



Boosting Project Outcomes through Goal Alignment: A Case Study of Vietnam

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Abstract

Goal alignment among members of a project team is important so that individual team members can work towards common project outcomes. This study aims to identify effective goal alignment practices to improve construction project outcomes in Vietnam. With the aid of a survey questionnaire, 31 sets of data were collected from practitioners in Vietnam's construction industry. The overall results show that although there is significant schedule overrun, projects in Vietnam are generally completed within budget. These projects also have significantly good quality and client satisfaction. It was found that schedule performance may improve if buyers and sellers have high degree of alignment in project objectives, and have shared goals that are adjustable. The finding shows project quality may improve if sellers communicate problems relating to quality to buyers, and there is proper documentation of project objectives. Effective communication of problems pertaining to delivery and quality may lead to better client satisfaction. It is recommended that project team members share, align and adjust their goals and objectives in order to achieve a better schedule outcome. It is also recommended that consultants and contractors make adjustments and customize their products to derive higher quality and client satisfaction. Clients should also be fair in sharing project benefits and assessing claims.

Keywords: Vietnam, Goal alignment, Project outcomes, Project management

Introduction

The construction industry faces many problems, such as cost and schedule overrun (Kaliba et al., 2009), lack of cooperation (Chan et al., 2004), and limited trust (Pinto et al., 2009). These issues can lead to adversarial relationships (Chan et al., 2004) and ultimately, affect the project success.

In a construction project, it is natural that different team members strive to achieve their own objectives. There is a constant struggle between "mutual interests" and "individual interests" of the different parties. Based on these two types of interests, inter-organizational relationships could be cooperative, competitive, regulating or conflictive (Van de Ven et. al, 1999). Thompson and Sanders (1998) stated that the traditional owner-contractor relationship is mainly competitive in nature which leads to a low degree of objective alignment.

Project management in Vietnam has been investigated in the following ways: identification of the construction industry's strengths, weaknesses, opportunities and threats (Dapice, 2003); detection of problems faced in large construction projects (Nguyen et al., 2004); evaluation of construction firms' performance using a balanced scorecard and SWOT matrix framework (Luu et al., 2008); case studies of projects with satisfactory and unsatisfactory outcomes (Ling and Bui, 2010); evaluation of project management practices that are associated with poor project outcomes (Ling and Tran, 2012a); association between trust, competency, communication and relational transactions (Ling and Tran, 2012b); and correlation between relational contracting practices and interpersonal relationships (Ling and Tran, 2012c).

While goal alignment has been studied in some countries (e.g. Stephen and Coote, 2007),

hitherto, it is not known what strategies are adopted for goal alignment among team members in Vietnam. Strategies adopted to enhance goal alignment have not yet been explored in depth in the Vietnamese context, and the association between goal alignment strategies and project outcomes is not known. This research aims to fill the gap by investigating the effect of goal alignment on project outcomes in Vietnam. The specific objectives are to investigate the extent to which practices relating to goal alignment are adopted in Vietnam, and the association between these practices and project outcomes. Project outcomes are operationalized into the usual cost growth, schedule growth, project quality, and client satisfaction. Goal alignment practices are those which align team members with the project objectives.

This research focuses on construction projects undertaken in Vietnam. Both public and private projects from different provinces in Vietnam are explored. Vietnam is worth studying because it is one of the most dynamic countries in South East Asia (World Bank, 2012), with her construction industry contributing 41.1 per cent to the Gross Domestic Product (GDP) (Global Finance, 2012).

Overview of Vietnam's Construction Industry

From a poor country faced with numerous problems such as hyperinflation and famine, Vietnam has transformed into a developing country whose economy has flourished rapidly. According to the World Bank (2012), Vietnam's economy has grown at an annual rate of 7.3 per cent between 1990 and 2010, and for the next decade, the aim is to achieve a 10 per cent annual growth rate so as to attain a per capita income of US\$3000. Vietnam's progress can be attributed to foreign investment, reduction in poverty, high flow of international trade, health care, and the development of infrastructures (World Bank, 2012).

The construction industry in Vietnam is experiencing high growth despite the global financial turmoil in recent times (Business Monitor International, 2012). The General Statistics Office of Vietnam highlighted that in 2011, the construction sector in Vietnam reached USD 32.2 billion, an escalation of 18.4 per cent compared to 2010. There is a construction boom in various areas such as infrastructures, hotels, offices, and residential and industrial buildings (Nation Encyclopedia, 2012).

Although the construction boom is viewed with much optimism, the industry still faces many problems that prevent it from achieving successful outcomes. The mean cost performance is 2.95 on a 7-point scale (1= overrun budget by >5 per cent ; 4= final cost same as budget; and 7= below budget by >5 per cent), and this is significantly poor (Ling and Tran, 2012a). Schedule performance is also significantly poor, at a mean of 2.21 on a 7-point scale (1 = late finish by > 5 per cent ; 4 = finish on time; 7 = early finish by > 5 per cent) (Ling and Tran, 2012a). Hoai et al. (2008) identified the five main causes of construction cost and schedule overrun in Vietnam as: poor site management and supervision; poor project management; owners' financial difficulties; contractors' financial difficulties; and frequent changes in design. Other reasons for poor performance are bad traffic situation and the lack of accurate data on soil and weather conditions (Ling and Bui, 2010).

Framework and Hypotheses

The framework for this study is that goal alignment among buyers and sellers leads to better project outcomes. In the sections below, project outcomes and goal alignment are defined and operationalized.

Performance Outcome Measurement

Traditionally, a project is considered successful if it is delivered on time, within budget, and of accepted quality (PMI, 2004). Konchar and Sanvido (1998) measured success in terms of unit cost, construction speed, delivery speed, cost growth, schedule growth and several

quality measures. Chan and Chan (2000) produced a consolidated framework which included the additional dimensions of user expectation, participant's satisfaction, environmental performance, health and safety, and commercial value. To this list, Ling et al. (2004) added owner's satisfaction and owner's administrative burden. If the final cost or schedule exceeds what is planned, buyers' satisfaction would be compromised (Kaliba et al., 2009). Bubshait and Almohawis (1994) found quality performance a significant contributor to the existence of satisfaction in a project. Kim et al. (2012) discovered that quality is an important factor in time–cost trade-off problems, that is, the achieved overall quality of a project should be maximized within a given time frame and budget. From these studies, this research chose four performance measures to ascertain project outcomes on the basis of minimizing overlaps among the performance measures. These were used as the dependent variables of this study. Project outcome is operationalized into: cost growth (Y1), schedule growth (Y2), project quality (Y3), and client satisfaction (Y4).

Goal Alignment

Goal alignment is defined as buyers and sellers: having very similar project-related goals and attitudes towards what needed to be achieved; having compatible project-related goals, supporting each other's objectives; having agreement upon project-related goals (Jap, 1999; Stephen and Coote, 2007). Goal alignment has been found to help team members attain the best values (Walker et al., 2002) and enable contractors to achieve better financial performance (Stephen and Coote, 2007). Child (1984) found a high and positive correlation between goal alignment among members in the project and project outcomes. For goal alignment to occur, team members should exhibit relational behaviour (Stephen and Coote, 2007), and have joint action (Wright et al., 2001). They should avoid maximizing self-interest or having incongruent goals (Eisenhardt, 1989). When parties have goal alignment, they are integrated as there is unity of effort between various subsystems with coordinated solidarity in the accomplishment of common organizational goals (Lansley et. al, 1974). Based on the literature review, goal alignment practices are categorized into the following: shared/common objectives; communication; flexibility; and fairness.

Shared/common objectives

Goal alignment may be achieved through shared objectives, which leads to the development of successful relationships (Thompson and Sanders, 1998). Clear mutual objectives that can meet the aims of both parties help them put effort in the same direction (Thomas and Thomas, 2005). In addition, common objectives provide a win-win situation because it creates an idea that if people cooperate towards the same direction, they can produce more than enough of what they want (Chartered Institute of Building, 2010). Swan and Khalfan (2007) suggested a partnering workshop in order to obtain shared objectives between parties and that it takes place at the beginning of a project. Although there is an initial cost and time involved, mutual objectives are likely to prevent resource and time wastage at later stages (Chartered Institute of Building, 2010). From the literature review, the following goal alignment strategies are identified: buyers and sellers have shared goals (X1); buyers and sellers' project objectives are aligned (X2); buyers and sellers business/commercial objectives are aligned (X3); and project goals are adjusted to take care of everyone's interests when conflicts happen (X4).

Communication

In a project-based industry, the interaction between unfamiliar groups of people coming together for a short period of time is problematic and unproductive (Dainty et al., 2006). To align goals, project team members need to communicate openly, directly and in a timely manner (Larson, 1995; Hellard, 1996) so that problems can be solved immediately in the early stages (Dunston and Reed, 2000). Goal alignment takes place when parties are allowed to review and give feedback (Kawneer, 2001). In addition, effective communication can facilitate the setting of visions, idea exchanges as well as problem solving (Cheng et al., 2000). Goal alignment strategies are operationalized as: sharing of information between

buyers and sellers (X5); sellers communicating with buyers on problems relating to timely delivery (X6) and quality (X7); sellers' method of communicating to reduce organizational and interpersonal clashes (X8); and buyers' method of communicating to reduce uncertainties about the project (X9).

Flexibility

Goal alignment ensures that when the project faces an unexpected situation, parties face less uncertainty about the proper course of action and can react appropriately (Sorensen, 2002). As each party has its own objectives prior to alignment, some form of customization is needed for goal alignment. Chan et al. (2011) recommended that conflicting individuals look for a common satisfactory solution by adopting joint problem solving and seeking alternatives. Goal alignment strategies relating to flexibility are operationalised as a seller's willingness to meet the buyer's needs by: making adjustments to its products/services (X10), customizing its products/services (X11), and being flexible when changes are required (X12).

Fairness

Goal alignment should ensure that the rights and interests of different parties are also taken care of. This is usually achieved by contracts which include clear terms of responsibility and fair risk allocation (Zaghloul and Hartman, 2003). Solutions to problems should be based on equality and mutual goals (Vaaland, 2004). Strategies for goal alignment are operationalized as: sharing project benefits fairly (X13); being fair in evaluating claims (X14); and having a written agreement of objectives of different parties (X15).

Research Hypothesis

From the literature review, it is hypothesized that:

H: An increase in the adoption of goal alignment practices leads to an improvement in project outcomes.

Research Method

A survey was conducted to investigate goal alignment practices that are significantly associated with project outcomes. A draft survey questionnaire was drawn up based upon the goal alignment related literature, and the literature review on project outcomes. Four project outcomes (Y1 to Y4) and 15 goal alignment practices (X1 – X15) that may be adopted in construction projects were identified from the literature.

After translating the questionnaire into Vietnamese, it was presented to three construction professionals (experts) in Vietnam for testing. The experts were asked to identify any ambiguous questions and wordings. Based on feedback from the pilot study, the questionnaire was revised, refined and ambiguities removed to ensure that it was appropriate in the Vietnamese context and sent back to these professionals for re-evaluation. The questionnaire was then finalized, and an industry wide survey was conducted.

The questionnaire was divided into 3 sections. Section A requested information of a particular completed construction project of respondents' choice that they had been involved with in Vietnam. However, projects must be recently completed (after 2000) so that the data would not be outdated. The respondents' firms must have been involved in these projects as project owners, consultants or contractors. Section A provided definitions of buyers and sellers, and respondents were asked to indicate what buyer role they played, and which seller they were basing their response on. Actual and planned cost and schedule information was solicited to calculate Y1 and Y2. Respondents were also asked to rate project quality (Y3) and client satisfaction (Y4) on an anchored 5-point Likert scale (1 = very low; 5 = very high). In Section B, respondents were asked to indicate the extent to which goal alignment practices (X1 – X15) were adopted in the project on a similar 5-point Likert scale. The last section gathered demographic characteristics of the respondents and their companies.

The population in this study comprised “buyers” in Vietnam’s construction industry, defined as those who need to procure products or services for construction projects. These buyers are: clients who buy consultancy and construction services from consultants and contractors respectively; consultants who receive construction services of contractors; and contractors who buy services and products from subcontractors and suppliers. The sampling frame consisted of “buyers” defined above, working in Ho Chi Minh City (HCMC). Random sampling was adopted for the selection of samples. To increase the number of respondents, convenience sampling and snowball sampling were also adopted.

The self-administered questionnaire was first sent to the subjects by email. E-mail was chosen because it could efficiently reach a large sample, and allowed ease of response. Subjects were told that they may return the completed questionnaire by email or request for researchers to interview them to help them to complete the questionnaire.

Data Analysis

After the questionnaires were received, they were checked and coded. Cost growth (Y1) and schedule growth (Y2) were calculated as follows:

- Cost growth (Y1) = (Final cost – Original cost)/Original cost X 100 per cent
- Schedule growth (Y2) = (Final duration – Planned duration)/Planned duration) X 100 per cent .

In addition, Y1 and Y2 which were given in percentages were coded into a 5-point scale, as Y1’ and Y2’ (see Table 1) to allow all the variables to be measured on the same scale.

The one-sample *t*-test was performed using the Statistical Package for Social Sciences (SPSS) software on the four performance metrics to determine if the projects had significantly good outcomes (Y1 to Y4). For each Y variable, the null hypothesis is that the outcome is neutral, and the alternative hypothesis that the outcome is significantly good (*t* value positive, $p < 0.05$) or significantly poor (*t* value negative, $p < 0.05$). The null hypothesis $H_0: \mu = \mu_0$ was tested against the alternative hypothesis $H_1: \mu \neq \mu_0$, here μ was the population mean. μ_0 is the hypothetical mean above/below which the outcome is considered significantly good/poor. μ_0 for Y1 and Y2 were set at 0 because this represents 0 per cent cost growth or schedule growth. μ_0 for Y1’, Y2’, Y3 and Y4 was set at 3 because by definition given in the 5-point rating scale, 3 is anchored as no growth (Y1’ and Y2’) and meeting expectations (Y3 and Y4).

T-test was also used to find out if the goal alignment practices (X1 – X15) were adopted to a significant extent. The null hypothesis $H_0: \mu \leq \mu_0$ was tested against the alternative hypothesis $H_1: \mu > \mu_0$, here μ was the population mean. μ_0 is the hypothetical mean above which the practice is considered to have been adopted to a significant extent. μ_0 was set at 3 because by definition given in the 5-point rating scale, 3 is anchored as neutral. When $p < 0.05$ and the *t* value is positive, it is concluded that the practice was adopted to a significant extent.

In order to check the influence of a goal alignment practice (X1 – X15) on project outcome (Y1 – Y4), Spearman’s correlation analysis was conducted. A goal alignment practice is considered significantly correlated with a performance outcome when $p < 0.05$.

Characteristics of the Sample

Ninety sets of questionnaires were sent out, and 31 responses were received. The response rate of 34 per cent is within the expected range of 20–40 per cent for surveys of this nature. Inferential statistical analysis could be carried out because in accordance with the generally accepted rule, the central limit theorem holds true when the sample size is ≥ 30 (Ott and Longnecker, 2001).

| Characteristics | Frequency | per cent |
|--|-----------|----------|
| Designation | | |
| Upper management | 6 | 19.4 |
| Middle management | 12 | 38.7 |
| Professionals | 13 | 41.9 |
| Experience in industry (years) | | |
| Less than 10 | 16 | 51.6 |
| 10–20 | 13 | 41.9 |
| Above 20 | 2 | 6.5 |
| Respondents' roles in the projects | | |
| Operation | 3 | 9.7 |
| Control | 15 | 48.4 |
| Management | 13 | 41.9 |
| Respondents' firm type | | |
| Government sector clients | 3 | 9.7 |
| Private clients/developers | 5 | 16.1 |
| Main contractors | 16 | 51.6 |
| Consultants | 7 | 22.6 |
| Project type | | |
| Residential | 12 | 38.7 |
| Office | 9 | 29.0 |
| Hotel | 3 | 9.7 |
| Industrial | 5 | 16.1 |
| Others | 2 | 6.5 |
| Location of the projects | | |
| Ho Chi Minh City | 20 | 64.5 |
| Nearby provinces of Ho Chi Minh City | 6 | 19.4 |
| Other parts of Vietnam | 5 | 16.1 |
| Nature of the projects | | |
| Government sector | 3 | 9.7 |
| Private sector | 28 | 90.3 |
| Size of project (m²) | | |
| Not exceeding 1,000 m ² | 8 | 25.8 |
| 1,000 m ² - 10,000 m ² | 11 | 35.5 |
| 10,001 m ² - 50,000 m ² | 8 | 25.8 |
| 50,001 m ² - 100,000 m ² | 4 | 12.9 |
| Respondent-firms' role in project | | |
| Client's representative | 6 | 19.4 |
| Consultants | 8 | 25.8 |
| Main contractor | 17 | 54.8 |
| Cost growth (Y1) (5-point scale) | | |
| Point 1: ≤ -5 per cent | 5 | 16.1 |
| -5 per cent < Point 2 < 0 per cent | 2 | 6.5 |
| Point 3: 0 per cent | 9 | 29.0 |
| 0 per cent < Point 4 ≤ 5 per cent | 11 | 35.5 |
| Point 5 >5 per cent | 4 | 12.9 |
| Schedule growth (Y2) (5-point scale) | | |
| Point 1: ≤ -5 per cent | 0 | 0 |
| -5 per cent < Point 2 < 0 per cent | 4 | 13.3 |
| Point 3: 0 per cent | 14 | 46.7 |
| 0 per cent < Point 4 ≤ 5 per cent | 7 | 23.3 |
| Point 5 >5 per cent | 5 | 16.7 |

Table 1 Characteristics of respondents, their firms, and projects

Note: n ≠ 31 because some respondents did not provide the information.

The characteristics of the respondents are shown in Table 1. The majority of respondents are from the middle management and professional categories. The average working experience of respondents is 10.19 years, and their involvement in the construction industry in Vietnam ranges from five years to 30 years. Most of the respondents played a control or management role in their projects.

Table 1 also shows the characteristics of the projects that respondents reported on. The majority are building projects located in HCMC and southern Vietnam, and they belong to the private sector. The size of the reported projects varies from 60m² to 100,000m² with the average of 14,850m².

Results

Table 2 shows the project outcomes (Y1 to Y4). The mean cost growth is 1.15 per cent (Y1) or 3.23 on a 5-point scale (Y1'). The *t*-test shows that there is no significant cost overrun (Table 2). The mean schedule performance (Y2) is 8.98 per cent or 3.43 based on a 5-point scale (Y2'). The *t*-test results show that there is significant schedule overrun in the projects. Table 2 also shows that project quality (Y3: mean = 3.61) and client satisfaction (Y4: means= 3.42) are significantly high. It can be concluded that the respondents have reported projects that were completed within budget, had high quality and client satisfaction, but they were significantly delayed.

| Code | Performance matrix | Mean | T value | Sig. (2-tail) |
|------|-------------------------------------|------|---------|---------------|
| Y1 | Cost growth (percentage) | 1.15 | 1.007 | 0.161 |
| Y1' | Cost growth (5-point scale) | 3.23 | 1.000 | 0.163 |
| Y2 | Schedule growth (percentage) | 8.98 | 2.315 | 0.014* |
| Y2' | Schedule growth (5-point scale) | 3.43 | 2.538 | 0.017* |
| Y3 | Project quality (5-point scale) | 3.61 | 4.770 | 0.000** |
| Y4 | Client satisfaction (5-point scale) | 3.42 | 4.139 | 0.000** |

Table 2 Project outcomes

* $p < 0.05$; ** $p < 0.01$

Among the 15 practices relating to goal alignment, Table 3's *t*-test results show that 12 are adopted to a significant extent, while X4, X5, and X15 are not. The correlation test does not show significant correlation between Y1 (cost performance) and any of the goal alignment practices. This suggests that cost performance is not dependent on goal alignment among the project team members, but other factors such as control and scope management.

The correlation results in Table 3 show that five goal alignment practices (X1, X2, X4, X5, and X13) are significantly correlated with schedule performance (Y2'). Quality (Y3) and client satisfaction (Y4) are significantly correlated with four and five goal alignment practices, respectively.

Discussion

This section discusses the statistical results in Table 3.

Shared Objectives among Team Members

The results in Table 3 show that three practices relating to sharing goals and objectives are significantly and negatively correlated with schedule growth (Y2'): sharing of goals and objectives between buyers and sellers (X1: $r = -0.446$, $p = 0.014$); alignment of project objectives among different parties (X2: $r = -0.386$, $p = 0.035$); and adjusting goals to ensure everyone's interests when conflicts happen (X4: $r = -0.373$, $p = 0.043$).

Shared goals and aligned objectives are important because they can promote a better

working environment (Ali et al., 2010) and help parties work towards the same direction. As a result, much time can be saved which leads to the reduction of schedule growth. These collaborative atmospheres can therefore assist parties achieve project success (Black et al., 2000).

The finding that adjusting goals to ensure everyone's interests when conflicts happen (X4) is significantly correlated with Y2' confirms Verma's (1998) study which showed that goal adjustments that are made to ensure everyone's interests when conflicts happen strongly affect time performance. The t-test result shows that this is not adopted often enough, probably because when conflicts happen, each party wants to safeguard its own interest, and ultimately project schedule may be compromised.

| Code | Factors | Mean | T value (1-tail sig) | Y2' | Y3 | Y4 | Total |
|---------------------------------|--|------|----------------------------|----------------|----------------|----------------|-------|
| Shared/common objectives | | | | | | | |
| X1 | Extent to which buyers and sellers have shared goals | 3.42 | 3.474 .001** | -.446* .014 | | | 1 |
| X2 | Level of alignment of project objectives of different parties | 3.39 | 2.834 .004** | -.386* .035 | | | 1 |
| X3 | Level of alignment of business/commercial objectives of different parties | 3.42 | 2.892 .004** | | | | 0 |
| X4 | Extent to which goals are adjusted to take care of everyone's interests when conflicts happen | 3.16 | 1.000 .163 | -.373* .043 | | | 1 |
| Communication | | | | | | | |
| X5 | Effectiveness of information sharing between buyers and sellers | 3.23 | 1.366 .091 | -.361* .050 | | | 1 |
| X6 | Effectiveness of sellers' method of communicating its delivery problems with buyers | 3.42 | 3.243 .002** | | | .406* .024 | 1 |
| X7 | Effectiveness of sellers' method of communicating its quality problems with buyers | 3.45 | 3.105 .002** | | .494** .005 | .476** .007 | 2 |
| X8 | Effectiveness of sellers' method of communicating to reduce organizational and interpersonal clashes | 3.61 | 3.450 .001** | | .635** .000 | | 1 |
| X9 | Effectiveness of buyers' method of communicating to reduce uncertainties about the project with sellers. | 3.48 | 2.802 .005** | | | | 0 |
| Flexibility | | | | | | | |
| X10 | Extent to which sellers made adjustments to their products/ services to meet buyers' needs | 3.48 | 2.402 .012* | | .502** .004 | | 1 |
| X11 | Extent to which sellers customized their products/ services to meet buyers' needs | 3.58 | 3.258 .002** | | | .456** .010 | 1 |
| X12 | Extent to which sellers showed flexibility when changes were required | 3.39 | 3.503 .001** | | | | 0 |
| Fairness | | | | | | | |
| X13 | Level of fairness in sharing project benefits between buyers and sellers | 3.52 | 4.593 .000** | -.423* .020 | | | 1 |
| X14 | Level of fairness when buyers evaluated claims submitted by sellers | 3.26 | 2.108 .022* | | | .505** .004 | 1 |
| X15 | Extent to which objectives of different parties are formally documented in writing | 3.10 | .722 .238 | | .450* .011 | .415* .020 | 2 |
| Total | | | | | 5 | 4 | 5 |

Table 3 Summary of statistical results

Notes: Only significant correlations are shown. Within each cell, the top and bottom figures are the correlation coefficient and sig. level, respectively. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). Y1 is not significantly correlated with any of the factors.

Communication among Team Members

Table 3 shows that communication practices are significantly correlated with Y2', Y3, and Y4, indicating the importance of communication in goal alignment. There is a significant negative correlation between schedule growth and sharing of information between sellers and buyers (X5: $r=-0.361$, $p=0.050$). This indicates that when more information is shared, the project is likely to be completed on time. The result is consistent with Dainty et al.'s (2006) finding that sharing information throughout a project develops a collaborative environment that can facilitate the project management process and results in a significant reduction of schedule growth. The t-test result shows that sharing of information is not done often enough. This indicates that there is a lack of effective information sharing, and parties may not be working collaboratively which would cause time delay (Meng, 2012).

When sellers are able to communicate problems regarding delivery (X6) and quality (X7) more effectively, the correlation results show that the projects also experience higher quality (Y3) and client satisfaction (Y4) (Table 3). This may be because when issues surface, the easy ability of sellers to discuss them openly will help all parties to address the problems collectively and solve them immediately with inputs from various members in their respective capacities. This result supports Dainty et al.'s (2006) finding that poor communication leads to poor quality. One possible reason is that effective communication can motivate people to work effectively towards the same direction and hence produce better quality products. If anyone withholds their information and problems, more major issues are created and this can lead to poor quality (Munns, 1995).

Flexibility displayed

Table 3 shows that there is a significant correlation between project quality (Y3) and sellers' willingness to make adjustments to meet buyers' needs (X10: $r=0.502$, $p=0.004$). There is also a significant correlation between client satisfaction (Y4) and sellers' willingness to customize products to meet buyers' needs (X11: $r=0.456$, $p=0.010$). These findings indicate that sellers' flexibility can lead to better quality and satisfaction. The importance of flexibility is also confirmed by Lim et al. (2011) who found that contractors need to: respond to changes attributed to unpredictable changes in clients' requirements; have flexible work procedure; and have the ability to change current practices. While the questionnaire asked about extent to which sellers were flexible, it should be noted that flexibility should not be one sided to accommodate the requests from buyers only. It is also important for buyers to be flexible, as was the case of a successful hospital development, where clients were prepared to accept alternative proposals by consultants and contractors as long as the function of the facility was not compromised, and this helped to minimize the occurrence of conflicts, and enhanced the relationships between the parties (Ling and Tan, 2014).

Fairness in dealing with each other

Table 3 shows that all the three goal alignment practices relating to fairness (X13, X14, and X15) are significantly correlated with Y2', Y3, and Y4, suggesting the importance of being equitable. There is a significant negative correlation between schedule growth (Y2') and fairness in sharing project benefits (X13: $r=-0.423$, $p=0.020$). One possible reason is that fairness, especially in monetary sharing, can be seen as a motivator for members to work harder towards project success. A benefit-sharing agreement can help to promote effective communication and conflict resolution (World Bank, 2009). Because for the benefit of all parties, when issues surface, team members will try to minimize the time taken to resolve them. When organizational justice is perceived, conflict intensity levels are likely to reduce and the tendency to dispute also decreases (Aibunu et al., 2011). These allow team members to execute the project without delay.

Client satisfaction (Y4) is significantly correlated with fairness in submitting and valuing claims (X14: $r=0.505$, $p=0.004$). In construction projects, changes happen frequently and

sellers who submit fair and reasonable claims can save buyers' time in evaluating them, leading to higher satisfaction. Similarly, when buyers assess the variations fairly, sellers are more likely to agree to the value of the variations and proceed with the work with minimum dispute and disruption, thereby increasing client satisfaction. The result confirms Aibinu et al.'s (2008) finding that the procedure for administering claims must be perceived to be fair as this reduces a contractor's uncooperative attitude especially if he is receiving an unfavourable decision.

The result in Table 3 shows that when there is a higher degree of written agreement of project objectives of different parties (X15), project quality (Y3) and client satisfaction (Y4) are also likely to be higher. A written agreement is a permanent record of what is desired of a project and allows parties to consider carefully the terms that they want to include in the agreement (Dainty et al., 2006). This type of agreement promotes understanding between parties and minimizes misinterpretation (Dainty et al., 2006). The t-test result shows that this is not practised to a significant extent. Agreements should be written to ensure consistency, prevent amnesia and allow parties to always refer to what has been written when it comes to ambiguity or disputes (Nolo, 2013).

Limitations of the Research

Despite much effort to collect more data, only 31 respondents agreed to participate in the study. Thus, the main limitation of this study is the small sample size which limits the scope for generalization of the respondents' perceptions to the overall population. Other Vietnam studies also reported small sample sizes. For example, Ling and Tran's (2012a) study of project management in Vietnam had 38 respondents and Ling and Tran's (2012b) investigation of trust in project teams in Vietnam had 36. The results established from the statistical analyses must be interpreted with care, giving due considerations for potential under-coverage bias and to reliability issue. However, in the absence of other studies from Vietnam, the findings provide some guidance to practitioners on the goal alignment practices that may boost project outcomes. In future, research could be undertaken on a larger sample of practitioners, and using other data collection methods to elicit higher responses.

Another limitation is the subjectivity of the responses since the questionnaire is based on a 5-point Likert scale. Different respondents may assign different points on the Likert scale when rating quality, satisfaction and extent of adoption of goal alignment practices. The responses are also based on respondent-buyers' perception, and may not truly represent the actual situation or what sellers perceived. In addition, findings obtained from this study are mostly limited to private sector projects in Ho Chi Minh City and nearby provinces. The majority of respondents are main contractors, suggesting that the results would be more relevant to goal alignment between contractors and subcontractors/suppliers.

Conclusion

This study was conducted to find out what are the effective goal alignment related practices that could lead to better project outcomes in Vietnam. Among the 15 goal alignment practices, 12 were adopted to a large extent. It is recommended that adjusting goals to ensure every team member's interests are taken care of when conflicts happen (X4) and sharing information between buyers and sellers (X5) be adopted to a greater extent to reap better schedule performance. In addition, there should be greater adoption of written agreement of objectives of different parties (X15) in order to derive better quality and satisfaction.

The correlation analyses show that 12 goal alignment related practices are significantly correlated with schedule, quality, and client satisfaction (see Table 3). The implication is that these should be adopted to a larger extent. To reduce time over-run, more of the following are recommended between buyers and sellers: sharing, alignment and adjustment of goals

and objectives, sharing of information, and fair distribution of project benefits. Sharing mutual objectives will ensure that it is in the interests of each party to work towards the overall project success. When parties are assured that their interests are protected, they will desire to maintain the relationships with sellers. Thus, it is recommended that sellers keep in mind that shared objectives with buyers would not only develop the relationships, but also bring project success and benefits to all parties.

To achieve higher project quality, the implication is that sellers should communicate more effectively and make adjustments to meet buyers' needs. During the execution of a project, information sharing and effective communication are encouraged between buyers and sellers so as to update each other on project progress and any difficulties that contractors may face. This will help raise the level of understanding between parties and contribute to project success.

Customizing products, being fair in making and evaluating claims and writing down the objectives of different parties may lead to higher client satisfaction. The implication for sellers is that they should share information with owners or consultants, and be flexible when unforeseen matters occur.

It is recommended that sellers and buyers adopt the goal alignment practices identified in this study in order to improve project outcomes. These practices relate to strategies such as having shared goals, effective communication, flexibility, and fairness.

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