

Empirical Research on Preference for Conflict Resolution Styles of Owners and Contractors in China

Junqi Zhao, Yongqiang Chen

Abstract—Preference for different conflict resolution styles is influenced by cultural background and power distance of two parties involving in conflict. This research put forward 7 hypotheses and tested the preference differences of the five conflict resolution styles between Chinese owner and contractor as well as the preference differences concerning the same style between two parties. The research sample includes 202 practitioners from construction enterprises in mainland China. Research result found that theories concerning conflict resolution styles could be applied in the Chinese construction industry. Some results of this research were not in line with former research, and this research also gave explanation to the differences from the characteristics of construction projects. Based on the findings, certain suggestions were made to serve as a guidance for managers to choose appropriate conflict resolution styles for a better handling of conflict.

Keywords—Chinese Owner and Contractor, Conflict, Construction Project, Conflict Resolution Styles.

I. INTRODUCTION

CONSTRUCTION process is a project-based activity, which needs to be carried out by multiple parties [1]. Parties involved in a project, such as the owner, contractor, and designer etc., form a temporary organization which lasts only for a project duration [2], and each of them is a separate organizational entity pursuing for its own interests and expecting its maximum rewards from the project [3]. The complex nature of the construction organization, combined with enormous uncertainty emerging during the process of a project, makes it a mission impossible to avoid the conflict in a construction project [4]-[6]. While serving as the main parties, the owner and contractor have been suffering from inevitable conflict.

People's cognition of conflict has experienced the transition from the traditional view of conflict to the human relations view of conflict, finally to the Interactionist view of conflict [7]. The traditional view proposed that all conflict would result in detrimental outcomes, so it should be avoided by all means [8]. Influenced by this view, scholars regard disputes, claims, and the relevant concepts as conflict in the construction industry [9]. The focus is on how to identify the causes of conflict and by what means the conflict in the construction

industry could be avoided or decreased [10]-[12]. While from the human relations view, conflict is considered to be naturally occurred in all organizations. Scholars gradually accept the view that conflict may be a positive factor in organizations, and research has found that conflict could be classified into the functional and dysfunctional conflict [13]. If maintained at a proper level, it could promote organization communication and keep self-critical as well as creativity [14]. Organizations with a certain level of conflict could improve decision quality and strategic planning of groups and organizations [15], and stimulate a team's creativity [16].

As it has been accepted that conflict could be a positive force in enhancing the organization efficiency [15], and conflict-outcome could be mediated by certain types of resolution styles [17]. Based on these studies, the next question is in what means we are possible to handle conflict to decrease the negative effect and increase the positive effect of the conflict.

Scholars have developed various models of conflict resolution styles based on different dimensions [18]-[20], such as dominating, compromising, avoiding, collaborating and accommodating, and the outcome of the conflict varies with the adoption of different conflict resolution styles [16],[21]. Facing a conflict situation, people will not choose the conflict resolution styles randomly. Researchers have proposed that personality of project-management personnel [22], various demographic variables, say the age, sex, education, and race, all exert impact on the preference for different conflict resolution styles. However, the effect of personality is found to be small and inconsistent [23], since conflicts are social interactions that occur with a certain cultural environment, it is necessary to research the conflict resolution styles concerning certain culture backgrounds. This research will investigate the conflict resolution styles preference of the owner and contractor in the construction industry in mainland China, who have been influenced by the traditional Chinese culture. Based on the studies and theories of the conflict resolution styles preference between parties with power distance [8], [23], this research will also examine the preference difference between the Chinese owner and contractor.

II. LITERATURE REVIEW AND HYPOTHESES

A. Conflict

The concept of conflict varies greatly among different domains, namely physics, mathematics, biology, psychology, economics, political science and organizational behavior [24]. While in this research, we adopt the definition of conflict in the domain of organization behavior. As Thomas (1976) defined

Junqi Zhao is with the Department of Construction Management, Tianjin University, Tianjin, 300072, P.R. China (phone: +86 13820115689, e-mail: zhaojunqi_tju_cm@163.com).

Yongqiang Chen is with the Department of Construction Management, Tianjin University, Tianjin, 300072, P.R. China (e-mail: chen Yongqiang@tju.edu.cn).

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that conflict is 'a process that begins when one party perceives that the other has frustrated, or is about to frustrate, some concerns of his' [25]. Concepts of the similar definition have also been accepted by other scholars [26]-[28]. By deepening the pervious definition of conflict in organizations, Rahim (2002) conceptualized the conflict as 'an interactive process manifested in incompatibility, disagreement, or dissonance within or between social entities (i.e., individual, group, organization, etc.) [29]. In this research, the definition of Rahim is adopted. Conflict between the owner and contractor is regarded as a complex and interactive process which is manifested in incompatibility, disagreement, or dissonance between the owner's staff and the contractor's staff, and also should be treated as inter-group conflict.

B. Conflict Resolution Styles (CRS)

Conflict resolution styles (CRS) refer to general tendencies of pattern response to conflict in a variety of antagonistic interactive situations [30]. Based on prior researches [25], [31]-[34], various types of CRS can be differentiated on basic two dimensions, concern for others and concern for self. The former dimension explains the degree to which one attempts to satisfy the others, while the later dimension explains the degree to which one attempts to satisfy his or her owner concern. These two dimensions form the building blocks of the dual concerns model [33] as shown in Fig. 1.

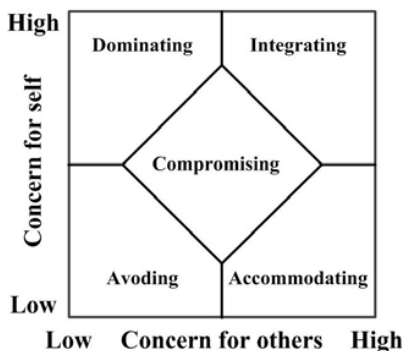


Fig. 1 Conflict management styles: conflict handling approaches [33]

In this research, we adopt the dual concern model of CRS, and apply the five typical CRS in the construction industry to investigate the preference difference between the owner and contractor.

C. Chinese Culture Values

People's preference for different CRS could be influenced by many factors, like age, sex, education, etc. Factors rooted in the personal level have been examined by prior studies [23], [35]. However, as Posthuma (2006) found that the effects of personality have generally been small and inconsistent [23]. Since the conflict in an organization occurs among different parties influenced by various cultural context, the factor of cultural context have a significant bearing upon people's perception and approaches to the conflict and lead to particular preference with respect to CRS. Considering that this research

will investigate the preference for different CRS between the owner and contractor in mainland China, the basic Chinese cultural values should be taken into consideration.

Culturally shared values will influence the way how people within a particular culture perceive social phenomena, and the behavior they enact. It could be inferred that the essence of traditional Chinese culture reside in the philosophical traditions of Confucianism and Taoism. Even today these philosophies still continue to provide a moral, intellectual, and social nexus in Chinese psyche. There have been a lot of prior studies concerning the similar theme of Chinese traditional values [36]-[39]. In this research, we list a few elements which could depict the core aspects of Chinese value orientations and psychological process and which are relevant to conflict and preference for different CRS, including collectivism and harmony, hierarchy, holism-contextualism, face and Guanxi.

1. Collectivism and Harmony

The notion of harmony between human beings and the nature, between human and belief, and between different people is a core value stressed by Confucianism. Individuals influenced by this kind of culture are expected to adapt to the majority, constrain their emotions, and avoid competing with others. Societies dominated by the Chinese culture have always been characterized as collectivism [39], [40]. This trend will not only put pressure on individual's attitude, but also enforce one's behavior to be consistent with the collective. Thus, in order to keep the collective harmony and diminish the group conflict, individuals tend to control their emotions and behavior. Scholars also investigated the motivation of seeking harmony. Result verified that, one is to avoid the divergence, which aims to avoid creating a tension between parties and breaking up of the relationship. The other is to enhance the relationship between the parties by engaging in certain actions [41]. The former is a passive view, which focuses on avoiding the escalating of conflict, while the latter is a positive view focusing on deepening the relationship between parties, both of which are rooted in the motivation of keep a harmony relationship with collective.

The collectivist highlights the relationship with organizations, especially in a problem condition or non-routine situations, namely conflict and negotiation, there will always be a tendency to cherish the event related to its significance for group as a whole, organizational unit or even society. Great effort could be taken by individuals to avoid being placed in a position in confrontation with the group which they belong to. Therefore, the culture values associated with harmony and collectivism will likely to lead to avoidance of conflict, pursuing harmony, and compromising.

2. Hierarchy

According to Hofstede's (1980) empirical research, South-East Asian Chinese-dominated societies scoring highly on power distance [40]. This result implies that Chinese culture accept the large power distance between individuals, groups and social status, and take the similar situations for granted. The notion of hierarchy, accompany by the related collectivist

orientation, enforces individuals to reconsider the complex relationship with others especially in the condition of conflict. As a result, individuals influenced by Chinese culture values are not likely to engaging in a conflict situation; for fear that this may result in the breaking up of relationships with others, or arousing other parties' hostility and discontent. In particular, when the conflict occurs between the superiors and subordinates, where there exists power-distance, the subordinates tend to surrender to the superior's authority or power, and take a compromising attitude. What's more, the compromising under such culture value of high power distance is an expected response of individuals, which is consistent with the value of hierarchy.

3. Holism-Contextualism

According to prior studies, people influenced by the traditional Chinese culture are characterized by are markable holistic perspective sensitive to the context [42]. Thus, a conclusion could be made that Chinese people will spontaneously build up a relationship between a particular affair and the whole situation or context where the affair occurs. One obvious result of this character is that people will be reluctant to separate a certain event form the totality or a wider context, and thus making them unable to tackle particular events in isolation. When people stamped with the character of Holism and Contextualism get involved in a conflict situation, there would be a tendency to diffuse them by locating the event related to the wider context. For example, people may consider that if an aggressive action is adopted by them, other parties may feel treated unfairly, and the relationship between parties may be undermined. Or people may consider the potential dependence on other parties, and thus a compromising attitude is a superior choice. At last, to a certain extent, this phenomenon also reflects the tendency of seeking harmony in an organization.

4. Face and Guanxi

The concept 'Face' has been defined as 'the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact [43]. This concept has been adopted widely, and could hardly be overlooked particularly in China. In a situation of conflict, one party's face will be damaged by the other party's aggressive behavior. Since not giving face to someone is always perceived as denting one's dignity and social status, it is not difficult to understand that why Chinese people are so careful about the implications of antagonism and aggression and typically would be hesitant about applying such measures [44]. Face, reciprocity actions, the sense of shame and factors of the similar nature will connected, and impose great influence on people's preference for different CRS, and make them more prudent in choosing their CRS for fear that the relationship may be undermined. In addition, the adoption of behaviors as 'face-giving' or 'face-saving' is valued as a means to maintain a sense of harmony and is cherished by the members in the organization as it will enhance the mutual benefits of the group. Comparing to this, any action that may damage the harmony of

the organization will be regarded as a 'shame'.

The concept Guanxi refers to the status and intensifies of an ongoing relationship between two parties, which is also valued by the Chinese culture. What's more, in a typical collectivist society, Guanxi not only covers the parties interacting directly, but also even extends to the relationship with those external third parties, and how they will perceive and receive the behavior of the interacting parties [45]. This phenomenon is also related to the character of Holism-Contextualism. When facing a conflict situation, if one party wants to build a long collaborating relationship with each other, he or she would prefer a more gentle resolution style which could maximize the mutual benefits, like by integrating, compromising or accommodating styles. When one party engages in a certain action which is at the cost of their own interests, they often expect for other parties' reciprocation, and thus forming a long relationship. This tendency will be amplified when a conflict occurs between the parties with power distance or different social status.

After reviewing the studies about the Chinese culture values, it can be figured that people influenced by these factors tend to promote the harmony within an organization and maintain the mutual interests the collective, thus score high on the dimension of 'concern for others' in the dual concern models in Fig. 1. In addition, the motivation of avoiding the aggressive behavior, protecting others' face for the long cooperation will undermine the preference for resolution scoring highly on the dimension of 'concern for self'. Some cross-cultural studies also suggest those phenomena. Leung (2011) find that Chinese subjects scores high on the tendency of seeking harmony in the organization, and prefer compromising and accommodating styles comparing to Australian subjects [46].

H1: Preference of Chinese owners and contractors for different CRS is different.

H11: Chinese contractors prefer accommodating, compromising and integrating more than dominating and avoiding.

H12: Chinese owners prefer accommodating, compromising and integrating more than dominating and avoiding.

D. Power Distance

According to the definition given by Robbins (2001), power is core in intergroup relationships, and it refers to the ability of one party to influence the other party [8]. Scholars also identified the source of power, and it has been accepted that there are five types of power, namely expert power, referent power, legitimate power, reward power, and coercive power. This research will focus on the expert power and coercive power to analyze the power distance between the owner and contractor.

When one party gets the knowledge, experience, and expertise which the other party needs, expert power emerges [8]. Expert power is a necessary element in forcing other party to engage a cooperative activity, thus owners always hire the professional consultant engineers to manage projects for them, which will generate the expert power to constrain contractors. In addition, it is the owners that knows the demands of the customers, or acquires the knowledge or expertise to develop a

new project, which the contractor cannot get the access to [47].

The coercive power means that one party could exert influence on the other party through punishment, thus generating the interdependence. During the construction process, owner always gets right to put off the payment for contractors. Furthermore since most major construction projects in China are developed by government or state-owned firms unrelated to construction industry as well as most projects are one-off type, Chinese contractor cares more about owner's financial states and ability of payment, thus forming the coercive power [47]. In addition, as the owner is always the less dependent firm and therefore, having little to lose, has few constraints on punitive actions [48], they tend to engage punishment actions to influence the contractor.

Based on the prior studies, the expert power represents the unbalanced allocation of resources, like expertise, knowledge, and cash flow, and in this case, the party with resources will influence the others to comply with them. In a conflict situation, the owner take a resolution style scoring higher at the dimension of concern for self, while the contractor make an opposite choice for fear that that the owner will not provide the resources they need. According to the coercive power perspective, cooperation and compromising activities in an organization may result from the fear for punishment or coerciveness. As a result, the contractor is likely to accept the extra requirement raised by the owner which may not be included in the contract; for fear that the owner may minimize their profit by coerciveness. Actually, the owner could decide if it is necessary to exercise coerciveness power and when or how to influence the contractor [49], it is more convenient for the owner to engage the coerciveness power in forcing the contractor to compromise or comply.

Based on the analyses, since the contractor and owner are from the Chinese mainland construction industry, both parties will be influenced by the Chinese culture values deeply. Thus the preference for different CRS will present significant differences, particularly on the CRS scoring at the dimension of concern for others in the dual concern model. Thus the following hypotheses could be put forward.

After comparing the power between the owner and contractor, it can be assumed that there exist a significant power distance between the owner and contractor. The owner prefers a more dominating style and thus scores higher at the dimension of concern for self, while at the dimension of concern for others, the contractor scores higher and presents a preference for compromising and avoiding. Combining the Chinese culture values with power distance discussed two more supplement hypotheses H1 and H2 are put forward as follows.

H1: Preference of Chinese owner and contractor for different CRS is different.

H₁₃: Chinese contractors prefer avoiding more than dominating.

h₁₄: Chinese owners prefer dominating more than avoiding.

H2: Preference for the same CRS between Chinese owner and contractor will be different.

H₂₁: Chinese contractors prefer accommodating more than owners.

H₂₂: Chinese contractors prefer avoiding more than owners.

H₂₃: Chinese owners prefer dominating more than contractors.

The seven hypotheses can be integrated in the following Fig. 2.

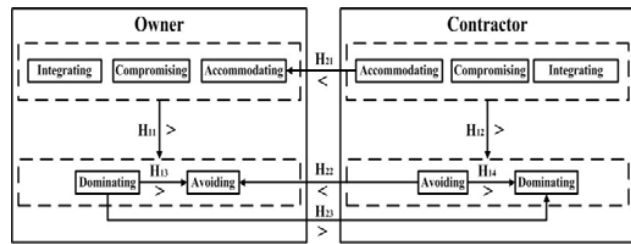


Fig. 2 Hypotheses

III. METHODOLOGY

In order to test these hypotheses, a questionnaire survey was considered suitable to collect data from practitioners in Chinese construction industry. Consequently, a questionnaire was designed with items regarding the CRS preference of owner and contractor.

A. Sample and Procedure

Samples were selected from construction related institutions randomly, and a total of 560 questionnaires were sent to the subjects with rich project management experience, who were from the Chinese Top 100 contracting enterprises and practitioners in Chinese major construction projects. To guarantee the quality of the questionnaire, a pre-survey was conducted face to face in two construction related seminars. Then a post/email questionnaire was conducted in order to get more data. To increase the response rate, every subject was promised a book related to construction project management written by the author. Meanwhile, the mailed questionnaires were sent back to the researchers through freight collect. In addition, considering the truthfulness and avoiding the social desirable responding of answers, subjects were voluntary and their personnel information is confidential. At last, 324 questionnaires were received (with a response rate of 57.9%). After a further analysis, 202 completed questionnaires were adopted as the valid data for this research. A demographic description of subjects was listed as follows.

TABLE I
DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLES

		Number	Percentage
Party	Contractor	156	77.2%
	Owner	46	22.8%
Education	Beneath the bachelor degree	8	4.0%
	Bachelor's degree	94	46.5%
	Master's degree	74	36.6%
	Doctorate	4	2.0%
	Blank	22	10.9%
Years of working	Over 20 years	30	14.9%
	11-20	33	16.3%
	2-10	59	29.2%
	Under 5(including 5)	72	35.6%
	Blank	8	4.0%
Contracting model	DBB	41	20.3%
	DB/EPC	102	50.5%
	Others	53	26.2%
	Blank	6	3.0%

B. Measures

To test the hypotheses put forward, this research measured the preference for different CRS of owner and contractor. The review of prior studies pointed out that there had been at least nine Scales regarding the conflict in organizations, of which ROCI-II (Rahim Organizational Conflict Inventory-II) were one of the most adopted [26]. In this case, this research adopted and adjusted the ROCI-II (as shown in Table II) according to the Chinese context to test the hypotheses.

TABLE II
THE SCALE OF PREFERENCE FOR DIFFERENT CRS OF OWNER& CONTRACTOR

No	Items
	When facing a conflict situation(like different understanding about disputes or claims), your party would:
R1	try to investigate an issue with the other to find a solution that will be acceptable to everyone involved
R2	try to satisfy the needs of the other.
R3	attempt to avoid being 'put on the spot' and try to keep your conflict with the other to yourself.
R4	try to integrate your ideas with the other to come up with a decision jointly.
R5	try to work with the other party to find solutions to a problem which satisfy our expectations
R6	avoid open discussion of your differences with the other.
R7	try to find a middle course to resolve an impasse
R8	use your influence to get your ideas accepted
R9	use your authority to make a decision in your favor
R10	usually try to accommodate the wishes of the other
R11	give in to the wishes of the other
R12	exchange accurate information with the other so that you can solve the problem together
R13	usually allow concession to the other
R14	usually propose a middle ground to break deadlocks
R15	negotiate with the other so that compromise can be reached
R16	try to stay away from disagreement with the other
R17	avoid an encounter with the other
R18	use your expertise to make a decision in your favor
R19	I often go along with the suggestions of the other.
R20	use 'give and take' so that a compromise can be reached
R21	be generally firm in pursuing your side of the issue
R22	try to bring all concerns out in the open so that the issues can be resolved in the best possible way
R23	collaborate with the other to come up with decision acceptable to you
R24	try to satisfy the expectations of the other
R25	sometimes use your power to win a competitive situation
R26	try to keep your disagreements with the other to myself to avoid hard feelings.

As shown in Table II, items R2, R10, R11, R13, R19, R24 measured preference for obliging, R3, R6, R16, R17, R26 measured preference for avoiding, R8, R9, R18, R21, R25 measured preference for dominating, R1, R4, R5, R22, R23 measured preference for integrating, R7, R14, R15, R20 measured preference for compromising. Each item was cast on a five-point Likert scale, from one point (means never or none) to five point (means always or very much). The preference for each CRS was calculated by the average of scores of several items measuring the same CRS.

$$Preference = \frac{\sum(\text{Score of each item measuring CRS})}{\text{Numbers of items measuring CRS}} \quad (1)$$

C. Analysis

With the collected data, the following two problems were found. Answers to items R11 and R17 were almost 1 (means never or none), while answers to question R18 were almost 5 (means always or very much), this may due to the translation did not convey the exact meaning of the scale, so these three items were deleted before a further data analysis.

The Cronbach's alpha for the items measuring the same CRS were calculated, the results are listed as follows (Table III), the Cronbach's Alpha for each CRS was higher than 0.70 recommended by Nunnally (1978) [50], which indicates the survey is reliable and has a high internal consistency.

TABLE III
THE RESULT OF CRONBACH'S ALPHA

CRS	Cronbach's Alpha	Numbers of items
Obliging	0.815	5
Avoiding	0.714	4
Dominating	0.728	4
Integrating	0.742	6
Compromising	0.744	4

In order to measure the preference for different CRS between owner and contractor, an original measurement model was develop and then tested through Structural Equation Modeling (SEM), and then modified according to the Modification Index calculated by AMOS.18. The adjusted model fit indexes and measurement model are presented as follows.

TABLE IV
MODEL FITNESS INDEXES FOR ADJUSTED MEASUREMENT MODEL

Indexes	X ² /df	TLIrho2	CFI	RMSEA
Default model	2.417	0.780	0.804	0.084

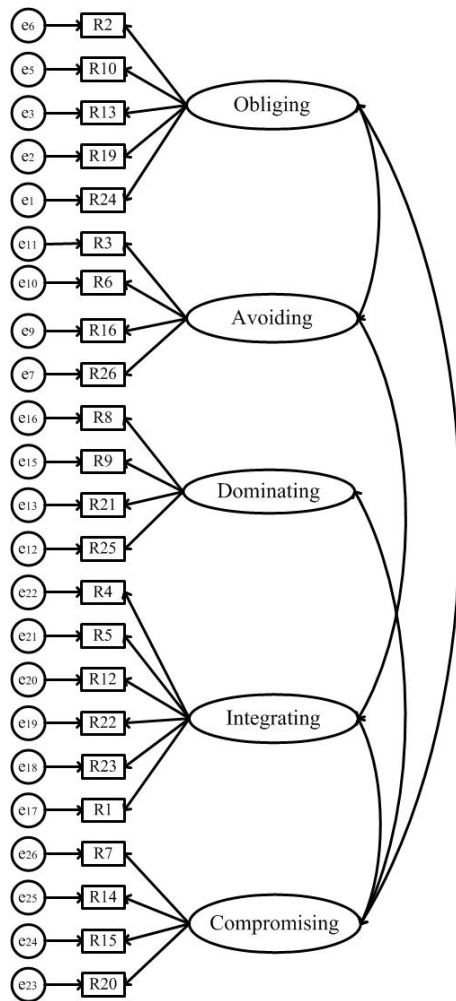


Fig. 3 Adjusted measurement model for preference for different CRS

The model fit indexes are listed in Table IV, comparing the indexes in the default model in this research to former scholars research, the X^2/df (2.417) is less than 3, the RMSEA (0.084) is less than 0.01. Both reach an acceptable level [51]. In addition, the table shows the regression weight was listed in the Appendix, from which we can see that the regression weight of each path is significantly different from zero at the 0.05 level (two-tailed). Thus the measurement model developed is valid and could be adopted in further data analysis.

IV. RESULT

A. Ranking Result of Different CRS for Owner and Contractor

In order to test the hypotheses H11, H12, H13, H14 put forward, a Paired Sample T test was adopted by using the Statistical Product and Service Solutions 18 (SPSS.18). The value in the column Mean represents the deviations from the mean between the paired CRS (the former minus the latter), which means the preference difference between the paired CRS. From the table attached in Tables A II and A III, the

ranking result is:

- 1) For the owner, the ranking of preference for the five CRS: Integrating > Compromising > Dominating/ Obliging > Avoiding.
- 2) For the owner, there is no significant difference between the preference for Dominating and Obliging.
- 3) For the contractor, the ranking of preference for the five CRS: Integrating > Compromising > Obliging > Avoiding > Dominating.

As shown in the result, no matter as the Chinese owner or contractor, there is significant difference of preference for various CRS. Both the Chinese owner and contractor tend to prefer the CRS scoring higher regarding the dimension of concern for others, like integrating, compromising, than those scoring higher at the dimension concern for self. Thus the H₁₂, H₁₃, and H₁₄ are verified while the H₁₁ is partly supported by the data.

B. Preference Difference Regarding a Certain CRS between Owner and Contractor

A One-way ANOVA was adopted to test the hypotheses H₂₁, H₂₂, and H₂₃. The data analysis result is shown in the Tables A IV and A V; from the tables we can see that:

- 1) Regarding the obliging and avoiding, the contractor gets a higher level of preference than the owner.
- 2) Regarding the dominating, the owner gets a higher level of preference than the contractor while the significant level is at 0.1.
- 3) Regarding the integrating and compromising, there is no significant difference.

The results imply that the contractor prefers the obliging and avoiding than the owner, while the owner prefers the dominating comparing to the owner. Thus the H₂₁, H₂₂, and H₂₃ are completely supported by the data.

V. DISCUSSION

From the result of data analysis, a general tendency can be seen. No matter as the owner or contractor, they both show a higher preference for the CRS scoring high regarding the dimension of concern for others (integrating, compromising, and obliging), through the owner does not present a significant difference between obliging and dominating. The influence of Chinese culture values is one vital element leading to such an outcome as analysed in the literature review. Besides, comparing to the western culture which emphasizes the Guilt, the Chinese culture pays more attention on the Shame [52], which means one's activity should be in accordance with not only his ego rules, but also the expectation of surroundings. An aggressive activity in a conflict situation is always seen as damaging the organization harmony under such culture context, so it is not hard to understand such a ranking result.

Considering the result that the owner does not show a significant different preference in obliging and dominating, we infer that it is the outcome of Chinese culture values associated with power difference between the two parties. On one hand, the Chinese culture values make people tend to choose an obliging solution, while the comparing to the contractor, the

owner possess more power, and will prefer a more dominating solution, these two tendency may lead to the result of insignificant preference.

Comparing the finding of this research to prior research, an interesting result is that both the owner and contractor get the lowest preference for the avoiding, which is different from former studies [52], [53]. Explanations to the outcome may be as follows. The construction project is a one-time endeavor. The parties involves in the process form a temporary organization [47], to accomplish the project with limited time and acquiring mutual goals, interdependence and collaboration between the owner and contractor is necessary. Facing a conflict situation, an integrating or compromising solution is a problem-solving orientation, which will guarantee the interest of both sides, while avoiding is a passive solution which intends to suspend the conflict to the future, and may bring more damages to the organizations. Thus both sides show the lowest preference for avoiding. Besides, most of the subjects in this research are from enterprises with great competence in mainland China and enjoy a higher level of education. These are all potent factors resulting in such an outcome, and need to be verified in further research.

According to the result of One-way ANOVA, towards a certain CRS, there exists a significant preference difference between the owner and contractor. This result reflects the power difference existing between the owner and contractor, and in this case, the owner could employ the expert power and coercive power to force the contractor performing as his will. As the party with relative less power, the contractor tends to be obliged to the owner, for fear that the relationship might break up, and thus resulting in future loss because of the owner. In addition, the result shows no significant difference between the preference for integrating and compromising, the reason may be that one party's adoption of certain CRS will likely to influence the choice of CRS of the other party [47], when the owner or contractor engages in a compromising or integrating solution, the other party will likely to choose the same one, or the cooperation between the two parties are not possible to proceed at all. Based on this assumption, it is not hard to understand such a result.

VI. CONCLUSION

Due to the complexity and devious objectives involved in the construction project, conflict between the owner and contractor is inevitable. Since the outcome of the conflict will be influenced by the conflict resolution styles adopted, it is valuable to investigate the preference of different CRS of the owner and contractor for a better understanding of their resolution styles in conflict.

For the owner, the ranking of preference for the five CRS is: Integrating>Compromising>Dominating/Obliging>Avoiding, there is no significant difference between the dominating and obliging for the owner. While for the contractor, the result is Integrating>Compromising>Obliging>Avoiding>Dominating.

This research suggests that it is the influence of the Chinese culture values that result in the ranking result. This research also investigates the preference difference concerning the similar CRS between the contractor and owner, indicating that regarding the obliging and avoiding, the contractor get a higher level of preference than the owner; regarding the dominating, the owner get a higher level of preference than the contractor; regarding the integrating and compromising, there is no significant difference. This research proposes that the power difference and power distance between the two parties constitute the main reasons for such outcome.

The practical implication of this research is that, both owner and contractor prefer integrating and compromising resolution, which means both parties tend to take a collaborating attitude towards the conflict. A better understanding of each other's preference would help both parties acquire a rational cognition of different CRS and thus make a superior choice to tackle the conflict. While the theoretical implication is that this research has tested the applicability of prior theories concerning conflict management in the construction industry. This research also shows findings which are not in line with the former studies, and presents explanations to those inconsistency according to the special nature of construction industry.

Several potential limitations in this research should be noted. First, the number of subject in this research is relatively small, and thus limiting the generalizability of the findings. Second, the dynamic nature of project is not taken into consideration. Since with the development of the project life cycle, the power distance between the two parties may change, which makes it valuable to investigate the preference difference in various stages of a project. At last, the subjects in this research are mostly from those enterprises with great competence in mainland China, it may be insufficient to represent the whole contribution industry in mainland China considering that the experience and competence will influence subjects' cognition about conflict and its resolution styles.

APPENDIX
TABLE AI
REGRESSION WEIGHTS

			Estimate	S.E.	C.R.	P	Label
R24	<---	W1	1.000				
R19	<---	W1	0.329	0.062	5.340	***	par_1
R13	<---	W1	0.826	0.079	10.462	***	par_2
R10	<---	W1	1.186	0.094	12.606	***	par_3
R2	<---	W1	0.800	0.090	8.935	***	par_4
R25	<---	W3	1.000				
R21	<---	W3	0.865	0.117	7.369	***	par_5
R9	<---	W3	0.591	0.107	5.525	***	par_6
R8	<---	W3	1.067	0.120	8.882	***	par_7
R1	<---	W4	1.000				
R23	<---	W4	0.506	0.109	4.631	***	par_8
R22	<---	W4	1.176	0.161	7.304	***	par_9
R12	<---	W4	1.055	0.145	7.272	***	par_10
R5	<---	W4	1.000			***	par_11
R4	<---	W4	0.769	0.159	4.844	***	par_12
R20	<---	W5	0.859	0.205	4.186		
R15	<---	W5	0.947	0.179	5.292	***	par_13
R14	<---	W5	1.640	0.240	6.842	***	par_14
R7	<---	W5	1.545	0.228	6.770	***	par_15
R3	<---	W2	1.000				
R6	<---	W2	1.191	0.164	7.261	***	par_16
R26	<---	W2	1.016	0.154	6.603	***	par_17
R16	<---	W2	1.137	0.166	6.864	***	par_22

Note:***means three decimal places are 0, i.e., p value is very small, close to 0

TABLE AII
RESULT OF PAIRED SAMPLE T TEST FOR OWNER

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	O - A	0.395	0.63799	0.09407	0.20511	0.58402	4.195	45	0.000***
Pair 2	O - D	-0.187	0.90777	0.13384	-0.45653	0.08262	-1.397	45	0.169
Pair 3	O - I	-1.143	0.75219	0.11090	-1.36663	-0.91989	-10.309	45	0.000***
Pair 4	O - C	-0.725	0.78738	0.11609	-0.95882	-0.49118	-6.245	45	0.000***
Pair 5	A - D	-0.582	0.91143	0.13438	-0.85218	-0.31086	-4.327	45	0.000***
Pair 6	A - I	-1.538	0.89776	0.13237	-1.80443	-1.27122	-11.618	45	0.000***
Pair 7	A - C	-1.120	0.89867	0.13250	-1.38644	-0.85269	-8.449	45	0.000***
Pair 8	D - I	-0.956	0.94633	0.13953	-1.23733	-0.67528	-6.854	45	0.000***
Pair 9	D - C	-0.538	0.91282	0.13459	-0.80912	-0.26697	-3.998	45	0.000***
Pair 10	I - C	0.418	0.66846	0.09856	0.21975	0.61677	4.244	45	0.000***

Note:*** Indicates that there is a significant difference at the 0.05 significance level.

TABLE AIII
RESULT OF PAIRED SAMPLE T TEST FOR CONTRACTOR

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	O - A	0.578	0.57977	0.04642	0.48683	0.67022	12.463	155	0.000***
Pair 2	O - D	0.750	1.00024	0.08008	0.59180	0.90820	9.365	155	0.000***
Pair 3	O - I	-0.370	0.75929	0.06079	-0.49060	-0.25043	-6.095	155	0.000***
Pair 4	O - C	-0.168	0.74008	0.05925	-0.28532	-0.05122	-2.840	155	0.005***
Pair 5	A - D	0.171	1.05334	0.08433	0.00488	0.33807	2.033	155	0.044***
Pair 6	A - I	-0.949	0.92042	0.07369	-1.09461	-0.80347	-12.878	155	0.000***
Pair 7	A - C	-0.746	0.85336	0.06832	-0.88176	-0.61183	-10.930	155	0.000***
Pair 8	D - I	-1.120	0.80524	0.06447	-1.24787	-0.99316	-17.380	155	0.000***
Pair 9	D - C	-0.918	0.78348	0.06273	-1.04218	-0.79436	-14.639	155	0.000***
Pair 10	I - C	0.204	0.51070	0.04089	0.12147	0.28301	4.946	155	0.000***

Note:*** Indicates that there is a significant difference at the 0.05 significance level.

TABLE A IV
RESULT OF ONE-WAY ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Obliging	Between Groups	18.011	1	18.011	49.652	0.000***
	Within Groups	72.550	200	0.363		
	Total	90.561	201			
Avoiding	Between Groups	9.907	1	9.907	21.906	0.000***
	Within Groups	90.447	200	0.452		
	Total	100.354	201			
Dominating	Between Groups	1.797	1	1.797	3.570	0.060
	Within Groups	100.682	200	0.503		
	Total	102.479	201			
Integrating	Between Groups	0.131	1	0.131	0.483	0.488
	Within Groups	54.167	200	0.271		
	Total	54.298	201			
Compromising	Between Groups	0.857	1	0.857	2.590	0.109
	Within Groups	66.180	200	0.331		
	Total	67.037	201			

TABLE A V
DESCRIPTIVE

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Obliging	Owner	46	2.5957	0.52745	0.07777	2.4390	2.7523	1.40	4.20
	Contractor	156	3.3077	0.62233	0.04983	3.2093	3.4061	1.60	4.60
Avoiding	Owner	46	2.2011	0.63381	0.09345	2.0129	2.3893	1.00	3.75
	Contractor	156	2.7292	0.68330	0.05471	2.6211	2.8372	1.25	4.25
Dominating	Owner	46	2.7826	0.74649	0.11006	2.5609	3.0043	1.25	4.00
	Contractor	156	2.5577	0.69841	0.05592	2.4472	2.6682	1.00	4.25
Integrating	Owner	46	3.7389	0.48343	0.07128	3.5954	3.8825	2.50	5.00
	Contractor	156	3.6782	0.53067	0.04249	3.5943	3.7621	2.00	5.00
Compromising	Owner	46	3.3207	0.67836	0.10002	3.1192	3.5221	1.25	4.75
	Contractor	156	3.4760	0.54164	0.04337	3.3903	3.5616	1.50	5.00

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