INTRAGROUP CONFLICTS IN THE PRE CONTRACT STAGE OF CONSTRUCTION PROJECTS

S. Senaratne¹, N. Udawatta², D.M.H Gunasekara³

¹University of Western Sydney, Australia
²University of South Australia, Australia
³University of Moratuwa, Sri Lanka
s.senaratne@uws.edu.au

ABSTRACT

Conflict is inevitable to individuals, teams and organisations in any work context. In the construction industry, multiple professionals organise as teams to achieve project goals. The contribution of each member of the project team has a significant bearing on the achievement of project deliverables. Hence, group conflicts among the project team members (intragroup conflicts) could significantly affect the overall outcome of the project. Previous researchers have identified three distinct types of intragroup conflicts as task conflict, process conflict and relationship conflict. There are few previous studies that focus on these three types of conflicts in a construction context. This paper aims to explore common types of intragroup conflict that occur during the pre-contract stage, as well as highlighting their effects. A case study research methodology was selected to gain an in-depth understanding. More specifically, four construction projects - all operating under the traditional procurement method with re-measurement contracts in Sri Lanka - were selected for inclusion in the study. Semi-structured interviews were conducted with three distinct participants in each construction team during data collection. The findings revealed substantial effects created by intragroup conflicts and their inter-relationships. Based on these findings, a framework to understand the cyclical effects of intragroup conflicts in each phase of pre-construction was developed. It is hoped the findings will assist construction project managers to proactively manage intragroup conflicts in construction project teams.

Keywords: construction industry; intragroup conflicts; pre-contract stage; project teams.

INTRODUCTION

The construction industry offers an exciting and dynamic environment in which to work. In a construction project, the pre-contract stage is
considered the most important stage: this is where the core of the project is developed and major decisions made. The success of a project heavily depends on the inclusion of professionals from different but complementary disciplines during the pre-contract stage. Katzanbach and Smith (1993) have defined an ideal team as a small number of people with complementary skills, who are committed to a common purpose, performance goals and approach for which they hold themselves mutually accountable. In construction, this team may have issues with commitment to common purpose due to individual interests, and with mutual accountability due to contractual obligations (Cornick and Mather, 1999; Senaratne and Hapuarrachchi, 2009). Characteristics such as multiple objectives and inconsistent reporting relationships could lead to intragroup conflicts within construction project teams (Leung et al., 2005). In fact, many team members are working towards individually defined objectives that are often in conflict with one another (Baiden et al., 2006). For this reason, intragroup conflicts among the team members, are inevitable and they can impact on the achievement of the project deliverables during the pre-contract stage. The impact can be constructive or destructive depending on the type of conflict and the phase in which the conflicts occur. According to Holahan and Mooney (2004), there is a paradox in that conflicts can improve teams’ decision quality as well as degrade it when it distracts team members from the core issues of the project. Construction project managers are required to manage intragroup conflicts in a way that utilises their constructive effects and minimises their disruptive effects. This calls for an in-depth understanding of the type of conflicts that occur in construction and how they affect the projects. The primary aim of the study is to explore the impact of intragroup conflicts on the achievement of project deliverables during the pre-contract stage.

LITERATURE REVIEW

Team members in construction projects are drawn from various disciplines and this result in multidisciplinary teams. However, whilst construction project teams, by their very nature, are most fluid in terms of people, most diverse in terms of firms, they often have unclear ‘leadership’ and agreed-upon specific goals; they seldom train together and also come and go on a project by project basis (Cornick and Mather, 1999). This unique set of characteristics of project teams promotes intragroup conflicts.

Chou and Yeh (2007) have defined conflict as awareness, on the part of the parties involved, of discrepancies in opinions, incompatible wishes or irreconcilable desires. Jehn (1997) identified three types of conflicts as task conflict, process conflict and relationship conflict.
• Task conflict (TC) is a perception of disagreement among group members or individuals about the content of their decisions (Jehn, 1997), and involves differences in viewpoints, ideas and opinions (Jehn, 1995). Examples of task conflict are conflicts about the distribution of resources, about procedures or guidelines, and about the interpretation of facts (De Dreu and Van Vianen, 2001).

• Process conflict (PC) is defined as an awareness of controversies about aspects of how task accomplishment will proceed (Jackson et al., 2002). More specifically, PC refers to issues of duty such as who should do what and how much responsibility different people should get (Jehn, 1997).

• Relationship conflict (RC) is a perception of interpersonal incompatibility, and includes annoyance and animosity among individuals (Jehn, 1995). Examples of relationship conflict are disagreements about values, personal or family norms, or about personal taste (Medina et al., 2005).

There are many definitions and arguments relating to the perceived meanings of conflict. According to Tjosvold (2006), this situation has led researchers to ignore the potential positive effects of conflicts. Some researchers (e.g. Awakul and Ogunlana, 2002; Kassab et al., 2006) have focused on the delays, cost overruns, and decrease in construction project productivity. Moreover, according to Acharya et al. (2006), conflicts that are not clearly managed can lead to claims, and claims not effectively resolved can lead to disputes.

Contrary to the above assertions, the general management literature regards conflicts as bad only if they create discord within the team. There is a growing realisation that teams can actually excel in the presence of certain types of conflict. Conflict can improve decision making outcomes and group productivity by increasing the quality through constructive criticism and by individuals adopting a devil’s advocate role (Knippen and Green, 1999). Conflict has positive aspects relating to commercial risk taking – the very basis of free enterprise and competition. For example, Wall and Callister (1995) argue that when conflict is absent, teams might fail to identify inefficiencies, and they tend to make better decisions when pre-discussion preferences are in disagreement rather than in agreement. Some researchers (e.g. Lu et al. (2011) and Posthuma (2011)) show that task conflicts, in particular, can encourage employees to be innovative and share their knowledge. Conflict is here seen as a productive force that can stimulate members of the organisation to increase their knowledge and skills and to contribute to organisational innovation and productivity.

However, in a construction context, conflicts are, as highlighted above, often viewed as a destructive cause and as not properly managed in order to utilise their positive effects. According to Loosemore and Ngyun (2000), there is an emphasis within the construction industry on conflict prevention which in turn can generate significant opportunity costs. By
attempting to eliminate conflicts altogether, construction teams effectively miss out on opportunities to harness the future benefits arising from the constructive management of conflicts. Previous research has primarily examined the existence of the three types of conflicts and their causes in construction projects (Senaratne and Udawatta, 2012). However, this paper is aimed at exploring the nature and the effects of conflicts during the pre-contract stage.

RESEARCH METHOD

A case study research methodology was selected for this research. Case studies enable the researcher to examine the context in which the studied phenomenon is embedded. They make it possible to find new theoretical interpretations or gain more in-depth knowledge pertaining to existing theoretical insights (Yin, 2003). The case study research approach allows both theory testing and theory building. It starts with a deductive reasoning approach, which incorporates a problem definition, and leads to an inductive reasoning process of theory building (Eisenhardt and Graebner, 2007). As Yin (2003) states, the role of theory development, prior to primary data collection, is one point of difference between case studies and other qualitative methods.

The unit of analysis for this research is the design team of a construction project. It was decided to limit the number of cases to four in order to enable an in-depth investigation of each case. The cases were selected from Sri Lanka and incorporated two forms of design team: the in-house design team and the inter-organisational design team. A brief description about the selected case studies is given in Table 1.

Table 1 Brief description about the selected cases

<table>
<thead>
<tr>
<th>Project</th>
<th>Type</th>
<th>Project cost (Rs.)</th>
<th>Duration (months)</th>
<th>Procurement Method</th>
<th>Design Team</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Hotel project</td>
<td>210 million</td>
<td>24 months</td>
<td>Traditional</td>
<td>Inter-organisational</td>
<td>Private</td>
</tr>
<tr>
<td>B</td>
<td>Office complex</td>
<td>700 million</td>
<td>18 months</td>
<td>Traditional</td>
<td>In-house</td>
<td>Government</td>
</tr>
<tr>
<td>C</td>
<td>School building</td>
<td>42 million</td>
<td>12 months</td>
<td>Traditional</td>
<td>Inter-organisational</td>
<td>Private</td>
</tr>
<tr>
<td>D</td>
<td>Library building</td>
<td>102 million</td>
<td>15 months</td>
<td>Traditional</td>
<td>In-house</td>
<td>Government</td>
</tr>
</tbody>
</table>

During the empirical data collection stage, three representatives – specifically the Architect, the Quantity Surveyor and the Engineer or Project Manager – from each case study were selected for the semi
structured interviews. All had a relevant degree or chartered qualifications and generally had more than 10 years of experience. The data collection was undertaken with the assistance of interview guidelines which comprised of three main aspects: (1) intragroup conflicts in a team; (2) project stage and type of conflicts; and (3) outcome of conflicts and effect to the project deliverables. After developing interview transcripts, key themes (codes) emerging from the cases were identified through manual content analysis. These themes are presented and discussed next.

RESEARCH FINDINGS AND DISCUSSION

Types of intragroup conflicts and their existence

Task conflict (TC): Different kinds of TCs (see examples in Figure 1) were identified in the case studies included in the study. TC occurred primarily at the conceptual design phase due to different viewpoints, ideas and opinions of design team about the design solutions. It was observed that the existence of the various professional roles triggered TCs. For example, architects focused on the aesthetical appearance and functional requirements of the building, whereas structural consultants were concerned, first and foremost, about the structural stability based on their design principles. During the design development, the client also requests optimal functional benefits to be accommodated. These diverse viewpoints gave rise to many TCs.

Case Study A
Architect of the project A stated that “we needed a banquette hall to be column free and with maximum space. Because of the increase of the beam depth structural engineer was reluctant to agree”

Case Study B
MEP Engineer of Project B stated that “there was a requirement of service duct to deliver the pipes and cable for the ground floor from the central area of the building. Architect wanted to have it in either ends of the building where more pipes to be laid under the floor slabs.”

Case Study C
Quantity Surveyor of Project C stated that “during the initiation of the project, structural drawings were issued to start the project. Since the project needed to be completed within four months parallel activities were also proposed to execute. Since the structural drawings were not compatible with the architectural drawings project was idled for 23 days until finalizing the budget.”

Process conflict (PC): The case study findings revealed that the initial design stages and the detail design stages were also characterised by PCs. Due primarily to the communication gaps between the design team members, there were incompatibilities between the architectural drawings, structural drawings and the BOQ. As an example, Structural
Engineer of Project A stated that “during the design stage, architect changed the design according to the client’s requirements. Sometimes those revisions were not communicated to the other team members on time.” This created PCs and caused redesign and rework of project activities.

In the detailed design stage, involvement of other design professionals, such as MEP designers and interior designers at later stages, created further PCs due to the different work methods and approaches adopted by these professionals. Furthermore, given the urgency of the project tasks throughout the pre-contract stage, it was difficult to find the responsible party when there were mistakes, which again created PCs.

Relationship conflict (RC): In the studied cases, there were situations which caused RCs due to personal attitudes. For example, Architect of Project B was of the view that “Architect should be responsible for the design and Architect’s opinion should be the first priority for a design.” However, Quantity Surveyor of the same project viewed that “Architect was over confident about the design and in certain areas the buildability of the design was questioned.” These types of conflicting attitudes between personnel over project matters first led to TCs and later transferred into RCs. It could be seen, however, that when team members were more familiar with each other’s attitudes, apparent hostility derived from conflicting attitudes gradually disappeared as the project progressed.

On the whole, when comparing the existence of intragroup conflicts in each phase of pre-contract stage, the prevalence of TCs was higher at the conceptual design phase. Simultaneously, PCs were comparatively more common in the initial design phase and detail design phase of the pre-contract stage. RCs were generally more prevalent in the design stages, such as in the schematic design stage and detail design stage.

**Effects of intragroup conflicts in pre-contract stage**

In the case studies, TCs showed positive effects on project deliverables at the early stages and associated negative effects at later stages. On the contrary, PCs and RCs generally created only negative effects. These findings are broadly in line with the wider literature on conflict management in a construction context.

Conflicts, in particular TCs, created an environment for new opinions and ideas, which in turn lead to positive effects and buildable cost effective design. However, TCs also resulted in continuous design revisions, erroneous documentation, inaccurate estimation and over estimation. The statements of Project Manager of project A as well as those of the Structural Engineer of Project B affirmed this. Project Manager of project A stated that “there were many arguments, revisions and conflicts on the designs, especially Architect, QS and Structural Engineer had many
complications on compatibility. Though the project delayed due to these, it ended up with a buildable design ultimately.“ Structural Engineer of Project C stated that “though the design delayed on finalizing, ultimately a cost effective design was achieved.”

PCs cause delay on budgetary and design approvals. It could be seen that, due to PCs and RCs, projects had generally suffered from delay on approvals, delay on finalising designs, incompatible designs, erroneous documentations, lack of responsibility and mistrust. According to the Quantity Surveyor of project C, "Architect and Structural Engineer did not coordinate properly and worked individually. This led to errors in drawings. So we had to keep provisions in estimates that led to inaccurate estimates.”

Due to budget constraints there were cost-related intragroup conflicts in both the governmental and private sector projects that were studied. In private sector projects, conflicts related to costs occurred due to changing investment decisions by the stakeholders. As for the governmental projects (Projects B and D), it was restrictions pertaining to approval process and policies mainly that led to conflicts. For example, in project B, the preliminary budget needed to be approved by a cabinet-appointed committee which grants approval after design finalisation only.

The majority of intragroup conflicts identified were directly related to cost and quality issues accumulated over time. The empirical findings reported in this paper show that all those conflicts affected the sequence of project activities and caused delays in the overall project – with or without cost overruns.

On the whole, effects such as cost overruns, delays in approval and design freezing created a cyclical relationship between intragroup conflicts as shown in Figure 2. PCs and RCs generated additional cost and time spent in the initial stages. This initial added cost and time expenditure frequently generate TCs, with the subsequent constructive discussion resulting in more innovative ideas, more cost-effective solutions and, ultimately, a positive effect on the final project outcome. Although TCs can be seen as a mechanism for overcoming the negative effects of conflict in the initial phases, its effectiveness can only be achieved by proper conflict management. For example, excessive TCs can regenerate RCs as shown in Figure 2. Effective management of conflicts and optimisation of the positive effects of conflicts are, therefore, essential.

CONCLUSIONS

The aim of this study was to identify the effects of intragroup conflicts in the pre-contract stage. The aim was approached through four case studies all set in the Sri Lankan construction industry. The findings are discussed in relation to the three types of conflicts: task conflict (TC), process conflict (PC) and relationship conflict (RC). The key findings
revealed that intragroup conflicts have both negative and positive effects on the achievement of desired outcomes during the pre-contract stage. It was identified that positive effects can only be gained when conflicts are properly managed with good communication together with appropriate conflict management strategies.

**Figure 2 Cyclical effects of Intragroup Conflicts**
Ultimately, intragroup conflicts in construction can create a platform for innovation and constructive discussion, leading to individual, team, organisational and industry learning and development. Since this research is based on a case study methodology, it is limited in terms of statistical generalisability. It is hoped that the findings would be replicated in similar settings. Further, case studies in different contexts and with alternative procurement arrangements are welcome in order to compare, contest and replicate the findings as appropriate.

REFERENCES


