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Doctoral School of Management and Business Administration

**PhD Dissertation**

**Empirical Research on the Relationship between Principled  
Negotiation in Teamwork and Negotiation Outcomes**

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# 1. INTRODUCTION

## 1.1. Background

Negotiation has become one of the fundamental requirements of global development to resolve disputes and promote cooperation. With the evolution and development of global economic and political situations, there are a lot of complex problems like trade disputes and territorial disputes. Consequently, finding ways and instruments to tackle these problems has become a global challenge. Due to the advent of the internet, especially the mobile internet, the concept of the world's becoming a global village is becoming more apparent. As a result, there is a growing desire for greater cooperation between people in society, politics, business, and life, in general. Similarly to any dispute resolution method, negotiation cannot guarantee success. However, when both parties adopt a benefit-based approach rather than a position-based approach, negotiations are often more likely to lead to successful outcomes. Negotiation is a process of communication and the consolidation of results through agreements. People promote cooperation through constant communication. If they can reach a substantive agreement, they will implement better cooperation and maintain sustained good relations.

Roger D. Fisher, a Harvard law professor and William Ury, co-founder of the Harvard Program on Negotiation, devised principled negotiation in 1981 in 'Getting to Yes: Negotiating Agreement without Giving In' (Fisher and Ury, 1981). Fisher, Ury and Patton (1991) developed the concept, but the core idea did not change. For over thirty years the method of principled negotiation has been the dominant formative approach to negotiation all over the world. In 'Getting to Yes', the four principles together result in an effective way, which can be used under almost any circumstances. Principled negotiation is an excellent tool to be used in many disputes although it has also received some criticism. Tenbergen (2001) claimed that the concept of principled negotiation is too "soft" in general because it does not focus enough on the value-claiming aspect. Reyes (2015) thought the very idea that the method of principled negotiation could be an all-purpose strategy of negotiation is absurd. The method of principled

negotiation cannot be all-purpose and a strategy of negotiation simultaneously. An all-purpose strategy would be like a flying horse to persuade negotiators that principled negotiation is an all-purpose strategy of negotiation, which has several undesirable outcomes. Although principled negotiation is a very good negotiation tool, there is still room for further exploration in theoretical support and empirical research.

Teamwork forms the basis of virtually all successful businesses (Schamotta, 2013). Despite frequent negotiations between buying and selling centers in practice, the impact of team characteristics during the course and the outcome of a negotiation has rarely been researched (Backhaus et al., 2008). As the negotiation team formed by the negotiating parties can be seen as a temporary team built around the negotiating task, factors such as the composition of the negotiating members, the closeness of the member relations, and the personality of the team leader will influence the negotiating team. However, the negotiation team as a variable that influences principled negotiation is also worth studying. Therefore, both academic research and business practice pay attention to the topic of negotiation teamwork.

Gerard I. Nierenberg, widely regarded as the ‘Father of Negotiation’, published a book entitled ‘The Art of Negotiating’ in 1968 that marked the birth of modern negotiating studies (Nierenberg, 1968). Empirical research on negotiation has been expanding rapidly since the establishment of modern negotiating studies. Empirical research widely uses the methods of field studies and laboratory experiments. Field research mainly depends on the observation method, case study method and the interview method to understand negotiators (Pruitt, 1981). Laboratory experiments have been performed involving the simulation of formal and occasionally informal negotiation and simulation negotiation is currently the dominant method of research negotiation in the world. Since the data collected by this method are close to the real situation, it is adopted by many researchers.

## **1.2. Research Questions**

The method of principled negotiation has been the dominant formative approach to negotiation in the world, but it lacks theoretical support and empirical analysis. The central part of research develops and tests a theoretical model built on empirical research on the relationship between principled negotiation in teamwork and negotiation outcomes. To study the core concept of principled negotiation, first, this study must find the theoretical basis for supporting principled

negotiation to better explain and apply principled negotiations. Second, this study needs to set up a conceptual model of principled negotiation and a scientific scale to measure it. Third, this study explores the factors that can measure the negotiation team. Fourth, this study analyzes how principled negotiation affects the outcome of negotiations depending on the team. Fifth, as communication is an integral part in negotiation, this study analyzes how communication as a mediator affects negotiation outcomes. This research aims to address five research questions, which are as follows.

- (1) What theories support principled negotiation?
- (2) What does the principled negotiation model measure?
- (3) What factors affect the negotiation team?
- (4) How does principled negotiation influence the outcomes of the negotiation?
- (5) How does communication as a mediator influence the outcomes of negotiation in principled negotiation?

### **1.3. Research hypotheses**

To solve the above research problems, this study uses negotiation team as the pre-variable, principled negotiation as the independent variable, negotiation outcomes as the dependent variable and communication quality as the intermediary variable to study the relationship between the principled negotiation and the outcome of negotiations. Based on the relationship between the four variables, the research has formulated the following hypotheses:

#### **(1) Relationship between negotiation team and principled negotiation**

Negotiation team directly influences principled negotiation; two factors in the negotiation team are involved: the density of the negotiation team and the centrality of the negotiation team.

Therefore:

**H1a:** The higher the density of negotiation teams during the negotiation, the greater the extent of using principled negotiation is.

According to the team's centrality, teams can be divided into centralized teams and decentralized teams, therefore:

**H1bi:** The higher the centrality of teams (centralized teams) during the negotiation, the greater the extent of using principled negotiation is.

**H1bii:** The lower the centrality of teams (decentralized teams) during the negotiation, the

greater the extent of using principled negotiation is.

## (2) Relationship between principled negotiation and negotiation outcomes

There is a correlation between principled negotiation and negotiation outcomes; two dimensions in negotiation outcome are involved: subjective value outcomes and economic outcomes, so

**H2a:** The greater the extent of using principled negotiation, the greater the satisfaction of subjective outcome is in the negotiation.

**H2b:** The greater the extent of using principled negotiation, the greater the economic outcomes are in the negotiation.

## (3) Relationships between communication quality, principled negotiation and negotiation outcomes

In order to verify communication quality as a mediator that influences principle negotiation and negotiation results, the conditions of the following four criteria must be met at the same time : (a) there is a significant correlation between principled negotiation and communication quality; (b) there is a significant correlation between communication quality and negotiation outcomes; (c) there is a significant correlation between principled negotiation and negotiation outcomes (H2a and H2b); (d) when communication quality is introduced into the regression equation, the correlation or regression coefficient between principled negotiation and negotiation outcomes is significantly reduced. Two dimensions of negotiation outcomes are involved: subjective value outcomes and economic outcomes, therefore:

**H3a:** The greater the extent of using principled negotiation, the higher the quality of communication is in the negotiation.

**H3b:** The greater the extent of communication quality, the greater the satisfaction of subjective outcome is in the negotiation.

**H3c:** The greater the extent of communication quality, the greater the economic outcomes of negotiation are in the negotiation.

**H3d:** Communication quality is a mediator between principled negotiation and the subjective value outcomes of negotiation.

**H3e:** Communication quality is a mediator between principled negotiation and the economic outcomes of negotiation.

## 1.4. Research Methods

First, my research summarizes the main literature contributions to principled negotiation studies and selects the empirical studies on principled negotiation which are studied in the focus. Then, this research establishes a conceptual model called PMMT (Principled Negotiation Model in Team); analyzes, interprets and discusses the variables in the conceptual model, and then presents the relationship between the variables in the model and proposes the hypotheses of the study. Through extensive simulation negotiation experiments and in-depth data analysis, the hypothesis of the conceptual model was actually verified, and the conclusion was finally drawn, which serves as a practical reference for the negotiator in practice. In terms of research methods, the paper adopted a combination of induction and reasoning, theory and demonstration, as well as qualitative and quantitative methods. To test the hypothesis of the conceptual model, negotiation experiment was simulated to collect the data which were presented. In the specific analysis process, five analyzing methods were mainly adopted. Social network analysis (SNA) is used to measure negotiation team by using UCINET (6) software. Descriptive statistical analysis is used to help understand the basic distribution of the sample by performing frequency assignment and percentage analysis of variables. Factor analysis is used to test principled negotiation scale by using SPSS (22) software. Correlation analysis is used to measure the association between four variables (negotiation team, principled negotiation, negotiation outcomes, communication quality) and the direction of the relationship. Regression analysis is used to estimate the relationships between three variables (principled negotiation, communication quality, negotiation outcomes).

### **1.5. Research Design**

This dissertation divides the structure into seven segments after the three stages of exploration, research design and research execution; (1) Introduction, (2) Literature Review, (3) Model and Hypotheses, (4) Materials and Methods, (5) Results, (6) Conclusions, (7) Summary.

Figure 1 presents the research structure.

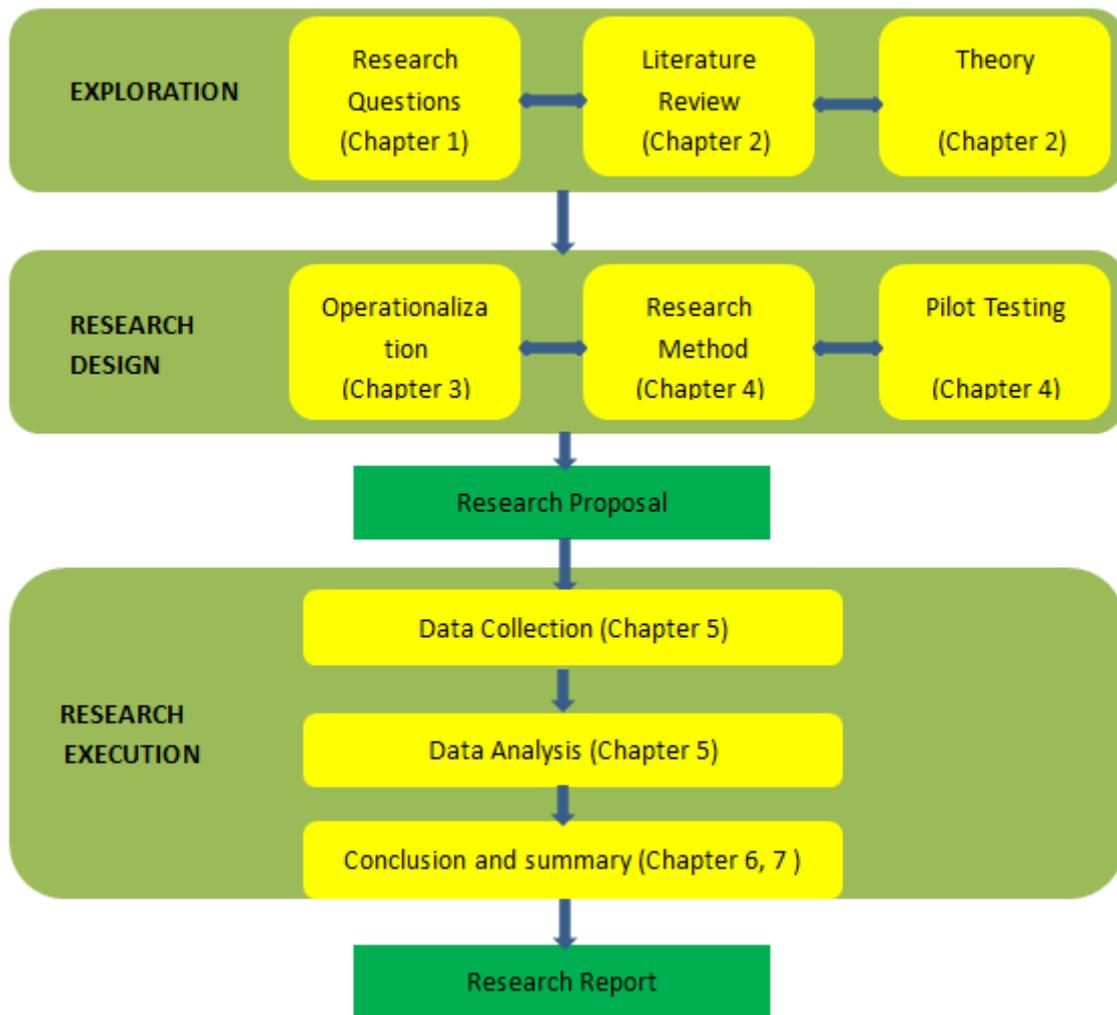


Figure 1 Research Process and Structure

Source: Bhattacharjee, 2012:20

The dissertation follows the format outlined below.

(1) Introduction

This section presents the background of the research, and the research questions are addressed followed by methodology and research structure design.

(2) Literature Review

This section discusses previous research that is directly relevant to my study and discusses how my approach is different from what has been made before. The main theoretical contributions to principled negotiation research on a national and international level are summarized.

(3) Model and Hypotheses

In this section, a principled negotiation conceptual model is established, and the hypotheses of

this study are drafted, each variable in the conceptual model are analyzed, interpreted and discussed, and then the relationship between the variables in the model are presented.

#### (4) Materials and Methods

A measurement study is described in this section together with how to empirically test the hypothesized theoretical model and the measurement issues related to negotiation team, principled negotiation, communication quality and negotiation outcomes.

#### (5) Results

This section is divided into three parts. The first section simply describes preliminary analysis between variables. The second section presents (relevant) correlation analysis between variables in theoretical model. Some tables and figures are used to illustrate the variables in the analysis. The third section outlines the major innovations of my study.

#### (6) Conclusions

Findings and results are presented by continuously being compared to what others have found while presenting possible causes for differences from prior research. Last, the limitations of the results are discussed with possible future implications which provide a practical reference for the negotiator.

#### (7) Summary

The entire dissertation is summarized around the five questions that need to be studied.

## 2. LITERATURE REVIEW

From the perspective of negotiation research, since the 1990s, social psychological variables such as social relations, emotions, cultural differences, and group interactions began to enter the research field of negotiation. Scholars placed interaction from between motivation and cognition into the perspective of the negotiation process and results and a new theory was proposed to reveal the internal mechanism of mixed motivation (Dedreu and Carnevale, 2003). The study of negotiation has centered on solving the puzzle of how the negotiation process influences the outcome. Negotiation scholars have studied this puzzle from several domain areas: individual differences (e.g. Barry and Friedman, 1998), cultural features (e.g. Brett, 2000), and time pressure (e.g. Dedreu, 2003). The following part mainly summarizes some relevant literature about principled negotiation, negotiation teamwork, negotiation outcomes, communication in negotiation and theories of principled negotiation.

### 2.1. Negotiation

Scholars take different perspectives and form many definitions of negotiation.

Negotiation is the deliberation of two or more complex social units which are attempting to define or redefine the terms of their interdependence (Walton and McKersie, 1965).

Negotiation is a form of social interaction. It is the process by which two or more parties try to resolve perceived incompatible goals (Carnevale and Pruitt, 1992).

Negotiation can be defined as a process of communication back and forth with the purpose of reach a joint agreement about different needs or ideas (Acuff, 2008).

Negotiation is a process by which a joint decision is made by two or more parties. The parties first verbalize contradictory demands and then move toward agreement by a process of concession making or search for new alternatives (Pruitt, 2013).

Although the definitions of the above concepts are not all the same, they all include the following characteristics of negotiation:

(1) According to the participants, there are two or more parties involved, and each party has a behavior characteristic of the team most of the time.

(2) Depending on their purposes, these parties have their own interests, requirements, goals and needs, etc. so there is a conflict of interests between them.

(3) Interaction and communication are integral to the process of negotiation.

(4) The outcome of negotiation, usually an agreement or contract of commitment, results from communication that is termed as mutual deliberation.

Based on synthesizing previous works, negotiation is essentially a process of communication between partners who have different views of interests to reach a joint agreement. The construction of negotiation is presented by Figure 2.

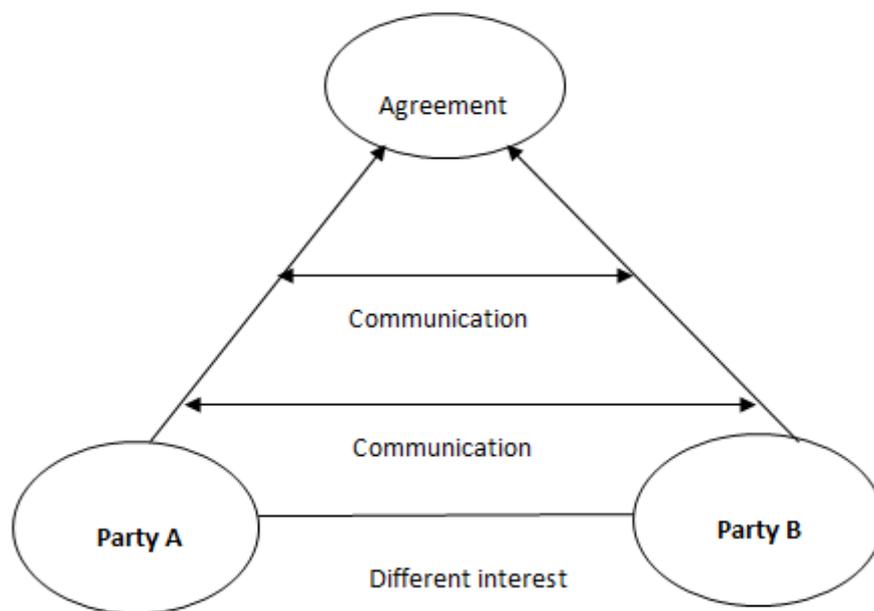


Figure 2 Negotiation Triangle

Source: Zhang, 2016:11

## 2.2. Principled Negotiation

Principled negotiation is the term given to the interest-based approach to negotiation set out in the best-known conflict resolution book 'Getting to Yes: Negotiating Agreement without Giving In', which was first published in 1981 by Roger Fisher and William Ury. The book was edited the third time in 2011 but the concept of principled negotiation is retained in the book. In 'Getting to Yes', Fisher and Ury (1981) argue that almost all disputes can be resolved by means

of principled negotiation. They reject the notion that some conflicts are inherently win-lose or that positional bargaining is ever a superior approach (Fisher and Ury, 1981). The book advocates four fundamental principles of negotiation.

### **2.2.1. Four basic points of principled negotiation**

(1) Separate the people from the problem. Separating the people from the problem means separating relationship issues ('people problems') from substantive issues and dealing with them independently. People problems, as Fisher and Ury observe, tend to involve problems of perception, emotion and communication. Perceptions are important because they define the problem and the solution. While there is an 'objective reality' that reality is interpreted differently by different people in different situations. When different parties have different understandings of their dispute, effective negotiation may be very difficult to achieve. People problems also often involve difficult emotions — fear, anger, distrust and anxiety. These emotions are intertwined with the substantive issues of the dispute and make both harder to deal with. Fisher and Ury (1981) consider communication problems to be 'people problems', as well.

(2) Focus on interests, not positions. Negotiating about interests means negotiating about things that people really want and need, not what they say they want or need. Often, these are not the same. People tend to take extreme positions that are designed to counter their opponents' positions. If asked why they are taking that position, it often turns out that the underlying reasons—their true interests and needs—are actually compatible, not mutually exclusive. Lastly, Fisher and Ury (1981) counsel negotiators to know what their alternatives are. If you do not know what your alternatives to a negotiated agreement are, you might accept an agreement that is far worse than the one you might have got or reject one that is far better than you might otherwise achieve.

(3) Invent options for mutual gain. By focusing on interests, disputing parties can more easily fulfill the third principle: invent options for mutual gain. This means negotiators should look for new solutions to the problem that will allow both sides to win, not just fight over the original positions which assume that if one side wins, the other side must lose.

(4) Insist on objective criteria. Although not always available, if some external, objective criteria for fairness is found, this can greatly simplify the negotiation process. For example, if people are negotiating over the price of a car or a house, they can look at what price similar houses or cars

have been sold. This gives both sides more guidance as to what is fair and makes it hard to oppose offers in this range.

### **2.2.2. Applications of principled negotiation**

Principled negotiation has very widely been used in many fields since its establishment. When conflicts about medical care persist despite gaining mutual trust and a deep understanding of goals, it may be effective to use principled negotiation. Principled negotiation is an approach to resolving conflict that avoids power struggles and unwanted compromises (Arnold and Kendall, 2008). A super expert system called Negotiation Game is designed to support the Harvard Principled Negotiation model. It is illustrated by a civilization application which reframes the Israel-Palestine conflict as the task of negotiating a mutually acceptable civilization (Gray et al., 2011).

The growing use of information technology in the commercial arena leads to an urgent need to find alternatives to traditional dispute resolution. Using case-based reasoning and principled negotiation provides decision support for dispute resolution (Carneiro et al., 2013). Many methods of social work practice, including brokering, case advocacy and cause advocacy, require the social worker to engage in negotiations to resolve disputes. The article demonstrates how principled negotiation, a form of negotiating developed out of the Harvard Negotiation Project at Harvard University and used widely in the business and legal world, can be an effective tool for social work practice. Principled negotiation is especially consonant with the value base of social work because it strives for the just and mutually beneficial resolution of conflicts while acknowledging the value and importance of ongoing relationships (Lens, 2004). Principled negotiation is often promoted as an example of good practice in project management. Principled negotiation is a useful general technique in support of this approach (Bustard, 2002).

### **2.2.3. Limitations of principled negotiation**

Principled negotiation is an excellent tool to be used in many disputes although it has also received some criticism. Tenbergen (2001) claims that the concept of principled negotiation is too “soft”. The process of negotiation, defined as collective decision-making, can be described by two basic attempts: to create and claim as much value as possible, the point is valid that there is some focus on the value-claiming aspect in principled negotiation; the example just gives advice on how to avoid a bad agreement, not on how to claim value. Therefore, principled

negotiation is too soft in general because it does not focus enough on the value-claiming aspect (Tenbergen, 2001).

Reyes (2015) thinks the main flaws of principled negotiation, namely, oversimplification of negotiations, misunderstanding of the concept of strategy, a mixture of elements of different strategies, a misunderstanding of positional bargaining, and the significance and meaning of the relationship between negotiators. The very idea that the method of principled negotiation could be an all-purpose strategy of negotiation is absurd. An all-purpose strategy by definition has no specific purpose; hence it is not a strategy. The method of principled negotiation cannot be all purpose and a strategy of negotiation simultaneously. An all-purpose strategy would be like a flying horse to persuade negotiators that principled negotiation is an all-purpose strategy of negotiation, which has several undesirable outcomes (Reyes, 2015).

### **2.3. Negotiation Teamwork**

The terms work team and work group appear often in today's discussions of organizations (Sundstrom et al., 1990). Pasmore et al. (1982) reported that the introduction of the autonomous work groups was the most common intervention in 134 experiments in the case of manufacturing firms. Production teams number among four broad categories of work team applications: (1) advice and involvement, (2) production and service, (3) projects and development, and (4) action and negotiation. Both academic research and managerial practice pay attention to the topic of negotiation, and price negotiations have particular prominence in business relations. Despite frequent negotiations between buying and selling centers in practice, the impact of team characteristics on the course and outcome of a negotiation has rarely been researched (Backhaus et al., 2008).

Teamwork forms the basis of virtually all successful businesses. Mannix (2005) stated that team negotiation creates several new ways to deal with complex negotiation tasks. Moreover, team negotiation seems to be more powerful than solo negotiation. Thompson et al. (1990) compared three types of negotiation situations: teams versus teams, teams versus solo negotiators, and solo negotiators versus solo negotiators. Through negotiation experiments, it was found that team negotiation is more conducive to information sharing than individual negotiation, especially with respect to negotiation issues, negotiation interests, and priorities of negotiation topics. However, it does not mean that the negotiation team always has an advantage over the solo negotiation.

Phillips et al. (2004) found individuals who were familiar with one another had little difficulty in pooling unique information and effectively solving the same problem.

### **2.3.1. Conflicts in negotiation team**

Although the ideal negotiating team members will be composed of people familiar with each other and possessing complementary knowledge and capabilities. Negotiating a decision that the group is all happy with increases the team's cohesion and helps individual members examine their own motivations. Successful negotiation provides the team with faith in their ability to continue co-operating with each other. Conflicts are often part of any negotiating team. The ability to deal with conflicts is the key to the success of a negotiating team. For the negotiating team, the existence of a conflict has a negative and a positive effect. If the conflict between the members of the negotiating team is arbitrarily expanded without being noticed, it will cause distrust between team members and conflict quickly descends into the vicious circle of recrimination and negativity. Conflict is not necessarily a bad thing. Negotiating teams deliberately inspire conflicts to create a competitive atmosphere and come up with more ideas to increase the accuracy of decisions.

The causes of conflict in the negotiating team are various such as the personalities of the negotiators. Thomas and Kilman (1976) classified an individual's behavior in conflict situations in five types of response. (1) Competitive people tend to take a firm, sometimes unyielding stance; (2) collaborative people try to satisfy the needs of all the people involved; (3) compromising people seek solutions that at least partially satisfy the group; (4) accommodating people express a willingness to sacrifice something to meet the needs of others; (5) avoiding people try to avoid conflict entirely.

To help with resolving conflicts within teams, follow the "four Cs" as suggested by Harvard University. (1) Connect--establish a rapport with the other members in a non-confrontational manner and address things openly. (2) Clarify--actively listen to what others are saying and generate alternative solutions. (3) Confirm--reach mutual agreement within the group so that the needs of individual members are addressed and satisfied. (4) Contract--negotiate the terms that will dictate future interactions (Schamotta, 2013).

### **2.3.2. Factors affecting the performance of the negotiation team**

In different situations, the negotiating team often shows great differences in its performance. To serve with an explanation of this phenomenon Hackman (1987) thought that the team's performance depends on its structural characteristics such as suitable member's composition. Backhaus et al. (2008) found cohesive groups and groups with a participative decision-making structure are less likely to engage in contending behavior. Group characteristics unequally affect objective and perceived outcome measures. Argyris (1993) stated interpersonal environment is an important factor that affects team performance. It is believed that the underlying perceptions of interpersonal interactions will inhibit learning behavior and lead to a reduction in organizational efficiency. Granovetter (2000) concluded that the utility of individuals is not isolated, and individuals will be affected by other people at any time to change the utility function. Moreno et al. (2003) attributed the main factors that affect team performance to individual characteristics, social structure, time/economic costs and other aspects. Watson and Belanger (2002) believed that in the era of knowledge economy, formal and informal communication is also an important factor that have some impacts on team performance. Koc-Menard (2009) argued that teams can rely on social relations to locate and get hold of resources that will augment their ability to manage the bargaining process. Such strategies include membership change, knowledge acquisition and ambassadorial activity.

Wasserman and Faust (1994) see the social structure as a structure of interpersonal social networks. They believe that individuals interact with each other in a dynamic interaction process that affects individual actions and changes mutual relations, thus affecting the overall structure. Emirbayer and Goodwin (1994) assumed that social network theory is based on the interrelationship between social relations and the interpretation of interactive behaviors. This kind of interpretation from the perspective of relationship is superior to the interpretation from the perspective of individual attributes. The advantage of social network analysis is that it can reveal the different levels of structure in social systems. These structures are formed by the rules of relational patterns that exist between specific entities (Knoke, 1994). Wellman and Berkowitz (1988) pointed out that social network analysis methods directly address the nature of the relationship between social structure models. This method even surpasses the mainstream statistical methods. Many scholars have noticed the important role of social network analysis

methods in the study of team structural performance and proposed the concept of social network structure including network density, network centrality etc., and used it to measure employee turnover behavior and job satisfaction (Krachardt, 1993; Sparrowe et al., 2001). The purpose of this study is to use social network analysis methods to reveal the influence of the internal relationship structure among team members on team performance and provide theoretical and empirical guidance for the construction of learning teams.

## **2.4. Negotiation Outcomes**

The final negotiation outcome is indeed a trade-off that comprises the seller's profit, the buyer's savings, and the possibly friendly cooperation in the future. Meanwhile, a win-win situation is established because a negotiator obtains something of a greater value from another party in exchange for something on which he places a lower relative value. Therefore, observing the other party's satisfaction level is viewed as an important indicator of a successful negotiation outcome (Graham et al., 1994).

### **2.4.1. The outcomes of negotiation categories**

Thompson (1990) divides the outcomes of negotiation into two categories: the economic or objective outcomes, and the social-psychological or subjective outcomes. In a two-party negotiation the objective outcomes can be operationalized by the joint gain for both parties regarding the resources being negotiated. The subjective outcomes include each negotiator's perceptions of the negotiation situation, the self, and the other party (Thompson, 1990).

### **2.4.2. The measurements of negotiation outcomes**

Negotiation outcomes have been measured and conceptualized in various ways. Economic outcome measures are based on normative models of negotiation behavior that specifies how fully-informed, rational individuals should behave in competitive situations (Wald, 1947). Early game theorists devised mathematical models of how resources ought to be allocated in fixed sum negotiations. Normative models of negotiation behavior resulted in the creation of five key economic outcome measures: (1) mutual agreement, (2) bargaining surplus, (3) joint gains, (4) pareto optimality, and (5) inferiority of the outcome. Joint profit is the sum of the group members' gains. As it is easy to calculate and does not rely on any economic theories beyond more is better, joint profit is the most popular measure of economic benefit (Clyman, 1995).

Social-psychological measures of negotiation outcomes were described in three parts by

Thompson and Hastie (1990): (1) negotiators' perceptions of the bargaining situation, (2) negotiators' perceptions of the bargaining opponent, and (3) negotiators' perception of themselves. In contrast to economic measures of negotiation performance, which focus on the outcomes of negotiations but do not specify the processes or methods to achieve those outcomes, social-psychological measures focus on both the processes and the outcomes of a negotiation. Unfortunately, negotiation theorists have not yet agreed on the methods and standards for measuring subjective outcomes (Kurtzberg and Medvec, 1999). As a result, measures of these subjective outcomes abound, making comparisons of results problematic (Thompson and Hastie, 1990). Perceptions of the bargaining situation involve the judgments people make about the bargaining process. Such perceptions may include judgments about norms for appropriate behavior, communication and information sharing, bargaining structure, and fairness and justice. Individuals' perceptions of the bargaining situation may be influenced by their implicit theories and scripts for bargaining. Curhan et al. (2006) expanded this first category by focusing on the negotiator's feelings about the final terms of the settlement. Many commentators have argued that this is an extremely important outcome in negotiations, as it has direct implications for a negotiator's willingness to continue the relationship with one's counterpart. Using a combination of inductive and deductive methods, Curhan et al. (2006) set out to investigate the question according to which what people value when they negotiate. Results indicated there are four broad factors of subjective value, including feelings about the instrumental outcome, the self, the negotiation process, and the relationship. Perceptions of the other party include judgments about the other party, as well as judgments of a negotiator's relationships with the other party. As such, these perceptions include liking and attraction, judgments about trustworthiness and fairness, as well as trait inferences about intelligence, sociability, expertise, skill, ability, cooperativeness, and competitiveness (Thompson, 1990; Fortgang et al., 2003; Morris et al., 1999; Tinsley et al., 2002). These perceptions also include trust, concern for the other party, and willingness to bargain with the other person in the future. Perceptions of themselves include many dimensions relevant to the opponent including skill, cooperativeness, fairness, and the like. It also includes perceptions of self-efficacy and self-esteem. Self-efficacy, in particular, can influence future negotiation performance (Stevens et al., 1993; Foldes et al., 2011).

## **2.5. Communication in Negotiation**

### **2.5.1. Communication in negotiation**

Communication means personal and social interactions that people obtain to communicate and exchange information, thoughts and emotions through a common symbol system (including verbal or non-verbal signs) (Zhang, 2016). Fisher and Ury (1981) thought without communication there is no negotiation. Negotiation is a process of communicating back and forth for the purpose of reaching a joint decision. Fisher and Ury (1981) listed three types of communication problems. First, disputants may not be talking to each other. While their comments are formally addressed to the opponent, they are actually addressing some outside audience. They are grandstanding or playing to the crowd. A second communication problem arises when the parties are not listening to each other. Rather than listening attentively to the opponent, parties may instead be planning their own response, or listening to their own constituency. Finally, even when parties are listening and speaking to each other, misunderstandings and misinterpretations may occur. Fisher and Ury (1981) suggest techniques for minimizing communication problems.

### **2.5.2. Communication quality**

Liu (2004) think that quality of communication is the extent of the responsiveness, clarity, and comfort that communicators experience during negotiation. Responsiveness refers to the norm of coordination (Barry and Crant, 2000) or reciprocity (Gouldner, 1960; Putman and Jones, 1982; Ludwig et al., 1986) that individuals experience in interpersonal interactions. A lack of responsiveness to the other parties' overtures signals unfulfilled expectations and conflicts in interpersonal communication (Cialdini, 2009). Clarity refers to the degree of comprehension and interpretation of the meaning being communicated. Meaning encompasses not only information but also ideas, emotions and values that are conveyed via symbolization and demonstration (Pearce and Cronen, 1980). The comfort experienced by communicators refers to a condition of positive affect of ease and pleasantness of interacting with each other. In this sense, the quality of communication is a measurable construct that reveals how well the communication messages between negotiators are exchanged. High degrees of responsiveness, clarity, and comfort experienced by negotiators are the characteristics of high quality communication.

## **2.6. Theories of Principled Negotiation**

### **2.6.1. Transactional analysis theory<sup>1</sup>**

The concept of principled negotiation, developed by Fisher and Ury in ‘Getting to Yes’, is one of the most influential approaches in current negotiation theory. Fisher and Ury (1981) thought principled negotiation is a different third way between soft negotiation and hard negotiation. The principled negotiation method of separating the people from the problem, focusing on basic interests, mutually satisfying options and whose fair standards typically results in a wise agreement, is said to have more creative and wise outcomes to conflicts. Four points define a straightforward method of negotiation that can be used under almost any circumstances. Each point deals with a basic element of negotiation and suggests what you should do about it (Fisher and Ury, 1981). Ideally, if both sides of negotiators follow the four main points of principle negotiation, the negotiations will make an amicable agreement. Many empirical studies confirmed those results (see Chain, 2014; Lewis and Spich, 1996; Paquet, 1995 etc.).

However, there are three critical academic issues about principled negotiation. (1) Why principled negotiation and positional bargaining (the method of principled negotiation is contrasted with hard and soft positional bargaining.) emerge, (2) how to deal with principled negotiation in reality and (3) how to make a principled negotiation with theoretical support. Nowadays the focus issues in negotiation study are how the negotiation process influences the negotiation outcomes. Due to the complexities of deciding the negotiation process and the negotiation outcomes, scholars generally use psychological fields such as individual differences, behavior characteristics and negotiators’ cognitive. This study applies the psychological theory of Transactional Analysis (TA) to support principled negotiation.

#### **2.6.1.1. Transactional analysis**

TA is a branch of psychotherapy developed by Eric Berne, who was a Canadian-born and American-worked psychiatrist. TA is “a theory of personality and a systematic psychotherapy for personal growth and change” (Berne, 1968). TA is about how people are structured psychologically and it practically is a theory of communication. Knowing about TA can be very

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<sup>1</sup> The content in this title comes from my own published paper: ZHANG, S. & CONSTANTINOVITS, M. 2017. A Study of Principled Negotiation Based on Transactional Analysis Theory. BRAND. Broad Research in Accounting, Negotiation, and Distribution, 8, 3-10p.

useful for improving our communication skills. The main thoughts of TA are as follows.

There are three ego states in Berne's model: Parent, Adult and Child. Ego states are irrespective of age and are capitalized to differentiate from the normal use of the words parent, adult and child. The Parent and Child ego states are echoes of the past. The Adult ego state is a response to the here and now when a person is grown up and uses grown up responses. Ego states are rather things, not names. They are a set and related thoughts, feelings and behaviors (Clarkson, 2013). Adult is the part of self that can think and determine logically and rationally, and act accordingly. The Parent and Child ego states are sub-divided. The Parent ego state is divided into Critical Parent (CP) which is negative, unsupportive and critical; Nurturing Parent (NP) which is supportive, helpful, nurturing, comforting. The Child ego state is divided into Free Child (FC) which is spontaneous, free-wheeling, playful, self-indulgent, curious and rebellious; Adapted Child (AC) which is toned down behavior that has been learnt in response to the reactions from other people to us and our behavior. The learned or adapted responses are more likely to generate a given result from the receiver. The TA of Parent-Adult-Child model is illustrated by Figure 3.

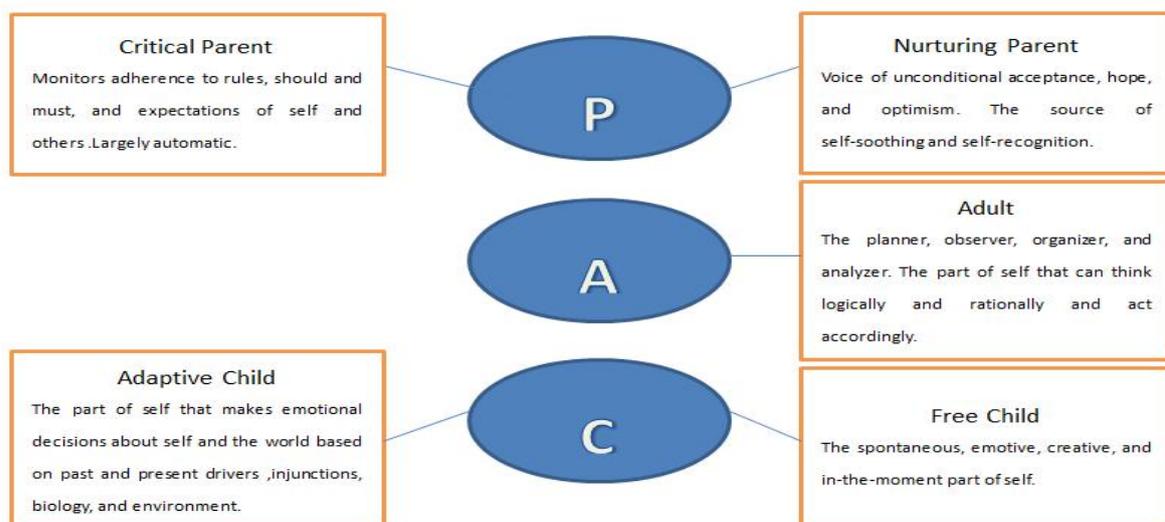


Figure 3 The Transactional Analysis Parent-Adult-Child Model

Source: authors' editing based on Berne (1968)

The three ego states can be used as a way of analyzing transactions (communications) between people. A transaction is the communication from A to B and the response from B to A. Communication (transactions) between people can be from one ego state to a different one or from one ego state to the same ego state (Hargaden and Sills, 2014). Normally, communication

flows from one ego state either to the same ego state or a different one. The person who first communicates will expect a reply to be from a certain ego state. If communication is from a different ego state to the unexpected one, then communication may be ineffective, and the message may be lost, not received or disregarded by the person receiving it. If communication is from Adult to Adult, it is likely to be the most effective communication for most of our communications. So long as transactions remain complementary, communication can continue indefinitely. When the message is sent from one ego state and the reply is from the expected ego state, transaction is complementary (1<sup>st</sup> rule). When a transaction is crossed, a break in communication results, and one or both individuals will need to shift ego states for the communication to be re-established. The transaction is crossed; communication is non-effective. A crossed transaction could lead to arguments and loss of effective communication (2<sup>nd</sup> rule). The behavioral outcome of an ulterior transaction (one where two messages are sent at the same time; one overt social and one covert psychological) is determined at the psychological level and not at the social level (3<sup>rd</sup> rule) (Tudor and Hobbes, 2007). Three rules of communication in TA is illustrated by Figure 4.

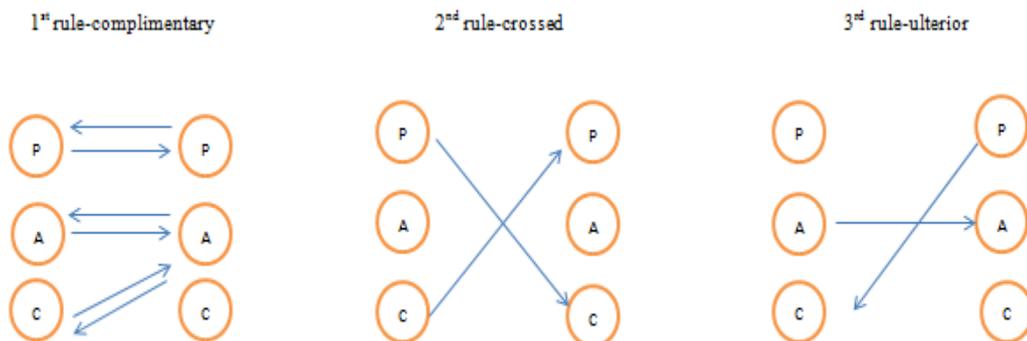


Figure 4 Three Rules of Communication in TA

Source: authors' editing based on Berne (1968)

Any transaction is an exchange of strokes (Steiner, 2003). A stroke is a unit of attention which provides stimulation to an individual (Woollams, 1978). Berne's choice of the word stroke refers to the infants for touching. As grown-ups, people learn to substitute physical touching with other

forms of recognition. A smile, a compliment, frowns or insult, all show that our existence has been recognized. Berne used to term recognition hunger to describe our need for this kind of acknowledgement for others. Strokes have different kinds (Table 1). Different strokes for different folks. Everybody has their preferred stroke quotient (Jongeward, 1976). The quality of stroke cannot be measured subjectively. When someone gets a stroke that does not fit in with her/his preferred stroke quotient, she/he is likely to ignore it or belittle it. If people receive strokes from a certain behavior, then people are likely to repeat it.

Table 1 Kinds of Strokes

<b>Classification</b>	<b>Characteristics</b>
Verbal	Exchange of ideas that occurs through words. This can be both written and oral
Non- Verbal	Through facial expressions, gestures and postures
Internal	Fantasies, self-praise and other forms of self-stimulation
External	Strokes from others are important for healthy living
Positive	A positive stroke which the receiver experiences as pleasant
Negative	A negative stroke one experiences as painful
Conditional	A conditional stroke that relates to what you do
Unconditional	An unconditional stroke that relates to what you are

Source: authors' editing based on Berne (1968)

### **2.6.1.2. Negotiation Mechanism of Transactional Analysis**

Principled negotiation is meant to be a synthesis between hard and soft negotiation. Fisher and Ury (1981) thought that soft negotiation and hard negotiation are the existing shortcomings in negotiation, so they advanced a new theory of principled negotiation. They suggested that principled negotiation, which negotiates interests rather than positions, is the best alternative to either hard or soft bargaining. But why negotiation exists in the form of hard negotiation, soft negotiation and principled negotiation though TA theory must be answered. When a negotiator uses hard bargaining, he / she shows the Parent ego state. When a negotiator uses soft bargaining, he / she shows the Child ego state. When a negotiator uses principled negotiation, he / she shows the Adult ego state. We can see the relationships between styles of negotiation and ego states in

Table 2.

Table 2 Relationships between Styles of Negotiation and Ego States

Styles of Negotiation		Ego States	
Hard	<p>Participants are adversaries.</p> <p>There is only one solution to the problem.</p> <p>The goal is winning at any cost.</p> <p>Threats and personal attacks are appropriate.</p> <p>Distrust and suspicion is assumed.</p> <p>Misleading and distorting positions are appropriate.</p> <p>Compromise is never acceptable.</p>	<p>Parent (Critical Parent)</p>	<p>Non- Verbal</p> <p>angry or impatient</p> <p>body-language and expressions, finger-pointing, patronizing gestures</p> <p>Verbal</p> <p>always, never, for once and for all, judgmental words, critical words, patronizing language, posturing language.</p>
Soft	<p>Participants are friends.</p> <p>Solution is the thing the other side will accept most readily.</p> <p>The goal is agreement that may sometimes involve one-sided losses.</p> <p>Conciliatory and friendly gestures and concessions are frequently used.</p> <p>Trust is assumed.</p> <p>Positions are changed easily and often to satisfy the other party.</p> <p>Concessions are made to encourage a smooth relationship and avoid conflict.</p>	<p>Child (Adaptive Child)</p>	<p>Non- Verbal</p> <p>emotionally sad expressions, despair, temper tantrums, whining voice, rolling eyes, shrugging shoulders, teasing, delight, laughter, speaking behind hand, raising hand to speak, squirming and giggling.</p> <p>Verbal</p> <p>baby talk, I wish, I dunno, I want, I'm gonna, I don't care, oh no, not again, things never go right for me, worst day of my life, bigger, biggest, best, many superlatives, words to impress.</p>

Table 2 Cont'd

<p>Principled</p>	<p>Participants are problem solvers.          There are several solutions to the problem.          The goal is reaching a mutually satisfactory agreement.          The problem, and not people, is in the focus.          Proceed independent of trust.          Positions are based on fair and objective standards.          Compromise is appropriate when based on principle, not pressure.</p>	<p>Adult</p>	<p>Non- Verbal          attentive, interested, straight-forward, tilted head, non-threatening and non-threatened.          Verbal          why, what, how, who, where and when, how much, in what way, comparative expressions, reasoned statements, true, false, probably, possibly, I think, I realize, I see, I believe, in my opinion.</p>
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Source: Fisher and Ury, 1991: 9, 13.

When people are negotiating with others, one person initiates a transaction with the transactional stimulus. The person at whom the stimulus is directed will respond with the transactional response. At the core of Berne's theory is the rule that effective transactions must be complementary, so successful negotiations must be complementary, as well. Negotiators must go back from the receiving ego state to the sending ego state. For example, if the stimulus is parent to child, the response must be child to parent or the communication is 'crossed', and there will be a problem between sender and receiver. If a crossed transaction occurs, there is an ineffective negotiation. It is even worse if either or both parties are upset in negotiation. To continue the relationship smoothly, the negotiator must rescue the situation with a complementary transaction. Moreover, when negotiators are negotiating with others, negotiators must identify the real information through overt messages.

Nierenberg (1995) says that negotiation occurs when human beings exchange ideas for the purpose of changing their relationships. According to TA, human beings' exchanging ideas is

negotiated by exchanging strokes. Different strokes generate different relationships between negotiators. Each of the ego states has a particular way of negotiation, and an important part of TA is for us to be able to recognize what ego state is in control when you are negotiating with other people.

### **2.6.2. The Chinese harmony theory<sup>2</sup>**

Principled negotiation is a negotiation based on interest that is different from positional bargaining. This study compares the Chinese harmony thought with principled negotiation. “Harmony” (Chinese character 和 (hé)) is the most significant Chinese character. Chinese harmony thought forms an organic system (Kecheng, 2012). Harmony can be interpreted as the ideological concepts of conscientiousness, concordance, peacefulness and gentleness. Harmony thought is a mixture of Taoism, Confucian, and Buddhism from ancient China. Harmony thought in ancient China was extremely rich. Not only did it contain the harmony of natural harmony, human body and mind harmony and social harmony, but also the harmony among humans, nature and society.

#### **2.6.2.1. Four basic forms of harmony**

Natural harmony. The ancient philosophy in China first thought of balance and harmony with nature. Laozi, the founder of philosophical Taoism, said “The Tao produced One; One produced Two; Two produced Three; Three produced All things. All things leave behind them the obscurity, so go forward to embrace the brightness while they are harmonized by the breath of vacancy.” (Tsu, 2006: 42). It is based on the premise that all phenomena in the universe come from the same origin- the Tao (the Way). From the Tao, all things are polarized into Yin and Yang, i.e. heaven and earth, day and night, masculine and feminine energies. Along with the law of Yin and Yang, the ancient Taoists observed a pattern of expression in Nature that they interpreted and named as the Five Elements (Figure 5). These elements, or energies, were described as Wood, Fire, Earth, Metal and Water and were understood to be the prime energetic building blocks from which all material substance in the phenomenal world is composed. The Elements are representations of the transformation that occurs in the world around us; they are metaphors for describing how things interact and relate with each other. Harmony is the ultimate

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<sup>2</sup> The content in this title comes from my own published paper: ZHANG, S. & CONSTANTINOVITS, M. 2016. A Study of Principled Negotiation Based on the Chinese Harmony Thought. BRAND. Broad Research in Accounting, Negotiation, and Distribution, 7(1), 63-74p.

objective, the origins of Nature, and the drive of running.



Figure 5 Chinese Five Elements Theory

Source: Tsu, 2006: 4.

Human body and mind harmony. Human is part of Nature. Human body and mind are also harmonious. Long ago The Chinese recognized the interconnectedness of various parts of the body. For example, the body's back is Yang while the front is Yin, and the two powers run through the inner body structure. There are Yang-organs (hollow) and Yin-organs (massive), Yang-lines and Yin-lines. Acupuncture follows the idea of balancing the life energy through the meridians (energy lines) of the human body, restoring a health preserving harmony (Lee, 2012). The human body, mind and spirit are experienced as one complete whole. When human body and mind is in a harmonious state, people can live free in harmony and majesty.

Social harmony. A society is a group of people involved in persistent interaction. According to harmony thought, social harmony results in part from every individual knowing his or her place in the natural order and playing his or her part well. Confucius said: “when the prince is prince and the minister is minister; when the father is father, and the son is son” (Legge, 2009: 166). Particular duties arise from one's particular situation in relation to others. When talking about harmony, Confucius said that people should behave according to the principles of “Being close to and learning from people of virtue and compassion, caring for people while associating with them.” (Legge, 2009:87) In Lunyu<sup>3</sup>, Confucius said, “In practicing the rules of propriety, a natural ease is to be prized.” (Legge, 2009:38). Only after we subdue ourselves and return to

<sup>3</sup> The Lunyu (pronounced Lún yǔ!), commonly translated as "The Confucian Analects", is a collection of sayings by Confucius and dialogs with his disciples.

propriety can we have a peaceful world. Propriety was regarded as the social norm in Chinese history. It has two characteristics. The first is self-restraint. Self-restraint is so important that it is something that we cannot do without in terms of propriety. Thereby, we are able to avoid conflicts of interest and social chaos resulting from lack of constraint. The second characteristic is harmony, which is the core element of propriety. Propriety is the manifestation of harmony; it conforms to the principles of morality and justice.

Harmony among human, nature and society. When nature, human and society are considered together, there is a harmonious system among them. Four Chinese characters *tian ren he yi* (天人合一) means nature, human beings, mutual understanding and friendship as well as oneness, respectively. While Westerners always try to conquer and plunder from Nature with its increasingly highly advanced technologies, the ancient Eastern sages admonish that human beings are just a small part of, and closely linked to the world (Jeff, 2005). These thoughts are universal in Chinese culture. Human beings are an integral part of Nature. Human beings are a component of Heaven and Earth, or Nature. Thus, human beings should also obey the laws of Nature. The theory also holds the view that ethical principles are consistent with natural rules. The ideal of life is to attain harmony between Man and Nature. The idea that advocates harmony of man with nature is of great significance on keeping an ecological balance. The harmony theory is well balanced with emphasis both on alternating and complying with Nature. People should neither subdue nor destroy Nature, and the relationship between the two should be coordinated and harmonized.

#### **2.6.2.2. State of equilibrium and harmony**

Equilibrium and harmony were highly valued by people in ancient China. The Doctrine of the Mean<sup>4</sup> states: “This equilibrium is the great root from which grow all the human actions in the world, and this harmony is the universal path which they all should pursue. Let the states of equilibrium and harmony exist in perfection, and a happy order will prevail throughout heaven and earth, and all things will be nourished and flourish.” (Legge, 2009: 347). Confucianism emphasized the importance of honesty, righteousness and the principles of cultivating one’s morality, protecting one’s family, governing one’s nation and stabilizing the world. These qualities evolved from inside to outside, from ourselves to others, from human to substance, from

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<sup>4</sup> The Doctrine of the Mean is both a doctrine of Confucianism and also the title of one of the Four Books of Confucian philosophy in China.

near to far, emphasizing that we should cultivate ourselves first and then have a peaceful world. If everyone can persistently upgrade his moral standard and perfect his personality qualities to become a gentle, modest, humble, diligent, conscientious, scrupulous, meticulous, faithful and well-mannered person, then society would definitely become more harmonious and peaceful. “Pursuing harmony” refers to moderation, fitting, balance and harmony. Harmony is beneficial to all things, the balance of Yin and Yang is essential to all four seasons, all things and the long-term stability of the state. Harmony is a controlling force guiding all things to grow up and change. Harmony is a state that decides the balance among people, beings and Nature. Harmony is based on morality and justice presenting a bigger aspiration than a sea that contains thousands of little rivers.

### **2.6.2.3. Seeking harmony but keeping differences**

Ancient Chinese seeks harmony but keeps differences. No difference, no harmony (ROŠKER, 2013). Seeking harmony but keeping differences is used as a standard to distinguish a gentleman from a petty man in Confucianism. “Harmony but difference” is to pursue an inner balance not agreement on the surface. It means admitting the difference and diversity among all things. “Consensus without harmony” is, otherwise, to suppress dissident and eliminate differences, which leads to stagnation and loss. “Seeking harmony but keeping differences.” A gentleman should be open-minded and tolerant of others. He should enjoy the company of all and never join in doing bad deeds. A man without virtue will make profits by any means regardless of being fair or foul, he will not listen to differing opinions and will renounce those who disagree with him. Confucius called those who agree with everything without giving anything serious thoughts as “Xiang Yuan”. He said, “Xiang Yuan was a thief of virtue.” (Legge, 2009: 263). He also thought that those base persons, hypocrites were always spurned with scorn. As judging the morality of a man, he said, “It should not be based on the likes and dislikes, but on virtue. A gentleman will never compromise on important moral issues of right and wrong.” (Legge, 2009: 107). Confucius makes a radical distinction between the sameness (in the sense of “uniformity,”), and harmony or “harmonization” and criticizes the former in the following terms: “The nobleman creates harmony, not sameness. Ordinary men, on the contrary, are all the same and cannot create harmony” (Legge, 2009: 188).

#### **2.6.2.4. The connection between principled negotiation and Chinese harmony thought**

Although they sprung up from different cultural backgrounds, principled negotiation and Chinese harmony thought have many similarities.

##### **(1) Principled negotiation is similar to Chinese harmony thought in origins**

Fisher and Ury (1981) thought that soft negotiation and hard negotiation are the existing shortcomings in negotiation, so a new theory of principled negotiation was established. Fisher and Ury compare three kinds of negotiation or bargaining: soft, hard, and principled (Table 3). Like hard bargaining, soft bargaining involves the negotiation of positions rather than interests. However, to avoid the common problems associated with bargaining over positions, the negotiators will take a "soft" approach: treating the participants as friends, seeking agreement at almost any cost, and offering concession easily in order to preserve (or create) a good relationship with the other side. Soft bargainers will trust the other side, and will be open and honest about their bottom line. This leaves them vulnerable to hard bargainers who will act competitively—offering few, if any concessions, concealing their bottom line, even making threats. In a negotiation between a hard bargainer and a soft bargainer, the hard bargainer will almost always emerge with a substantially better deal. Yet two hard bargainers competing against each other may end up both losing—hence the advice to bargain hard in all cases is not wise. Fisher and Ury (1981) suggest that principled negotiation—which negotiates interests rather than position—is the best alternative to either hard or soft bargaining.

The Chinese live in harmony with the Tao. The term Tao means "way", "path", or "principle". The Chinese also look to the Yin -Yang principle<sup>5</sup> for enduring hardships and suffering through the harmony principle. Yin represents female elements such as the moon, night, water, weakness, darkness, mystery, softness, passively, etc., while Yang represents the male elements such as the sun, day, fire, strength, brightness, clearness, hardness, activity, etc. Yin and Yang are not two absolutely opposing forces, but rather the paired nature of everything in existence in the universe. It suggests that opposites have elements of each other and they together form a dynamic unity. The entire idea of Yin-Yang theory is expressed by the Tai-Chi symbol (Galante, 1981) (Figure 6). The black and white areas in the Tai-Chi symbol indicate that the whole world, including human beings, consists of two opposing components, namely, the Yin (black area) and the Yang

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<sup>5</sup> Yin- Yang describe how seemingly opposite or contrary forces may actually be complementary, interconnected, and interdependent in the natural world, and how they may give rise to each other as they are interrelated.

(white area). Importantly, each component exists within the other component; the white and black areas contain small black and white circles, respectively (Lee and Ernst, 2011). This means that Yin-Yang is a relative concept, and any Yin or Yang aspect can be further subdivided into Yin and Yang. Therefore, the world is considered to be infinitely divisible into Yin and Yang, and each part has a structure similar to the Tai-Chi symbol. Thus, in Yin-Yang theory, the whole world, including human beings, consists of fractal structures (Sakatani, 2007).



Figure 6 Tai-Chi Symbol

Source: Galante, 1981: 13

There are several well-known dualistic concepts on principled negotiation, such as hard negotiation vs. soft negotiation, since many scholars and practitioners understand them as opposite, or reverse phenomena. In fact, it is similar with Yin-Yang. According to the Tai Chi theory, Yin comprises Yang, and Yang contains Yin. They are always present simultaneously, and one cannot exist without the other. In other words, Yin and Yang are non-dualistic concepts, and using them in negotiation analysis and practice requires a holistic understanding of human nature and the negotiator' connection with the opponent. The Tai Chi approach to negotiation implies a dynamic balance between Yin and Yang moves (Table 3). This means that a negotiator must combine both Yin and Yang components in his or her behavior: on the one hand, to be receptive, cooperative, adaptive, integrative, empathetic, and practice corresponding, listening, giving in, accommodating, and reconciling (soft negotiation); and on the other hand, to be assertive, competitive, distributive, antagonistic, and practice opposing, compelling, speaking, taking in, hampering, and enforcing (hard negotiation). Tai Chi recommends softness of heart and hardness of mind, or outer softness and inner hardness (Faizullaev, 2012). In this context, hard negotiation is Yang negotiation, Soft negotiation is Yin negotiation, and principled negotiation is the same concept as Tai Chi negotiation (harmony negotiation).

Table 3. Relationship between Styles of Negotiation and Harmony States

Styles of Negotiation (Four basic points)		Harmony States (Behavior characteristics)	
Hard	<p>Demand concessions to cultivate the relationship.</p> <p>Dig into your position.</p> <p>Demand one-side losses to reach agreement.</p> <p>Insist on agreement.</p>	Yang	<p>Assertive, competitive, distributive, antagonistic, and practice opposing, compelling, speaking, taking in, hampering, and enforcing</p>
Soft	<p>Make concessions to cultivate the relationship.</p> <p>Change your position easily.</p> <p>Accept one-side losses to reach agreement.</p> <p>Insist on your position.</p>	Yin	<p>receptive, cooperative, adaptive, integrative, empathetic, and practice corresponding, listening, giving in, accommodating, and reconciling</p>
Principled	<p>Separate the people from the problem.</p> <p>Focus on interests, not positions.</p> <p>Invent options for mutual gain.</p> <p>Insist on objective criteria.</p>	Tai Chi	<p>Dynamic balance between Yin and Yang. Rationality should not inhibit feeling, and sensitivity should not obstruct intelligence. The move of Yin and Yang is the ability to listen and speak, follow the partner’s line of argumentation but depart from one’s own central points. Be grounded in solid facts, evidence and arguments; do not lose connection with reality.</p>

Source: Fisher, Ury and Patton (1991:11, 12); Faizullaev (2012:19-22.)

## **(2) Principled negotiation is similar to Chinese harmony thought in its final objective**

In principled negotiation, Fisher and Ury (1981) propose options for mutual gains. As the name implies, the goal of mutual gains negotiation is to make certain that all parties involved benefit from the negotiations. A relationship is a perceived connection that can be psychological, economic, political, or personal; whatever its basis, wise leaders, like skilled negotiators, work to foster a strong connection because effective leadership depends on it. Positive relationships are important not because they engender warm, fuzzy feelings but because they engender trust – a vital means of securing desired actions from others. Most business negotiators understand that by working collaboratively with their counterparts, while also advocating strongly on their own behalf, agreements and longtime relationships can be built that benefit both sides. A win-win negotiation settlement is an integrative negotiated agreement. In theory this means the negotiating parties have reached an agreement after fully taking into account each other's interests, such that the agreement cannot be improved upon further by any other agreement.

According to the Chinese harmony thought, the ultimate objective of negotiation is to set up equilibrium and harmony. The Chinese think the states of equilibrium and harmonies are perfect in the world. The Chinese emphasize morality and justice to all things. The Chinese think if everyone became a gentle, modest, humble, diligent, conscientious, scrupulous, meticulous, faithful and well-mannered person, then teams, families, organizations, community and society would definitely become more harmonious and peaceful. If a business person identifies with the harmony thought, he/she spontaneously focuses on characteristics such as loyalty, reciprocal obligations, and honesty in negotiation, and then will get mutual benefits through good relationships. Therefore, Western people hope to achieve a win-win result in principled negotiation, the Chinese people pursuit harmony, but both are similar in their final goal, which is common values to the other side, such as respect, polite, honest, and building a long-term relationship. Moreover, win-win negotiating does not mean that you must give up your goals or worry that the other person will achieve what they want in the negotiation. You have your hands full looking out for your own interests. Let others bear the primary responsibility for achieving their goals. This thought is the same that the Chinese seek harmony but keep differences.

### **(3) Principled negotiation is similar to the Chinese harmony thought in solving the problem**

Fisher and Ury (1981) propose four principles on principled negotiation; three among those is the way of how to negotiate with other people. “Separate the people from the problem” is the hypothesis about negotiators with rationality, “Focus on interests, not positions” is the way that negotiators can see as the essence through the phenomenon, “Insist on using objective criteria” is the principle of exception, if the two parties fail to achieve a win-win goal, the two parties need to obey the rules to get a result.

In principled negotiation, “Separate the people from the problem” is a rationalistic model and concept of negotiation that proposes rather calculative approaches and algorithmic thinking and pay little attention to human sensuousness, feelings, intuition, spontaneity, creativity, and body language. In the Chinese harmony thought, unity and harmony within the individual is the foundation of unity and harmony in collectivity. When the individuals in a community are at peace and harmony, it leads to spontaneous harmony in the community. To bring unity and harmony in the community, every individual has to make a conscious effort to integrate his body, mind and heart and his thought, feeling, will and action around some life-enriching values which unite people. Therefore, self-harmony can produce wisdom to deal with people and problem.

In principled negotiation, “Focus on interests, not positions” means seeing through the appearance to perceive the essence. Because negotiators in their lives, culture, and life experience are different, negotiators use their creative skills to find alternatives to solve the problem. In the Chinese harmony thought, regarding seeing things as they really are similar, the Tai Chi approach to negotiation implies a dynamic balance between Yin and Yang moves, the energy of opposition in Yin and Yang, with its complementary arising and changing polarities, which were responsible for all of creation. Yang energy can quickly change into yin energy, and vice versa. Therefore, negotiation needs to distinguish between Yin and Yang (interests and positions) and find the Tao (solution to the problem) by changing.

In principled negotiation, “Insist on using objective criteria” means using rules to solve the problem. In the Chinese harmony thought, negotiators are part of society, every individual must know his or her place in the natural order, play his or her part well and obey common rules.

The method of principled negotiation has been the dominant formative approach to negotiation in the world, but it has received some criticism. Principled negotiation was criticized by scholars

because it lacks theoretical support. This study gives a theoretical support based on the Chinese Harmony Thought. It focuses on the connection between the Chinese harmony thought and principled negotiation. According to former analysis, the Chinese harmony thought and principled negotiation are firmly connected in origin, final goal and the way to solve the problem. This conclusion powerfully explains why a Chinese businessman negotiates with foreign businessmen effectively because the Chinese businessperson finds common points very soon with Chinese culture and principled negotiation in negotiation. In conclusion, the greatest theoretical contribution to the study is to integrate the two fields of the harmony thought and Western principled negotiation and expand both research. This perspective on Chinese negotiations provides a different perspective in understanding expectations of Chinese negotiations and areas that international business negotiators must learn and understand prior to engaging in negotiations with the Chinese. As Chinese negotiators know about the rules of principled negotiation, they can interact smoothly with others in a negotiation. The Chinese seek harmony but keep differences, so they can quickly adjust to a negotiation. As Western negotiators know about Chinese harmony thought, they can reduce the tension in a negotiation. As the Chinese harmony thought and principled negotiation are firmly connected in origin, final goal and the way to solve the problem, in a negotiation the two sides exchange information reasonably, find opportunities to common benefit, which will eventually make the relationship more stable.

### **2.6.3. Sensegiving theory<sup>6</sup>**

Negotiation is a kind of highly interpersonal social interaction. During the negotiation process it is important for our understanding of how this interaction influences the outcome. In the negotiation process, after the mutual communication and feedback, the partners will adjust themselves actively or passively. Negotiation involves two or more than two organizations or individuals engaged in order to meet the needs of their own interests. Because the interests of the parties are different, seeking consensus and agreement with negotiation is difficult. Both sides of negotiation are often in an opposite position, so how do the negotiators use negotiation strategies to persuade the other party to accept the others' opinion? It is a great challenge to achieve a win-win negotiation with different interests. This study uses the sensegiving theory to explain

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<sup>6</sup> The content in this title comes from my own published paper: ZHANG, S. & CONSTANTINOVITS, M. 2016., A Study of Price Negotiating Strategy Based on the Sensegiving Theory, The Third International Symposium on Management, Innovation & Development ,China,2016.

persuasion strategy in the communication and negotiation process.

### **2.6.3.1. The origin of sensegiving theory**

Sensegiving, originally conceptualized by Gioia and Chittipeddi, is about framing (Gioia and Chittipeddi, 1991), and some authors have developed sensegiving as framing (such as Fiss and Zajac, 2006). The intent of sensegiving is seen as providing a viable interpretation of a new reality and influence targets to adopt it as their own (Gioia and Chittipeddi, 1991). Sensegiving closely aligns with the perspective of sensemaking. Karl Weick, the “father of sensemaking,” suggests that the term simply means the making of sense (Weick, 1995). If sensemaking is about how people think, sensegiving intentionally tries to change how other people think. Gioia and Chittipeddi distinguished sensegiving from sensemaking. Sensegiving refers to the process one uses to influence how others construct meaning, i.e. sense givers attempt to shape the thinking and attitudes of others. Sense givers shape how others “make sense” of their world. This effort to influence and shape the sensemaking and meaning constructions of others has been termed as sensegiving by Gioia and Chittipeddi, who see sensegiving as a fundamental leadership activity. Sensegiving is essentially an act of persuasion (Bartunek et al., 1999), and the interplay of sensegiving efforts on the part of many actors over time shapes organizational accounts (Maitlis and Lawrence, 2003). That is, sensegiving contributes to the construction of mental models that constitute the frameworks of organizational rationalities and belief systems (Hill and Levenhagen, 1995). Sensegiving is usually conceived to be an exercise in verbal language, but if one construes language more broadly, then sensegiving is amenable to different media including the use of symbols. Maitlis describes sensegiving as including both “... statements or activities ...” “An activity, although not verbal language, can represent an idea and so “give sense.” (Maitlis, 2005: 22). Thus, sensegiving pertains to what managers say as well as what they do.

### **2.6.3.2. Negotiation process mechanism of the sensegiving theory**

Sensegiving is a process of interpretation process which focuses on how specific people influence the others’ understanding of the event by convincing or using a charisma language to create realistic meaning situation. Moreover, the essence of negotiation is effectively using persuasion skills to make both sides accept as soon as possible the opinions and achieving win-win negotiation results. The core task of negotiation is trying to persuade each other, understanding, accepting your own point of view, fundamental interests and behavior. However,

the persuading process of negotiation is not a simple process of your own proposals to the other party to accept, but the negotiation party should take the corresponding strategy to gain initiative in the negotiations, design the scheme of negotiations and arrangements, which also includes the two sides to discuss the source of the solution, and the persuading process is a process of both sides to get win-win results. From this perspective, the preparation of negotiation and the scheme of negotiation is sense making, and the persuading strategy in negotiations is significant sensegiving. If both sides of the negotiation want to assign communication and persuasion, sensegiving is an effective way. In order to extend the applications of sense making and sensegiving, this study discusses theoretical evidence of sense making and the intrinsic mechanism of business negotiations based on sensegiving.

Psychologist and researcher Dr. Albert Ellis created the ABC model to help us understand the meaning of our reactions to adversity: A is the adversity—the situation or event. B is our belief—our explanation about why the situation happened. C is the consequence—the feelings and behaviors that our belief causes (McLeod, 2015). The ABC model is illustrated by the following figure (Figure 7).

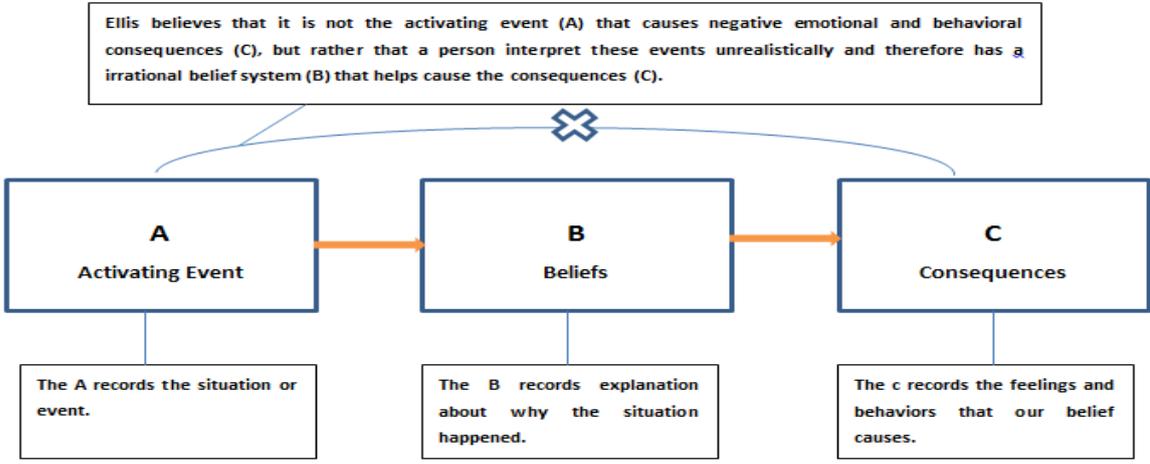


Figure 7 The ABC Model

Source: Ellis,1957:38-44

As shown by Figure 7, ABC model explains why people face the same activating event while they produce different behavioral consequences. Ellis believes that it is not the activating event (A) that causes negative emotional and behavioral consequences (C), but rather that a person interprets these events unrealistically and therefore has an irrational belief system (B) that helps

cause the consequences (C). Belief includes rational belief and irrational belief. If we want to change various dysfunctional psychological outcomes (e.g. depressed mood), we must change their main cognitive determinant, namely, irrational beliefs. Therefore, things happened due to the belief of people, the belief refers to the people's idea to the event, judgment, interpretation and evaluation. When Ellis created ABC theory mainly to solve the person's mood problem, some people's psychological distress was explained as people always have some irrational beliefs, if people want to remove these obstacles a reasonable belief must be established. The ABC model supports the concept of sensegiving. Sensegiving can play an effective role, the reason for this is that one person puts the belief into another person, and the significance of information makes the other person have a positive interpretation, cognition, evaluation, which appeared as desired results.

From the point of view of the dialectical materialism philosophy, it also can be analyzed as nothing in the world exists in isolation, rather, they are interrelated and influence each other, and everything is the unity of the opposites. If people want to use the sensegiving theory to find the relationship between things, clearly explain and affect each other's beliefs to change behavior. The establishment of relations has to set up a specific frame of reference (Yufan, 2010). When the frame of reference changes, the characteristics of the relationship will be reversed. For example, there was a story of an old lady who had two sons: one selling umbrellas and the other running a dyeing house. The first son would not sell umbrellas on sunny days; the other son could not dye clothes on rainy days, so the old lady was always worried on sunny days and rainy days. Later, a wise man told her when it is a rainy day, the business of your son who sells umbrellas is prosperous, when it is a sunny day, the business of your son who runs a dyeing house is also doing well. The old lady immediately became very happy. Before the old lady met the wise man, there was a reference value that weather means "loss" while the latter in frame, the reference value of weather means a kind of "get", therefore, the old lady will show a completely different mindset as people always have an evaluation system for their actions to make moral and value evaluation. People need to set up a frame of reference in order to change the others' belief by inputting the valuable meaning.

Based on the above theoretical analysis and combined with the negotiation situation, this study puts forward the mechanism of the negotiation process as shown in Figure 8. When negotiating

parties (Party A or Party B) face a task or situation, they will make a plan which is the process of sense making in negotiation. At the ongoing stage in negotiation, one tactful party will take a language frame in a situation of negotiation by providing a frame of reference. There are four dimensions in reference - the scene, the evaluation standards, concerns and interests of the gain and loss. (1) The scene is to find a new image of time and space for the individual jumping out of the current reality. (2) The evaluation standards refer to build a new evaluation system for individuals to change its conclusion. (3) Concerns refer to find a new dimension to stop looking at things like the "Blind Men and the Elephant". (4) The interests of gain and loss means to find the opposite and find hope and opportunity from the crisis. To assign a frame of reference, negotiators affect the others' cognitive experience, and eventually cause the corresponding negotiation results (results can show the economic benefits of high and low and the psychological feeling of good or bad).

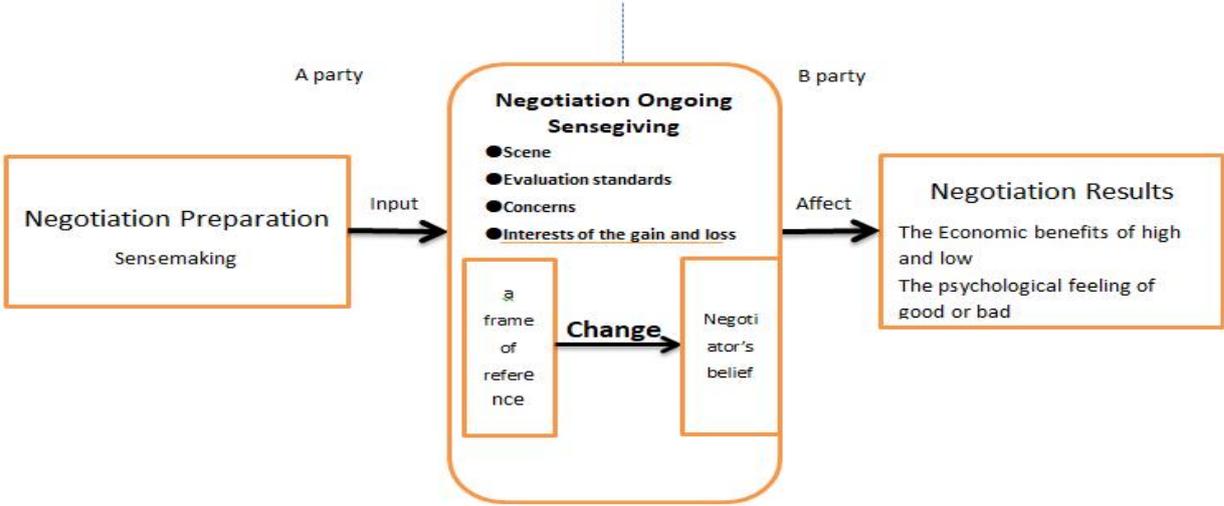


Figure 8 Negotiation Process Mechanism of Sensegiving Theory

Source: Zhang- Constantinovits, 2016: 49

Negotiation is a process to persuade and a process of sensegiving. Negotiators are influencers; all kinds of negotiation strategies will be a corresponding impact to the negotiation opponent. When negotiators give sensegiving to negotiate a situation, namely, language strategies give opponents a frame of reference to influence the cognitive understanding to produce different negotiation results. This study emphasizes the sensegiving of quote negotiation strategy, which is the

language strategy of negotiators to provide different reference to influence the cognitive process of the negotiation opponent to achieve goals. In addition, in specific negotiations attention should also be paid to the process of sense making. Because strategy is the integration of experience, negotiators may also understand that negotiation is a wisdom contest and hope to use of negotiation strategies for their own benefit, but in the negotiations, they often feel overwhelmed not only by the strategies themselves, but due to lack of sense making. For the negotiators themselves, before the talks in advance, controlling the initiative of negotiation is critical, the other is to strengthen negotiation knowledge learning and practical ability to ascend. From the enterprise it should strengthen the training of employees, carry on with knowledge management to the existing negotiating experience and put negotiation experience into meaningful words (such as a negotiation manual) to share and rapidly transfer negotiation experience.

### 3. MODEL AND HYPOTHESES

#### 3.1. Conceptual Model

The main concept of this study is principled negotiation. This study involves the relationship between the four variables (negotiation team, principled negotiation, communication quality and negotiation outcome) revolving around the principle of negotiation. Based on the above analysis, this study uses the negotiating team as the pre-variable, principled negotiation as the independent variable, negotiation outcomes as the dependent variable and the introduction of the communication quality as the intermediary variable and proposes a principled negotiation model PNMT (Principle Negotiation Model in Team). Research model is shown by Figure 9.

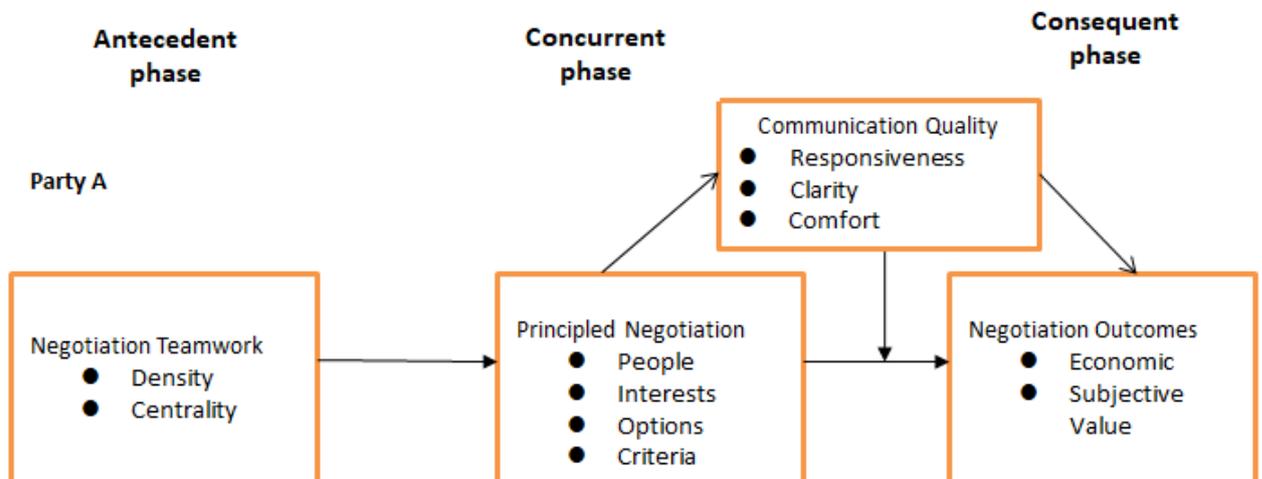


Figure 9 Conceptual Model of Principled Negotiation

Source: author's own editing

First, a negotiation team is a collection of individuals working together to achieve a negotiation goal. The relationship to the team can be measured in terms of both density and centrality. According to Burt et al. (2009) the structural characteristics of team networks can basically be reflected through network density and near-centrality. Network density describes the portion of the potential connection with a network that is an actual connection. Network centrality measures the issue of who is the most important or central person in this teamwork is.

Second, based on the analysis of the previous chapter, there are four elements of people, interests, options and criteria as principled negotiation variables.

Third, because the characteristics of the negotiating team are different from those of the other negotiating teams, special attention had to be paid to the characteristics of communication. Therefore, this study uses the quality of communication as an intermediate variable to discuss the impact of communication quality on principled negotiation and negotiation results. In this study, the subjective judgment of negotiators is used to measure the quality of communication that includes three factors: responsiveness, clarity and comfort.

Finally, for the negotiation outcome variable, this study uses the research results of Thompson (1990) to divide it into economic outcome and objective outcome in order to represent it. Social psychological outcomes are measured by using the subjective value of negotiation as an indicator.

### 3.2. Hypotheses

After the literature review, the research theme defines the research questions and hypotheses as presented by Figure 10.

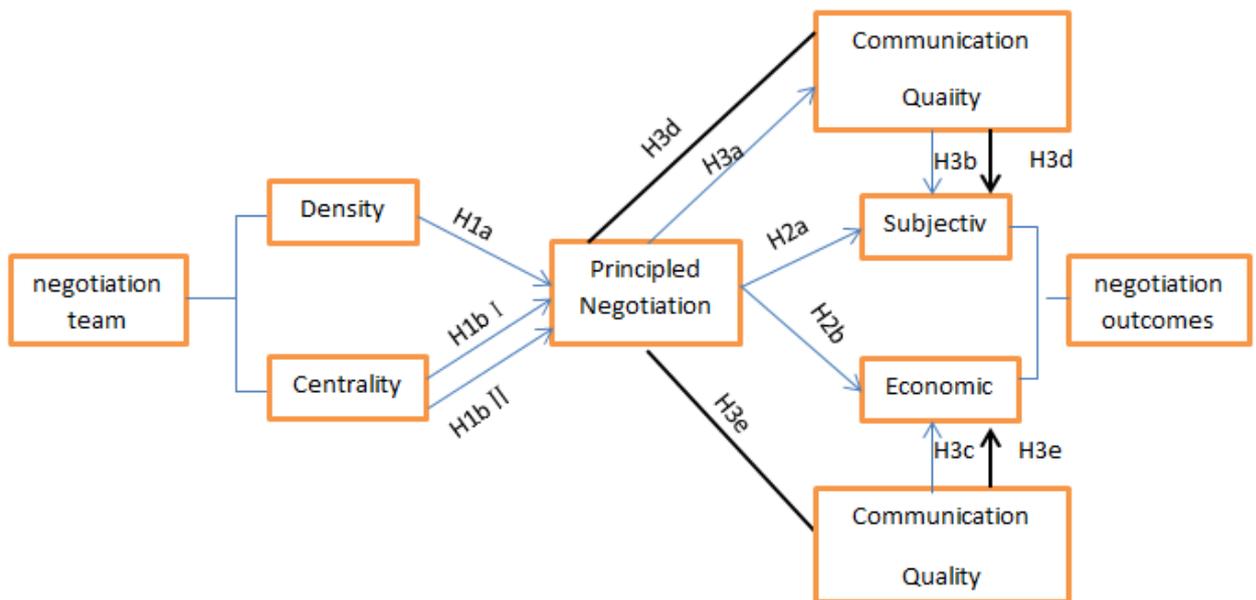


Figure10 Drafting the Hypotheses

Source: author's own editing

### **3.2.1. Relationship between the negotiation team and principled negotiation**

Bringing a team to the table offers several benefits. Negotiating teams can create new opportunities for integrative solutions. Researchers compared three types of negotiation situations: teams versus teams, teams versus solo negotiators, and solo negotiators versus solo negotiators. The presence of at least one team at the bargaining table led to higher gains. Teams stimulate more discussion and more information sharing than individuals do, particularly concerning issues, interests, and priorities. Teams also feel more powerful and more advantaged than solo negotiators (Thompson, 1990). Even under highly stressful situations, as when they are accountable to constituents, team negotiators feel less competitive and pressured than solo negotiators do (Mannix, 2005). According to Burt et al. (2009) the structural characteristics of team networks can basically be reflected through network density and near-centrality. In general, the greater the density of the overall network, the tighter the connection between the members of the network is, and the greater the influence of the network is on the attitudes and behaviors of the actors (Wasserman and Faust, 1994). The closer the negotiating members, the more cooperative they are, so the high density of negotiation teams can push principled negotiation as a cooperation negotiation strategy (Constantinovits and Zhang, 2018). The following hypotheses were drafted.

**H1a:** Negotiation team directly influences principled negotiation. The higher the density of negotiation teams during the negotiation, the greater the extent of using principled negotiation is. The centrality of team is an important indicator of the position of an individual's structure in evaluating whether an individual is important or not, measuring the superiority or privilege of a position, and social indicators such as popularity. The formation of a negotiating team is often temporary formed by negotiation tasks. The negotiating team takes the negotiation project as a mission. When there are new projects, everyone can apply to be the project leader and set up the project team. Everyone in the project process can fully assume their role and ensure that the project goes smoothly and achieves the best results. Regarding the relationship between negotiation task and the centrality of the team, a general statement drawn from contingency theory is that under low uncertainty, a centralized organizational structure is more effective while with high uncertainty, a decentralized structure performs better (Kim and Burton, 2002).

According to the team's centrality, teams can be divided into centralized teams and decentralized teams. In centralized teams, authority is concentrated at the top of the team and a formal team leader is responsible for making decisions. In contrast, in decentralized teams, authority and decision-making responsibility are dispersed downward and outward through the hierarchy, and individual team members are empowered to make their own decisions (Hollenbeck et al., 2011). Therefore, different types of team centrality may have different effects on principled negotiation. To conclude, the following hypotheses were drawn.

**H1b1:** There is a correlation between the centrality of teams and principled negotiation. The higher the centrality of teams (centralized teams) during the negotiation, the greater the extent of using principled negotiation is.

**H1b2:** There is a correlation between the centrality of teams and principled negotiation. The lower the centrality of teams (decentralized teams) during the negotiation, the greater the extent of using principled negotiation is.

### **3.2.2. Relationship between principled negotiation and negotiation outcomes**

Negotiation is a goal-oriented and voluntary process of communication between two or more individuals or organizations. The goal of negotiation is to provide each of the negotiating parties with an outcome it desires. The parties may negotiate to exchange resources in a transaction, or they may negotiate to join forces in a cooperative effort to generate the result they want. Negotiation is a basic tool in the management of personal and organizational conflicts. The book 'Getting to Yes' promotes the idea of using the method of principled negotiation as an all-purpose strategy of negotiation. It is a model of reader-friendly and persuasive writing. Its argumentation is commonsensical, and the examples recall situations well known or easy to imagine. It describes the method of principled negotiation in a very appealing manner. 'Getting to Yes' is a wonderful introduction to the negotiation of transactions, particularly within the context of an ongoing relationship. There is no doubt that all negotiators would benefit from mastering the advice contained in 'Getting to Yes' (Reyes, 2015).

Thompson (1990) divides the outcomes of negotiation into two categories, the economic or objective outcomes, and the social-psychological or subjective outcomes. In two-party negotiation, the objective outcomes can be operationalized by the joint gains for both parties regarding the resources being negotiated. The subjective outcomes include each negotiator's

perceptions of the negotiation situation, the self, and the other party. So, the hypotheses drafted are as follows.

**H2a:** Principled negotiation directly influences subjective value outcomes. The greater the extent of using principled negotiation, the greater the satisfaction of the subjective outcomes is in the negotiation.

**H2b:** Principled negotiation directly influences economic outcomes. The greater the extent of using principled negotiation, the greater the economic outcomes are in the negotiation.

### **3.2.3. Relationship among communication quality, principled negotiation and negotiation outcomes**

Social constructionists propose that the best way to understand human behavior is to pay attention to patterns of conversation, the system of meaning that we create as we communicate with each other day by day (Berger, 1967). Communication is integral in negotiation. Communication has been the ‘heart of the negotiation process’ or ‘the central instrumental process’ in the social interaction of negotiation (Lewicki et al., 1985). The process of negotiation is also a process in which all parties to a negotiation reach consensus by communication. Since the meaning of communication is varied, this study only focuses on the use of communication quality to study the communication issues in negotiation. The quality of communication is measured by the subjective judgment of negotiators. Liu (2004) defines the quality of communication as the level of responsiveness, clarity, and comfort experienced by the communicators in the negotiation.

In order to verify communication quality as a mediator that influences principle negotiation and negotiation results, Baron and Kenny (1986) point out in their paper ‘The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations’ that whether there is an intermediary effect in the experiment depends on meeting the following four conditions: (1) There is a significant correlation between independent variables and mediating variables; (2) There is a significant correlation between mediating variables and dependent variables; (3) There is a significant correlation between independent variables and dependent variables; (4) when the mediator variable is introduced into the regression equation, the correlation or regression coefficient between the independent variable and the dependent variable is significantly reduced. Correspondingly, in this study it must meet

four conditions at the same time: (a) there is a significant correlation between principled negotiation and communication quality; (b) there is a significant correlation between communication quality and negotiation outcome; (c) there is a significant correlation between principled negotiation and negotiation outcome (H2a and H2b); (d) when the communication quality is introduced into the regression equation, the correlation or regression coefficient between the principled negotiation and the negotiation outcome is significantly reduced. The basic research ideas are as follows (Figure 11).

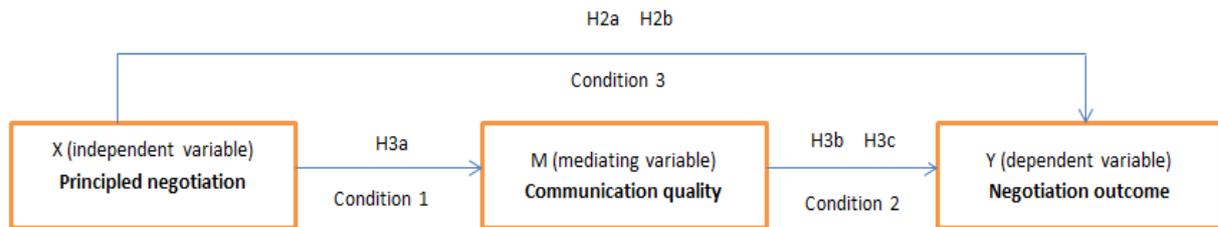


Figure 11 Study Conditions of Mediating Variable

Source: Baron and Kenny, 1986:1173

### 3.2.3.1. Relationship between principled negotiation and communication quality

Fisher and Ury (1981) think negotiators are people first, so they put forward the first principle of principled negotiation—separate people from the problem. They give some tips to keep the first principle such as “put yourself in their shoes”, “face-saving: make your proposals consistent with their values”, “do not react to emotional outbursts”, “listen actively and acknowledge what is being said”, “speak to be understood”, “speak for a purpose”, “build a working relationship”.

If negotiators communicate and send and receive information as well as adjust their psychological patterns with previous requests, negotiators must be high-quality communicators when communicating because the quality of communication is the level of responsiveness, clarity and comfort experienced by the communicators in the negotiation, such as the tip of „listen actively and acknowledge what is being said” represents the same meaning with responsiveness; the tip of “speak for a purpose” represents the same meaning with clarity; the tip of “ace-saving: make your proposals consistent with their values” represents the same meaning with comfort. Therefore, it can be expected that during the negotiation process, the greater extent of using principled negotiation will help promote high quality communication. So, the hypothesis is the following.

**H3a:** The greater the extent of using principled negotiation, the higher communication

quality is in the negotiation.

### **3.2.3.2. Relationship between communication quality and negotiation outcome**

The process of negotiation is a process of communication and exchange. During this process people reveal their views on the tasks of the negotiations and show their own strategic actions. Better communication quality represents a good running of the mental model and compatibility with each other. Smith (1969) reported communication variables as having important influences on negotiation outcomes. Liu et al. (2010) found that a higher quality communication experience leads to better negotiation outcomes. Quality communication signals a higher degree of enactment and mutual influence outcomes of negotiation in principled negotiation. Two dimensions in negotiation outcomes are involved: subjective value outcomes and economic outcomes. Therefore

**H3b:** The higher the quality of communication, the greater the satisfaction of the subjective outcomes is in the negotiation.

**H3c:** The higher the quality of communication, the greater the economic outcomes of negotiation are in the negotiation.

### **3.2.3.3. Communication quality is a mediator between principled negotiation and negotiation outcomes**

Baron and Kenny (1986) point out the four conditions to verify communication quality as a mediator that influences principle negotiation and negotiation results. Thompson (1990) divides the outcomes of negotiation into two categories, the economic and the subjective outcomes.

If hypotheses H2a, H3a and H3b are justified and the communication quality is introduced into the regression equation, the correlation or regression coefficient between the principled negotiation and the negotiation outcome is significantly reduced, then

**H3d:** Communication quality is a mediator between principled negotiation and the subjective value outcomes of negotiation.

If hypotheses H2b, H3a and H3c are supported and the communication quality is introduced into the regression equation, the correlation or regression coefficient between the principled negotiation and the negotiation outcome is significantly reduced, then

**H3e:** Communication quality is a mediator between principled negotiation and the economic outcomes of negotiation

## 4. MATERIALS AND METHODS

Based on the conceptual model PNMT and hypotheses proposed in the previous chapter, this chapter designs questionnaires based on the variables involved in the study, explains the samples and variables in detail, describes the process of data collection, and briefly introduces the main methods used in data analysis.

### 4.1. Questionnaire Design

This study involves four variables of negotiation term, principled negotiation, communication quality, negotiation outcomes. For the measurement these variables, a questionnaire was designed.

#### 4.1.1. Negotiation Term Scale

According to Burt (2009), the structural characteristics of team networks can basically be reflected through network density and near-centrality.

Density refers to the overall level of cohesion in a graph. The density of the network to a certain extent represents the quantity and complexity of the relationships in this network (Rosenblatt, 2013). In a network with a density of 1, each individual has a relationship with all other individuals. Conversely, in a network with a density of 0, there is no individual-individual relationship (it seems difficult at this point to call it a network). So, here is how you calculate network density. In the figure below, “PC” is “Potential Connection” and “n” is the number of nodes in the network if the network is a directed graph, the potential connection is  $n*(n-1)$ . (Figure 12).

<p><b>Potential Connections:</b></p> $PC = n * (n-1)$ <p>(directed graph)</p>	<p><b>Potential Connections:</b></p> $PC = \frac{n * (n-1)}{2}$ <p>Undirected graph</p>	<p><b>Network Density:</b></p> $\frac{\text{Actual Connections}}{\text{Potential Connections}}$
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Figure 12 Network Density Calculation Formulae

Source: author's own editing based on Rosenblatt (2013)

For example, there is a network of 3 people. On the left in Figure 4.2, there are three nodes.

Actual connections equal with potential connections, so the network density is 100%. But on the right, two of the nodes (the top and bottom ones) are not connected to each other. This little network is missing one of its potential connections, and, as a result, its network density drops to two-out-of-three, or 66.7%. The team network density is calculated as shown by Figure 13 below.

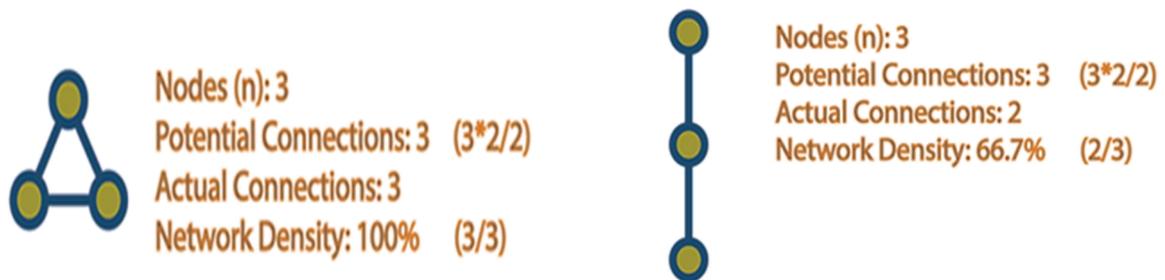


Figure 13 Network Density Calculation Sample

Source: author's own editing based on Rosenblatt (2013)

Centrality measures address the question of who the most important or central person is in this network. Centrality is an important indicator of the position of an individual's structure. It evaluates whether a person is important or not and measures the superiority or privilege of a position and commonly used social indicators such as prestige. Centrality is divided into three forms: degree centrality, closeness centrality and betweenness centrality. This study only uses degree centrality to research team centrality. The degree of centrality can be divided into individual degree centrality (Figure 14) and group degree centrality (Figure 15).

$$C_D(n_i) = d(n_i) = \sum_j X_{ij} = \sum_j X_{ji}$$

Figure 14 Individual Degree Centrality Calculation Formulas

Source: author's own editing based on Carrington et al. (2005)

The formula is to sum up the number of relationships of a person.

$$C_D = \frac{\sum_{i=1}^g [C_D(n^*) - C_D(n_i)]}{\max \sum_{i=1}^g [C_D(n^*) - C_D(n_i)]}$$

Figure 15 Group Degree Centrality Calculation Formulas

Source: author's own editing based on Carrington et al. (2005)

$C_D(n^*)$  is the largest degree of centrality in  $C(n)$ , it subtracts from others  $C_D(n_i)$  to draw the differences and it is the sum of them, which is the group degree centrality. The denominator is the maximum possible value. This is an overall pointer of the network. The meaning of the formula is the difference between the centrality of the person with the highest degree of centrality and the degree of centrality of others in a graph. The greater the gap between him and others, the higher the degree of centrality of the group's degree is indicating that this group's rights are too concentrated and that a few people are particularly important, so that is a centralized team. On the contrary, it means that the team is fully dispersed, and there are not a few special people. It is a decentralized team.

In a network with a group degree centrality of 1, it shows that there is one person in the team that is particularly important and that the graph with the highest degree of centrality is a star-shaped graph (Figure 16). Conversely, in a network with a group degree centrality of 0, it shows that no one in the team is particularly important, and the most central graph of community level is the diamond-shaped graph (Figure 16).

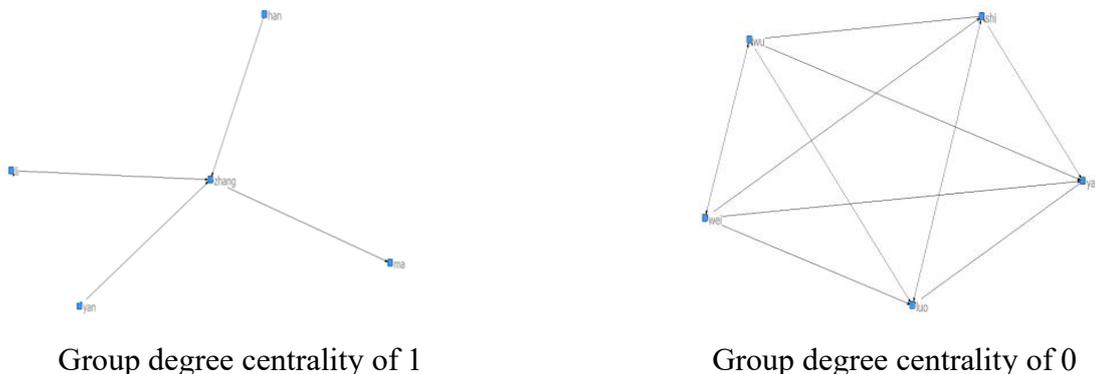


Figure 16 Illustration of Group Degree Centrality 1 and 0

Source: author's own editing by using software SPSS (22)

One of the commonly used techniques to collect social network data is survey and questionnaire (Marsden, 2002). Surveys and questionnaires in whole-network studies use several response formats to obtain network data: binary judgments about whether respondents have a specified relationship with each actor on the roster, ordinal ratings of tie strength, or rankings. Marsden (1990) gave an example of questionnaire, the first column is the item followed by the names of all members of the team (indicated here by the ABCD), and then ask each member to identify the member with whom the question is related (Table 4).

Table 4 Brief Questionnaire of Negotiation Team

Name of negotiation teamwork  Item	A	B	C	D
If you had some troubles, who would you talk to?				

For the complete questionnaire, see Appendix 4.

**4.1.2. Principled Negotiation Scale**

As no scale to measure the principled negotiation has been developed so far, an 18 -item -scale of principled negotiation using empirical method to study the negotiator's principled negotiation was devised and applied (Appendix 5).

**4.1.2.1. A Conceptual Framework of Principled Negotiation**

Fisher and Ury (1981) thought principled negotiation is a different third way between soft negotiation and hard negotiation. Ideally, if both sides of negotiators follow the four main points of principled negotiation, the negotiations will make an amicable agreement when negotiators use four fundamental principles as follows. Separate the people from the problem, focus on interests, not positions, invent options for mutual gains and insist on objective criteria. Following the original meaning of the authors, we propose a conceptual framework of principled negotiation.

(1) The adult ego state of people. Negotiators are people first (Roger & William, 1981). Nowadays the central issues in negotiation study are how the negotiation process influences the negotiation outcomes. Due to the complexities of deciding the negotiation process and the

negotiation outcomes, scholars generally use psychological fields such as individual differences, behavior characteristics and negotiators' cognitive (Bazerman et al., 2000). Transactional Analysis is a branch of psychology which was established by a Canadian-born American psychiatrist, Eric Berne. TA is a theory of personality and a systematic psychotherapy for personal growth and change (Berne, 1968). In Berne's model there are three ego states: Parent, Adult and Child. The Parent and Child ego states are echoes of the past. The Adult ego state is a response to the here and now when a person is grown up and uses grown up responses. When a negotiator uses principled negotiation, he or she shows the adult ego state (Zhang and Constantinovits, 2017).

(2) Harmonious interest manner. Fisher and Ury propose a wise solution in principled negotiation when we reconcile interests, not positions. Principled negotiation pursues a win-win negotiation. The result of a win-win negotiation is that all parties to the negotiations can obtain their respective interests through negotiations. According to Zhang's previously published results, the ultimate objective of negotiation is to set up equilibrium and harmony based on Chinese harmony thought (Zhang and Constantinovits, 2016). Harmony can be interpreted as the ideological concepts of conscientiousness, concordance, peacefulness and gentleness. Principled negotiation is the same concept as Tai Chi negotiation (harmony negotiation). Rationality should not inhibit feeling and sensitivity should not obstruct intelligence. The move of Yin and Yang is the ability to listen and speak, follow the partner's line of an argumentation but depart from their own central points (Zhang and Constantinovits, 2016).

(3) The option of alternatives. Fisher and Ury stress the importance of inventing options for mutual gains (Roger and William, 1981). Negotiation is a process of continuously creating alternatives. In the preparation phase of negotiations, it is necessary to prepare for the various options that may be encountered in the negotiations (Gregory, Margaret and Christopher, 2009; Roloff and Dailey, 1987). In order to obtain creative solutions, we must go out of the wrong area like premature judgement, searching for the single answer, the assumption of a fixed pie (Roger and William, 1981).

(4) Fair criteria. However well you understand the interests of the other side, however ingeniously you invent ways of reconciling interests, however highly you value an ongoing relationship, you will almost face the harsh reality of interests that conflict (Roger and William,

1981). That means using rules to solve the problem. The negotiator engages in quotations, counter-offers, and the decision to conclude a deal or abandon the transaction based on a fair understanding of the negotiation (Welsh, 2003) in order to seek fair results of the negotiations. These criteria can be expressed as legal regulations, general rules, business practices, industry standards, scientific calculation methods, accepted assessment methods, third-party appraisals, etc.

In conclusion, we formally put forward the following theoretical assumptions. Principled negotiation includes people, interests, options and criteria in four dimensions. According to the hypothesis, we set up a conceptual model shown by Figure 17.

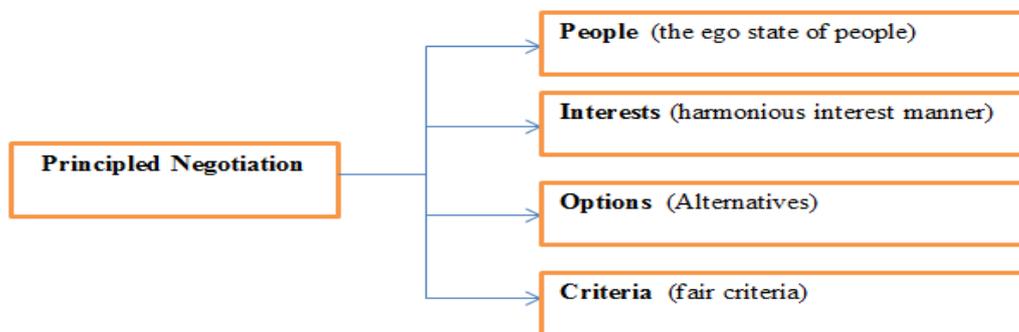


Figure17 Conceptual Framework of Principled Negotiation

Source: author's own editing

#### 4.1.2.2. Methods

A mixed qualitative-quantitative approach was used to develop a conceptual model (Azmal et al., 2016). This study was implemented in three steps: 1) Identifying items of the questionnaire of Principled Negotiation through comprehensive literature review and interview; 2) Pilot test sample; and 3) Developing questionnaire of Principled Negotiation using item analysis, reliability analysis and validity analysis to analyse the data. We used various software programs including SPSS (22), EXCEL.

##### 4.1.2.2.1. Step One: literature review and interview for the initial questionnaire

As we could not find direct studies about the questionnaire of Principled Negotiation, the information gathered from studies were retrieved based on relevant information sources and their synthesis. We referred to the questionnaire of transactional analysis (McCormick, 1971), questionnaire of subjective value in negotiation (Curhan et al., 2006), questionnaire of

Negotiations Self-Assessment Inventory (International, 2014) and Negotiation Skills Questionnaire (Cook, 2015). At the end of this step, premature items were identified and classified.

The qualitative method in semi-structured interviews was used to assess the questionnaire of Principled Negotiation to identify the items that represent the characteristics of the context. We successively invited 5 doctoral students and 4 teachers in the business administration of Xi'an Jiaotong University to discuss with them repeatedly, and to compress and summarize 67 items and merge them with the same meaning. After the above procedure, 55 items were retained. Then, a professor of management, a Chinese Ph.D., 4 associate professors in management, two lecturers in management, and six staff members with more than five years of work experience on these topics focus on the accuracy of the expression and popularity of each item. According to some of their suggestions, the 55 items were then compressed again to 40 items. In this way, questions to be answered on a seven-point Likert scale were designed to extract the dimensions and the 40 items were used as the questions for the pre-test questionnaire.

#### **4.1.2.2.2. Step two: Pilot test sample**

In this study, 105 undergraduate students who study at the Capital University of Economics and Business, China University of Political Science and Law, Beijing Technology and Business University and Beijing Jiaotong University were included and a total of 105 questionnaires were distributed, 105 were recovered, excluding 9 invalid questionnaires, 96 valid questionnaires were obtained, the effective recovery rate was 91.4%. After the significant test, the above samples showed no significant difference between men and women. First of all, 105 valid questionnaires were selected directly to answer "4 (cannot be judged)" items directly deleted, a total of 4 deleted. Then a small sample of the pre-test questionnaire analysis, the independent sample t test, the correlation between the items and the total score, the reliability of the pre-test questionnaire and the questionnaire commonality and factor load test, a total of 4 items could be deleted, and the remaining 32 items based on which the item is renumbered to form the second pre-test questionnaire using Likert's 7-point scale and the answer is not set in the middle of the "cannot be determined," with the purpose to avoid the adverse influence of the "neutrality" tendency on the answer.

#### 4.1.2.2.3. Step three: Final sample for reliability and validation of the questionnaire

The final sample consisted of 229 students who study at 27 universities in China. They filled in the shortened 32-items version of the survey between August and October 2017. Of this sample, 204 responses were completed using the questionnaire, the analysis of reliability and validation require a minimum sample size of 5-10 times the number of items, the current sample size of 229 observations (for 32 items) met this criterion. Item analysis was measured using the Independent Samples t-test method. To assess the reliability of the questionnaire, Cronbach's Alpha was used. Validity was also measured by Exploratory Factor Analysis (EFA) by applying SPSS software.

#### 4.1.2.3. Results

##### 4.1.2.3.1. Item analysis-Independent Samples t-test

First of all, amount the sum score of the subjects according to the sequence from low to high, before scoring 27% as high achievers, after scoring 27% for the low group, differences in each item on the two group analysis by Independent Samples t-test, and adjust and modify the scale based on the t-test results which did not reach the significant level ( $p > 0.05$ ) (Guo, 2015). The results of analysis showed the p-value of all of items is 0.000 (Table 5). Therefore, the difference between the two means is statistically significantly different from zero at the 5% level of significance. However, there is sufficient evidence ( $p = 0.000$ ) to suggest that items of principled negotiation are good discriminating.

Table 5 Each Item Discrimination Text Table of Questionnaire of Principled Negotiation

Item	T	P	Item	T	P	Item	T	P	Item	T	P
pn01	-7.343	.000	pn09	-11.813	.000	pn17	-8.429	.000	pn25	-9.603	.000
pn02	-8.054	.000	pn10	-9.323	.000	pn18	-7.612	.000	pn26	-8.416	.000
pn03	-8.403	.000	pn11	-9.050	.000	pn19	-8.814	.000	pn27	-9.374	.000
pn04	-7.630	.000	pn12	-10.038	.000	pn20	-7.580	.000	pn28	-7.733	.000
pn05	-7.060	.000	pn13	-10.163	.000	pn21	-10.013	.000	pn29	-10.157	.000
pn06	-6.192	.000	pn14	-8.141	.000	pn22	-8.189	.000	pn30	-12.912	.000
pn07	-8.644	.000	pn15	-6.433	.000	pn23	-10.054	.000	pn31	-11.208	.000
pn08	-5.831	.000	pn16	-8.296	.000	pn24	-11.655	.000	pn32	-8.910	.000

Source: author's own editing by using software SPSS (22) ,2017

#### 4.1.2.3.2. Reliability analysis

Reliability in statistics and psychometrics is the overall consistency of a measure. A measure is said to have a high reliability if it produces similar results under consistent conditions (Field, 2013). SPSS offers procedure RELIABILITY to perform an item analysis. These can be requested with the following. Cronbach's alpha is the most common measure of internal consistency (reliability). It is most commonly used when you have multiple Likert questions in a survey/questionnaire that form a scale and you wish to determine if the scale is reliable (Statistics). A rule of thumb for interpreting alpha for dichotomous questions or Likert scale questions is:  $\alpha \geq 0.9$ (excellent),  $0.9 > \alpha \geq 0.8$ (good),  $0.8 > \alpha \geq 0.7$ (acceptable),  $0.7 > \alpha \geq 0.6$ (questionable),  $0.6 > \alpha \geq 0.5$ (poor),  $0.5 > \alpha$  (unacceptable) (Bland and Altman, 1997).

Table 6 Four Dimensions Reliability Statistics of Questionnaire of Principled Negotiation

Dimensions	N of Items	Cronbach's Alpha
people	7	.643
interests	11	.851
options	8	.790
criteria	6	.785

Source: author's own editing by using software SPSS (22) ,2017

#### 4.1.2.3.3. Validity analysis- EFA

Exploratory Factor Analysis (EFA) is a statistical approach for determining the correlation among the variables in a dataset (Fabrigar and Wegener, 2011). This type of analysis provides a factor structure (a grouping of variables based on strong correlations). The KMO (Kaiser-Meyer-Olkin) test statistic is used to compare simple correlation coefficients and partial correlation coefficients between variables. If KMO is more than .50, it is considered acceptable, correlations between variables are considered better if the KMO is close to 1 (Norusis, 1998). The KMO in EFA in the new model was .891 (Figure 18). After constant adjustment (deleting), the new model for the questionnaire of Principled Negotiation measure in this study was identified by four interrelated constructs (Table 7 and Table 8).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	2909.335
	df	496
	Sig.	.000

Figure 18 KMO and Bartlett's Test of Principled Negotiation

Source: author's own editing by using software SPSS (22) , 2017

Table 7 Total Variance Explained of Questionnaire of Principled Negotiation

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of	Cumulative %	Total	% of	Cumulative %	Total	% of	Cumulative %
		Variance			Variance			Variance	
1	5.401	30.005	30.005	5.401	30.005	30.005	2.931	16.282	16.282
2	1.503	8.351	38.357	1.503	8.351	38.357	2.913	16.184	32.466
3	1.336	7.424	45.781	1.336	7.424	45.781	1.967	10.930	43.396
4	1.213	6.738	52.518	1.213	6.738	52.518	1.642	9.122	52.518
5	1.059	5.883	58.402						
6	.921	5.117	63.519						
7	.839	4.663	68.182						
8	.805	4.474	72.656						
9	.740	4.112	76.768						
10	.701	3.895	80.662						
11	.615	3.419	84.081						
12	.537	2.984	87.064						
13	.511	2.837	89.901						
14	.460	2.558	92.459						
15	.372	2.067	94.526						
16	.351	1.952	96.478						
17	.317	1.764	98.242						
18	.316	1.758	100.000						

Source: author's own editing by using software SPSS (22) ,2017

Table 8 Rotated Component Matrix of Questionnaire of Principled Negotiation

**Rotated Component Matrix<sup>a</sup>**

	Component			
	1	2	3	4
VAR00016	.766			
VAR00018	.681			
VAR00026	.670			
VAR00028	.628			
VAR00007	.502			
VAR00013	.434			
VAR00017		.833		
VAR00011		.714		
VAR00019		.664		
VAR00030		.661		
VAR00022		.555		
VAR00005			.825	
VAR00006			.642	
VAR00010			.453	
VAR00008			.437	
VAR00003				.747
VAR00001				.710
VAR00002				.496

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Source: author's own editing by using software SPSS (22) ,2017

Based on the above research, the result of exploratory research of Principled Negotiation model is ideal, and the obtained four-factor model can well fit the data with reasonableness. At the same time, the validity of this questionnaire is good. So far, the questionnaire of Principled Negotiation has passed the test of reliability and validity, and the formal questionnaire has been formed. At the same time, the conception model and hypothesis of Principled Negotiation in this

study can be finally verified because the four factors above are consistent with the four-dimensional theory hypothesis of the Principled Negotiation model. This questionnaire consisted of 18 items evaluated with a 7-point Likert scale (strongly disagree to strongly agree) to assess the Principled Negotiation and 6 items for the People dimension, 7 items for the Interests dimension, 3 items for the Options dimension and 2 items for the Criteria dimension. The final questionnaire was developed as follows (Table 9).

Table 9 The Final Questionnaire of Principled Negotiation

Dimensions	No.	Content
people	1	I am a person who is more rational than emotional.
	2	I always collect enough information before making a judgment.
	3	I have been able to use time very well.
	4	I am a person who often reads books.
	5	I will habitually predict the possible outcome before one thing is put into action.
	6	I often think about its value and meaning when doing things.
interests	7	I have a deep understanding of each other's interests that need to be diverse, not specific, not clear.
	8	I often ask myself why to explore each other's interests.
	9	When negotiating, I can accurately and clearly express my own interests and needs.
	10	When negotiating, I am good at grasping the consensus to find common interests.
	11	When the negotiations diverge, I do not argue with the others about what has happened but influence the future.
	12	I am good at converting my interest demands into multiple sets of executable alternatives.
	13	When negotiating, I can stick to my own interests but do not attack and accuse the others.
options	14	I always prepare a different alternative program before the negotiations.
	15	I call different experts to look at the problem.
	16	I try to find a solution that is also satisfactory for the others.
criteria	17	When you encounter a problem or cannot persuade the others, I will first ask experienced people (experts) to discuss and then deal with it.
	18	I often ask the others what this program (view, problem, theory) is based on.

Source: author's own editing, 2017

In this study, the main variables of the questionnaire of principled negotiation were identified by applying a logical approach. The four dimensions (people, interests, options and criteria) were obtained from the literature and an in-depth quantitative assessment. This questionnaire of Principled Negotiation can provide a practical guide for negotiators and researchers to use a scientific measuring tool. However, before the final recommendation is made all negotiators and researchers must use the questionnaire of Principled Negotiation, more research needs to be done on a larger and more varied sample. First, the result may be not exact because of the small number of sample. Second, this study takes students from 26 universities in China as an example, so limitation of the study is that it is discriminatory with real negotiation. Third, because negotiation is a widespread phenomenon, its impact is no longer confined to China itself, the sample origin had better be wider. To summarize, it has many social benefits to the community through involving negotiation practice and research.

#### **4.1.3 Communication Quality Scale**

Liu (2004)'s 'Quality of communication scale' was used to measure communication quality. Liu developed a 15- item scale of quality of communication specifically for that study. The scale is designed to measure the responsiveness, clarity, comfort that individuals experience during the negotiation. The final list of items included measures of responsiveness: "The other side was willing to listen to me", "I was willing to listen to the other side", "I was responsive to messages from the other side", "The other side was responsive to my messages", "The other side often kept silent (and vice versa)", and "I often kept silent (and vice versa) Measures of clarity included: "I understood the interests of the other side", "The other side knew my interests", "I think the information exchange was efficient, "I think I communicated clearly, and "I felt the other side communicated clearly". Measures of comfort included "The information exchange was comfortable, "The other side could be trusted", "The other side trusted me", and "Together we solved lots of differences". For the complete questionnaire see Appendix 6.

#### **4.1.4 Negotiation Outcomes**

Thompson (1990) divides the outcomes of negotiation into two categories, the economic or objective outcomes, and the social-psychological or subjective outcomes. In two-party negotiation, the objective outcomes can be operationalized by the joint gains for both parties regarding the resources being negotiated. The subjective outcomes include each negotiator's

perceptions of the negotiation situation, the self, and the other party. Satisfaction and expectation for a future relationship were measured with questions adapted from The Subjective Value Inventory (SVI). Indeed, subjective value was a better predictor than the economic outcomes of future negotiation decisions. Results suggest the SVI is a promising tool to systematize and encourage research on subjective outcomes of negotiation (Curhan et al., 2008). The scale is designed to measure the Instrumental, Self, Process, and Relationship developed a 16- item during the negotiation. For the complete questionnaire see Appendix 7.

For the reference scholar-related scales, this study adopted a series of pre-measurement measures to ensure the rationality and applicability of the scale. These measures include group discussion, a certain scale of sample pretest and other methods. In the process of translation, the questionnaire considered factors such as language habits and cultural differences and strived to express and describe each variable accurately in the context of Chinese culture. By selecting the measurement items of the classic scale, the following index system of Table 10 is constructed.

Table 10 Research Model Index

<b>Variables</b>	<b>Dimension</b>	<b>Items</b>
Negotiation Team	<ul style="list-style-type: none"> <li>■Density</li> <li>■Centrality</li> </ul>	1
Principled Negotiation	<ul style="list-style-type: none"> <li>■People</li> <li>■Interests</li> <li>■Options</li> <li>■Criteria</li> </ul>	People (1, 2 ,3 ,4, 5 ,6) Interests (7,8, 9,10, 11, 12, 13) Options (14, 15, 16) Criteria (17, 18)
Communication Quality	<ul style="list-style-type: none"> <li>■Responsiveness</li> <li>■Clarity</li> <li>■Comfort</li> </ul>	Responsiveness (3,4,5,6,11,12) Clarity (7,8,9,13,14) Comfort (1,2, 10 ,15)
Negotiation Outcomes	Subjective Value <ul style="list-style-type: none"> <li>■Instrumental</li> <li>■Self</li> <li>■Process</li> <li>■Relationship</li> </ul>	Instrumental (1,2,3,4) Self-5,6,7,8) Process ( 9,10,11,12) Relationship ( 13,14,15,16)

Source: author's own editing, 2017

## **4.2. Data Collection**

### **4.2.1. Data Collection Method**

Data were collected by using international research negotiation method -- laboratory simulation experiment. In a typical negotiation experiment, two subjects play the roles of buyer and seller, union and management representatives, diplomats from opposing nations, etc. After being briefed on the hypothetical background of the situation, each bargainer is given a profit schedule indicating the value to his or her side of the options under consideration. The bargainers then discuss or exchange notes about the options until an agreement or impasse is reached. Negotiation ordinarily lasts from 5 to 45 min. Sometimes one bargainer is a confederate of the experimenter making it possible to study systematically one bargainer's impact on the other. Experiments are always designed to assess the causal relationships between variables. To this end, one or more independent variables are manipulated by the experimenter.

The experimental method has both advantages and disadvantages in comparison to case studies, surveys, and other field research. On the positive side, it allows greater certainty with respect to cause and effect. The reasoning just presented is usually not appropriate for data based on these field methods. There is often ambiguity about the order in which the variables arise and third common factors cannot usually be ruled out. The experimental method also permits (a) precise manipulation of the desired independent variable, holding constant other variables that would normally be associated with it in field settings; (b) careful observation of the intimate details of the negotiation process, which is often inaccessible in field settings; and (c) trying out novel conditions and strategies in a safe, exploratory environment before implementing them in the real world. Furthermore, the possibility of precise manipulation and careful observation encourages precise theoretical reasoning by the people who are designing experiments. On the negative side, experiments often suffer in the realm of realism. The simulated settings employed are likely to differ in many ways from the real-life settings to which one wishes to generalize. For example, the following features of most experiments are unusual in professional negotiation. Negotiators are college students, time is severely compressed, past and future relations between the parties are limited or nonexistent, negotiators are told what issues and options to consider, their values and priorities are specified rather than freely chosen, and negotiation is sponsored by a mysterious authority figure-the experimenter. Greater realism can be achieved in many

experiments, but only at a cost in time and money.

**4.2.2. Participants**

The Communication and Negotiation Committee of China Industrial Technology Association of Economic Management Colleges<sup>7</sup> organized negotiation competition for students on November 4th-5th 2017 at the Capital University of Economics and Business of Beijing. The participants were from 220 colleges (45 teams) from 26 universities to attend the competition. The basic information on the teams can be found in Appendix 8.

**4.2.3. The Experimental Process**

The participants arrived at the negotiation competition preparation room at the appointed time. After signing in, the experimenter brought the negotiation group to a separate laboratory. First of all, the two roles of the buyer and the seller were assigned by drawing lots, and then they were seated in the seat with the corresponding signage to enter the role; the experimenter distributed the negotiated case materials with the following instructions. Try to read carefully, understand the background of the negotiation, analyze the income list of one's own party, and ask the participants to aim at maximizing their overall level of return. Participants were asked to fill out a negotiation team questionnaire and a principled negotiation questionnaire. Then negotiations began formally, telling them that they could communicate freely except that they could not exchange revenue lists directly. The entire time for the negotiation competition was 45 minutes. After the negotiation, the two parties were brought into different rooms; post-negotiation questionnaires of communication quality and subjective value inventory were sent out. Afterwards, the negotiators were given a MOU form which describes the trading conditions reached to record the result of deals. The entire process is shown in Figure 19.

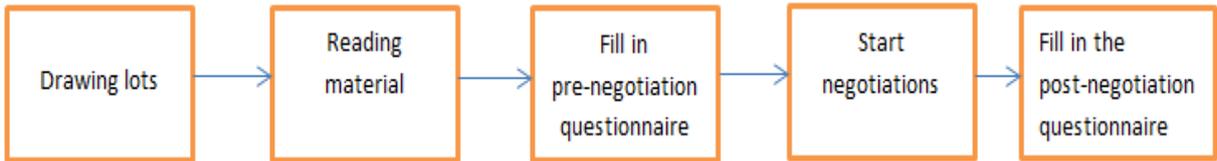


Figure 19 Experiment Flowchart

Source: author’s own editing, 2017

<sup>7</sup> China Communication and Negotiation Committee of Industrial Technology Society of Economic Management is a professional academic team established according to the needs of academic and practical work in the field of communication and negotiation teaching, research and practice promotion in China. It belongs to the China Industrial Technology Association of Economic Management Colleges (Society national level, Ministry of Civil Affairs for registration, in charge of the Ministry of Education, Business executives at Xi’an Jiaotong University) The Communication and Negotiation Committee consists of well-known experts and scholars and business elites who have an influential position in their field.

#### **4.2.4. Case Materials for Simulated Negotiation**

The case is a silk trade negotiation. The two parties are Party A (seller)-Shaoxing silk factory in China and Party B (buyer) - Formica Corporation in America. The two sides negotiate to reach a deal in the headquarters of Shaoxing silk factory. The buyer's purchase price limit is \$ 7 / yard but the first batch of more than 30,000 yards will have a greater market risk. The seller's marginal profit is 4.80 US dollars / yards  $\times$  4 million yards. If there are few transactions, the corresponding price should be higher. The negotiation case is shown in Appendix 9.

#### **4.3. Data Analysis Methods**

After the questionnaire was recovered, the social network analysis software Ucinet 6.0 was used for the further processing of the data matrix, and then imported into the SPSS database while in the correlation data processing SPSS22.0 was used. Five analysis methods were mainly adopted.

##### **4.3.1. Social network analysis to Negotiation Team**

Social network analysis (SNA) is the mapping and measuring of relationships and flows between people, groups, organizations, computers, URLs, and other connected information/knowledge entities. The nodes in the network are the people and groups while the links show relationships or flows between the nodes (Carrington et al., 2005). SNA provides both a visual and a mathematical analysis of human relationships. Ucinet 6 for Windows is a software package for analyzing and drawing social networks developed by Lin Freeman, Martin Everett and Steve Borgatti (Huisman and Vanduijn, 2005). According to Burt et al. (2009) the structural characteristics of team networks can basically be reflected through network density and near-centrality. In this study, social network analysis methods were used to analyze the density and centrality of the negotiating team.

##### **4.3.2. Descriptive statistical analysis**

This study first used the descriptive statistical analysis method to help understand the basic distribution of the sample by performing frequency assignment and percentage analysis of the variables; the mean and standard deviation analysis were used.

##### **4.3.3. Factor analysis**

Factor analysis usually includes Exploratory Factor Analysis and Confirmatory Factor Analysis. The Principled Negotiation scale adopted in this study is used to test and modify the existing measurement tools. Factor analysis is needed to verify the measurement dimensions and correct

and delete the measurement items. Because the measurement tools used in this study are used after modification and the target groups are also different, they need to be tested for reliability. At the same time, in the actual measurement, the measurement reliability performance needs to be analyzed. This study uses SPSS to calculate Cronbach a. coefficient.

#### **4.3.4. Correlation analysis**

Correlation is a bivariate analysis that measures the strength of association between variables and the direction of the relationship. In terms of the strength of relationship, the value of the correlation coefficient varies between +1 and -1. A value of  $\pm 1$  indicates a perfect degree of association between the two variables. As the correlation coefficient value goes towards 0, the relationship between the two variables will be weaker. The direction of the relationship is indicated by the sign of the coefficient; a + sign indicates a positive relationship and a – sign indicates a negative relationship. Usually in statistics we measure four types of correlations: Pearson correlation, Kendall rank correlation, Spearman correlation, and the Point-Biserial correlation. The software SPSS allows you to very easily conduct a correlation. In this study, the correlation analysis method was used to analyze the relationship between the four variables of the negotiation term, principled negotiation, communication quality and negotiation outcomes.

#### **4.3.5. Regression analysis**

In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables when the focus is on the relationship between a dependent variable and one or more independent variables (or predictors). More specifically, regression analysis helps one understand how the typical value of the dependent variable (or criterion variable) changes when any one of the independent variables is varied while the other independent variables are held fixed. Many techniques for carrying out regression analysis have been developed. Familiar methods such as linear regression and ordinary least squares regression are parametric, in that the regression function is defined in terms of a finite number of unknown parameters that are estimated from the data. Nonparametric regression refers to techniques that allow the regression function to lie in a specified set of functions, which may be infinite-dimensional. In this study, hierarchical regression, which is linear regression, verifies the quality of communication as a mediator variable between the principle of negotiation and negotiation outcomes.

## **5. RESULTS**

Based on the foregoing discussion, this chapter analyzes the data collected by the questionnaire survey according to the statistical methods proposed in Chapter 4. Descriptive statistics, social network analysis, correlation analysis, and regression analysis were used separately. The models and hypotheses proposed in this study were discussed based on the results of data analysis with new scientific findings.

### **5.1. Preliminary Analysis between Variables**

#### **5.1.1. Analysis of the Negotiation Teams**

##### **5.1.1.1. Descriptive analysis**

The data of negotiation teams were collected at the Capital University of Economics and Business of Beijing on November 4th-5th 2017 with negotiation competition students in 2017 organized by the Communication and Negotiation Committee of China Industrial Technology Association of Economic Management College, which organizes simulated negotiation competitions for all college students in China at the end of October or early November each year. The participants were from 220 colleges and 26 universities who attended the competition. There were 45 teams, of which 40 consisted of 5 people while the other 5 teams consisted of 4 people. The 26 universities were distributed at different levels including 8 national key universities, 8 ordinary universities and 10 secondary colleges. These sample universities have a balanced coverage of the three types of universities in China and have a comprehensive representation about the ability of college students in business negotiation. The entire process is shown by Figure 20.

26 university level distribution

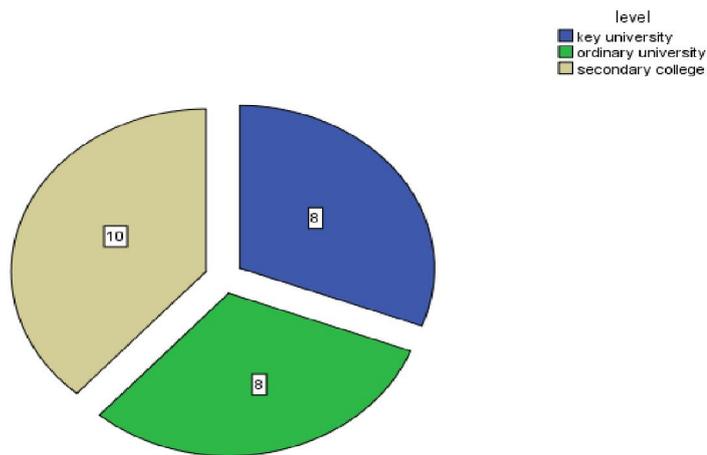


Figure 20 Participating University Level Pie Chart

Source: author's own editing, 2017

I surveyed the participants using NTS (negotiation team scale) on which I found the basic information about the name of the students, gender, age, profession, year and chief negotiator. Among participants, team members varied in gender (35.0% male, 65.0% male as presented by Figure 21), age ( $M=20.695$ ,  $SD=1.7473$ , see Figure 22), profession (Figure 23) and year (Figure 24).

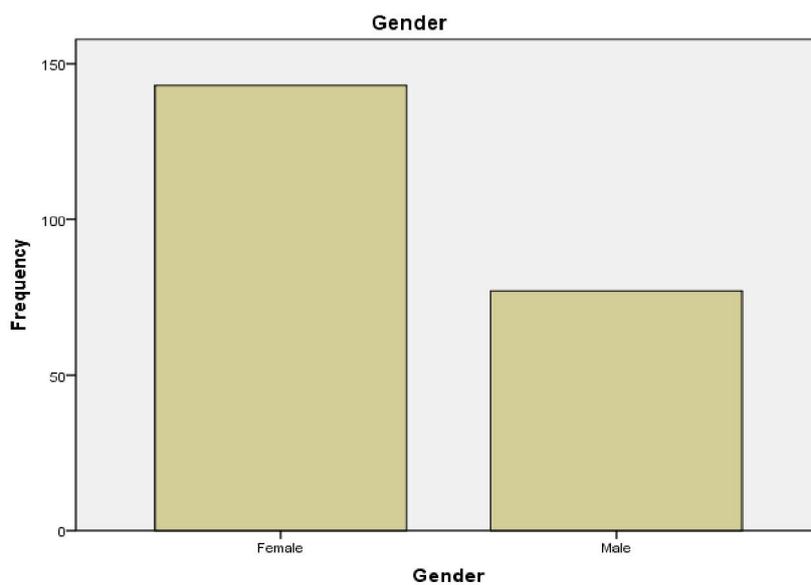


Figure 21 Gender Distribution Histogram

Source: author's own editing, 2017

Judging from the gender of the team members participating in the negotiation competition, the number of female classmates exceeds that of male students by 30%.

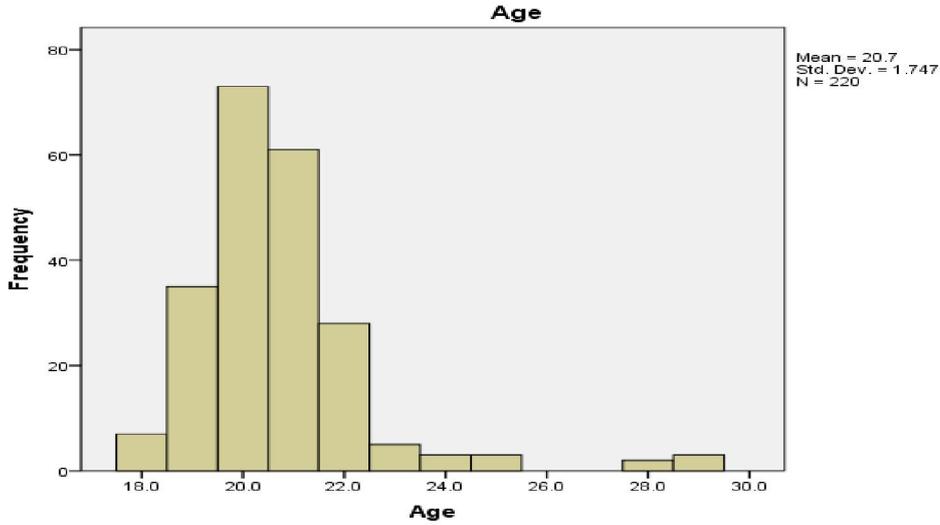


Figure 22 Age Distribution Histogram

Source: author’s own editing, 2017

Judging from the ages of the team members participating in the negotiation competition, the age ranged from 18 to 22 in a normal distribution. Peaks were at 20 as the 20-year-old students were the most participating students.

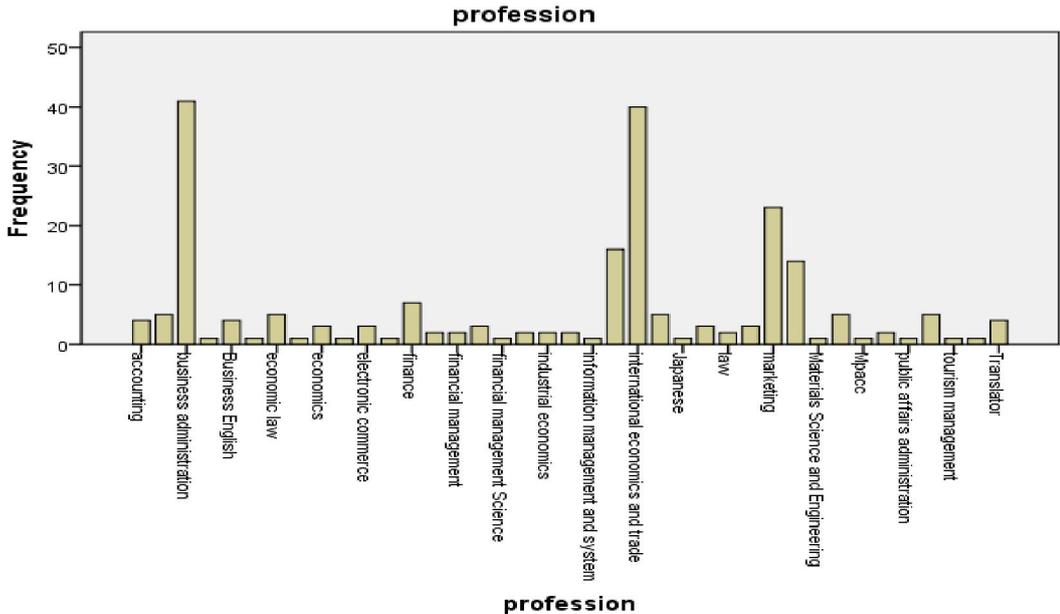


Figure 23 Profession Distribution Histogram

Source: author’s own editing, 2017

Judging from the professionalism of the team members participating in the negotiation competition, various management professions are involved but the number of students majoring in business administration and international trade is relatively large.

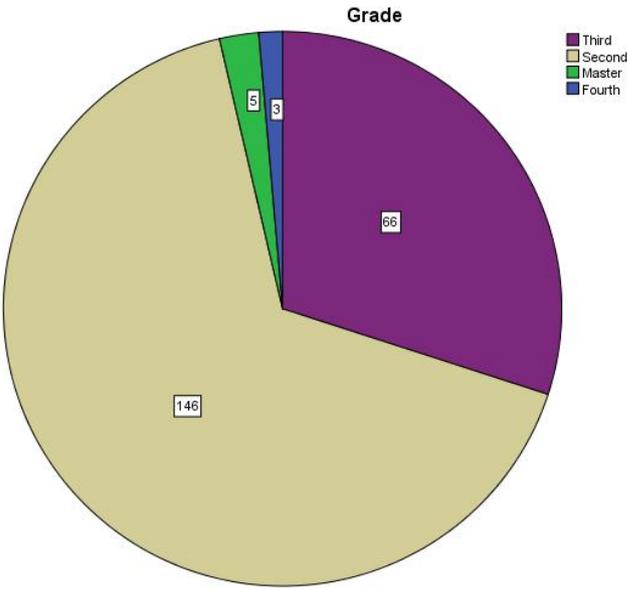


Figure 24 Grade Distribution Pie Chart

Source: author’s own editing, 2017

From the perspective of the years of team members who participated in the negotiation competition, they were mainly concentrated on the second (sophomore) and third years (junior) of the university.

**5.1.1.2. Social network analysis to Negotiation Team**

The analysis of the negotiation team involves two indicators of team density and team centrality. Two indicators were calculated these using UCINET 6 software, which is a software package for the analysis of social network data developed by Lin Freeman, Martin Everett and Steve Borgatti (Borgatti et al., 2002). Take team 1 as an example to illustrate using UCINET 6 software process.

Each member of Team 1 who are from Beijing Institute of Technology, ZHUHAI completes the questionnaire NTS (negotiation team scale) before negotiation competition, and then data are entered, which is the full matrix format with 0 and 1, where 0 means no connection, 1 means there is a connection. The answers of the questionnaires are shown by Table 11.

Table 11 Questionnaires of Team 1

	Wei chengyue	Huang juncheng	Xue mingzhe	Huang yiqing	Zhang zijun
Wei chengyue	0	1	0	0	1
Huang juncheng	1	0	0	1	0
Xue mingzhe	0	0	0	1	0
Huang yiqing	0	0	1	0	0
Zhang zijun	1	1	1	0	0

Source: author's own editing, 2017

After entering data into UCINET 6 software the network diagram of Team 1 (Figure 25) is available.

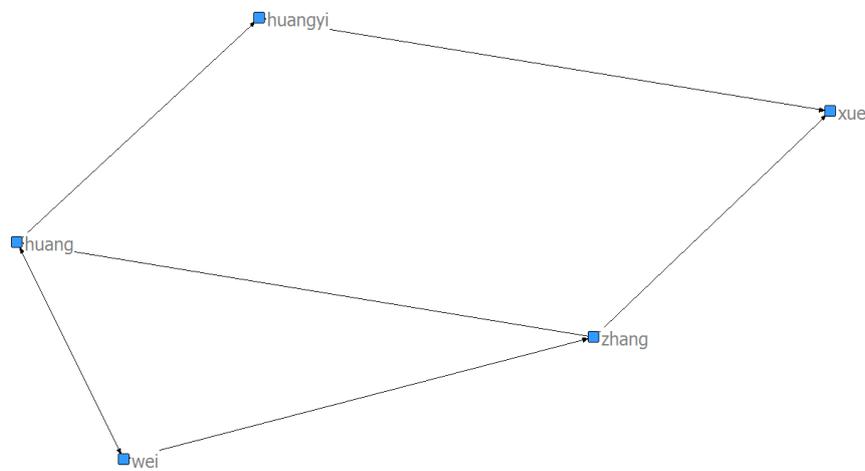


Figure 25 Network Analysis Diagram of Team 1

Source: author's own editing by using UCINET 6, 2017

(1) Negotiation team density analysis using UCINET 6 software. Click the path ‘ucinet—network-- cohesion-- density-- density by group/overall’ and then select the network data to be analyzed in the dialog box that appears, and it can calculate the overall density of the network. Software operation results are as follows:

Density

DENSITY / AVERAGE MATRIX VALUE

-----  
 Input dataset: shiyan (C:\Users\zsg\Desktop\shiyan)

Output dataset: shiyan-density (C:\Program Files (x86)\Analytic Technologies\Ucinet 6\DataFiles\shiyan-density)

	Density	No. of Ties
shiyan	0.4500	9.0000

(2) Negotiation team centrality analysis by using UCINET 6 software. Click the path ‘ucinet-- network-- centrality-- degree—Tread data as symmetrical—yes’ and then select the network data to be analyzed in the dialog box that appears, and it can calculate the overall centrality of the network. Software operation results are as follows:

FREEMAN'S DEGREE CENTRALITY MEASURES:

Diagonal valid? YES  
 Model: SYMMETRIC  
 Input dataset: shiyan (C:\Users\zsg\Desktop\shiyan)

		1	2	3
		Degree	NrmDegree	Share
5	zhang	3.000	60.000	0.250
2	huang	3.000	60.000	0.250
1	wei	2.000	40.000	0.167
4	huangyi	2.000	40.000	0.167
3	xue	2.000	40.000	0.167

DESCRIPTIVE STATISTICS

		1	2	3
		Degree	NrmDegree	Share
1	Mean	2.400	48.000	0.200
2	Std Dev	0.490	9.798	0.041
3	Sum	12.000	240.000	1.000

4	Variance	0.240	96.000	0.002
5	SSQ	30.000	12000.000	0.208
6	MCSSQ	1.200	480.000	0.008
7	Euc Norm	5.477	109.545	0.456
8	Minimum	2.000	40.000	0.167
9	Maximum	3.000	60.000	0.250

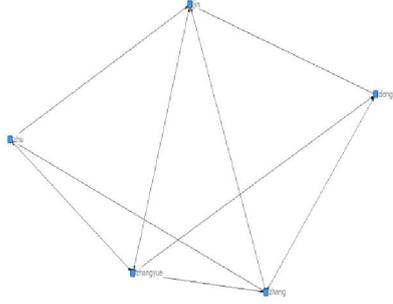
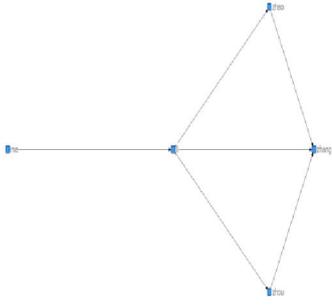
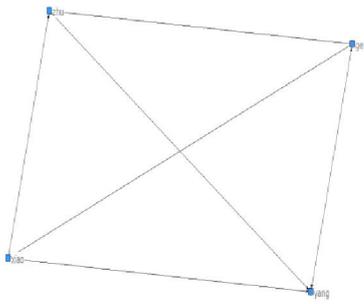
Network Centralization = 25.00%

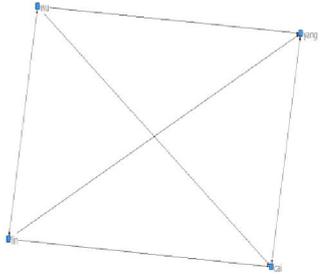
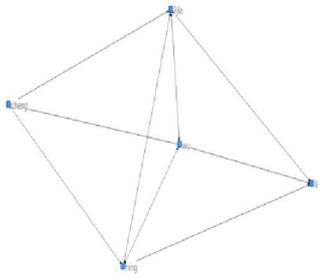
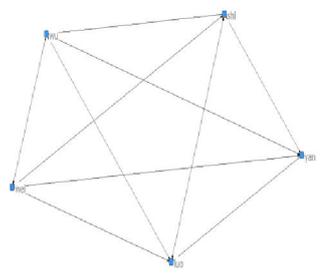
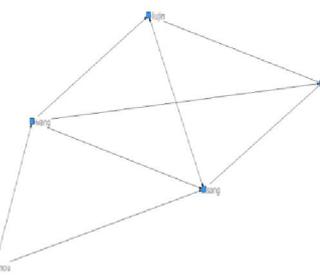
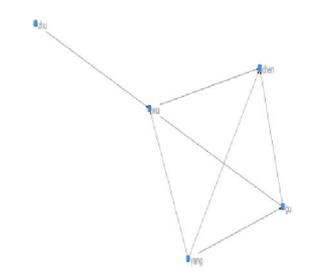
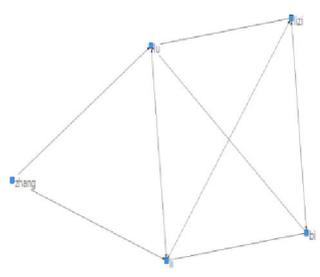
Heterogeneity = 20.83%. Normalized = 1.04%

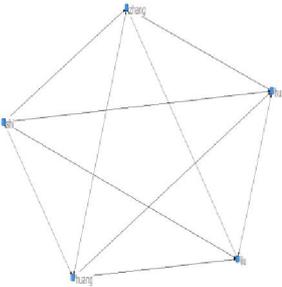
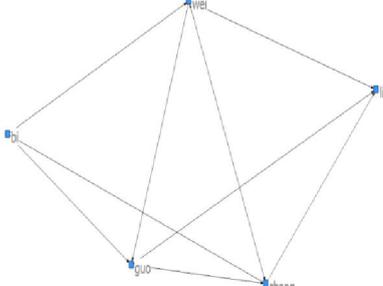
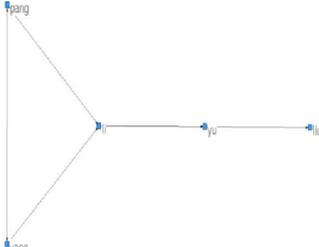
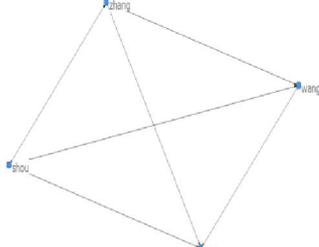
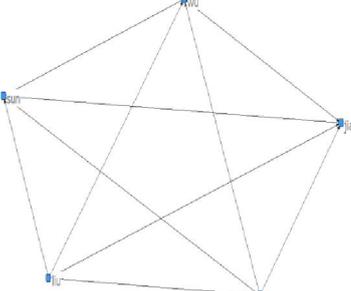
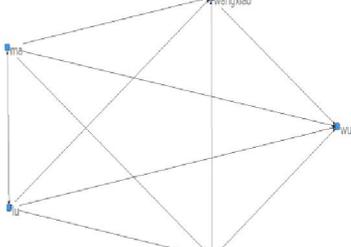
Actor-by-centrality matrix saved as dataset Freeman Degree

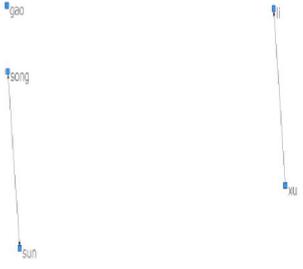
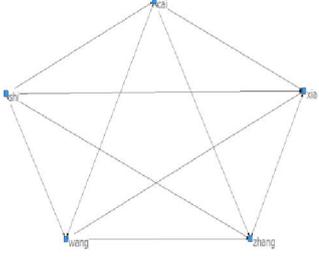
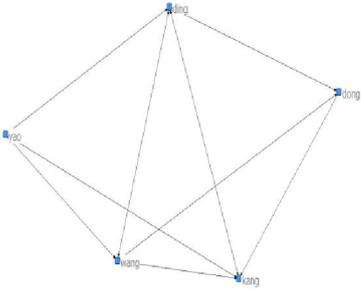
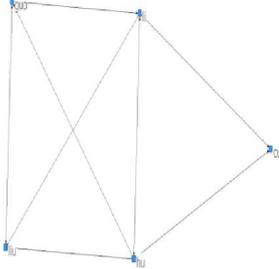
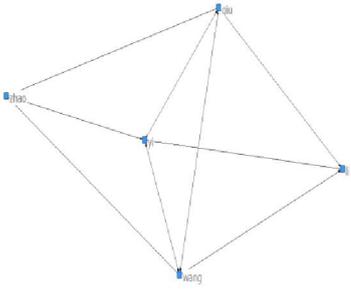
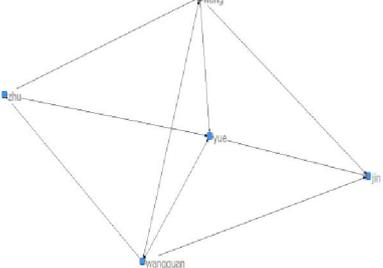
With reference to the calculation method of Team 1, the results calculated from Team 2 to Team 45 are included by Table 12.

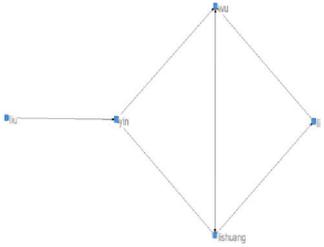
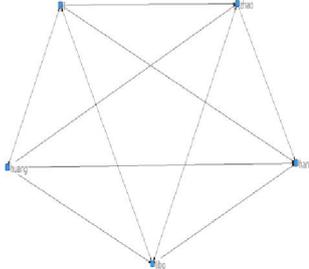
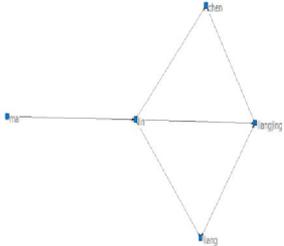
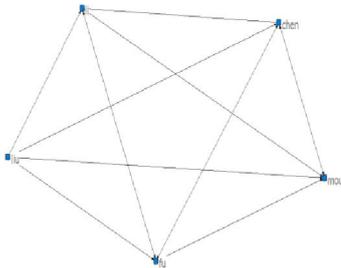
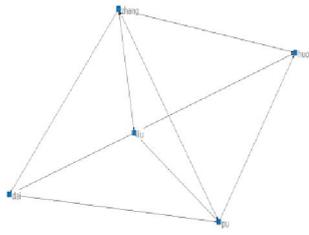
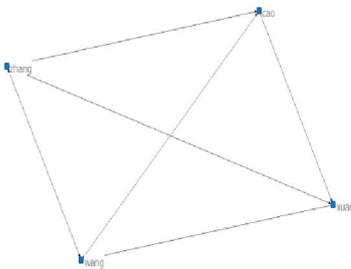
Table 12 Network Analysis of Teams (2-45)

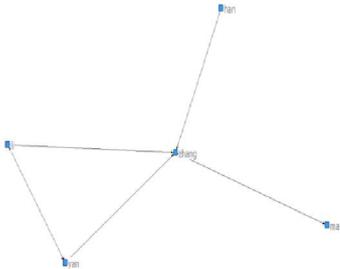
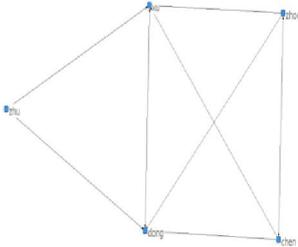
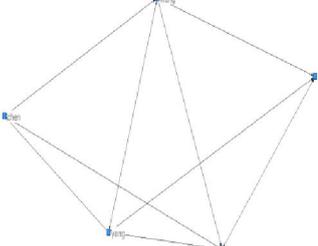
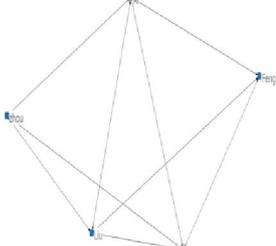
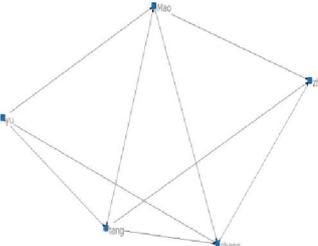
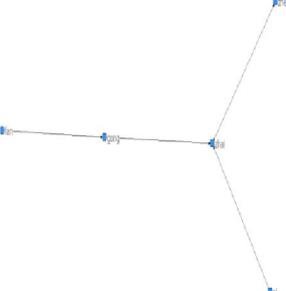
No	Network Analysis Diagram	Density	Centrality
2		0.7	16.67%
3		0.5	66.67%
4		0.75	0.00%

5		0.9167	0.00%
6		0.8	16.67%
7		0.9	0.00%
8		0.55	33.33%
9		0.5	50.00%
10		0.65	33.33%

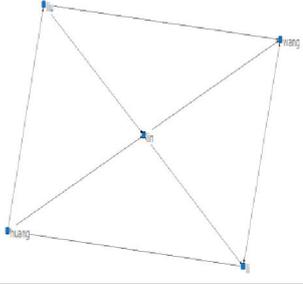
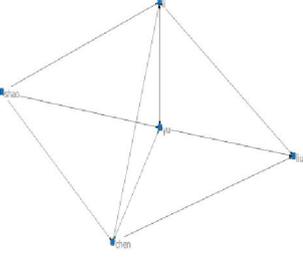
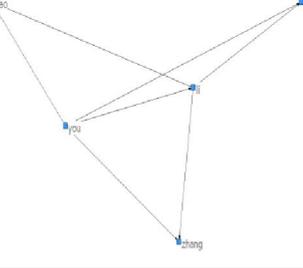
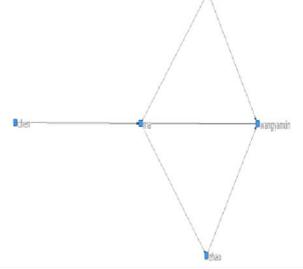
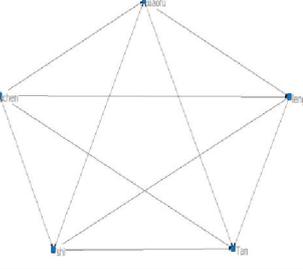
11		0.85	0.00%
12		0.65	16.67%
13		0.4	41.67%
14		0.6667	0.00%
15		0.6	0.00%
16		1	0.00%

17		0.15	8.33%
18		1	0.00%
19		0.6	33.33%
20		0.7	16.67%
21		0.65	16.67%
22		0.6	16.67%

23		0.45	25.00%
24		0.9	0.00%
25		0.5	66.67%
26		0.9	0.00%
27		0.7	16.67%
28		0.8333	0.00%

29		0.3500	83.33%
30		0.5	33.33%
31		0.7	16.67%
32		0.75	16.67%
33		0.75	16.67%
34		0.25	58.33%

35		0.7	33.33%
36		0.75	0.00%
37		0.7	16.67%
38		0.35	66.67%
39		0.75	0.00%
40		0.65	33.33%

41		0.55	33.33%
42		0.85	16.67%
43		0.4	50.00%
44		0.3	66.67%
45		0.75	0.00%

Source: author's own editing using UCINET 6, 2017

(1) Wellman (1979) investigated a particular urban area in Toronto, East York to know community structure. The average density was 0.33, 1/3 only one-fifth of networks having a density greater than 0.50. From Table 13 we can see that the average network density of college students' negotiating team is 0.642593, which is comparatively high.

Table 13 Descriptive Statistics of Density

	N	Minimum	Maximum	Mean	Std. Deviation
Density	45	.1500	1.0000	.642593	.1992907
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

(2) From Table 14 and Table 15 we can see that the network centrality of college students' negotiating team focus on the 0-20% range. This shows that the overall level of negotiating team is relatively low.

Table 14 Centrality Distribution

Centrality	N	%	Cumulative%
0-20%	27	60%	60%
20%-40%	8	18%	78%
40%-60%	5	11%	89%
60%-80%	4	9%	98%
80%-100%	1	2%	100%

Source: author's own editing, 2017

Table15 Descriptive Statistics of Centralization

	N	Minimum	Maximum	Mean	Std. Deviation
Centralization	45	0.00%	83.33%	23.1487%	22.95191%
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

(3) The average team density made up of 4 people is higher than the average team density made up of 5 people (Figure 16 and Figure 17). The average team centrality made up of 4 people is lower than the average team centrality made up of 5 people.

Table16 Descriptive Statistics of Teams made up of 4 people

	N	Minimum	Maximum	Mean	Std. Deviation
Density	5	.6500	.9167	.763340	.1126686
Centralization	5	0.00%	33.33%	6.6660%	14.90563%
Valid N (listwise)	5				

Source: author's own editing software SPSS (22) , 2017

Table17 Descriptive Statistics of Teams made up of 5 people

	N	Minimum	Maximum	Mean	Std. Deviation
Density	40	.15	1.00	.6275	.20348
Centralization	40	0.00%	83.33%	25.2090%	23.07283%
Valid N (listwise)	40				

Source: author's own editing software SPSS (22) , 2017

### 5.1.2. Analysis of principled negotiation

Before the negotiation competition, each member fills in a questionnaire of principled negotiation scale. After retrieving the questionnaire, the average number of 18 items is calculated by counting the questionnaires of each member. First, the arithmetic mean of personal principled negotiation is the sum of the sampled values divided by the number of items (18). Then the team's principle negotiation arithmetic mean is the sum of the sampled values (the arithmetic mean of personal principled negotiation) divided by the number of team members (Table 18 and Figure 26). The data presents a normal distribution and is not discrete (standard deviation=0.317666158).

Table 18 Descriptive Statistics of Principled Negotiation

	N	Minimum	Maximum	Mean	Std. Deviation
PN	45	4.433333	5.763889	5.11096704	.317666158
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

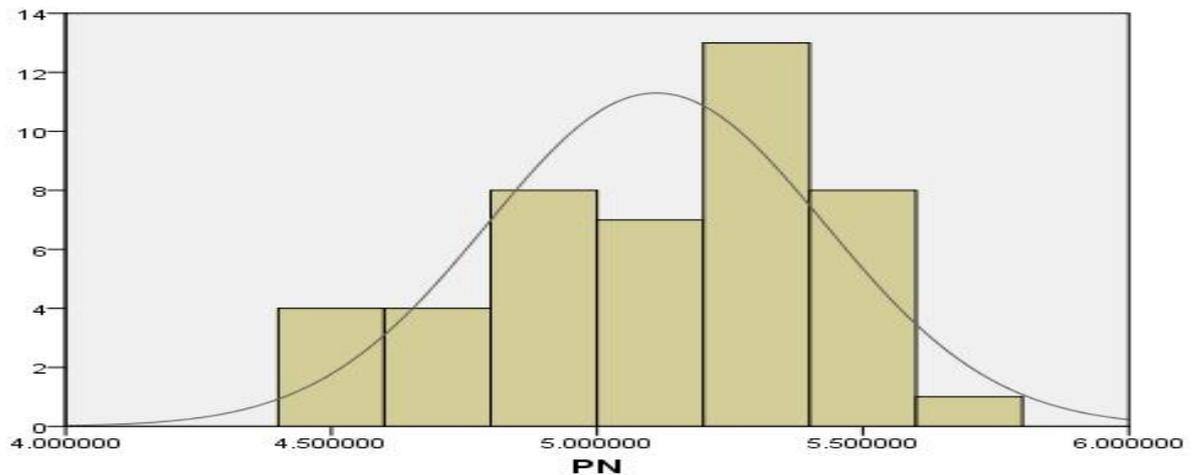


Figure 26 Principled Negotiation Distribution Histogram

Source: author's own editing, 2017

### 5.1.3. Analysis of communication quality

After the negotiation competition, each member fills in a questionnaire of quality of communication scale. After retrieving the questionnaire, the average number of 15 items is calculated by counting the questionnaires of each member. First, the arithmetic mean of personal communication quality is the sum of the sampled values divided by the number of items (15). Then the team's communication quality arithmetic mean is the sum of the sampled values (the arithmetic mean of communication quality) divided by the number of team members (Table 19 and Figure 27). The data presents a normal distribution; however, the degree of data discrepancies is greater than the data for principle negotiations. (standard deviation=0.519298874).

Table 19 Descriptive Statistics of Communication Quality

	N	Minimum	Maximum	Mean	Std. Deviation
Communication	45	3.440000	6.346667	5.22392596	.519298874
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

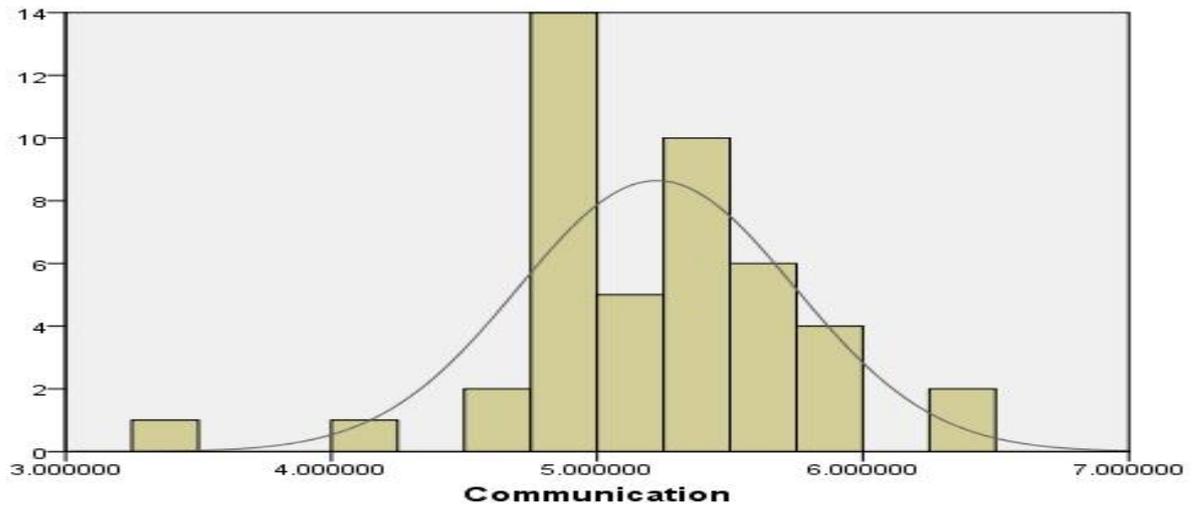


Figure 27 Communication Quality Distribution Histogram

Source: author's own editing, 2017

#### 5.1.4. Analysis of negotiation outcomes

(1) After the negotiation competition, each member fills in a questionnaire of the subjective value inventory. After retrieving the questionnaire, the average number of 16 items is calculated by counting the questionnaires of each member. First, the arithmetic mean of personal subjective value is the sum of the sampled values divided by the number of items (16). Then the team's subjective value arithmetic mean is the sum of the sampled values (the arithmetic mean of subjective value) divided by the number of team members (Table 20 and Figure 28). The data present a normal distribution. However, the degree of data discrepancies is greater than the data for principle negotiations and communication quality. (standard deviation=0.728426761).

Table 20 Descriptive Statistics of Subjective Value

	N	Minimum	Maximum	Mean	Std. Deviation
SVI	45	2.850000	6.250000	5.06710649	.728426761
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

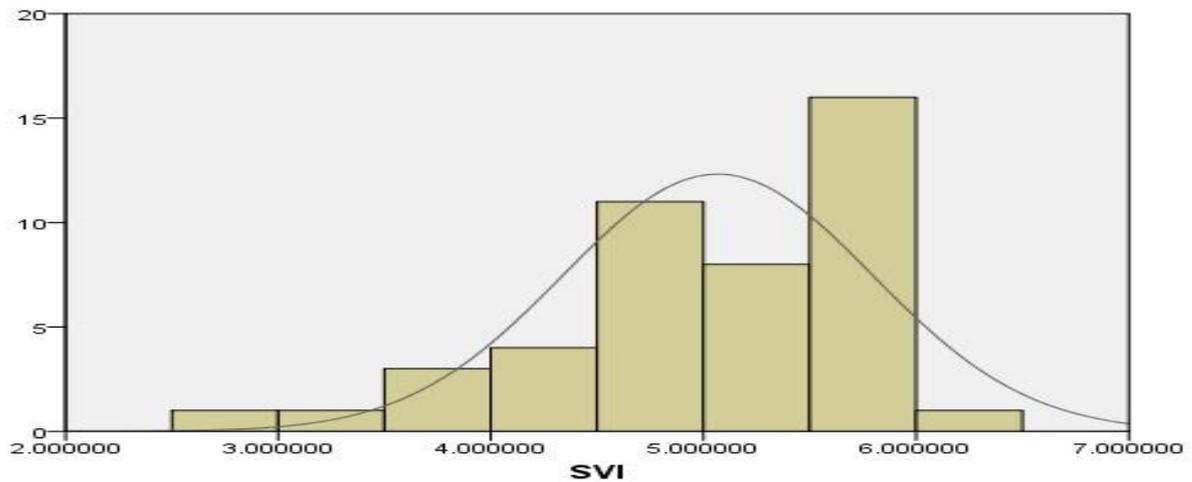


Figure 28 Subjective Value Distribution Histogram

Source: author's own editing, 2017

(4) After the negotiation competition the organizer of the contest collects data on the final economic results achieved by the negotiating parties based on a MOU form which describes the trading conditions reached to record the result of deals (see the Economic column in Table 23). 19.2 is the profit margin of the negotiated case, 19.2 the limit is greater than 19.2, which is high and less than 19.2, which is low. From Table 21 and 22, the proportion of high group accounts for 66.7%, and the proportion of low group accounts for 33.3%. High and Low Score Distribution Pie Chart is shown by Figure 29.

Table 21 Descriptive Statistics of Economic Outcome

	N	Minimum	Maximum	Mean	Std. Deviation
Economic	45	15.000	28.000	21.52111	3.473745
Valid N (listwise)	45				

Source: author's own editing software SPSS (22) , 2017

Table 22 High and Low Score Distribution

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	30	66.7	66.7	66.7
2.00	15	33.3	33.3	100.0
Total	45	100.0	100.0	

Source: author's own editing software SPSS (22) , 2017

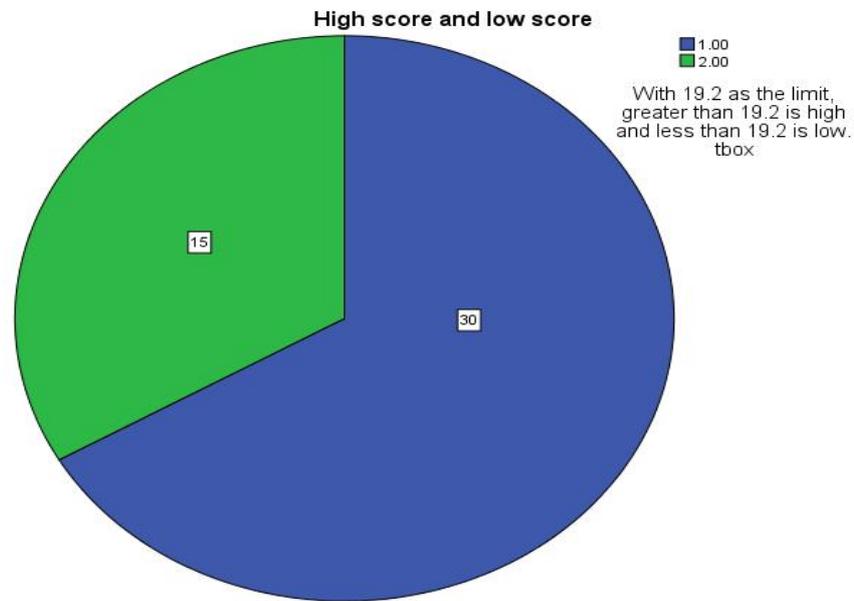


Figure 29 High and Low Score Distribution Pie Chart

Source: author's own editing, 2017

According to the analysis method given earlier, the data of three variables of principled negotiation, communication quality and negotiation outcomes are included in Table 23.

Table 23 The Data of Three Variables of Principled Negotiation, Communication Quality and Negotiation Outcomes

Team	PN	Communication	SVI	Economic
1	4.96	4.95	5.35	20
2	5.35	5.26	5.48	20
3	5.01	4.94	5.38	22.4
4	5.31	5.43	5.14	22.4
5	5.50	5.39	3.42	25.2
6	5.41	5.44	4.27	25.2
7	5.01	5.05	5.67	22.8
8	5.10	4.92	5.25	22.8

9	5.17	5.26	4.73	23.2
10	5.24	5.22	5.17	23.2
11	5.15	4.94	2.85	21.17
12	5.26	5.16	4.21	21.17
13	4.87	4.94	4.98	17.5
14	4.95	4.85	5.07	17.5
15	5.24	5.33	5.80	25.6
16	5.41	5.38	5.92	25.6
17	4.50	4.53	4.77	24
18	5.52	5.61	4.25	24
19	4.86	5.31	5.82	22.8
20	5.28	5.33	5.56	22.8
21	4.78	4.98	5.63	15
22	4.68	4.88	4.91	15
23	5.00	4.88	5.35	22.4
24	5.42	5.66	4.25	22.4
25	4.88	4.96	5.60	18
26	5.35	5.01	5.85	18
27	5.10	5.89	4.93	26.1
28	5.76	6.30	6.25	26.1
29	4.43	4.97	4.92	18
30	4.93	5.08	5.63	18
31	5.32	5.22	4.70	22.4
32	5.40	5.68	5.71	28
33	5.28	5.50	5.51	28
34	4.63	4.84	3.91	18
35	5.33	4.95	4.82	18
36	5.34	5.89	5.60	24.32
37	5.37	5.24	3.85	24.32

38	4.52	4.77	5.82	19.2
39	5.41	4.93	4.76	17.85
40	4.86	4.94	4.96	17.85
41	4.77	4.74	5.50	24
42	5.38	5.62	5.60	24
43	4.81	4.14	3.95	16.08
44	4.53	4.62	5.81	16.08
45	5.42	5.09	4.97	22

Source: author's own editing, 2017

## 5.2. Correlation Analysis between Variables in the Theoretical Model

The correlation between the variables in the calculation model is shown by Figure 30.

		density	centrality	pn	communication	SVI	economic
Correlation	density	1.000	-.734	.822	.639	-.061	.424
	centrality	-.734	1.000	-.673	-.473	.087	-.413
	pn	.822	-.673	1.000	.718	-.071	.571
	communication	.639	-.473	.718	1.000	.180	.677
	SVI	-.061	.087	-.071	.180	1.000	.063
	economic	.424	-.413	.571	.677	.063	1.000
Sig. (1-tailed)	density	.000	.000	.000	.000	.346	.002
	centrality	.000	.000	.000	.001	.284	.002
	pn	.000	.000	.000	.000	.320	.000
	communication	.000	.001	.000	.000	.118	.000
	SVI	.346	.284	.320	.118	.000	.341
	economic	.002	.002	.000	.000	.341	.000

Figure 30 Correlation Matrix for Each Variable

Source: author's own editing by using software SPSS (22), 2017

### 5.2.1 Relationship between negotiation team and principled negotiation

Negotiation team directly influences principled negotiation; two factors in negotiation team are involved: the density of negotiation team and the centrality of the negotiation team. Rumsey and Unger (2015) mark the correlation coefficient evaluation criteria in Table 24.

Table 24 The Correlation Coefficient Evaluation Criteria

Range	The correlation coefficient evaluation criteria
Exactly -1	A perfect downhill (negative) linear relationship
-0.70	A strong downhill (negative) linear relationship
-0.50	A moderate downhill (negative) relationship
-0.30	A weak downhill (negative) linear relationship
0.	No linear relationship
+0.30	A weak uphill (positive) linear relationship
+0.50	A moderate uphill (positive) relationship
+0.70	A strong uphill (positive) linear relationship
Exactly +1	A perfect uphill (positive) linear relationship

Source: author's own editing based on Rumsey and Unger (2015)

From Figure 31 the correlation coefficient between these two variables is 0.822, which shows a strong correlation. Therefore, H1a Negotiation team directly influences principled negotiation. The higher the density of negotiation teams during the negotiation, the greater the extent of using principled negotiation is supported.

Descriptive Statistics			
	Mean	Std. Deviation	N
density	.642593	.1992907	45
pn	5.110967078	.3176661425	45

Correlations			
		density	pn
density	Pearson Correlation	1	.822**
	Sig. (2-tailed)		.000
	N	45	45
pn	Pearson Correlation	.822**	1
	Sig. (2-tailed)	.000	
	N	45	45

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Figure 31 Correlation Matrix between Density and Principled Negotiation

Source: author's own editing by using software SPSS (22) , 2017

According to team centrality, teams can be divided into centralized teams and decentralized teams. From Figure 32 it can be seen that the correlation coefficient between these two variables is -0.673, which is a moderate negative correlation. Therefore, H1bI: The higher the centrality of teams (centralized teams) during the negotiation, the greater the extent of using principled negotiation is not justified. H1bII: The lower the centrality of teams (decentralized teams) during the negotiation, the greater the extent of using principled negotiation is justified.

**Descriptive Statistics**

	Mean	Std. Deviation	N
centrality	.231471	.2295063	45
pn	5.110967078	.3176661425	45

**Correlations**

		centrality	pn
centrality	Pearson Correlation	1	-.673**
	Sig. (2-tailed)		.000
	N	45	45
pn	Pearson Correlation	-.673**	1
	Sig. (2-tailed)	.000	
	N	45	45

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Figure 32 Correlation Matrix between Centrality and Principled Negotiation

Source: author’s own editing by using software SPSS (22) , 2017

**5.2.2. Relationship between principled negotiation and negotiation outcomes**

There is a correlation between principled negotiation and negotiation outcomes; two dimensions in negotiation outcomes are involved: subjective value outcomes and economic outcomes.

From Figure 33 the correlation coefficient between these two variables is -0.071, which is no correlation. Therefore, H2a: The greater the extent of using principled negotiation, the greater the satisfaction of the subjective outcome in the negotiation is not justified.

Descriptive Statistics			
	Mean	Std. Deviation	N
PN	5.11096704	.317666158	45
SVI	5.06710649	.728426761	45

Correlations			
		PN	SVI
PN	Pearson Correlation	1	-.071
	Sig. (2-tailed)		.641
	N	45	45
SVI	Pearson Correlation	-.071	1
	Sig. (2-tailed)	.641	
	N	45	45

Figure 33 Correlation Matrix between Principled Negotiation and Subjective Value Outcomes  
Source: author's own editing by using software SPSS (22) , 2017

From Figure 34, the correlation coefficient between these two variables is 0.571, which is a moderate positive correlation. Therefore, H2b: The greater the extent of using principled negotiation, the higher the economic outcomes are in the negotiation is partly justified.

Descriptive Statistics			
	Mean	Std. Deviation	N
pn	5.110967078	.3176661425	45
economic	21.52111	3.473745	45

Correlations			
		pn	economic
pn	Pearson Correlation	1	.571**
	Sig. (2-tailed)		.000
	N	45	45
economic	Pearson Correlation	.571**	1
	Sig. (2-tailed)	.000	
	N	45	45

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Figure 34 Correlation Matrix between Principled Negotiation and Economic Outcomes  
Source: author's own editing by using software SPSS (22) , 2017

### **5.2.3. Relationship between communication quality, principled negotiation and negotiation outcomes**

The mediator variable is the path or mechanism how the independent variable affects the dependent variable (Baron and Kenny, 1986). In the relationship between these three variables, the principled negotiation is an independent variable, the communication quality is a mediator variable, and the negotiation result is a dependent variable.

In order to verify communication quality as a mediator that influences principle negotiation and negotiation results, four conditions must be met at the same time: (a) there is a significant correlation between principled negotiation and communication quality; (b) there is a significant correlation between communication quality and negotiation outcomes; (c) there is a significant correlation between principled negotiation and negotiation outcomes (H2a and H2b); (d) when the communication quality is introduced into the regression equation, the correlation or regression coefficient between the principled negotiation and the negotiation outcome is significantly reduced. The following analysis was validated by using regression analysis.

#### **5.2.3.1. Condition 1: Principled Negotiation Affects Communication Quality**

Figure 35 shows that the regression coefficient between these two variables is 0.718, and the significance is 0.000, which is a positive correlation. Therefore, H3a: The greater the extent of using principled negotiation, the higher communication quality is in the negotiation is justified.

Model	Variables Entered	Variables Removed	Method
1	pn <sup>b</sup>	.	Enter

a. Dependent Variable: communication  
b. All requested variables entered.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718 <sup>a</sup>	.516	.505	.2753389110

a. Predictors: (Constant), pn

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.473	1	3.473	45.808	.000 <sup>b</sup>
	Residual	3.260	43	.076		
	Total	6.733	44			

a. Dependent Variable: communication

b. Predictors: (Constant), pn

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.640	.669		.957	.344
	pn	.884	.131	.718	6.768	.000

a. Dependent Variable: communication

Figure 35 Regression Analysis between Principled Negotiation and Communication Quality  
Source: author's own editing by using software SPSS (22) , 2017

### 5.2.3.2. Condition 2: Communication Quality Affects Negotiation Outcomes

Two dimensions in negotiation outcomes are involved: subjective value outcomes and economic outcomes. From Figure 36 it can be seen that the regression coefficient between these two variables is 0.180, and significance is 0.236. which is not a positive correlation. Therefore, H3b:

The higher the quality of communication, the greater the satisfaction of the subjective outcomes is in the negotiation is not justified.

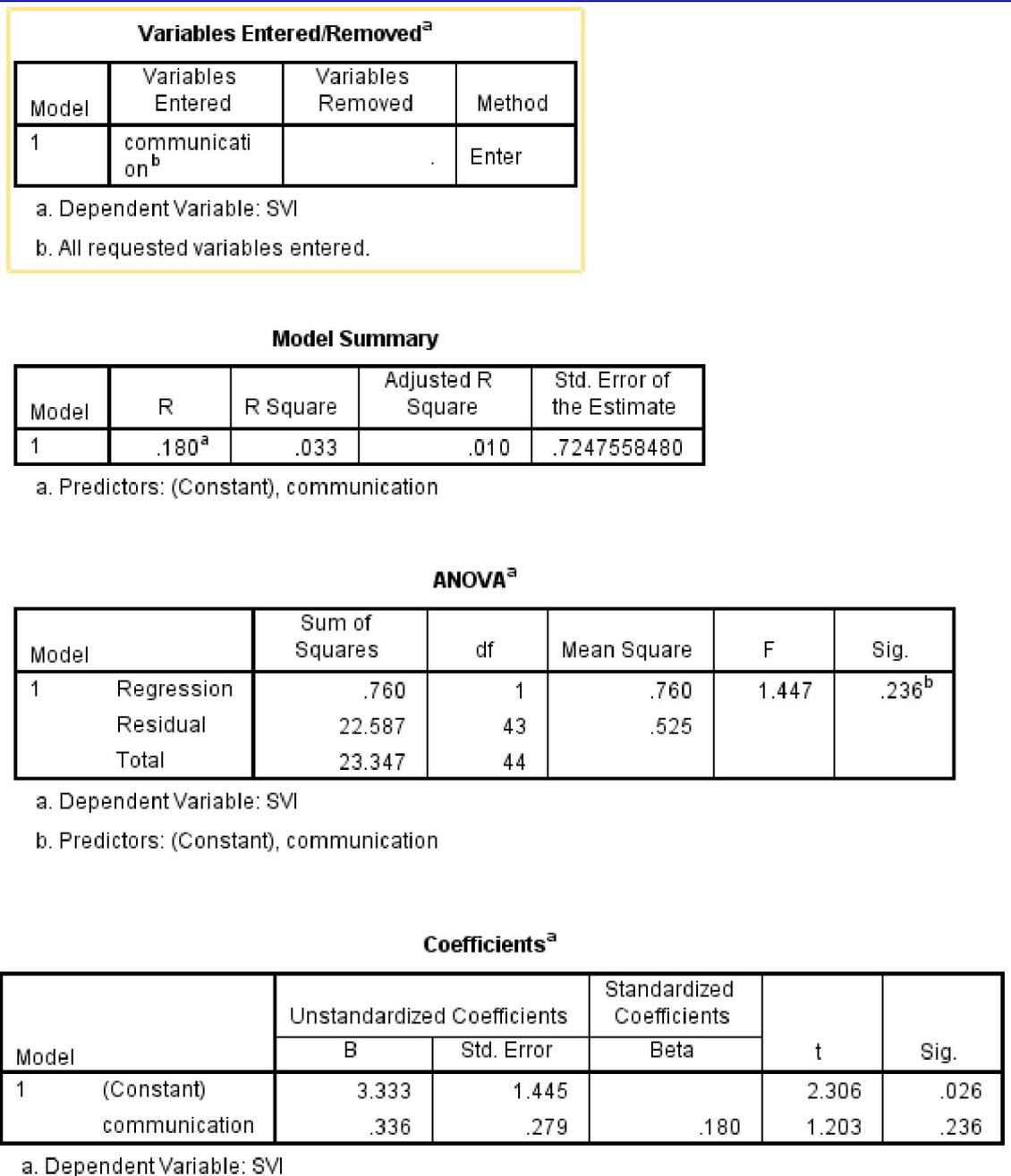


Figure 36 Regression Analysis between Communication Quality and Subjective Outcome

Source: author's own editing by using software SPSS (22) , 2017

Figure 37 indicates that the regression coefficient between these two variables is 0.677, and the significance is 0.000. which is a moderate positive correlation. Therefore, H3c: The higher the

quality of communication, the greater the economic outcomes of negotiation are in the negotiation is justified.

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	communication <sup>b</sup>	.	Enter

a. Dependent Variable: economic  
b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.677 <sup>a</sup>	.458	.446	2.586483

a. Predictors: (Constant), communication

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	243.278	1	243.278	36.365	.000 <sup>b</sup>
	Residual	287.665	43	6.690		
	Total	530.944	44			

a. Dependent Variable: economic

b. Predictors: (Constant), communication

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-9.497	5.158		-1.841	.072
	communication	6.011	.997	.677	6.030	.000

a. Dependent Variable: economic

Figure 37 Regression Analysis between Communication Quality and Economic Outcomes

Source: author's own editing by using software SPSS (22) , 2017

### 5.2.3.3. Condition 3: Principled Negotiation Affects Negotiation Outcomes

Two dimensions in negotiation outcomes are involved: subjective value outcomes and economic outcomes. From Figure 38 it is visible that the regression coefficient between these two variables is -0.071, and the significance is 0.641. which shows no correlation. Therefore, H2a: The greater the extent of using principled negotiation, the greater the satisfaction of subjective outcomes is in the negotiation is not justified.

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	PN <sup>b</sup>	.	Enter

a. Dependent Variable: SVI

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.071 <sup>a</sup>	.005	-.018	.734962276

a. Predictors: (Constant), PN

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.119	1	.119	.221	.641 <sup>b</sup>
	Residual	23.227	43	.540		
	Total	23.347	44			

a. Dependent Variable: SVI

b. Predictors: (Constant), PN

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.905	1.786		3.306	.002
	PN	-.164	.349	-.071	-.470	.641

a. Dependent Variable: SVI

Figure 38 Regression Analysis between Principled Negotiation and Subjective Outcomes

Source: author's own editing by using software SPSS (22) , 2017

From Figure 39 we can see that the regression coefficient between these two variables is 0.571, and the significance is 0.000. which is a moderately positive correlation. Therefore, H2b: The greater the extent of using principled negotiation, the greater the economic outcomes are in the negotiation is partly justified.

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	pn <sup>b</sup>	.	Enter

a. Dependent Variable: economic

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571 <sup>a</sup>	.326	.310	2.885553

a. Predictors: (Constant), pn

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172.908	1	172.908	20.766	.000 <sup>b</sup>
	Residual	358.036	43	8.326		
	Total	530.944	44			

a. Dependent Variable: economic

b. Predictors: (Constant), pn

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-10.373	7.012		-1.479	.146
	pn	6.240	1.369	.571	4.557	.000

a. Dependent Variable: economic

Figure 39 Regression Analysis between Principled Negotiation and Economic Outcomes

Source: author's own editing by using software SPSS (22) , 2017

#### 5.2.3.4. Condition 4: Communication Quality Affects Principled Negotiation and Negotiation Outcomes

As H3b and H2a are not justified, H5 is not justified, either. Baron and Kenny (1986) thought that the quality of communication as a mediator variable must satisfy four conditions at the same time, so H3d according to which communication quality is a mediator between principled negotiation and subjective value outcomes of negotiation is not justified.

In order to verify the quality of communication as a mediator variable, the method of hierarchical regression is used as reflected by Figure 40.

Model	Variables Entered	Variables Removed	Method
1	pn <sup>b</sup>	.	Enter

a. Dependent Variable: economic  
b. All requested variables entered.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571 <sup>a</sup>	.326	.310	2.885553

a. Predictors: (Constant), pn

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172.908	1	172.908	20.766	.000 <sup>b</sup>
	Residual	358.036	43	8.326		
	Total	530.944	44			

a. Dependent Variable: economic

b. Predictors: (Constant), pn

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	pn <sup>b</sup>	.	Enter
2	communication <sup>b</sup>	.	Enter

a. Dependent Variable: economic

b. All requested variables entered.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571 <sup>a</sup>	.326	.310	2.885553
2	.688 <sup>b</sup>	.473	.448	2.581218

a. Predictors: (Constant), pn

b. Predictors: (Constant), pn, communication

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172.908	1	172.908	20.766	.000 <sup>b</sup>
	Residual	358.036	43	8.326		
	Total	530.944	44			
2	Regression	251.111	2	125.556	18.845	.000 <sup>c</sup>
	Residual	279.833	42	6.663		
	Total	530.944	44			

a. Dependent Variable: economic

b. Predictors: (Constant), pn

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-10.373	7.012		-1.479	.146
	pn	6.240	1.369	.571	4.557	.000
2	(Constant)	-13.508	6.339		-2.131	.039
	pn	1.909	1.760	.175	1.084	.284
	communication	4.898	1.430	.552	3.426	.001

a. Dependent Variable: economic

**Excluded Variables<sup>a</sup>**

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	communication	.552 <sup>b</sup>	3.426	.001	.467	.484

a. Dependent Variable: economic

b. Predictors in the Model: (Constant), pn

Figure 40 Communication Quality Variable Mediation Regression Analysis Process

Source: author's own editing by using software SPSS (22) , 2017

In Figure 40 the regression coefficient changes from 0.571 to 0.175 when the quality of communication participates as a mediator variable. Therefore, H3e: Communication quality is a mediator between principled negotiation and the economic outcomes of negotiation is justified.

### **5.3. New and Novel Scientific Achievements**

Based on the above findings, the main innovations of this study are summarized as follows.

(1) The integration of Chinese and Western cultures has led to a new theoretical support for principled negotiation.

As an important negotiation method, principled negotiation has had a tremendous influence on the negotiation field, but as a scientific concept it lacks theoretical support. This study uses transaction analysis (TA) theory, the Chinese harmony theory and the sensegiving theory to provide theoretical support for principled negotiation from the perspectives of negotiators, negotiating interests and communication persuasive processes. Especially, negotiating harmony theory from the perspective of cross-cultural perspectives in both China and the West found consistent results in different cultural negotiations. The principled negotiation is the Tai Chi negotiation. This conclusion can effectively explain that why businesspeople engaged in business negotiations in Eastern culture even if they are not familiar with principled negotiation can also be quickly connected with the West culture.

(2) The research proposes and verifies the Principled Negotiation Scale first time in the world.

Many instances exist in which the researcher cannot find an adequate or appropriate existing scale to measure an important construct of principled negotiation. In these situations, it is necessary to create a new scale (Hinkin et al., 1997). A four-dimensional questionnaire was designed based on the original idea and a scientific questionnaire was used to verify the questionnaires that formed 18 items. This questionnaire provided an effective research tool for the completion of the study and other studies.

(3) Using social network analysis (SNA) method to study the negotiating team is the new research methods for principled negotiation.

Despite the frequent negotiations between buying and selling centers in practice, the impact of team characteristics on the course and outcome of a negotiation has rarely been researched (Backhaus et al., 2008). Although predecessors also had research-style negotiations, research has focused on other team areas. The reason why team characteristics are rarely discussed by the

researcher as an important variable for negotiation is that the way to quantify the negotiation team and collect data is difficult to achieve. Social network analysis has gradually become a new method since the 1990s to study complex social relationships. This study uses the negotiating team as the research object to test and measure principled negotiation by using the method of SNA and verifies the correlation between principled negotiation and the negotiation team. This method proposes new and effective ways to study the structure of the negotiating team and the impact of principled negotiation.

Based on the above theoretical analysis and empirical research conclusions, the following specific recommendations are made on how to achieve a win-win negotiation result for the company.

(1) Negotiators must emphasize the role of the principled negotiation in promoting the outcomes of the negotiations. Although it is difficult to carry out principled negotiation in job responsibilities, it plays a crucial role in maintaining the effective operation of the team, the organization's continued existence and development together with promoting the realization of organizational goals. The results of empirical studies show that principled negotiation has a significant positive correlation with the economic outcomes of negotiations. Therefore, negotiators must stimulate, maintain and promote principled negotiation of the team through various means (such as changing work, organizational characteristics and strengthening leadership behaviors, etc.).

(2) Negotiators must pay attention to the important role of communication in the formation of principled negotiations. Communication is not only a language; it is a mechanism for companies and teams. A sound communication system, a smooth communication channel, a good communication atmosphere and superb communication skills will all promote the principled negotiation among the negotiation teams. Team leaders should pay attention to the establishment of communication mechanism and ensure that team members form principled negotiation through the communication mechanism to promote negotiations and achieve a win-win negotiation result.

## 6. CONCLUSIONS

### 6.1. The Main Research Conclusions

The research focuses on the effect of principled negotiation on the outcomes of negotiation, identifies the connotation and the influencing factors of principled negotiation, and develops a principled negotiation index system. This research proposes principled negotiation as an independent variable, the negotiation result as a dependent variable, and the introduction of communication quality as a mediator variable and proposes a conceptual model of the principled negotiation model in Negotiation Team (PNMNT). The empirical results verify the theoretical model and research hypotheses in general. In order to make the results more intuitive, a summary of the hypothesis test results is presented here in a table format as shown in Table 25.

Table 25 Hypothesis Test Results

No	Hypothesis	Testing results
H1a	The higher the density of negotiation teams during the negotiation, the greater the extent of using principled negotiation is.	Confirmed
H1bI	The higher the centrality of teams (centralized teams) during the negotiation, the greater the extent of using principled negotiation is.	Rejected
H1bII	The lower the centrality of teams (decentralized teams) during the negotiation, the greater the extent of using principled negotiation is.	Confirmed
H2a	The greater the extent of using principled negotiation, the greater the satisfaction of subjective outcomes is in the negotiation.	Rejected
H2b	The greater the extent of using principled negotiation, the greater the economic outcomes are in the negotiation.	Confirmed
H3a	The greater the extent of using principled negotiation, the higher the quality of communication is in the negotiation.	Confirmed
H3b	The higher the quality of communication, the greater the satisfaction of the subjective outcomes is in the negotiation.	Rejected
H3c	The higher the quality of communication, the greater the economic outcomes of negotiation are in the negotiation.	Confirmed

Table 25. Cont.

H3d	Communication quality is a mediator between principled negotiation and the subjective value outcomes of negotiation.	Rejected
H3e	Communication quality is a mediator between principled negotiation and the economic outcomes of negotiation.	Confirmed

Through the above summary of the hypothesis test results and the previous statistical analysis process, the following conclusions of the study can be drawn.

- (1) In general, the negotiation team is related to principled negotiation. Hypothesis H1a and Hypothesis H1bII reflect the justification of such a conclusion.
- (2) The economic effects of negotiation and principled negotiation are highly related. Hypothesis H2b can support such a conclusion.
- (3) The psychological results of negotiations and principled negotiations are irrelevant, so hypothesis H2a has not been confirmed. The psychological results of negotiations and communication quality are irrelevant, hypothesis H3b has not been confirmed. As the first two assumptions are not established, hypothesis H3d has not been confirmed, either.
- (4) Communication quality as a mediator variable has obvious economic effects on principled negotiation and negotiation. Hypothesis H3e is confirmed.

## 6.2. Discussion

Through correlation analysis and regression analysis, I basically verified the correlations proposed in the theoretical model. The hypotheses of the negotiating team's influence on principled negotiation, the impact of principled negotiation on the economic results of negotiation, the effect of communication quality on the economic outcomes of negotiations and principled negotiations which correlates with them have been verified. Only relations between principled negotiation directly influencing subjective value outcomes, communication quality directly influencing subjective value outcomes and communication quality as a mediator variable influencing the subjective value outcomes of negotiations and principled negotiations did not reach a significant level.

### 6.2.1. The density of the negotiating team has a positive effect on principled negotiation

The greater the density of the negotiating team, the tighter the relationship is between the members of the negotiating team and the negotiation team influences members' attitudes and

behavior to a greater extent. The negotiation team must closely cooperate before and during negotiations. The high density of the negotiating team reflects the strong collaborative power of the negotiating team. Principled negotiation is one type of cooperative negotiation strategies (Constantinovits and Zhang, 2018). Therefore, the level of collaboration at which the members of the negotiating team react will also appear when using principled negotiation, both of which has internal consistency. It can be concluded that the negotiating team's high density is an important basis and condition for using principled negotiation.

### **6.2.2. The centrality of the negotiating team has a negative effect on principled negotiations; the decentralized teams are more conducive to principled negotiations**

According to the team's centrality, teams can be divided into centralized teams and decentralized teams. Hypothesis H1b<sub>I</sub> is not justified whereas hypothesis H1b<sub>II</sub> is justified. This shows that decentralized teams are more conducive to principled negotiations. The more centralized the team is, the more concentrated the power of this team is, and one person is particularly important. Through the previous empirical research, the decentralization trend of the negotiating team was demonstrated. The lower the team's centrality, the greater extent they use principled negotiations. The reason for the decentralization of the negotiating team lies in the particularity of the composition of the negotiating team members. The negotiating team is often a team composed of temporary negotiating tasks. Such a team is composed of experts in finance, law, marketing, and technology. Even a simulated negotiating team composed of students often selects students from different professional backgrounds. In the face of temporarily formed teams, young people work together very energetically and can use modern communication methods to communicate in a timely manner. The efficiency of such teams is high. This result also shows that even if the negotiating team composed of its own excellent members is decentralized, students with good negotiation consciousness can still use principled negotiation very well.

### **6.2.3. Principled negotiation is an effective way to achieve successful economic outcomes**

The principled negotiation method, focusing on basic interests, mutually satisfying options, and fair standards, typically results in a wise agreement (Fisher and Ury, 1981). According to the previous data analysis, if the negotiators use more principled negotiations, they will get better economic results, accordingly. This result politely explains the original author's assertion. The

reason why principled negotiations can achieve good economic results is that the four basic principles of principled negotiations are a good guide for negotiators to achieve win-win results. The first principle (Separate the people from the problem) puts forward requirements for negotiators and negotiates to maintain a rational display of "adult ego". The second principle (Focus on interests, not positions) imposes requirements on negotiating interests. Negotiations focus on real interests and should not be confused with superficial positions. The third principle (Invent options for mutual gain) puts forward requirements for the negotiation process. Negotiation is not only about communicating ideas and interests of each other but, more importantly, it is about creatively formulating a negotiation option that can be mutually beneficial and win-win. The fourth principle (Insist on objective criteria) puts forward requirements for the use of third party for negotiation. Once negotiations cannot use the first three principles to solve conflicts, we must consider using external third-party forces to promote negotiations.

#### **6.2.4. Communication quality is an important intermediary for the successful economic outcomes of principled negotiations**

Communication quality is a mediator variable of principled negotiation and economic results. It verifies the hypothesis proposed by the research and proves the important role of communication in negotiation. Negotiation is the process of communication and human interaction. Even if negotiators of all parties effectively use principled negotiation to guide their own practice, the good economic negotiation result must be achieved through good communication as an intermediary. Communication is the bridge between principled negotiation and good economic results. In this study, communication quality was used as an indicator to measure the level of communication. The quality of communication included responsiveness, clarity and comfort.

If negotiators communicate and send and receive information, as well as adjust their psychological patterns with the first principle of principled negotiation (Separate the people from the problem), negotiators must possess high-quality communications when communicating because the quality of communication is the level of responsiveness, clarity, and comfort experienced by the communicators in the negotiation, such as the tip of "listen actively and acknowledge what is being said" represents the same meaning with responsiveness; the tip of "speak for a purpose" represents the same meaning with clarity; the tip of "time-saving: make

your proposals consistent with their values” represents the same meaning with comfort. Therefore, it can be expected that during the negotiation process, the greater extent of using principled negotiation will help promote high quality communication.

The process of negotiation is a process of communication and exchange. During this process, people reveal their views on the tasks of the negotiations and show their own strategic actions. Better communication quality represents the good running of the mental model and compatibility with each other. Smith (1969) reported the communication variables as important influencers on negotiation outcomes. Liu et al. (2010) found that a higher quality of communication experience leads to better negotiation outcomes. Quality communication signals a higher degree of enactment and mutual influence outcomes of negotiation in principled negotiation.

#### **6.2.5. Subjective value judgment in negotiation is a complex factor**

However, three hypotheses involving subjective values have not been justified. The first reason is that the subjective value judgment of the negotiation includes many factors such as the perception of the negotiation situation, the perception of the negotiation opponent and the perception of themselves. The scale, designed to measure the Instrumental, Self, Process, and Relationship, developed 16 items during the negotiation. The second reason is that due to the restrictions of simulated negotiation, the negotiating parties all hope to reach a negotiation agreement in order to obtain good competition results and thus compromise in the economic results. The subjective feeling of satisfaction as a result of negotiation is difficult to achieve. The members of the simulated negotiating team are students. Each member has different grades, profession, role etc. and feels great differences after the whole negotiation process. The data obtained through the questionnaire are also quite different, and thus there is no agreement on the subjective feelings of negotiation.

#### **6.3. Limitations and Research Recommendations**

Although this study has basically reached the expected research goals, it also has certain limitations, mainly in the following aspects:

(1) In terms of selecting the target. The participants were college students. As they are relatively unfamiliar with business situations and young people (average 20 years old) lack practical work experience, oral explanations and written notice have been carried out in the negotiation competition and some students still feel that they have no way to start. This will affect the

reliability of the data.

(2) In terms of the number of samples. Subject to conditions, this study collected a total of 45 teams as valid samples. The sample size is small. A larger sample size obviously helps to improve the applicability of the research conclusions. A sample with a wider geographical distribution and several categories can be analyzed in more detail, and other more valuable conclusions may be drawn.

(3) In the measurement of principled negotiation. Although the principled negotiation scale method is currently used as a better method than other research methods, this measurement method also has its drawbacks. For example, the accuracy of the core concepts summarized through negotiated job analysis may be biased and used in laboratory experiments. Finding a method that can overcome the above deficiencies and achieve better measurement of principled negotiation effects should be the next step in the research.

(4) The study of the independent variables in principled negotiation. From the existing research results, teamwork was focused on. Many factors that affect principled negotiation such as environmental factors, organizational factors, individual factors will also be studied with the further introduction of more diverse antecedent variables in the future.

(5) Although the density and centrality of the negotiating teams are studied, other concepts such as factions, positions, reality networks, and virtual network homogeneity, social capital, etc. can be further studied.

(6) In terms of theoretical support. There are four basic dimensions of principled negotiation. The first two (people, interest) are discussed in detail in this study, but the third (options) and the fourth (objective criteria) lack careful discussion. A detailed discussion of the “brainstorming” theory should be conducted that generates creative solutions and third-party theories that seek external support in order to fully reveal all aspects of the principled negotiations in the future.

The facts above show that there are many deficiencies in the research on principled negotiation, and it is these deficiencies that generate further research. Therefore, research on this aspect can be carried out in the future.

(1) Broader choice of subjects. Most of the subjects are university students. This is very different from the actual negotiation activities, which limits the external validity of the promotion of the research results. College students often lack experience in the actual negotiation of companies,

and they do not have in-depth understanding of negotiation issues. In future studies, those who have negotiating experience can choose to conduct research. Principled negotiation is an all-purpose strategy (Fisher and Ury, 1981). All the samples of this study come from Chinese university students. In the future, students of other countries could be used.

(2) Consider more complex team situations. When the buyers and sellers are distinguished in detail, when there is a one-to-many, many-to-many negotiation form, there will be extremely complicated adversary reactions and strategies. This study did not discuss them in depth. These are the research directions for the future analysis of principled negotiations.

(3) Negotiation is a dynamic process. From a dynamic perspective, the study of the evolution of principled negotiation and the application of relevant results to commercial warfare and daily life can effectively improve the efficiency of negotiation.

(4) Negotiation is very practical knowledge, but researchers do not elaborate much on the empirical and theoretical research of principled negotiation. In the future, it is necessary to strengthen empirical and theoretical research on principled negotiation and improve the theoretical height of negotiation research.

## 7. SUMMARY

Negotiations have a long history. Since mankind has had social interaction activities, there have been negotiation activities. Tribal disputes, exchange of goods, territorial issues, hostage issues, labor disputes, diplomatic relations, women's rights, international status, etc., more and more controversies have to be resolved. When people have conflicting interests, they do not want to resort to armed forces and in order to achieve coordinated development, they have corresponding solutions to conflicts such as various traditional practices, rules and regulations, laws, arbitration, market mechanisms, and power interventions, but the realization of these approaches is through the negotiation to achieve. Therefore, as an effective means of resolving conflicts, negotiation has been widely applied.

Gerard I. Nierenberg, widely hailed as the "Father of Negotiation," published a book named *The art of negotiating* in 1968 that marked the birth of modern negotiating studies. After that, in 1981, Roger Fisher, a former professor of Harvard University Law School, and William Ury, a promoter of the Program on Negotiation (PON), co-authored 'Getting to Yes: Negotiating Agreement Without Giving In'. Since principled negotiation was introduced, it has quickly become an important guiding principle for handling disputes and resolving contradictions in the world.

Successful negotiations can bring economic benefit and the key to successful negotiation lies in the use of principled negotiation. The principled negotiation method of separating the people from the problem, focusing on basic interests, mutually satisfying options and fair standards typically results in a wise agreement and finds more creative and wise outcomes to conflicts. However, as a subject of scientific research, principled negotiation lacks theoretical and empirical support. This study has made an attempt to solve the problems from the following five aspects.

First, the theoretical support for principled negotiation. Negotiators are people first. According to TA theory, when a negotiator uses principled negotiation, he or she shows the adult ego state, human beings exchanging ideas is negotiated by exchanging strokes. Different strokes generate different relationships between negotiators. Each one of ego states has a particular way of

negotiation, an important part of TA for us is to be able to recognize what ego state is in control when you are negotiating with other people.

Principled negotiation pursues a win-win negotiation. The result of a win-win negotiation is that all parties to the negotiations can obtain their respective interests through negotiations. According to Zhang's previously published results, the ultimate objective of negotiation is to set up equilibrium and harmony based on the Chinese harmony thought.

Negotiation is inherently a process of social interaction. During the negotiation process it becomes important for our understanding of how this interaction influences the outcomes. The literature reviewed here leads to the inescapable conclusion that negotiation is important in social interactions. Negotiation is a kind of highly interpersonal social interaction. The negotiating parties will make plans before the negotiation and form the mental model of the established situation. In the negotiation process, after the mutual communication and feedback, they will adjust themselves actively or passively. The mental model ultimately achieves an effective situation and an agreement is reached.

Second, the conceptual model and measurement problem of principled negotiation. In this study the main variables of the questionnaire of Principled Negotiation named Principled Negotiation Scale (PNS) were identified by applying a logical approach. The four dimensions (people, interests, options and criteria) were obtained from the literature and an in-depth quantitative assessment. This questionnaire of Principled Negotiation can provide a practical guide for negotiators and researchers to use a scientific measuring tool.

Third, the negotiating team influences the issue of principled negotiations. Negotiation team refers to a group with an agreement and interdependence. In this study, the structural characteristics of team networks can basically be reflected through network density and centrality. The greater the density of the negotiating team, the tighter the relationship is between the members of the negotiating team and the negotiation team influences the members' attitudes and behavior to a greater extent. The high density of the negotiating team reflects the strong collaborative power of the negotiating team. Principled negotiation is one type of the cooperative negotiation strategy, so the density of the negotiating team has a positive effect on principled negotiation.

The more central the team, the more concentrated the power of this team is, and one person is particularly important. Through empirical analysis, the lower the team's centrality, the greater extent they use principled negotiations, so the centrality of the negotiating team has a negative effect on principled negotiation.

Fourth, principled negotiations have affected the outcomes of negotiations. This result politely explains the original author's assertion. The reason why principled negotiations can achieve good economic results is that the negotiators, negotiation goals, negotiation schemes and the use of negotiation standards are all ways for the negotiators to maintain a rational state and to achieve a win-win negotiation goal. The result of creating a solution to a problem must be that the negotiating parties can realize their own economic interests. But from the psychological results of negotiations principled negotiations are irrelevant.

Fifth, communication as a regulatory variable affects the issue of principle-type negotiations and negotiations. Communication is not only a language; it is a mechanism for companies and teams. A sound communication system, a smooth communication channel, a good communication atmosphere, and superb communication skills will all promote principled negotiation among the negotiation team, so communication as an intermediary variable has obvious economic effects on principled negotiation and negotiation. But communication as an intermediary variable does not have obvious effects on principled negotiation and the psychological results of negotiations.

Based on the above theoretical analysis and empirical research conclusions, it can help negotiators to deeply understand principled negotiation so that it could have an important role in promoting negotiation outcomes.

Based on the research of the principle-based negotiation and negotiation results, the quality of communication is introduced as a mediator variable to examine whether principled negotiation has some influence on the team's performance through some mediating variables. Studies have shown that in the negotiating team, the quality of communication is part of the mediator variables that act on.

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### APPENDIX4. Negotiation Term Scale (NTS)

Thanks for participating. Please note that the data generated in this survey are NOT anonymous and are NOT confidential. The results will be used in the academic project of An Empirical Research on the Relationship between Principled Negotiation in Negotiation Teamwork and Negotiation Outcomes.

**Important note:**

Firstly, fill in your basic information

Your name (                    )

Your gender (            )

Your university you are studying (            )

Your year (            )

Your profession (            )

Are you the chief negotiator? (    )

Secondly, Please change A、 B、 C、 D as the name of your partner.

Lastly, please tick “√” in the corresponding column that indicates the relationship between you and your partner in one negotiation team according to the item.

Name of Negotiation Teamwork	A	B	C	D
Item				
If you had some troubles, who would you talk to?				

## APPENDIX5. Principled Negotiation Scale (PNS)

**General Instructions:** For each question, please circle a number from 1-7 that most accurately reflects your opinion. You will notice that some of the questions are similar to one another; this is primarily to ensure the validity and reliability of the questionnaire. Please simply answer each question independently, without reference to any of the other questions.

**Important:** Please circle the number that indicates to what extent you agree or disagree with the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree). If you encounter a particular question that is not applicable to your negotiation, simply circle “NA.” Even if you did not reach agreement, please try to answer as many questions as possible.

### People

1. I am a person who is more rational than emotional.

1      2      3      4      5      6      7      NA

Not at all                      Moderately                      Perfectly

2. I always collect enough information before making a judgment.

1      2      3      4      5      6      7      NA

Not at all                      Moderately                      Perfectly

3. I have been able to use time very well.

1      2      3      4      5      6      7      NA

Not at all                      Moderately                      Perfectly

4. I am a person who often reads books.

1      2      3      4      5      6      7      NA

Not at all                      Moderately                      Perfectly

5. I will habitually predict the possible outcome before one thing is put into action.

1      2      3      4      5      6      7      NA

Not at all                      Moderately                      Perfectly

6. I often think about its value and meaning when doing things.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

**Interest**

7. I have deep understanding of each other's interests need to be diverse, not specific, not clear.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

8. I often ask myself why to explore each other's interests.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

9. When negotiating, I can accurately and clearly express my own interests and needs.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

10. When negotiating, I am good at reaching a consensus to find common interests.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

11. When the negotiations diverge, I do not argue with the others about what has happened but influence the future.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

12. I am good at converting my interest demands into multiple sets of executable alternatives.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

13. When negotiating, I can stick to my own interests but do not attack and accuse the others.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

**Option**

14. I always prepare an alternative program before the negotiations.

1 2 3 4 5 6 7 NA

Not at all Moderately Perfectly

15. I call different experts to look at the problem.

1	2	3	4	5	6	7	NA
Not at all			Moderately			Perfectly	

16. I try to find a solution that is also satisfactory for the others.

1	2	3	4	5	6	7	NA
Not at all			Moderately			Perfectly	

**Criteria**

17. When I encounter problems, I will consider whether you can use fair procedures (lottery, arbitration, etc.) to deal with.

1	2	3	4	5	6	7	NA
Not at all			Moderately			Perfectly	

18. I often ask the others what this program (view, problem, theory) is based on.

1	2	3	4	5	6	7	NA
Not at all			Moderately			Perfectly	

## APPENDIX6. Quality of Communication Scale (QCS)

Your role (check one): Buyer                  Seller

Please think about the communication and information exchange you have just experienced with the other side during the negotiation. Please circle the number that indicates to what extent you agree or disagree with the following statements on a scale of 1 (strongly disagree) to 7 (strongly agree).

1. The other side could be trusted.                  1    2    3    4    5    6    7
2. The other side trusted me.                                  1    2    3    4    5    6    7
3. The other side was willing to listen to me.    1    2    3    4    5    6    7
4. I was willing to listen to the other side.    1    2    3    4    5    6    7
5. I was responsive to messages from the other side.    1    2    3    4    5    6    7
6. The other side was responsive to my messages.    1    2    3    4    5    6    7
7. I understand the interests of the other side.    1    2    3    4    5    6    7
8. The other side understands my interests.    1    2    3    4    5    6    7
9. I think the information exchange was efficient.    1    2    3    4    5    6    7
10. The information exchange was comfortable.    1    2    3    4    5    6    7
11. The other side often kept silent.                  1    2    3    4    5    6    7
12. I often kept silent.    1    2    3    4    5    6    7
13. I think I communicated clearly.                  1    2    3    4    5    6    7
14. I felt the other side communicated clearly.    1    2    3    4    5    6    7
15. Together we solved lots of differences.                  1    2    3    4    5    6    7

## APPENDIX 7. The Subjective Value Inventory (SVI)

General Instructions: For each question, please circle a number from 1-7 that most accurately reflects your opinion. You will notice that some of the questions are similar to one another; this is primarily to ensure the validity and reliability of the questionnaire. Please simply answer each question independently, without reference to any of the other questions.

Important: If you encounter a particular question that is not applicable to your negotiation, simply circle "NA." Even if you did not reach agreement, please try to answer as many questions as possible.

### Instrumental Outcome

1. How satisfied are you with your own outcome—i.e. the extent to which the terms of your agreement (or lack of agreement) benefit you?

1    2    3    4    5    6    7    NA

Not at all    Moderately    Perfectly

2. How satisfied are you with the balance between your own outcome and your counterpart(s)'s outcome(s)?

1    2    3    4    5    6    7    NA

Not at all    Moderately    Perfectly

3. Did you feel like you forfeited or "lost" in this negotiation?

1    2    3    4    5    6    7    NA

Not at all    Moderately    Perfectly

4. Do you think the terms of your agreement are consistent with the principles of legitimacy or objective criteria (e.g., common standards of fairness, precedent, industry practice, legality, etc.)?

1    2    3    4    5    6    7    NA

Not at all    Moderately    Perfectly

### Self

5. Did you "lose face" (i.e., damage your sense of pride) in the negotiation?

1    2    3    4    5    6    7    NA



12. Did your counterpart(s) consider your wishes, opinions, or needs?

1	2	3	4	5	6	7	NA
Not at all		Moderately			Perfectly		

**Relationship**

13. What kind of “overall” impression did your counterpart(s) make on you?

1	2	3	4	5	6	7	NA
Extremely negative		Neither negative nor positive			Extremely positive		

14. How satisfied are you with your relationship with your counterpart(s) as a result of this negotiation?

1	2	3	4	5	6	7	NA
Not at all		Moderately			Perfectly		

15. Did the negotiation make you trust your counterpart(s)?

1	2	3	4	5	6	7	NA
Not at all		Moderately			Perfectly		

16. Did the negotiation build a good foundation for a future relationship with your counterpart(s)?

1	2	3	4	5	6	7	NA
Not at all		Moderately			Perfectly		

### APPENDIX8. The Basic Information of Teams

Teams	University	Students	Gender	Age	profession	Grade	Chief negotiator
1	Beijing Institute of Technology, ZHUHAI	Wei Chengyue	Male	20	Marketing	Second	no
		Huang Juncheng	Male	19	Marketing	Second	yes
		Xue Mingzhe	Male	19	Marketing	Second	no
		Huang Yiqing	Female	20	Marketing	Second	no
		Zhang Zijun	Female	20	Marketing	Second	no
2	Nanjing University of Aeronautics and Astronautics	Jin Shengjun	Male	19	Television Broadcasting Science	Second	no
		Dong Kaihao	Male	20	finance	Third	no
		Zhang Yiyan	Female	19	industrial engineering	Second	no
		Zhang Yueyang	Female	21	politics and administration	Third	yes
		Zhu Changhua	Female	21	Television Broadcasting Science	Third	no
3	Xi'an University of Science and Technology	Zhang Yu	Male	21	business administration	Third	no
		Zhou Zhepeng	Male	22	business administration	Third	no
		Li Qianqian	Female	22	business administration	Fourth	yes
		Zhao Xuan	Male	21	business administration	Third	no
		Ma Rui	Female	20	business administration	Second	no
4	the Capital University of Economics and Business	Ge Hongyang	Female	19	business administration	Second	no
		Xiao Yifan	Female	20	Marketing	Second	no
		Zhu Kexin	Female	19	business administration	Second	no
		Yang Yi	Female	20	Marketing	Second	yes

5	Minnan Normal University	Lin Haiqiang	Male	20	Business English	Second	yes
		Wu Yannan	Female	20	Translator	Second	no
		Cai Nina	Female	20	Business English	Second	no
		Yang Manfeng	Female	19	Translator	Second	no
6	Central South University	Cheng Qi	Female	22	international economics and trade	Second	no
		Li Jiashen	Male	21	international economics and trade	Third	yes
		Li Wentong	Male	19	Materials Science and Engineering	Second	no
		Ning Haili	Female	21	international economics and trade	Second	no
		Wu Yuge	Female	20	information management and system	Third	no
7	Wuhan City Vocational College	Wei Zihao	Male	20	Marketing	Second	no
		Luo Songxiong	Male	21	Marketing	Second	no
		Yan Shan	Female	19	Marketing	Second	no
		Wu Man	Female	20	Marketing	Second	yes
		Shi Jiahu	Male	19	Marketing	Second	no
8	Linyi University	Liu Hujie	Male	22	international economics and trade	Second	yes
		Song Xinyue	Female	21	international economics and trade	Second	no
		Liu Jinhui	Female	20	international economics and trade	Second	no
		Wang Sijia	Female	20	business administration	Second	no
		Mou Mohan	Female	21	business administration	Second	no
9	Hangzhou Dianzi University	Chen Shengjie	Male	20	international economics and trade	Second	no
		Gu Dongyu	Male	22	international economics and trade	Third	no
		Wu Ziyi	Female	21	international economics and trade	Second	yes
		Zhu Lingling	Female	22	international	Third	no

			e		economics and trade		
		Yang Liming	male	21	international economics and trade	Second	no
10	Beijing Institute of Technology, ZHUHAI	Li Yanyu	Female	21	Marketing	Second	yes
		Bi Jiaxin	Female	20	Jurisprudence	Second	no
		Lu Yunxiang	Female	20	Business English	Second	no
		Zhang Mo	Female	20	financial management	Third	no
		Li Ziyang	Female	21	international business	Third	no
11	the Capital University of Economics and Business	Huang Jingzhao	Male	18	logistics management	Second	yes
		Zhang Zhuying	Female	19	electronic commerce	Second	no
		Shi Junhao	Male	18	Marketing	Second	no
		Hu Zhangbo	Female	18	tourism management	Second	yes
		Liu Shengyu	Female	20	business administration	Third	no
12	Xi'an University of Science and Technology	Wei Jiulei	Male	20	business administration	Second	no
		Li Yihan	Female	18	business administration	Second	yes
		Zhang Yafang	Female	20	business administration	Second	no
		Guo Keru	Female	19	business administration	Second	no
		Bi Zeqian	Male	20	business administration	Second	no
13	Sichuan International Studies University	Li Yuanting	Female	21	international business	Second	no
		Liu Yinjie	Female	21	international business	Second	no
		Pang Yue	Female	19	international business	Second	no
		Yang Qiuchun	Female	20	international business	Second	no
		Yu Weijun	Female	20	international business	Second	yes
		Ren Haozhe	Male	21	Business English	Second	Yes

14	Minnan Normal University						
		Wang Ning	Female	20	Translator	Second	no
		Shou Xinyi	Female	19	Translator	Second	no
		Zhang Lingbin	Female	20	Japanese	Second	yes
15	Linyi University	Jian Jia	Female	21	international economics and trade	Second	yes
		Wu Jing	Female	20	business administration	Third	no
		Liu Jinghua	Female	21	business administration	Second	no
		Sun Weize	Female	20	international economics and trade	Third	no
		Fang Guanlin	male	21	international economics and trade	Third	no
16	Jiangxi University of Finance and Economics	Lu Haitao	Male	24	business administration Science	Fourth	no
		Ma Jinfei	Male	20	Jurisprudence	Second	no
		Wang Wenjie	Male	22	business administration	Third	no
		Wang Xiaowei	Male	24	business administration	Fourth	yes
		Wu Shuyu	Male	21	business administration	Third	no
17	Suzhou University	Sun Xianhai	Male	20	marketing	Second	no
		Xu Ying	Female	20	marketing	Second	yes
		Gao Mengping	Female	20	marketing	Second	no
		Song Lixia	Female	21	marketing	Second	no
		Li Hui	Female	18	marketing	Third	no
18	Beijing Institute of Technology, ZHUHAI	Wang Chuangjun	Female	20	international economics and trade	Second	yes
		Shi Ji	Female	19	public affairs administration	Second	no
		Zhang Xiaonan	Female	19	international economics and trade	Second	no

		Xia Jingmin	Female	19	Engineering Management	Second	yes
		Cai Tong	Female	20	international economics and trade	Third	no
19	the Capital University of Economics and Business	Li Xinyu	Male	19	business administration	Second	no
		Guo Tingting	Female	20	marketing	Second	no
		Hu Qingying	Female	19	business administration	Second	no
		Liu Xinran	Female	19	business administration	Second	no
		Cui Jianyu	Male	20	Financial Engineering	Third	yes
20	Xi'an University of Science and Technology	Ding Zhouxiang	Female	25	industrial economics	Master Second	no
		Dong Yiyi	Female	25	industrial economics	Master Second	no
		Kang Jia	Female	24	accounting	Master Second	no
		Wang Ting	Female	25	accounting	Master Second	yes
		Yao Jiaqi	male	23	Mpacc	Master Second	no
21	Nanyang Normal University	Wang Weipeng	Male	18	logistics management	Second	no
		Qiu Qingfeng	Male	23	business administration	Third	no
		Yi Nan	Female	21	business administration	Second	yes
		Zhao Jingwen	Female	21	international economics and trade	Third	no
		Li Yaquan	Female	22	business administration	Third	no
22	Shangqiu Normal University	Zhu Yina	Female	19	marketing	Second	no
		Wang Gang	Male	21	marketing	Third	no
		Jin Zichen	Female	21	international economics and trade	Second	no
		Wang	Female	20	international	Third	no

		Guanghua			economics and trade		
		Yu Jie	Female	21	international economics and trade	Third	yes
23	Beijing Technology and Business University	Liu Xinyuan	Male	21	Trade and economic	Second	no
		Yin Rui	Male	20	Financial Engineering	Second	no
		Li Yimeng	Female	20	international economics and trade	Second	no
		Wu Jiawen	Female	20	finance	Second	yes
		Li Shuang	Female	20	financial management Science	Second	no
24	North Minzu University	Li Zhanglu	Male	20	Jurisprudence	Second	no
		Huang Zhenlong	Male	21	international economics and trade	Second	yes
		Han Xu	Female	23	international economics and trade	Third	no
		Li Bo	Female	20	international economics and trade	Second	no
		Zhao Guanqing	Female	18	economics Science	Second	no
25	Beijing Institute of Technology, ZHUHAI	Lin Yuxiang	Male	20	marketing	Second	yes
		Liang Jingyi	Female	19	international economics and trade	Second	no
		Liang Siqi	Female	19	marketing	Second	no
		Chen Zhichao	male	22	international business	Third	no
		Ma Zewu	male	21	international business	Third	no
26	Xi'an University of Technology Northern Information	Fu Kaixiang	Female	22	international business	Second	no
		Liu Zhenzhen	Female	21	international business	Second	no
		Mou Jiaxin	Female	22	international business	Second	No
		Li Jingdong	male	22	international business	Second	Yes
		Chen Zuoyi	male	21	international business	Second	no
27	Xi'an Technological University	Pu lu	Female	21	international economics and trade	Second	Yes
		Zhang Yan	Female	22	international economics and trade	Second	no
		Huo Xiaoyu	Female	20	international economics and trade	Second	no
		Liu Hongxiu	Female	20	international	Second	No

					economics and trade		
		Dai Yunqi	Female	19	international economics and trade	Second	no
28	the Capital University of Economics and Business	Zhang Jinghe	Male	20	marketing	Second	yes
		Wang Keyi	Female	21	electronic commerce	Third	no
		Cao Meng	Female	20	Certified Public Accountant	Second	no
		Xuan Yang	Female	20	electronic commerce	Third	No
29	Shangqiu Normal University	Ma Yaiping	Female	21	marketing	Second	no
		Yan Wen	Male	21	international economics and trade	Second	no
		Han Zhifeng	Male	22	marketing	Second	no
		Zhang Xiaoxiao	Female	21	international economics and trade	Second	yes
		Li Huilin	Female	20	international economics and trade	Second	no
30	Nanyang Normal University	Chen Xiao	Female	21	economic management	Second	no
		Zhou Yisen	Male	20	international economics and trade	Second	no
		Dong Kaijin	Male	20	business administration	Second	no
		Xu Chaofei	Male	19	logistics management	Second	yes
		ZhuYuesen	Female	22	financial management	Third	no
31	Beijing Technology and Business University	Wang Yi	Male	20	human resource Management	Second	yes
		Li Jiaxin	Female	20	Financial Management	Second	no
		Liu Qiyue	Female	20	Financial Management	Second	no
		Yang Xu	Male	20	Financial Management	Second	no
		Chen Cheng	Male	22	human resource Management	Third	no
32	the Capital University of	Ai Yongqing	Male	29	MBA	Second	yes
		Feng Liuqian	Male	28	MBA	Third	no

	Economics and Business						
		Wang Pan	Female	29	MBA	Second	no
		Liu Zhaojing	Female	29	MBA	Third	no
		Zhou Yumei	Female	28	MBA	Third	no
33	The China University of Political Science and Law	Mao Yue	Female	20	economic law	Second	no
		Zhu Yansong	Male	21	economic law	Third	no
		Zheng Di	Female	20	economic law	Second	no
		Tang Ruiji	Female	21	economic law	Third	yes
		Yu Shiqi	Female	21	economic law	Third	no
34	Xi'an University of Technology Northern Information	Zhai Haoyue	Female	22	accounting	Third	yes
		Zheng Xuan	Male	23	accounting	Third	no
		Fan Yingnan	Female	22	international business	Second	no
		Gong Can	Male	22	international business	Second	no
		Ni Lei	Male	22	international business	Second	no
35	Beijing Union University	Li Suting	Male	19	Television Broadcasting Science	Second	no
		Tian He	Male	20	finance	Third	no
		Chen Manqing	Female	19	industrial engineering	Second	no
		Tang Yan	Female	21	politics and administration	Third	no
		Gao Teng	Female	21	Television Broadcasting Science	Third	yes
36	Baise University	Huang Qiaohua	Female	21	international economics and trade	Second	no
		Zhang Xiaoyang	Female	20	international economics and trade	Second	no
		Mo Yiru	Female	20	international economics and trade	Second	no
		Lu Jinyun	Female	21	international economics and trade	Second	yes
		Meng Haiyan	Female	22	international economics and trade	Second	no

37	Fuzhou University of International Studies and Trade	Chen Yujie	Female	21	marketing	Second	no
		Lin Kunyang	Male	22	marketing	Third	Yes
		Wang Shuling	Female	23	marketing	Second	no
		Lai Yu	Female	22	marketing	Third	yes
		Liu Zhongzheng	Female	21	Television Broadcasting Science	Third	no
38	Beijing Jiaotong University	Zhou Zijian	Male	21	finance	Second	yes
		Shan Zilin	Female	20	economics	Second	no
		Xue Hanyue	Female	20	economics	Second	no
		Li Zejie	Female	21	economics	Third	no
		Zhang Shaoqi	Male	21	finance	Third	no
39	City college of Dongguan university of technology	Zhou Xiaoqing	Female	20	administrative management	Second	no
		Zheng Wanling	Female	21	administrative management	Second	no
		Yan Yiwen	Female	21	administrative management	Second	no
		Chen Ling	Female	21	administrative management	Second	yes
		Xiao Kaiyun	Female	20	administrative management	Second	no
40	The China University of Political Science and Law	Chang Jingwen	Female	19	marketing	Second	no
		Shi Ruilong	Male	20	finance	Third	yes
		Li Hangyu	Female	19	law	Second	no
		Gao Yifeng	Male	21	law	Third	no
41	the Capital University of Economics and Business	Wang qi	Female	19	business administration	Second	no
		Lin Zhengqi	Female	20	finance	Third	yes
		Liu Peipei	Female	19	business administration	Second	no
		Li Siyuan	Female	21	business administration	Third	no
		Huang Yan	Female	21	business administration	Third	no
42	Beijing Jiaotong University	Chen Hanwen	Male	19	business administration	Second	no
		Yu Hongyuan	Male	20	business	Third	yes

					administration		
		Liu Mengzhu	Female	19	business administration	Second	no
		Shao Jingyang	Male	21	business administration	Third	no
		Li Zheng	Female	21	business administration	Third	no
43	Fuzhou University of International Studies and Trade	You Zhenhe	Male	22	marketing	Third	no
		Li Shuting	Female	21	marketing	Third	no
		Cai Zexia	Male	22	marketing	Third	no
		Gao Ying	Female	22	marketing	Third	yes
		Zhang Lijie	Female	22	marketing	Third	no
44	Nanyang Institute of Technology	Zhao Kuang	Male	21	business administration	Second	no
		Ma Bo	Male	20	business administration	Second	yes
		Wang Yanbin	Male	21	business administration	Second	no
		Wang Yanxin	Female	22	business administration	Second	no
		Chen Rui	Female	19	business administration	Second	no
45	Dalian University of Technology	Xiaofu Qingyun	Female	20	international trade	Second	yes
		Tan Jiao	Male	20	international trade	Third	no
		Leng Houran	Female	19	international trade	Second	no
		Shi Ao	Male	20	international trade	Third	no
		Chen Dani	Female	21	international trade	Third	no

## **APPENDIX9. Negotiation Case- Silk Products Trade Negotiation**

**A:** Shaoxing Silk Factory in China

**B:** Formica Corporation in America

### **Background**

China is cradle of the world's silk industry. Silk industry is a traditional export-oriented industry. Now China is the biggest country of silk production and silk exportation in the world. The emerging countries such as India, Thailand etc., have been developing very fast in silk industry. Nowadays the external and internal environment of China's silk export trade has been changing all the time and facing a lot of challenges. To change this unfavorable situation, Shaoxing Silk Factory makes a decision to upgrade products and open up new markets to Europe and the United States to enter the high-end market. After careful market research, to obtain the information of market price and consumer demand, Shaoxing Silk Factory starts to produce all kinds of different colors and patterns of silk products, which are designed according to the different cultural habits and tastes to meet the needs of the high-end crowd in small numbers.

Formica Corporation is a company which focuses on bedclothes specifically for high-end hotels. The company received a large five-star hotel to customize a number of high-grade real silk bedding orders, which require delivery for hotels before April 2018.

The procurement representative of Formica Corporation, Robert came to Shaoxing Silk Factory in October 2017. The factory's director, Wang welcomed him at the factory's sample exhibition room. Robert carefully studied the exhibition room after the sample, his face showing a satisfactory smile. At this time, he suddenly turned to the director Wang and put forward that their company intends to book one of the seven styles, his offer is \$ 3.5 per yard. Hearing his offer Wang did not make a straight answer, but reported similar products in Italy, France and other European countries and the United States, he reported the price of 5.36 US dollars per yard. Hearing Wang's price, Robert cried, he said, he saw the products, 5.36 US dollars is the retail price in Hong Kong before visiting Shaoxing Silk Factory and came here to get a more favorable price. Mr. Wang replied confidently that the price is indeed the retail price of Hong Kong, the Hong Kong market is the only product supplied by the plant and is the promotion price, but the United States market is not such goods.

In fact, this price is the cost of the product because the factory purchases materials with 5 US

dollars per yard; printing and dyeing processing fee is 0.36 US dollars per yard. However, similar products in the European market can be sold for \$ 30 per yard. Wang further stressed that because it was the first time to do business with him, the establishment of friendship and relations is the first importance, so his offer is not profitable. Robert continues to raise his offer from \$ 4 to \$ 4.2, then \$ 4.3, and finally \$ 4.6. Wang just smile without a word, and finally he let Robert go back to consider and say that China has a saying, do no business can be a friend. Robert did not say anything to leave. Three days later, Robert sent a message, the US company president hopes that the delegation goes to Shaoxing and make further conversation.

### **Negotiation Objectives**

The two sides negotiate to reach a deal at the headquarters of Shaoxing Silk Factory. The buyer's purchase price is no more than \$ 7 per yard, but the first batch of more than 30,000 yards will have a greater market risk. The seller's marginal profit is 4.80 US dollars per yard  $\times$  4 0,000 yards. If there are few transactions, the corresponding price should be higher.

### **Simulate Negotiation Requirements**

Each team needs to change the angle (A changes B, and B changes A after the first round).

The two sides of the negotiating arrange staff allocation, the role of division of labor, the plan of negotiation and the host starts.

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