reform and Opening-up Policy in, 1978, Chinese construction has provided enormous employment for labour force, especially for surplus rural labourers called 'migrant labourers' in China. However, it has recently been in the dilemma of an increasing labour outsourcing, and its potential of exploitation that does take place in recent China regarding widespread labour right infringements such as ignorance of occupational health and safety, payment default, insufficient social welfare, etc. The purpose of this study is to seek for balanced and sustainable development strategies for construction labour market from both economic and social aspects. From the implications of labour outsourcing to the industrial development, the dilemma in Chinese construction labour market is believed to be rooted in current subcontracting systems that restrict the subcontracting market excessively with an ignorance of further development of labour contractors under the uncertain and futureless business environment. From the case study of Kajima in Japan, long term relationships through Affiliated Companies mode up and down the construction supply chain are found to be a valuable initiative to the achievement of regular labour contracting, further the specialization of subcontracting market, and consequently the sustainable construction labour market. Analyses of Kajima in depth show that the predominant role of general contractor, principle of organizational market, and the 'assurance systems' for public procurement are the three interrelated and interacted contributors to Japanese success in establishing and maintaining the long term relationships in the past. Regarding the practical situations of subcontracting market in China, the significance of combining cooperation with competition should be deeply understood within the construction supply chain, which may serve as a start point to regularize the subcontracting market aiming at the achievement of sustainable construction labour market in the long run.

Keywords: labour contractor, long term relationships, migrant labourers, organizational market, subcontracting systems.

INTRODUCTION

The functioning of construction industry consists of two aspects in most countries (Okamura, 2009). Those are not only its contribution to the development of national economy and people's standard living but also its role in absorbing labour force. Experiences of many countries show that construction industry provides much needed employment for a large number of the poorer and less well educated labourers of the

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society. Regarding the labour market, there are basically three involved issues as the source of labour, the basis on which it is employed and the way it is treated (Wells, 2003). On the one hand, those issues have profound implications for project objectives, productivity, and skill development that are usually to be the immediate concern of construction industry stakeholders (CURT, 2009). On the other hand, such issues as the number of jobs, the systems under which construction labourers are employed and managed, as well as their conditions can affect the achievement of social objectives such as the alleviation of poverty and the promotion of social stability and harmony (Mukalula, 2004; Loayza, 2009). Therefore, studies of labour market should be of high priority. The focus of this work is to seek for balanced and sustainable development strategies for construction labour market from both economic and social perspectives, particularly for recent China that has a surplus labour and increasing labour issues accompanied by an increasing labour outsourcing (Charles, 2007).

LITERATURE REVIEWS

The practice of employing labour through intermediaries or labour contractors (referred to as labour outsourcing) has been a widespread practice in the construction industry, particularly in developing countries (ILO, 2001). It has also developed rapidly in recent China following the institutional reform in, 1984 entitled Separation of Management from Field Operations (Lu, 2001). Through it, on the one hand, most operational workers who had previously been employed directly and permanently by the state-owned enterprises have been laid off or re-employed by subcontractors under casual employment; on the other hand, surplus rural labourers have been released to urban areas and largely absorbed by construction that has relative low entry threshold, generally through intermediaries called 'baogongtou' (An, 2010). In addition to developing countries, the outsourcing and decline in the direct employment of construction labour also occurs in some of the developed countries (Cremers, 2009). In spite of different names of intermediaries or labour contractors who recruit and manage labour in most countries, their function is essentially the same. They build a bridge between labourers seeking for jobs and contractors offering jobs, through bringing labour to construction site when required and taking it away when no longer needed. Wells (2003) summarizes the main merits for contractors as the flexibility in labour recruitment, the opportunity to reduce labour costs by evading the overhead costs associated with the employment of labour and on-costs associated with legal employment, and risk transfer through delegating the responsibility of labour force supervision. Assaad (1993) points that it could bring some security to labourers who are prone to unstable working environment through offering jobs, sometime a kind of belonging to working team and even social bond. Contrarily, the demerits of labour outsourcing turn to be tough and severe. From the industrial perspective, the practice has been criticized since it poses an obstacle to the training and innovation (Wadick, 2010), which is liable to low productivity and potential labour shortage. From the perspective of labour force, since labour outsourcing is prone to decreasing the level of contractor's control on labour force, it has a great potential of exploitation, which does take place in recent China regarding widespread labour right infringements such as the ignorance of occupational health and safety, payment default, no social welfare, etc (SACOM, 2009). And hence it is regarded as a social problem ascribed to the government in China. Consequently, the Chinese government has taken several rigid interventions in the construction labour protection such as prohibition on informal labour contracting, restriction on subcontracting layers, etc. However, whether those

interventions are rational and applicable for current and future of construction is argued by researchers and practitioners (An, 2010). Take the practice of multi-layer subcontracting for example which is illegal in China. It is frequently blamed for the higher risks of multi-layer exploitation and responsibility evading in most cases (Aelim, 2010; Vivian, 2011). However, a more rational response may argue that the scheme itself is inappropriate only when it does not fit the reality. Actually, multi-layer subcontracting systems (MLSS) are considered as a great contributor to the success in the Japanese construction industry in that MLSS facilitate the highly specialization of subcontracting market abundant with small and medium-sized specialist subcontractors, who make continuous efforts on technical and engineering issues and pose ways to pass down skills to their craftsmen (Lambert, 1996).

RESEARCH QUESTIONS AND METHODOLOGY

As mentioned above, the reality of labour outsourcing in the Chinese construction industry needs exploration. Only through a better understanding of its status and implications to industrial development like how it will change the way of business ultimately, the labour-based strategies for Chinese construction could be formulated and sustained in the long run. The following questions will be focused on.

- What happens to Chinese construction labour along with labour outsourcing?
- Whether the current interventions in China that deal with some negative repercussions of informal labour contracting have to totally deny the practice?
- How does labour outsourcing affect the functional change within the organization of general contractor?
- To optimize the flow and management of labour, what are required for general contractor (GC) and subcontractors (SCs)?
- What principles should be valued aiming at future construction labour force?

An investigation into three construction sites in China is conducted to explore the main issues related to Chinese construction labourers. With a reference to several countries' experiences through literature reading, reasons for current unsatisfactory progress on developing construction labour market in China are analyzed, among which the significance of stimulating subcontractors' roles in improving labourer' conditions is identified. It calls for good working relationships between GC and SCs. Since the practice of cooperation and team work is very common in Japan, and its benefits are widely acknowledged in practice and literature, a representative Japanese general contractor is chosen for case study concerning the influence of labour outsourcing on its business model and in turn its efforts on cultivating subcontractors.

REALITY OF CHINESE CONSTRUCTION LABOUR MARKET

Several labour issues will be explained from the three aspects of construction labour market, paying the particular attention on an increasing practice of labour outsourcing in the Chinese construction industry.

Construction migrant labourers and their poor conditions

China is a typical country in that most construction labourers are migrants from the rural areas, called 'migrant labourers'. They occupy more than 80% of construction workers on sites, with main characteristics as seasonality, uneven level of skills, and low quality of service (An, 2010). The priority for them is to find work on a regular basis and improve income. Contrast to their great contributions to the boom of Chinese construction, they are suffering a lot under severe working and living conditions (ROSC, 2006; SACOM, 2009).

Notorious 'baogongtou' and its alternative

Recent studies in China described the central role of labour contractor, known locally as 'baogongtou', who is head of the working team with labourers usually coming from the same rural area. Baogongtou exerts profound influences on the labour contracting business and the lives of construction workers. Though joining an informal team led by a baogongtou, the labourer is provided with an opportunity to obtain work and acquire skills, which can lead to higher income to some extent. However, this opportunity is mostly denied to those without family and social connections with baogongtou that are needed to join the team. Thus, it is regarded as a barrier to training and innovation. Even worse, frequent construction accidents and labour payment default have been universally reported with an indiscriminate blame on baogongtou. As a result, baogongtou is generally considered to have negative connotations in China, which precipitated the Chinese government to prohibit informal baogongtou and promote formal labour subcontracting enterprise (LSE) as an alternative in, 2005. However, the applicability and effectiveness of this enforcement may be reserved for further consideration regarding the unsatisfactory progress in implementation. During the investigation into three construction sites, most interviewed project managers admit that 'illegal' baogongtou remains to abound on construction sites in disguise since it is preferable to LSE in labour subcontracting business. The direct cause lies in the principle of Cost Based Selection (CBS) under current competitive labour contracting market, which makes the informal baogongtou with lower labour cost by evading the overhead costs and on-costs of formal employment beat the competition. An (2010) points that the deeper reason may lie in the institutional deficiencies in current subcontracting systems with excessive restriction on subcontracting layers, since it is liable to the constraints on further development of subcontractors, most of whom are small and medium-sized, and further the highly specialization of construction industrial structure. Until now, general contractors complain that the subcontracting market is too disordered and deficient in supplying qualified subcontractors with labourers and specialist skills; meanwhile, baogongtou as well as LSE complain that they could not see any promising future under current insecure and non-incentive business environment. Thus, fundamental improvement in labourers' conditions has not yet been available. Fresh thinking may be needed, not just focusing on external change of the labour contracting organizations and compulsive enforcement.

Direct control or delegating of labour management on site

Efforts have been made in many countries to overcome the disadvantages of labour outsourcing. Regarding the loss of control over the labour force and site work, one common practice is that general contractor adopts an arrangement whereby the labour is sourced through a labour contractor but paid and supervised on its own, which has also been promoted by the Ministry of Railways in China since, 2005. Through that, even when risk is passed down to the labour contractor with a fixed sum paid for a package of work, the site manager employed by the general contractor can still exercise a considerable degree of control. Bresnan (1985) points that it could be enhanced further through the use of known subcontractors with whom general contractor has a long standing relationship, or through the employment of speciality subcontractors. However, direct control by general contractor is supposed to be a transitional mode seeing that the long term strategy for most general contractors worldwide tends to be a 'just in time' assembler supplied by specialized, efficient and independent subcontractors as suppliers. It could then be inferred that subcontractors

should be cultivated and stimulated with more initiatives on developing their specialist skills and management capabilities to achieve more efficient construction production. Based on that, the situation of construction labourers who are largely recruited and employed by subcontractors could achieve the fundamental and sustainable improvement. Schemes for improving the labourers' situation including welfare have also been devised in other countries like Egypt, India, and Korea, based on the acknowledging of labourers' temporary or casual status. Most of those schemes illustrate that the policy direction should be moved to accommodate the needs of construction labourers without requiring a fundamental change in the way labourers are recruited and employed (Well, 2003). It reveals that the prohibition of *baogongtou* and excessive restriction of subcontracting systems in China may be one-sided with ignorance on labour contractor's further development like becoming a speciality contractor or even general contractor, and ignorance on their functioning of building a social bond to some extent. Although the latter argument should not be carried too far, it is important to recognize *baogongtou*'s close relationship with groups of labourers.

Contractual or non-contractual relationship

Recent Chinese government thinks that one of the most important solutions of labour issues is labour contract, revealed by the promotion of LSE which is ought to sign a contract with labourers. It is believed that if there is labour contract, the conditions of labour force would be much improved. Of course, contract has legislated constraints by law enforcement in labour users regarding formal payment and welfare systems; however, it should be on the premise of sound law systems and legal compliance that are far from sufficient in current China. Many cases in other countries indicate that there is usually a large gap between regulations in principle and action in practice, suggesting that contract may not solve the problems fundamentally. An alternative solution is non-contractual cooperative relationships like Japanese long term working relationships up and down the construction supply chain. It has facilitated the further development of labour contractors, and consequently established a highly specialized subcontracting market with qualified speciality subcontractors in the past Japan.

INSPIRATIONS FROM JAPAN—CASE OF KAJIMA

Bennett *et al.* (1987) points that long term relationships contribute to the achievement of efficiency and great success of the Japanese construction industry. Seen from Japan's experience, big GCs play a major role in building and maintaining this long term relationships via the establishment of affiliations among their SCs (referred to as Affiliated Companies) who enjoy paternalistic but conclusive family relationships. Kajima is one of the Japan's big six construction GCs, and the transition of relationships between Kajima and its subcontractors, particularly with the establishment of Affiliated Companies (ACs), reveals a typical Japanese practice of facilitating the development of subcontracting market (see Table 1). Generally speaking, within the construction industry, the value-added process is distributed across several organizations between GC and SCs. Without working together in a cooperative manner, supply chain efficiencies are difficult to realize. Through long term relationships, the excellent integration between Kajima and its SCs in the construction supply chain is realized along the three dimensions (see Figure 1). Particular attentions should be paid to SC's development path. In short, across the various projects, foremen accumulated skills and technologies that increase operational efficiency within the GC, which provided a high value to their business functioning. Their initial business with GC was to be an intra-company transaction,

Table 1: Transition of relationships between Kajima and its subcontractors

Labour supplier	Kajima foremen	<ul style="list-style-type: none"> labour subcontractors corporative license 				
Relationship with Kajima	<ul style="list-style-type: none"> integrated intra-company transaction 	<ul style="list-style-type: none"> exclusive inter-companies transaction 	<ul style="list-style-type: none"> indispensable 	<ul style="list-style-type: none"> as buffer independency specialization business extension 		<ul style="list-style-type: none"> less-valued
Kajima's efforts on SCs			<ul style="list-style-type: none"> full-scale training AC mode 	<ul style="list-style-type: none"> TQM AC guideline 	<ul style="list-style-type: none"> long term plan for AC localization info-share tech-share 	<ul style="list-style-type: none"> cost-based competition
Economy	WWII	ascending 1955	stable 1965	grim 1980	bubble 1990	recession 1995

and then inter-companies transaction in the capacity of labour subcontractors with a construction corporative license. Afterwards, through becoming the Affiliated Companies of a certain GC, labour subcontractors got an opportunity to further develop their specialist skills as well as management capabilities in a secure business environment attributed to the long term working relationships. This opportunity facilitated them to be specialty subcontractors or even general contractors along with the business extension. Normally it at least takes a foreman at the bottom subcontracting layer 7-8 years to accumulate essential construction skills and management capabilities to become a specialty company in Japan (ISCP, 2010). Thus it is inferred that gaining a regular work with the same contractor has a significant meaning in acquiring skills or technologies that are essential for future development of labour subcontractors, even though the whole process is generally informal and the time span of skill acquiring is varying. What's more, Japanese long term relationships through Affiliated Companies mode contribute to the decrease of uncertainty of transaction up and down the construction supply chain, and give labour subcontractors an incentive to further develop their specialist skills and management capabilities.

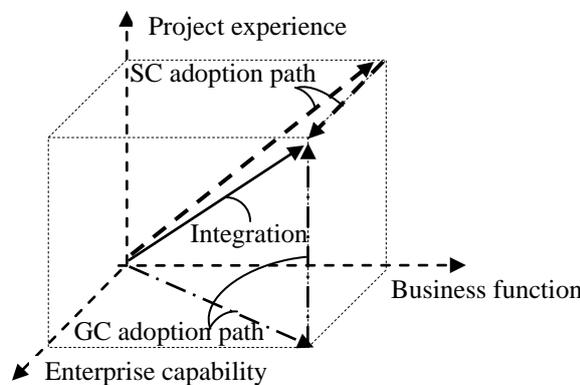


Figure 1: Adoption paths for GC and SC in the construction supply chain

In fact, it is a general and common practice to develop Affiliated Companies not only in construction general contractor but also in manufacturers in Japan. This non-contractual cooperation between up layer and down layer results in risk sharing and trust between them, as a contributor to the good performance of MLSS that generally come to be a target of public criticism worldwide. Consequently, a highly specialized subcontracting market with qualified subcontractors has been established, absorbing more than 90% of construction employment in Japan. The difficulties lie in the concrete fulfilment process to apply this non-contractual cooperative relationship. Kajima's case reveals that in Japan big GCs play a decisive and conducive role in establishing and maintaining the long term working relationships with their SCs under Affiliated Companies mode. Generally speaking, it is difficult to persuade them with

economic benefits from the long term relationships since it takes time to discover, whereas it is a commonly aware and accepted knowledge to most Japanese contractors. A deeper exploration on Kajima's business model may explain (see Figure 2). GC's business model reveals that Japanese construction industry has already developed into an 'assembly' industry with just in time and high efficient assembling on site. From the model, it should be noticed that the business strategy of GC is focused on the added value to the output in the market, which depends on its technological and construction capabilities. Seeing that the outsourcing fee occupies more than 70% of the total project cost in general, SCs must be viewed as an indispensable input; hence, the cooperative level with SCs is believed to directly affect QCDS and then determine the performance of GC. Therefore, AC mode with long term working relationships is promoted and maintained by GC for quite a long period in believing that it could cultivate 'good' subcontractors with a return of high quality of service in construction.

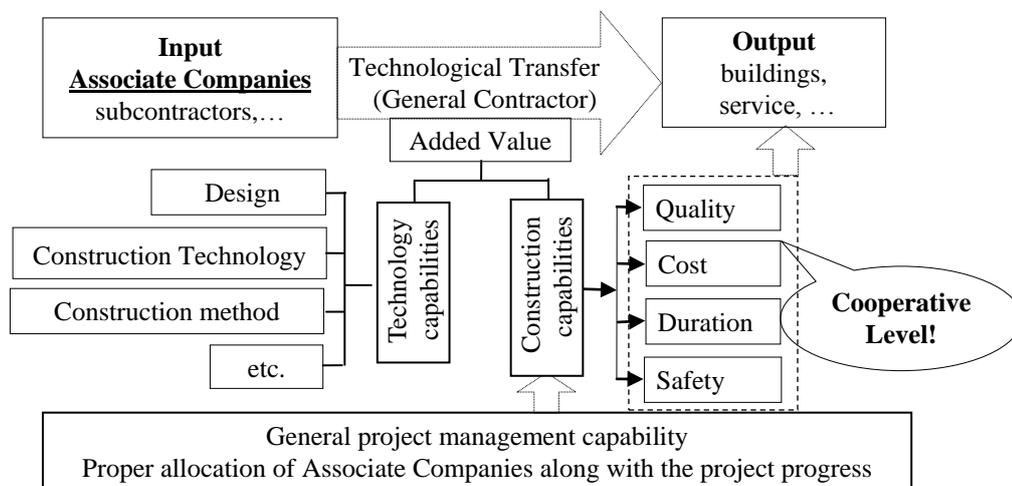


Figure 2: GC's business model (From the case of Kajima)

Itami (1987) considers the Japanese transaction pattern which emphasizes cooperation through forming long term relationships under Affiliated Companies is a mixture of Principle of Liberal Market Economy and the Principle of Complete Organization. It is mentioned as 'organizational market' (Hori, 2010), as a unique Japanese conception. Different from the Market Principle in Western countries, the criteria for Japanese business guided by organizational market lie in the followings as distributed sharing, employee empowerment, and corporate alliances. Affiliated Companies are direct embodiment of corporate alliances with three aspects shown in Figure 3. Guided by the principle of organizational market, a co-existence and co-prosperous relationship between GC and SC has been established and maintained for a long period in Japan. Another contributor to the success in the long term relationships lies in the Japanese public procurement with the characteristics of so-called 'assurance systems' in the past (Watanabe, 2006). Bidding schemes in the assurance systems consist of dango and designation. In general, designation assured 'good' subcontractors in the construction supply chain, which in turn necessitated the further improvement of SCs as well as the labourers' skills. Dango (in Japanese) means complementary and rotational bidding, which reduced business uncertainty and strengthened the accountability among participating bidders in the past Japan, even though it is severely blamed as it operates like a giant siphon, picking up construction industry funds and transferring them back to the politicians who promise to keep the pipeline full (Sidney, 1993: 21). Seen from another aspect, through dango, the award

price for up layer’s contractor is usually more than sufficient for completion of project, which ensures the potential profits for them, and hence it could be possible for them to share profits with its down layer subcontractors following the Japanese business philosophy. In short, Dango makes it possible to externalize the economic benefits of long term relationships up and down construction supply chain. To be more detailed, this practice is usually carried on under the down layer’s exclusive relationship to the up layer of the construction supply chain. This exclusive relationship means that at the bid and award stage, the contractor generally stipulates the contract price, instead of letting the subcontractor estimate the price for the work; while the subcontractor trusts that the contractor will fairly represent his interests. The Japanese sub contractual relationships are more likely to be based on negotiation than competition. Thus, the subcontractor just worries about the technical and engineering issues rather than gets involved in budget and account settlement, which indicates that conflicts about payment and claims for additional expense simply do not arise. In return for all these advantages, the contractor goes to great lengths to provide continuous employment and fair recompense for the subcontractors. Consequently, the long-term relationships on a basis of trust and a sense of brotherhood have been established and maintained. However, it could be inferred that this kind of relationship is liable to a sharp decrease of the overall profits up the supply chain, which has been demonstrated by recent severe competition on bidding price along with the recession of Japanese construction. Regarding Kajima, according to a recent investigation on its Affiliated Companies, half of the respondents said that Kajima is valuing more on cost in the transaction, which results in low-bidder and a damage of previous long term and trust relationship. Instead of cost, most of those Affiliated Companies expect to be evaluated by more weights on quality or cooperative level. How to balance the competition and cooperation becomes an urgent task for current Japanese construction.

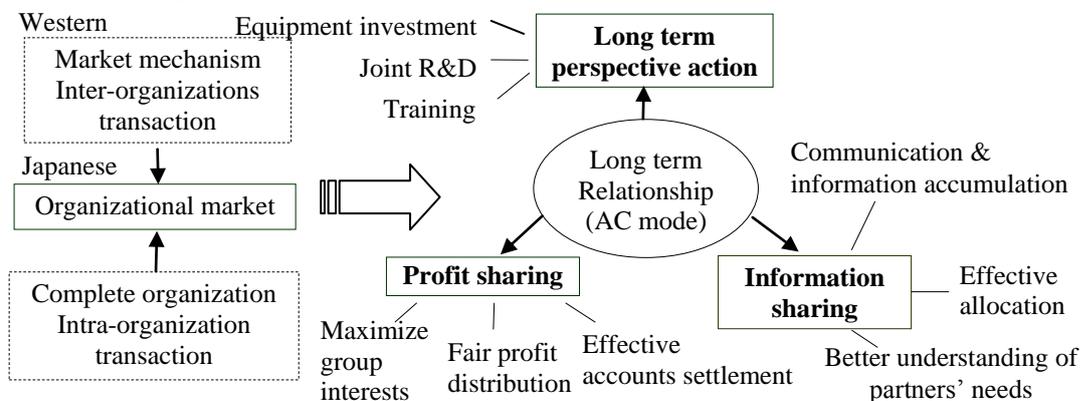


Figure 3: Japanese principle of organizational market

In short, from the case of Kajima, it could be included that the predominant role of general contractor, principle of organizational market, and the ‘assurance systems’ for public procurement are the three interrelated and interacted contributors to the success in establishing and maintaining the long term relationships in the past Japan.

CONCLUSIONS

It is concluded firstly that the interventions for regularizing the labour subcontracting market in current China ought to accept and build on current labour practices (like reconsideration on baogongtou), meanwhile considering the possible coming future even when it is needed to deal with some of the negative repercussions of those practices. The dilemma in Chinese construction labour market is believed to be rooted

in current construction subcontracting systems that restrict the subcontracting market excessively with ignorance of further development of labour contractors under the uncertain and futureless business environment. Kajima's experience points that establishing long term relationships between general contractor and subcontractors could be a valuable initiative to the achievement of the specialized subcontracting market that provides labour contractors with a more promising future. Only by taking their further development into consideration, the construction labour market could probably sustain with the development of construction industry. The main conclusions drawn from the experience of Kajima are demonstrated as followings:

- From Kajima, it could be inferred that Japanese big GCs play a decisive and conductive role in building the long term relationships with SCs in that making great efforts on cultivating SCs in developing their capacities of both business management and technologies under Affiliated Companies mode.
- Japanese Affiliated Companies mode is derived from the Japanese business principle by organizational market, which contributes to establishing and maintaining long term relationships, particularly with strong initiatives from GC who regards SCs as an indispensable input for its business success.
- The 'assurance systems' for public procurement consisting of two schemes as designation and dango are supposed to be another contributor to the success in the Japanese long term relationships in that they externalize the economic benefits of long term relationships.

However, the long term relationships may easily lapse into a comfortable and less initiative business environment, a combination with market competitive mechanism may be a countermeasure to prevent the possible repercussions. Different from Japan, China has been stressing on market competitive mechanism with ignorance on the cooperative working relationships throughout the last three decades of economy ascending. Since there is not yet 'assurance systems' for labour contractors under current insecure business environment in China, an opportunity to accumulate skills and knowledge gained from working with the same contractor is lost. Regarding the practical situation of subcontracting market in China, the significance of combining cooperation with competition should be deeply understood up and down the construction supply chain, which may serve as a start point to regularize subcontracting market aiming at the achievement of sustainable construction labour market. Furthermore, seeing that the long term relationships are vulnerable to the economic environment particularly in economy recession, the sustainability of the long term relationships should be argued in further study.

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