

PARTNERING WITH THE TENANTS– HONG KONG EXPERIENCE

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The development of more integrated and collaborative teams has been advocated in construction during the last decade. This notion has generated broad initiatives such as in partnering and alliancing. Such approaches are still evolving, while widely experimented with in the industry and researched in academia. A proliferation of literature is helping to develop a better understanding of their applications in construction projects. As a supplement to this, the paper examines the interplay of stakeholders in partnered refurbishment projects, which in essence involves the participation of tenants (occupants). Drawing upon evidence obtained through interviews of project personnel and a tenant survey in a pilot case study, some practical observations of partnering on refurbishment projects are formulated: first, that partnering can tap more early inputs from the end-users, and thereby increase their satisfaction; second, that feedback and complaints from tenants are tackled more efficiently with partnering arrangements; finally, that some typical problems (e.g. misunderstandings/misinterpretations) still persist despite fairly successful partnering with tenants. The latter is indicative of the same type of partnering hurdles as in construction projects. These observations are also useful in formulating the basis of a more detailed investigation into wider partnering protocols, that closely involve the end-users of occupied refurbishment projects

Keywords: case study, occupied refurbishment projects, partnering, tenants.

INTRODUCTION

The construction industry is notoriously fragmented with disruptive conflicts, which leads to adversarial team relationships and is later manifested as cost overruns, delays, extensive claims and ubiquitous litigation (Abudayyeh, 1994; Crowley and Karim, 1995). In response to this, the use of partnering has been advocated worldwide (e.g. CII, 1991; Latham, 1994; CIRC, 2001). Better integration of multiple parties is to be achieved through the nurturing of cooperative relationships and mutual trust between the major parties at work along the supply chain. Over years, extensive studies on partnered new construction projects compound the confidence in its efficacy to deliver higher values (e.g. Lindahl and Josephson, 2003; McFadden and Ernzen, 2003; Gransberg et. al, 1999; Larson, 1995). A proliferation of literature, that aims to provide guidelines or blueprints to the partnering practices in construction, at large contributes to a potential knowledge base to help in reaping more benefits from partnering the construction parties.

Meanwhile relatively less research effort is put on investigating how partnering works in refurbishment projects, albeit the maintenance/ rejuvenation of decayed infrastructure was identified as a major future challenge (OST, 1995). Refurbishment

works, in general are considered as more risky and uncertain, less well planned and more difficult to control (Egbu *et al.*, 1996). For social housing refurbishment, one major source of the risks probably arises from the co-existence of tenants in the site during the project course. Additional uncertainties can arise from this additional stakeholder (tenants- the 'user-client'), who is directly influenced by the refurbishment works of the dwellings, but probably the works are paid for by the government/ public landlord- the 'paying-client' (see Robertson and Cairns (1998) for the terms 'user-client' and 'paying-client'). The interplay of the 'paying-client', contractor, the 'user-client' and other related parties would encompass more potential conflicts to be addressed by partnering- in terms of balancing their needs and expectations. This paper presents the contextual details of a Hong Kong public refurbishment case study, aimed at capturing the interactions between the various parties. It was found that communication and flexibility was enhanced through use of partnering. Data from an end-user survey reassured the satisfaction of the tenants with the project.

BACKGROUND OF THE CASE

Public refurbishment in Hong Kong context

The Housing Authority (HA) is one of the largest developers in Hong Kong, and is having a stock of 880,000 social rental flats to manage and maintain. The Authority has committed to provide quality housing to the public. In a view of that commitment, periodic refurbishment is initiated to reverse the trend of lowered living standards, mainly suffered from natural aging of buildings. Therefore, it should be useful to understand the chemistry of 'partnering' in the 'local public refurbishment projects' due to two reasons.

- The growing importance of refurbishment
Whilst a larger fraction of the estate portfolio falls in need of refurbishment, search of effective approaches to manage refurbishment project becomes more urgent. As a supportive figure, more than half of the existing estates have housed residents for over 20 years in 2003.
- The relatively repeatable features (Connaught plc and the Housing Forum, 2002)
'The repetition involved in this type of work (housing renovation) provides an ideal basis for continuous learning and improvement.'

Case studies could be very useful for conducting focused research in a specific knowledge domain (Yin, 1994); and it is particularly suitable to contemplate the elusive benefits that partnering brings to a project, and behavioural aspects within a project team. Therefore, a structured case study was conducted on a selected project.

Project profile and partnering procedures

The selected project is a small-scale refurbishment, whose scope comprises replacement of pipes in both the domestic areas and public areas of five Twin Tower blocks in a housing estate, involving a total of 3,641 flats of residents. The original iron pipelines would be completely replaced by copper ones. The main contract was awarded to the lowest tenderer at a lump sum of \$HK 7.736M. The project duration is 273 days.

The management of the estate was outsourced. Thus in this project, the management agent is responsible, on behalf of the ‘paying-client’, to issue the tender, supervise and coordinate the team, and also certify the payment to the contractor during the project. No subcontractor is involved in the project. No partnering arrangement is made with the supplier, since the material supply is totally managed by the contractor.

Unlike the standard partnering procedures in normal construction projects, this refurbishment project adopted some ‘extended’ partnering arrangements. An initial partnering workshop was carried out with the participation of the ‘paying-client’ (i.e. HA), the management agent and main contractor. In that workshop, representatives from tenants and a member of the District Board (the local administration body) were also invited due to their special roles. The programme of the workshop involves brainstorming sessions and risk assessment practices. These allowed the partners to understand the other’s stances and concerns. During the discussion, directions for the project operation were worked out. A partnering charter (consisting of mutually agreed goals) was compiled and the evaluation every three months was based on the items in the charter. A communication matrix for resolving conflicts was also set up, to enable resolution of problems to be immediately attempted at the appropriate level.

Case study investigation methodology

To get a more holistic picture of the project operation from the perspectives of all the parties, ten individual interviews of a rich cross section of interviewees were arranged. The interviews were semi-structured to allow more open-ended answers and supplementary opinions. The findings are further supplemented by data from critical review of documents and non-participatory observation in site meetings. More details are shown in Table 1:

Table 1: Details of investigation methodologies

Semi-structured interviews	<p>Cross-section of interviewees: (i) ‘paying-client’ representatives: contract manager, property manager, maintenance manager, engineer and work supervisor; (ii) <i>contractor side</i>: the site agent, technical services manager and the foreman; (iii) ‘user-client’ representatives: the District Board member serving the affected residents and one representative from the tenants</p> <p>Interview coverage: team relationships, project-specific difficulties and how they are solved, what differences did partnering make in the project operation, what actually worked well as planned and what actually did not</p>
Critical review of project documents and related studies	<p>Documents reviewed: the partnering workshop report, site meeting minutes, correspondence, emergency plan and results of end-user survey conducted by the management agent</p>
Non-participatory observation in site meetings	<p>Purpose: to witness the manner in which site problems were raised and solutions were reached</p>

The findings from the above-mentioned investigation are consolidated and presented in the following session.

CASE STUDY FINDINGS

From the interviews with the project team, one distinctive challenge was identified in occupied refurbishment project of housing. It is ‘the difficulty in meeting the tenants’ expectations’. Partnering was found to mitigate this partially. The second item to note was the tackling of complaints under partnering. Having noted these, the benefits and

hurdles encountered in the case are presented. As trivial as the items discussed in the following may seem, they are however, important aspects to satisfy the tenants, which is a central part of service provision in residential refurbishment.

User needs gap

A 'user needs gap' exists between 'paying-client' and 'user-client' (Robertson and Cairns, 1998). It turns out that the tenants' needs are not fully reflected in the specifications, and ultimately lead to a gap between the perceived outcomes and the actual outcomes from project. There are three factors that compound the difficulties of meeting tenants' expectations in this project:

- ***Divergent tenants' expectations:*** In new construction projects, personnel from the same organization share a common set of organizational goals and interests. By contrast, tenants from the same estate exhibit more diverse interests- each having varied expectation from the project. Satisfying each and every one them would be impractical. Also, the government ('paying-client') has to deal with the needs of every tenant fairly, and prevent favouring any particular tenant.
- ***Misunderstanding of the tenants:*** The interviewees pointed out from their experiences that, some tenants could misunderstand the scope of works and over-expect from the project. For example, tenants may insist the workers to do extra works for them, which if the workers agreed could disturb the original working schedule and cause disorder in managing the project; while unnecessary complaints and disputes between the tenants and the main contractor could occur if their demands are not satisfied.
- ***Coordination problems:*** One major challenge to the main contractor is to coordinate with the tenants. All in-flat operations have to be done in the presence of the tenants; hence a suitable time should be compromised with them to witness the workers' operations. Some tenants would request the workers to come beyond the working hours because the tenants have to work in daytime. Sometimes the tenants may even miss the appointment so that the contractor had to reschedule a time for the works. These induced extra cost to the contractor and increased the difficulties to meet the restriction on the number of water stoppages allowed in the contract. With this concern, some special requirements raised by the tenants 'in-situ' could not be satisfied if the request could affect the whole works programme.

More inputs (information), more outputs (feedback/ response)

Notwithstanding these difficulties, partnering showed its potential to overcome them through allowing a better information flow. From the interview, information about the projects has been conveyed to the tenants earlier and in a more detailed way, as compared with non-partnered previous cases. This was achieved through both (1) more direct explanation of the work scope and the concerns of all parties have been exchanged more interactively in the partnering workshops and meetings, and (2) from the district board member and the tenants' representatives.

Tenants got to know (1) more specifically the work scope promised in the project, (2) how the work was planned; and more importantly, (3) what the tenants should not do (for example, offer the workers extra money to do extra works) and why. Associated

with the better tenant understandings of the works arrangements, the tenants adopted a relatively proactive approach to deal with the project.

The tenants' representatives and the District Board member gathered and summarized the collective opinions of tenants, and the possibilities to implement them were openly examined during the initial project meeting. Based on this, several examples were highlighted by the tenant interviewees, of their inputs being considered:

- **Change of alignment design:** The tenants proposed the pipelines to align with the ceilings for better appearance; also, in some of the apartments, tenants have repartitioned the space hence needed a tailored alignment of the pipelines in-flat. The contractor agreed to work closely with the tenants for their best benefits, even though these were different from the original provision of the contract.
- **Change of working hours:** The contract allowed the operations to commence every morning at 8 a.m., but the tenants requested to delay it by one hour to minimize nuisance. The suggestion was finally accepted even though this would imply a shorter working period for the same amount of works. The interviewee from the contractor admitted that the acceptance was based purely on empathy.
- **Tenants' security and safety:** The work was carried out in two phases; the first phase involves checking the configuration of the existing pipes and the electric heaters used by each tenants; the second phase was the replacement of in-flat pipes. The operations of both phases required the workers to enter the tenants' apartments and the tenants worried much about the security problem. The tenants also worried about safety problems arising from the stacking of materials in the corridor. Accidents could happen if the children can easily get access to the demolished pipes.

All these worries were endorsed by the contractor and the 'paying-client' in the partnering meetings. The contractor promised to seriously instruct the workers to wear uniform and identity cards when they are on duty. Workers not abiding by the instructions would be warned.

The tenants also worked out some simple strategies with the contractor to ensure safety. Designated areas were established in the corridors and hoarded. Only the materials needed for that day's plumbing replacement were allowed in the designated areas. All the designated areas were cleared at the end of each working day.

Trust and quality of communication, interaction and tangibles are three contributors to customer satisfaction (Brochner and Holm, 2000). In this case, partnering in essence incorporated these three factors in the project process. The communication was obviously enhanced through the improved quality of information given to the tenants; interaction was enabled through the use of partnering workshop and meetings that gave opportunities to clear queries; and the adoption of the measures suggested by the tenants were 'tangibles' and made the tenants felt to be respected. Table 2 shows the results of the end-user survey carried out to gauge the satisfaction of the tenants. The results are based on the analysis of 396 responses. In all the aspects, the satisfaction score were above 3 (with the exception of 'tidiness'). The disturbance minimization and the safety items rated highest in the survey. It can be

interpreted that the high scores are due to the direct inputs of tenants in the respective areas, as discussed above.

The project team also benefited from this idea interflow exercise with the tenants.

The main contractor interviewee indicated that, from the experience in this project they understood more on the possible concerns of the tenants, and could leverage their increased knowledge to plan the forthcoming similar projects in a better way. Probably because of the sincerity the contractor showed to improve the project delivery, the tenants appeared to be more cooperative to match the contractor's schedule. Up to the time the interview was carried out, 98% of the total works were completed, but there were only 2 reported cases of tenants missing the appointments- a low figure when compared to previous project of similar nature.

Table 2: Results of end-user surveys

Item	Unsatisfied	Acceptable	Neutral	Satisfied	V satisfied	N	Mean
Disturbance minimization	11	103	30	237	15	396	3.4
Safety	10	81	67	230	6	394	3.4
Workmanship	39	92	54	203	8	396	3.1
Tidiness	54	112	19	202	8	395	3.0
Overall satisfaction	18	110	19	238	8	393	3.3

Tackling complaints

Traditionally complaints in housing refurbishment projects are perceived to be tackled in an inefficient way by the contractor. The underlying reasons would be:

- The huge volume of complaints that comprises of all sorts of matters, a large portion of them arising from misunderstandings of the work
- The non-single points of receipt of complaints lengthen the time to process, as time can be wasted in transferring from one party to another. The worst case would be if the complaints have to go through a bureaucratic hierarchy to reach the action party. Detention time in transferring some relevant complaints from the management agent to the contractor would erode the patience of the tenants to wait for remedial actions, leading to tenants' dissatisfaction.
- Single party takes up the role to resolve complaints, and the mitigations are mainly carried out in reactive way, i.e. insufficient follow-up if further complaints are not received.

Under the partnering arrangement, there is a clear conveyance of the complaint procedures and channels to the tenants. In addition, some complaint tackling strategies have been developed through the day-to-day interactions with tenants:

- Volume of complaints reduced as detailed works information has been passed to the tenants to eradicate misunderstandings
- A hotline has been established by the contractor to tackle complaints from tenants. Another set complaints go to the contractor via the management

agent. These defined complaint channels minimized the detention time and the responsive actions were taken more promptly.

- The main contractor would raise a complaint for discussion with the management agent, if deemed necessary. The joint effort to solve complaints guaranteed a more complete and well-supported action. Evaluation was initiated to revisit some complaints, so that feedbacks from those empower continuous improvement of the works process, leading to a progressively reduced number of complaints
- As a supportive figure, The effort was reflected by the gradual reduction of complaints per month from 12% at the beginning of the project to around 4% per month towards the end of project (Figure 1), and the average percentage of complaints, which is defined as number of total complaints per number of total flats completed, turned out to be only 5.2%.

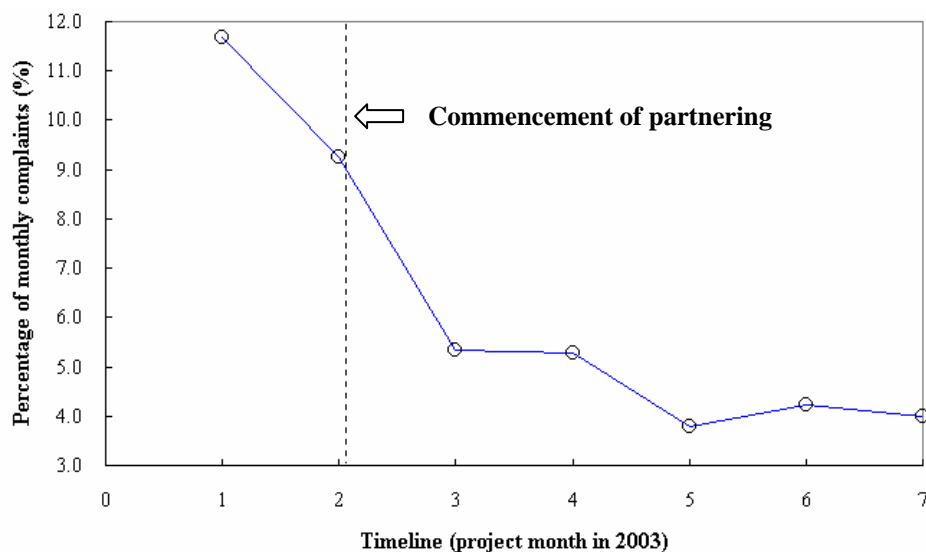


Figure 1: Change of percentage of complaints along the project timeline

Partnering benefits to this project

There are also some other benefits that are similar to those found in ‘new construction’ cases. More important ones identified in this case are the better quality control by the contractor and the improved team relationships, as unanimously agreed by all the interviewees.

Better quality control by the main contractor

- The main contractor explained to the project team (including the tenants) that site performance largely depends on the competence and attitudes of the workers, and it would be difficult for the main contractor to strictly control the behaviour of the workers (quality of workmanship, safe consciousness etc.) as the workers were only employed on a temporary basis and proper training was not provided to them. The quality of workers as a consequence varied much. Better quality could therefore most effectively be ensured by imposing control. The contractor also added, in the context of this project, that 0% water leakage after the replumbing was not cost effective to achieve, instead the main contractor would promise a 95% water-proof ‘level’, the remaining 5% to be mitigated immediately after the leakage was found.

- As a promise in the partnering workshop, the main contractor seriously stressed the concerns on quality to the workers, and was prompt to lay off any workers who were found performing badly during site inspections.
- To fulfil their commitment on quality, the main contractor would spare workers to standby for several hours after the official working hours of every working day. From the main contractor’s experiences, the plumbing sometimes would not leak immediately after the replacement, but would happen several hours after the operation of water flowing in the pipelines. The standby team was therefore responsible to instantly repair any leakages detected after working hours.
- The workmanship was not up to the tenants’ satisfaction in the first few months. With the partnering spirit, the main contractor agreed without making claims, to lay off the underperforming workers, rework until all the tenants felt satisfied, and put additional human resources to the project at its own cost.

Better team relationships

- During the interview, all the participants agreed that more effective communication have been experienced in this partnered project, which is a hallmark of the improved team relationships. The viewpoints of the interviewees on team relationships have been summarized in Table 3, which compares the non-partnered scenarios from their past experiences and the partnered scenarios in this project.

Table 3: Comparison of the working relationships with and without partnering

Parameter	Non-partnered project	Scenario of this project
<i>Working style</i>	Independent working style: client may not actively remind the contractor of some potential problems Discussion is carried out only after apparent adverse impacts on the compliance to contract terms are observed	Client actively reminds the contractor of the potential problems during daily operations Advice is drawn from lessons learnt by the client in similar projects of other estates (e.g. contractor’s late submission of final a/c; mistakes in installing the flowmeter)
<i>Liaison and communications</i>	Regular site meetings not contractually required in such simple projects Irregular site meeting held on an on-demand basis: called for by CM only when needed	Regular monthly meetings held to update the progress and situation of the works
<i>Mutual general perceptions</i>	Contractors get perception of being pinpointed by the management agent, especially when their works are rejected after inspection	Requirements of works clearly stated in detail during partnering workshop Contractor notices the importance of quality products as emphasized by HKHA, and thus understand the duty and standpoint of the management agent, as an agent of HA, to set better acceptance criteria Less adversarial

Major partnering hurdle in the project

Despite the positive partnering outcomes identified above, in some critical issues, the management agent and the contractor were found to have totally different arguments. Two examples are indicated in the following:

Issue (A): At the time the interviews were carried out (at the last month of the project), the contractor had only received one instalment of interim payment. This was contrary to the contract terms, and described by the contractor as ‘not acceptable’.

The contractor thought that the client’s representative processed the payment certificates too slowly. This forced them to finance a large portion of the project sum upfront. Admitting its serious impact on his cash flow, the contractor eventually did not initiate any dispute in spirit of partnering, but commented that contractors were not necessarily capable to survive such situations.

When the event was referred to the management agent, who was responsible to certify the payment, there was another story. The engineer thought that the contractor always made incomplete submissions: missed some of the essential records/documents, so that it was not their fault for the delay of the payment.

Issue (B): At the middle of the project, the contractor found that one of the components (‘Victraulic Joint’) in the specifications was not available locally. The management agent kept chasing the contractor to place the order in advance, to avoid delay. The contractor did not do so immediately after the reminder from the client’s representative.

When asked about the reasons, the contractor restated that the fittings were not available in Hong Kong. The manager of the contractor further pointed out that in the contract, there was provision to replace any unavailable components by those ‘equivalent’/ ‘otherwise approved by the Contract Manager’. After the contractor knew that there was no local supply of the component, their efforts were put on getting another reasonable substitute. A fitting commonly used in other similar projects in other public estates was proposed, and the contractor assumed that it must be legitimate to use it for replacement.

Later, the contractor’s proposal was unexpectedly rejected. Initially the contract manager did not believe the component was out of stock locally. Eventually, a meeting was organized to invite the supplier’s representative to participate, and be cleared the doubts of the contract manager about the ‘out-of-stock’ statement.

Yet the alternative proposal was still not accepted, and the management agent insisted the component be imported overseas. His reasons for insisting this were:

- The substitute was of a much lower price than the specified one, and it was probably that the proposal was purely a commercial decision
- The contractor should have known the component was out of stock locally when he bid for the project, it would be wrong to assume the client has the obligation to accept alternatives

In response to these, the contractor argued that:

- Even though the proposed fitting were not used in this estate, the confidence of the quality of this component should come from the experiences of other estates

- It was not possible for the contractor to quote the price and stock of every component specified in the bid during the tendering stage, and the contractor was not intentionally doing that to increase the profit.

Eventually, the contractor had to accept the suggestion of the contract manager. An action plan was finally worked out, under which the contractor contacted the US manufacturers through continued liaison and agreement with the local supplying agent. The contractor absorbed all the cost induced from negotiating with the local supplier including, inviting the manufacturer to send a representative to Hong Kong for a site visit, and ultimately caught up the slippage and completed the job just in time.

In both issues, there were **alternative perspectives** in different parties. For example, issue (B) neatly illustrated the significant difference between the flexibility in interpreting contractual terms. Noting that their perspectives were tapped only during the interviews, i.e. they were NOT fully aware of what the counterpart thought in the live scenarios, they risked the build up of mistrust and conflicts in the team (Gardiner and Simmons 1998).

A common feature of the two issues is that the differences were not properly managed at the outset of project. In the development of the event, they chose to adopt an attitude of mistrust to view the other party's decision. This can certainly be a hurdle in the path of partnering effectively, as a partnering relationship in essence would be trust-based (Lazar 2000). This is again an example of a partnering project without a genuinely open discussion culture. Such hold back is also common in partnered 'new' construction projects (Sze et. al 2003).

General conditions of contract are adapted in public sector without sufficient allowance/ amendments for more flexible problem solving procedures. This may hinder the pursuit of 'best value' under partnering. This risk-averse business-as-usual approach could limit the potential benefits of partnering.

From the observations at site meetings, the focus of discussion was sometimes put on 'who bears the cost' instead of 'how to solve the problem' (e.g. when talking about the required laboratory testing), which is definitely not a productive culture that regrettably is also apparent in 'new construction' projects.

In view of the above examples found in this particular case study, it is evident that the human-side hurdles of project partnering in 'new construction' projects can also be found in refurbishment ones, despite good intentions and initial efforts.

CONCLUSION

The paper indicates the need to investigate partnering potentials in refurbishment projects, as there is a trend of a rapid expansion in their numbers and values. To fully reap benefits from partnering for refurbishment projects, it is postulated that the unique nature of refurbishment projects should be accordingly taken into account. Such focused studies would be further supplementing the huge proliferations of useful literature and growing 'knowledge' on partnering 'best-practices'. Thus, the recent case study investigated some behavioural aspects in partnering with the tenants, whom the refurbishment projects should satisfy, and whose needs are least understood.

The descriptive contextual case reported in this paper, provides a rich insight of how partnering proceeded in refurbishment projects in which tenants also involved. The outlined case study could serve to understand and underpin the specific needs of

partnered refurbishment cases. For instance, main difference from normal cases of partnered construction projects is from the additional interface of tenants' occupation such as specific problems/ hurdles as well as the value of their input and buy-ins. Conducting similar focused studies on different refurbishment projects would be more useful in establishing a rich knowledgebase of good practices as well as success and failure stories. Through this, the formulation of the optimal refurbishment partnering strategies could be further empowered.

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