# Incentives of Partnering Approach in the Construction Industry: Perceptions of Local and Foreign Sectors in the Vietnamese Market

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## Abstract

Traditional procurement methods have revealed many disadvantages especially the adversarial relationship between parties. After several decades of application, partnering has shown that it is an innovative arrangement that help to reduce many problems having existed in traditional arrangement. It can provide a win-win working attitude in a construction project. Partnering in construction has been applied in several ways in recent years in Vietnam. This mechanism can help both local and foreign construction participants to mutually offset their differences when implementing projects. This paper has investigated and introduced the incentives of partnering from Vietnam perspective in terms of foreign and local participants perceptions. It has been shown that 'to learn mutually among participants' and 'to increase bidding advantages' are the most important incentives according to foreign and local practitioners respectively.

Keywords : *partnering, incentives, foreign sector, construction projects, Vietnam,.*

## 1. Introduction

### 1.1 Background

Over the last twenty years from applying innovation policy, Vietnam's economy has been growing up as one of the fastest countries. As such, in a release, the Asian Development Bank (ADB, 2007) reported that Vietnam's economy has been transformed significantly with an average gross domestic product (GDP) growth of 7.5% over the last decade. And GDP per capita increased from $288 in 1993 to $716 in 2006. The infrastructure system has been developed and the urbanization has been booming. They are rationale for the progress of Vietnamese construction industry. Output value of construction sector increased from 15,792 billion VNDs in 1995 to 79,617 billion VNDs in 2007 (1 USD = 15,500 VNDs). These absolute numbers accounted for the contribution into gross domestic product of 6.9%, and 6.96% in 1995 and 2007, respectively. Investment capital poured into construction industry gained 20,136 billion VNDs in 2007 from mere 3,563 billion VNDs in 2000 (GSO). Of which, the ratio of nonpublic-related investment has arisen year by year. Vietnam's economy has been transformed

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significantly into market mechanism.

After 'open door' and 'red carpet' policy for the foreign investors, the investment from foreign sector has increased significantly. In 2007, foreign investment gain was about $18,718 millions. Of which, about $910 millions are for construction industry, which accounts for 5% approximately (GSO). Vietnam is a rather new market; it is risky and strange with many foreign investors. Developing a partnership with local practitioner(s) is a strategy of most foreign companies. Vietnamese counterparts have the advantage of familiarity with market and culture. In the opposite side, foreign partners have the advantage of strong financial and technological capabilities. Their cooperation has a prosperous premise to develop. It is due to the diverse nature, professional knowledge, organizational culture and distinctive interests in the project; different stakeholders have different perceptions (Toor and Ogunlana, 2008). As such, the perceptions about incentives of partnering by foreigners and Vietnamese people are likely to be different.

Partnering is a concept which provides a framework for the establishment of mutual objectives among the building team (Naoum, 2003). Construction is a very competitive, high-risk business (Chan et al, 2004). The traditional delivery methods contain many limitations especially the adversarial relationship between parties. In the other hand, partnering in construction can benefit all stakeholders involved in a project mainly due to its ability on changing the adversarial attitude (Lu and Yan, 2007). Participants will contribute their distinctive strengths to project implementation. Applying properly partnering approach will encourage participants to maximize contributions to achieving the completion of a successful project to benefit all (Tang et al, 2006).

### 1.2 Research objective

Partnering application can reduce many disadvantages of traditional relationships. However, this concept is quite new, not only to Vietnamese but even to overseas practitioners. Understanding the benefits of this concept can motivate them to adapt it. The objective of this study was to investigate and introduce what incentives the practitioners are likely to be obtained when applying partnering approach in the Vietnamese construction market. The analysis is based on the perceptions of foreign and Vietnamese sectors. Furthermore, the paper has examined the level of importance of partnering incentives through mean score. It has ranked partnering incentives in terms of mean score and has also tested the consensus between two sectors about incentives perception.

## 2. Previous studies

Beach et al (2005) has stated that the use of partnering is now commonplace in a variety of industry sectors. The authors are concerned with evaluating the progress the UK construction industry has made in its adoption of partnering. In one overview paper, Naoum (2003) has concluded that there are identifiable ingredients of good partnering practice, but that partnering remains in an evolutionary phase. Methods that motivate good practice are emerging. Koraltan and Dikbas (2002) have presented findings from research that was aimed at investigating the applicability of partnering in the Turkish construction sector. They have suggested that the partnering approach could help reduce some of problems associated with the Turkish construction sector, mainly in terms of cultural change requirements and the bureaucracies. Paying attention to applicability of partnering in construction as well, Lu and Yan (2007a) have conducted a thorough literature review of factors influencing the partnering use and then have presented a model that supports a systematic process to evaluate the applicability of partnering use. The top three most important goals of partnering are 'to increase bidding advantages', 'to improve long-term competitive advantages', and 'to penetrate new market'. Tang et al (2006) have presented a finding that was conducted to develop and test a partnering model. It was concluded that project success is the outcome of the interaction between a variety of

techniques, and that partnering, associated with incentives, is a basic management method through which risk management and total quality management can be strongly improved. Quality product and service, schedule meets milestone and earlier completion were three highest rating incentives applied in the study.

One of interesting research fields is to investigate the benefits or incentives of partnering approach. Black et al (2000) have expanded the literature by evaluating empirically the views of contractors, consultants and clients. Respondents believed that partnering could bring fewer adversarial relationships and increase end-customer satisfaction if all parties involved in a project strive for its success. Chan et al (2003) have reported upon the findings of a questionnaire to indicate the relative importance of partnering benefits in Hong Kong. The results have revealed that 'Improved relationship amongst project participants', 'Improved communication amongst project participants' and 'More responsive to the short-term emergency, changing project or business needs' are the most significant benefits derived from the use of partnering. Bresnen and Marshall (2000) have demonstrated how a number of important cognitive and social dimensions affect the use and impact of incentives. They have concluded that there were important limitations to the use of incentives as means of reinforcing collaboration and developing commitment and trust. An empirical study on incentives of strategic partnering in China was conducted by Lu and Yan (2007b). The analysis has revealed that both the Contractors and the Consultants considered ' competitive position enhancement' and 'new market entry' as the most significant incentives.

Aside from the researches presented in this section and the reference of the paper; many other works have been done to improve the knowledge about this innovative approach to procurement of Construction Projects. Various aspects of the partnering arrangement have been covered. As suggested by Toor and Ogunlana (2008), more studies should be conducted in countries to account for the nature and structure of the local construction industry, local cultural values and norms, and so on. Although partnering is an effective arrangement to team working (Chan et al, 2004), it still needs more in-depth investigations.

# 3. Research methodology

## 3.1 Data collection

This study has adopted an empirical survey to investigate the incentives to motivate the approach of partnering concept in Vietnamese construction industry. The incentives are extracted from literature reviews, case analysis published in newspaper and discussions of practitioners on profession' s fora. These sources helped to organize a preliminary questionnaire. It was decided to test this first-version questionnaire with experts directly involved in Vietnam construction field. A group of six experts were invited in this pilot test. These experts have experiences of not only practicing in construction industry but also in partnering construction projects. All of them have at least twelve years of experience in related field. They were asked to review the sufficiency and appropriateness of incentives, structure of questionnaire.

Two-round of pilot test was needed to finish the Questionnaire. Based on this test, twenty four items presented in Table 1 were considered to be incentives in Vietnamese partnering projects. These 24 items were organized as instrument of final questionnaire. Respondents were requested to rate their level of agreement according to five-point Likert scale from 1 = "Strongly Disagree" to 5 = "Strongly Agree". The Respondents were also requested to add more points (incentives) in the questionnaire that they consider significant in Vietnamese context. The added ones however were not found to be significant.

Hand delivery, postage and e-mailing were the delivery methods employed to distribute the questionnaire. A total of 79 valid responses were obtained back. They accounted for a response rate of about 24%; hence were used to analyze further. SPSS was the statistical software used to

process the data.

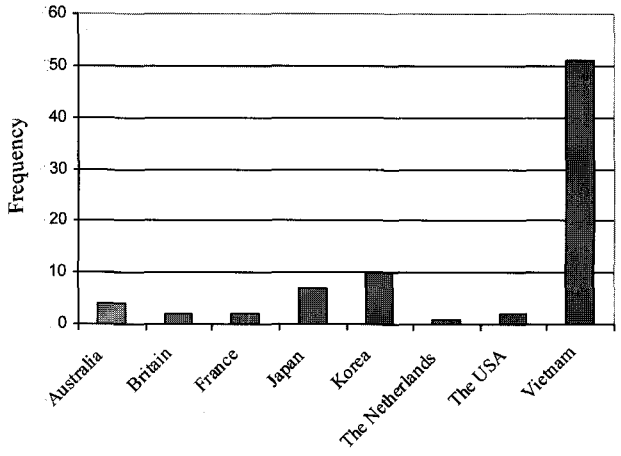


Figure 1 : Nationality of respondents' organizations

Respondents are from different sections of construction projects. Out of 79 respondents 20% are from Client group; 60% are from Contractor group; and 20% are from Consultant group. Regarding the position of respondents, 13% are from top managers; 49% are from functional managers. Project team members and partnering facilitators account for 33% and 5%, respectively. About 15% of the respondents have experience less than 5 years, 37% respondents have 5-10 years of experience, 40% respondents have 10-15 years of experience and 8% respondents have more than 15 years of experience. Regarding the origin of respondent organization, 26 responses (33%) are from Foreign Companies and the remainders (53 responses or 67%) are from Vietnamese Companies. A detail of nationality of respondents' organizations is presented in Figure 1.

### 3.2 Data analysis

The purpose of this paper was to investigate the perceptions of foreign and Vietnamese organizations about problems faced in partnering construction projects. Mean score method was employed to analyze the data in the beginning. It helped to cross compare the importance of problems as suggested by the two groups. The rating of respondents according to five point scale was used to compute the mean score for each instrument as presented in Table 1 and 2. Items in each group have been ranked based on their computed scores. T-test was used to examine whether there exist a difference between the two groups about mean values. If the resulted p-value was less than the significant level of 0.05 there exists indifference between two groups about mean values, so the null hypothesis that there are no differences between the partners has been rejected. Before applying t-test, Levene's test of equal variance was carried out as a precondition of t-test.

Kendall's coefficient of concordance and Spearman rank correlation coefficient were calculated for the ranking of problems according to the two distinctive perceptions of Foreign and Vietnamese Companies. The Kendall's coefficient of concordance (W) was used to measure the agreement level of problems ranking of respondents within an individual group. If there was a complete lack of consensus within a particular group on the ranking of the problems under study, W would be zero. A perfect agreement, on the other hand, would result in W having a value of one (Chan et al, 2003). The Spearman's coefficient of rank correlation (rS) was used to demonstrate whether there is a correlation between the ranking orders of the respondent groups. The null hypothesis that the rankings based on respondent's rating are uncorrelated has been rejected at the significance level of 0.05.

## 4. Analysis results

### 4.1 Mean score and ranking

The collected data has been analyzed using computer software, namely SPSS. The Cronbach's alpha coefficient of internal consistency reliable test is 0.888. The scale is considered as reliable since the obtained coefficient is higher than the suggested coefficient of 0.7. The mean scores and ranking of incentives according to Foreign and Vietnam groups are presented in Table 1. Furthermore, these incentives' means and ranks according to all cases are also presented in the Table.

The rankings of incentives seem diverse between Foreign and Vietnam groups. The top five incentives of each group are presented in Table 2. In top five, there are two incentives that have appeared in both groups, namely 'to learn mutually among participants' and 'to improve construction quality'. In Foreign group category 'to achieve less adversarial relationship', 'to increase understanding amongst parties', and 'to improve design quality' are ranked in the next positions respectively. Vietnam group considers 'to increase bidding advantages', 'to improve return on resources' and 'to increase customer satisfaction' as the most important incentives to motivate the partnering approach in Vietnam. In the top five incentives of foreign sector, the prominent features are 'to get familiar with Vietnamese market' and 'to improve project quality'. This explains that Foreign sector is on their entry-mode to Vietnamese construction market. In the other hand, the two most important incentives according to Vietnamese sector related to economic manners. Economic pressures possibly affect their commitment to partnership.

The results of Kendall's Coefficient of Concordance (W) for all items are tabulated in Table 3. Kendall's coefficients of concordance (W) for the rankings of incentives among Foreign and Vietnam groups are 0.217 and 0.165 respectively. The significance levels of these values are both 0.000. It can be concluded that the respondent's rankings within a certain group are related. The response consensus within each group is achieved.

## 4.2 Test the rating consensus between two sectors

The computed Spearman rank correlation coefficient (rS) is 0.482. The level of significance is 0.050. It can be inferred from this result that there is a strong correlation between two sectors (Foreign and Vietnamese) in ranking the incentives regardless the existence of some locally slightly contrary opinions. The degree of correlation is generally even at 48.2%. Since the Spearman rank correlation test does not suggest whether an individual incentive is not different across the two respondent groups, the next task will focus on t-test to investigate the aforementioned mention.

In Table 3, the Levene's test results are presented in the second and third column. T statistics values and significance of t-test are shown in the following columns. Levene's test was carried out to test the violation of equality of variance assumption. Levene's test resulted in seven factors showed the signs of violation at 5% confidence level.

Based on the Levene's test results, t-tests were carried out. The results of t-test showed that the opinions between two respondent groups about the incentives' level of importance were diverse. There was an agreement between two groups in majority of incentives. However, the consensuses did not exist in five incentives at the significance level of 0.05. The five incentives are 'to achieve less adversarial relationship' (t-value=3.015; p=0.003), 'to improve design quality' (t-value=4.814; p=0.000), 'to achieve better productivity' (t-value=2.216; p=0.030), 'to reduce rework' (t-value=2.444; p=0.017), and 'to motivate employees' (t-value=4.677; p=0.000). In all of these five items, the foreign group rates are always more severe than those of Vietnam group.

The foreign sector might be conscious about the new market. The adversarial relationship arising during project implementation could cause bad effects on their market entry mode. Partnering with Vietnamese counterparts, foreign partner can move away the adversarial relationships between parties frequently existed in traditional procurement methods. Furthermore, foreign partner can employ the familiarity of Vietnamese partners with market conditions, culture, and legal framework which currently being the severe difficulties with overseas companies.

Partnering fosters an atmosphere of teamwork approach to achieve common goals. An effective partnering process will encourage quality awareness and emphasize achievement-oriented working styles that help to improve design quality, to reduce reworks and to achieve better productivity. These ideas seem unpopular with Vietnamese practitioners' perception. Le-Hoai et al. (2008) identified

that mistake in design was one of the main causes of projects delay and cost overrun.

The two sectors held different viewpoints in the rating of the incentive "to motivate employees". This disagreement may explain the different thinking between two sectors. Bureaucracy and directive style is common in Vietnamese thinking. Vietnamese managers have not paid much attention to making an exciting working environment to motivate their employees achieving better working performance. Change of think is not willing to be accepted in the near future.

Table 1: Mean and ranking of incentives

| Incentives | Foreign | | Vietnam | | All cases | |
|---|---|---|---|---|---|---|
| | Mean | Rank | Mean | Rank | Mean | Rank |
| To increase bidding advantages | 3.85 | 8 | 4.08 | 1 | 4.00 | 1 |
| To improve construction quality | 4.04 | 2 | 3.83 | 4 | 3.90 | 2 |
| To increase customer satisfaction | 3.96 | 6 | 3.87 | 3 | 3.90 | 2 |
| To learn mutually among participants | 4.08 | 1 | 3.74 | 5 | 3.85 | 4 |
| To improve return on resources | 3.54 | 17 | 3.89 | 2 | 3.77 | 5 |
| To increase understanding amongst parties | 4.00 | 4 | 3.62 | 9 | 3.75 | 6 |
| To improve administration | 3.88 | 7 | 3.68 | 6 | 3.75 | 6 |
| To achieve faster construction time | 3.77 | 12 | 3.62 | 9 | 3.67 | 8 |
| To achieve cost saving | 3.77 | 12 | 3.62 | 9 | 3.67 | 8 |
| To reduce risk exposure | 3.58 | 16 | 3.68 | 6 | 3.65 | 10 |
| To achieve less adversarial relationship | 4.04 | 2 | 3.43 | 13 | 3.63 | 11 |
| To have assured financing | 3.38 | 19 | 3.66 | 8 | 3.57 | 12 |
| To increase market share | 3.65 | 14 | 3.53 | 12 | 3.57 | 12 |
| To improve design quality | 4.00 | 4 | 3.25 | 18 | 3.49 | 14 |
| To achieve better productivity | 3.81 | 10 | 3.34 | 15 | 3.49 | 14 |
| To reduce rework | 3.85 | 8 | 3.25 | 18 | 3.44 | 16 |
| To improve safety performance | 3.62 | 15 | 3.32 | 17 | 3.42 | 17 |
| To increase opportunity for innovation | 3.42 | 18 | 3.38 | 14 | 3.39 | 18 |
| To share risks more equitably among parties | 3.27 | 20 | 3.34 | 15 | 3.32 | 19 |
| To improve project programs | 3.27 | 20 | 3.23 | 20 | 3.24 | 20 |
| To motivate employees | 3.81 | 10 | 2.89 | 22 | 3.19 | 21 |
| To reduce design cycle | 3.12 | 22 | 3.15 | 21 | 3.14 | 22 |
| To reduce paper-work | 3.04 | 23 | 2.74 | 23 | 2.84 | 23 |
| To reduce supervision costs | 2.69 | 24 | 2.60 | 24 | 2.63 | 24 |
| N | | 26 | | 53 | | 79 |
| Kendall's Coefficient of Concordance (W) | | 0.217 | | 0.165 | | 0.146 |
| Significance | | 0.000 | | 0.000 | | 0.000 |

Table 2: Top five incentives

| Foreign | | Vietnam | |
|---|---|---|---|
| Rank | Incentives | Rank | Incentives |
| 1 | To learn mutually among participants | 1 | To increase bidding advantages |
| 2 | To improve construction quality | 2 | To improve return on resources |
| 2 | To achieve less adversarial relationship | 3 | To increase customer satisfaction |
| 4 | To increase understanding amongst parties | 4 | To improve construction quality |
| 4 | To improve design quality | 5 | To learn mutually among participants |

Table 3: T-test and Kendall's Coefficient of Concordance (W)

| Incentives | Levene's test | | T-test | |
|---|---|---|---|---|
| | T statistics | Sig | T statistics | Sig |
| To increase bidding advantages | 0.002 | 0.964 | -0.970 | 0.335 |
| To improve construction quality | 1.570 | 0.214 | 0.966 | 0.337 |
| To increase customer satisfaction | 0.020 | 0.889 | 0.549 | 0.585 |
| To learn mutually among participants | 0.478 | 0.491 | 1.612 | 0.111 |
| To improve return on resources | 0.350 | 0.556 | -1.774 | 0.080 |
| To increase understanding amongst parties | 4.709 | 0.033* | 1.963 | 0.054 |
| To improve administration | 6.384 | 0.014* | 1.395 | 0.168 |
| To achieve faster construction time | 2.220 | 0.140 | 0.666 | 0.507 |
| To achieve cost saving | 1.960 | 0.166 | 0.711 | 0.479 |
| To reduce risk exposure | 1.935 | 0.168 | -0.511 | 0.611 |
| To achieve less adversarial relationship | 1.339 | 0.251 | 3.015 | 0.003** |
| To have assured financing | 0.344 | 0.559 | -1.208 | 0.231 |
| To increase market share | 1.063 | 0.306 | 0.620 | 0.537 |
| To improve design quality | 17.589 | 0.000** | 4.814 | 0.000** |
| To achieve better productivity | 2.377 | 0.127 | 2.216 | 0.030* |
| To reduce rework | 3.856 | 0.053 | 2.444 | 0.017* |
| To improve safety performance | 6.998 | 0.010* | 1.263 | 0.211 |
| To increase opportunity for innovation | 0.001 | 0.976 | 0.256 | 0.799 |
| To share risks more equitably among parties | 0.524 | 0.471 | -0.302 | 0.764 |
| To improve project programs | 0.713 | 0.401 | 0.177 | 0.860 |
| To motivate employees | 4.554 | 0.036* | 4.677 | 0.000** |
| To reduce design cycle | 2.891 | 0.093 | -0.156 | 0.876 |
| To reduce paper-work | 9.276 | 0.003** | 1.406 | 0.164 |
| To reduce supervision costs | 7.305 | 0.008** | 0.439 | 0.662 |

Note: **: significant at 0.01; *: significant at 0.05

# 5. Conclusion

Incentives motivating the application of partnering approach in Vietnamese construction market are identified through a questionnaire survey. The opinions of foreign sector and Vietnamese sector are investigated. Both two sectors agree that 'to learn mutually among participants' and 'to improve construction quality' are the two of five most important benefits. Foreign group also ranks 'to achieve less adversarial relationship', 'to increase understanding amongst parties', and 'to improve design quality' in top five. In the other hand, 'to increase bidding advantages', 'to improve return on resources' and 'to increase customer satisfaction' are the three most important incentive factors.

The further analyses also have demonstrated that there is a consensus about the rankings of items while there are some disagreements about the mean score rating between two sectors. This means that the culture of parent organization will influence the perception about partnering benefits.

The misunderstanding possibly raises adversarial relationship between counterparts. The research results help the practitioners in Vietnamese market comprehend the targeted objectives of counterparts. Through clearly understanding about the incentives of partnering concept, it is hoped that partnering arrangement will be propagated to employ its advantages.

To introduce partnering arrangement more precisely to Vietnamese construction participants, it is necessary that researches about potential success factors and problematic factors should be conducted. A partnering mechanism or model fitted with Vietnamese market conditions should be examined as well. The model will

identify the steps/stages that practitioners should work through to ensure a successful partnership. The model integrates the processes and associated components for partnering espousal (Cheng and Li, 2004). It is interesting to carry out a quantitative analysis to look into the correlation between the partnering application and the obtained benefits. With such real figures, the partnering concept will be more widely accepted.

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