

Impact of Inter-Firm Relationship Fairness in Strategic Alliance on Relationship Commitment -- Mediating Effects of Inter-Firm Trust

WU Yizhen^{[a],*}; WU Zhiwei^[b]; CHEN Ying^[c]

^[a] School of Management, Nanjing University, Nanjing, China.

^[b] Department of Economics, Nanjing University, Nanjing, China.

^[c] School of Management and Engineering, Nanjing University, Nanjing, China.

*Corresponding author.

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Abstract

As one of the core influencing factors of inter-firm relationship, relationship commitment has an important effect on the continuity of the inter-firm cooperative relationship and the enhancement of cooperative performance. By selecting 230 enterprises in Jiangsu as the study samples, collecting data through questionnaires and using an intermediary model, the impact imposed by inter-firm relationship fairness on the relationship commitment is studied and the mediating effect of inter-firm trust is testified in this paper. The results show that a route by which the relationship fairness affects the relationship commitment does exist in the sector of inter-firm cooperative relationship in China. Among them, distributive fairness can not only promote affective commitment directly, but also in the meantime bring in an indirect effect on the affective commitment through talent trust, while procedural fairness imposes positive impacts on affective commitment mainly by talent trust, the mediating variable. Besides, the improvement of interaction fairness can directly reduce the level of inter-firm calculative commitment on the one hand, and meanwhile helps to improve the inter-firm benevolent trust level and indirectly affects the calculative commitment on the other hand.

Key words: Relationship fairness; Relationship commitment; Inter-firm trust; Mediating effect

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INTRODUCTION

As one of the core factors maintaining inter-firm cooperative relationships, the effect of relationship commitment has drawn attentions of many researchers (Liu, Su, Li & Liu, 2008; Morgan & Hunt, 1994; Karande, Ha & Singhapakdi, 2008; Pan & Zhang 2006). In their theory "Commitment-Trust", Morgan and Hunt (1994) define relationship commitment as the attitude of partners for establishing and maintaining long-term cooperative relations, and point out that relationship commitment will impose positive impacts on outcome variables such as acquiescence, cooperative intentions etc.; besides, relationship commitment can also reduce the leaving tendency of partners. Similar study shows that relationship commitment between supply chain cooperative enterprises can contribute to the formation of relational contracts between suppliers and customers, be helpful for the establishment of efficient partnership, and further improve efficiency and cooperation performance between members of the supply chain (Johnston, McCutcheon, Stuart & Kerwood, 2004; Liu *et al.*, 2006). On the contrary, lack of relationship commitment will tend to cause failure of cooperative relationship (Lohtia, Bello, Yamada & Gilliland, 2005).

Currently, studies concerning relationship commitment are mostly based on the KMV model raised by Morgan and Hunt (1994), with the focus being laid on discussing the impacts imposed by factors such as relationship termination cost, relationship benefits, sharing values, communications and opportunistic behaviors on

relationship commitment. In fact, as one of the important dimensionalities of relationship quality of B to B partnership, relationship commitment is also influenced by other factors. Relevant studies suggest that in the commercial relationship (such as channel relationship), fairness imposes a remarkable impact on inter-firm relationship quality, including relationship commitment, and plays a significantly important role in developing and maintaining channel relationship (Anderson & Weitz, 1992; Corsten & Kumar, 2005; Geyskens, Steenkamp & Kumar, 1998). In this connection, many manufacturers and dealers are willing to maintain mutual fairness by sacrificing their own marginal profits (Scheer, Kumar & Steenkamp, 2003).

Hence, will fairness exert an impact on relationship commitment in inter-firm partnership, and what's the specific impact route? All these are urgent questions to answer. This study will focus on discussing the impact mechanism and impact route between fairness and relationship commitment. The first part concerns theoretical overview and study hypothesis, while the second part deals with study design, and the third part talks about demonstration results and analysis, and the last part is the conclusion of this study.

1. LITERATURE REVIEW AND RESEARCH HYPOTHESES

1.1 Connotation of Relationship Fairness

The model of Sweden customer satisfaction barometer (S) The theory of fairness is mainly applied to the studies of fields of organization fairness, service fairness and fairness between cooperative enterprises etc. The early study of fairness theory was originated from social psychology, mainly discussing organization fairness's impact on employees' behaviors and other issues in the perspective of organizational behavior. The so-called organization fairness refers to the fairness existing at workplaces, especially the fairness perceived by employees, which is conducive to stimulating employees to work actively in the fair atmosphere, and thus improve employees' work performance, and finally realize the organizational goals. Organization fairness includes distributive fairness, procedural fairness, interaction fairness and information fairness etc.

Comparing with studies on organization fairness theory, the theory circle started late in studying service fairness, which focuses on discussing the impacts imposed by clients' perception of service fairness on the service quality, customer satisfaction and loyalty. Similar to organization fairness, service fairness also includes dimensionalities such as distributive fairness, procedural fairness, interaction fairness and information fairness (Seiders & Berry, 1998).

The study on fairness theory in the field of inter-firm relationships is mainly carried out in terms of fairness and alliance evolvement, joint venture management based on fairness theory and channel relations management based on fairness theory (Maxham & Netemeyer, 2003; Shi & Li, 2008; Sparks & McColl-Kennedy, 2001). Wu Zhiwei and Chen Ying (2010 & 2011) defined fairness between cooperative enterprises as relationship fairness, referring to both parties' perception of distributive fairness, procedural fairness and interaction fairness during the cooperation process, and further demonstrated that relationship fairness also contains distributive fairness, procedural fairness and interaction fairness.

1.2 Relationship Fairness and Relationship Commitment

The study on relationship between fairness and commitment originated from the study on relationship between fairness and organizational commitment, and domestic and foreign scholars found that fairness has a significant influence on organizational commitment through a great number of empirical researches.

Iverson and Roy (1994) pointed out that fairness perception can increase employees' attitudinal commitment, reduce job searching as well, and further increase employees' behavioral commitment. If employees feel that they are treated equally, they will have a better organizational identification and devote themselves to the organization; therefore, they will be more loyal to the said organization. Allen and Meyer (1996) found in the research on organizational commitment that procedural fairness and affective commitment have a remarkably positive correlation. Brooks and Zeitz (1999) also pointed out that the degree of correlation between distributive fairness and affective commitment is higher compared with that between procedural fairness and interaction fairness. Liu Ya and Long Lirong (2003) found in the empirical research on enterprises and governmental organs in Hubei Province that organization fairness has a strong predictability on organizational commitment, and distributive fairness has a greater impact on organizational commitment compared with procedural fairness. Sarminah Samad (2006) also demonstrated by empirical researches that procedural fairness and distributive fairness are both predictive variables of organizational commitment, of which distributive fairness has a greater impact on organizational commitment.

In the study on inter-firm relationship, Anderson and Weitz (1992) found by study that the fair relationship between manufacturers and dealers is helpful for promoting their relationship commitment. Kumar, Scheer and Steenkamp (1995) found in empirical research which measures relationship quality with variables such as relationship commitment that distributive fairness and procedural fairness can improve relationship quality. Li Yuan, Yang Zhiping and Shi Huibin (2009), in the analysis of the route through which the procedural fairness and dis-

tributive fairness affect alliance performance, found that relationship commitment is a notable route through which the procedural fairness and distributive fairness influence alliance performance, and that procedural fairness and distributive fairness can promote organizations' commitment in alliance.

Based on the above analysis, the paper proposes the following Hypothesis:

Hypothesis 1: Relationship fairness has a positive impact on relationship commitment.

1.3 Inter-Firm Trust and Relationship Commitment

Moorman, Zaltman, and Deshpande (1992) found in the study that trust and commitment are both key factors to maintain partnership, but trust is the precondition for fulfilling commitment while commitment is the result of trust. Morgan and Hunt (1994)'s KMV model thinks that trust and relationship commitment are important variables that influence cooperation performance, of which trust has a positive effect on relationship commitment. Carnevale (1998) pointed out that in the alliance, trust can reduce the harm brought on individuals by uncertainties, increase individuals' psychological sense of belonging to the alliance, and thus generate more willingness to make commitment. Garbarino and Johnson (1999) think that trade commitment between partners is based on interests and affection, but interests are generally based on organization trust, and because commitment contains potential harm and sacrifice, it's impossible for people to easily make a commitment unless trust is firstly established; therefore, trust is the precondition for making commitment. Pan Wen'an and Zhang Hong (2006) demonstrated through studying supply chain partnership that organization trust and individual trust have a positive effect on relationship commitment, but the role played by organization trust is more important. Li Yongfeng and Si Chunlin (2007) found through empirical research on inter-firm trust in cooperative, innovative and strategic alliance that inter-firm mutual trust has a positive effect on commitment. Zhuang Guijun *et al.* (2009) demonstrated through research on relationship between China's manufacturers and foreign dealers that the influence of trust on commitment still exists under the transnational or cross-cultural background.

Based on the above analysis, the paper proposes the following Hypothesis:

Hypothesis 2: Inter-firm trust has a positive impact on relationship commitment.

1.4 Mediating Effect of Inter-Firm Trust

Through the aforesaid discussion, we can find that inter-firm trust is the important prior variable that triggers relationship commitment. Besides, the current study also shows that there exists remarkable positive correlation between fairness and trust.

In the study on organization fairness, Werhane (1999)

pointed out that if enterprises grant employees the power of fair treatment in workplace, permit them to get along with each other in an atmosphere featured with mutual respect and open and free idea exchange, it will help the growth and flourishing of trust between employees. In the research on service fairness, Seiders and Berry (1998) think that fairness is the essential condition for trust. A company which fails to establish an image of service fairness will find it very hard to generate trust which can absorb loyal customers. Zhan Zhifang and Gan Biquan (2006) found out by studying travel agencies that information fairness, interpersonal fairness, distributive fairness, procedural fairness and other dimensionalities have important predictive effects on variables such as talent trust, quality trust between enterprises and customers.

In the study on inter-firm relationship, Dwyer, Schurr and Oh think that interaction fairness is the essential condition for developing trust between enterprise partners. Anderson and Weitz observed that suppliers boasting a fair reputation can get more trust from partners who will expect to continue to have relevant relationships with such suppliers. Wu Zhiwei and Chen Ying (2010) found through Chinese partnership enterprises that distributive fairness and procedural fairness can promote inter-firm honesty and trust as well as talent trust level, while interaction fairness is conducive to improving the inter-firm level of benevolent trust.

In fact, according to the views of Social Exchange Theory, the interaction relationship between both parties involved in the social exchange is an exchange relationship based on trust, different from the trading relationship based on Calculated Basis of traditional economic exchange, and the giver doesn't take the short-term interests as the key consideration but focuses on the returns which might be produced by the expected partners in the future. In this social exchange, "fair distribution" is the basic principle to guarantee the continuation of the above relationship. Only after both parties can offer mutual benefits and achieve common progresses according to the principle of fairness can they perceive that the other party has fulfilled their psychological contract, making for the establishment of the mutual trust relationship, and further making more commitments and more loyal to the other party.

Although the view of social exchange theory is more applied to the study on exchange relationship between employees and enterprise or enterprises and customers, the inter-firm cooperation relationship is essentially a social exchange relationship, and the above views should also be applicable. Based upon the above considerations, we think there is a possibility that relationship fairness can affect relationship commitment through inter-firm trust. Therefore, the paper proposes the following hypothesis:

Hypothesis 3: Inter-firm trust plays a mediating role between relationship fairness and relationship commitment.

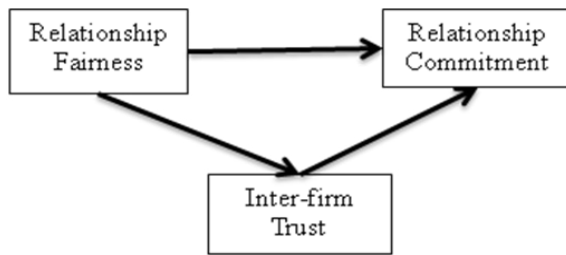


Figure 1
Conceptual Model of Relationship Fairness, Inter-Firm Trust and Relationship Commitment

2. RESEARCH DESIGN

2.1 Questionnaire Design

This study obtains research data through designing scale. The scale design is mainly obtained through standard design processes and based upon existing documentations. In the design, we try our best to use the mature items in the scale. If there is no existing item, then based on the existing document and by combining relevant information obtained from on-site interviewing with enterprises, a measurement indicator database will be established to

refine relevant indicators in light of the content validity of various variables and gradually get rid of unsatisfactory items, and finally seek the most appropriate items by repeated comparison. The items will be measured with Likert 5-grade scale.

Variables involved in the scale also include environmental uncertainties and industrial technical change and other control variables besides relationship commitment, relationship fairness and trust etc., of which, environmental uncertainties mainly reflect changes of customer preferences, needs in the industry engaged by the enterprise, and whether rivals' activities are certain or the environment of competition for industry market is unpredictable; this paper adopts the definition of industry technical change made by Jaworski and Kohli, which mainly refers to the speed of technical changes in industry environment, and which are measured from the aspects such as whether the technical changes in the industry in which the company involves is quick, whether the technical changes can provide great opportunities to the enterprises and whether the technical breakthroughs can make many products' originality are possible to be realized, etc. (Table 1).

Table 1
Table of Main Study Variables

Variables		Sub-variables	Number of items	Source
Independent Variable	Relationship Fairness	Distributive Fairness	5	Kumar, Scheer, and Steenkamp (1995); C. Yilmaz <i>et al.</i> (2004)
		Procedural Fairness	6	Greenberg (1990); Kumar, Scheer, and Steenkamp (1995); C. Yilmaz <i>et al.</i> (2004)
		Interaction Fairness	5	Bies and Moag (1986); Siders and Berry (1998); C. Yilmaz <i>et al.</i> (2004)
Dependent Variable	Relationship Commitment	Affective Commitment	6	Morgan and Hunt (1994); Kumar (1995)
		Calculative Commitment	4	
Mediating Variable	Inter-firm Trust	Honesty Trust	4	Kumar, Scheer, and Steenkamp (1995); Jarvenpaa, Knoll, and Leidner (1998)
		Benevolent Trust	4	
		Talent Trust	5	
Control Variable	Environmental Uncertainty	Environmental Uncertainty	4	Miller (1988)
	Technical Change	Technical Change	3	Jaworski and Kohli (1993)

2.2 Research Process and Sample Data

The questionnaires are issued directly and the answerers are mainly senior and middle management from enterprises situated in Suzhou Industrial Park. When conducting the survey, we require the respondent answer relevant questions in the questionnaires by taking his most familiar partner as the target. We have issued a total of 450 copies of questionnaires and retrieved 256 copies and, by getting rid of 26 copies of invalid ones, we've gotten 230 copies of valid questionnaires in the end, achieving an effective usability rate of 51.11%. The industries in which the studied enterprise engaged in basically include

various main industries of the national economy and are of representatives of their industries to some extent (Table 2).

Table 2
Industrial Distribution of Sample Enterprises

Industrial distribution	Number of enterprises	Percentage (%)
Manufacturing	72	31.30
Financial services	26	11.30
Construction and Real Estate industry	37	16.09
Trade industry	25	10.87
Public utilities	16	6.96
IT industry	43	18.70
Others	11	4.78
Total	230	100

3. EMPIRICAL RESULTS AND ANALYSIS

3.1 Test of Credibility and Validity of Variables

In light of the analysis results of factors of independent and dependant variables, the composition of various variables and questionnaire design are, after deleting items which don't conform to the rules we set in advance, basically the same. To be specific, the variable of relationship fairness is divided into three sub-variables in light of accountability for the factors, namely, interaction

fairness, distributive fairness and procedural fairness; while relationship commitment variable is divided into two sub-variables based on factor accountability, i.e. affective commitment and calculative commitment. Cronbach's α value of the aforesaid factors, with the exception of the value of calculative commitment factor which is fairly small, are all larger than 0.6, and the measurement for this research variables are of fairly high credibility and validity (Table 3).

Table 3
Analysis Results of Reliability and Validity of Independent Variables and Dependant Variables

Variables	Sub-variable	Items of the questionnaire	Factor 1	Factor 2	Factor 3	Reliability (α)	Accumulative accountability (%)
Relationship Fairness	Interaction Fairness	Partners will consider every cooperative enterprises' counterviews proposed in connection with its policies and schemes	0.822				
		Partners will make efforts to promote two-way exchanges with your company	0.758			0.7875	27.824
		Partners will often explain their decisions to your company	0.842				
	Distributive Fairness	Compared with the benefits obtained by other enterprises of the same sector through similar cooperation relationships, the results and benefits got by your company is fair		0.733			
		Compared with the benefits obtained by this partner through cooperating with your company, the results and benefits got by your company is fair		0.844		0.7164	52.521
		Compared with the contribution made by this partner through marketing efforts, the results and benefits got by your company is fair		0.724			
Relationship Commitment	Procedural Fairness	Partners know the local environment which your company faces well			0.911		
		Partners try their best to understand local environment in which your company operates and adopts corresponding actions			0.6587		71.720
		Even if your company can, you would not end business relationship with partners because your company likes to do business with them	0.873				
	Affective Commitment	Your company still wants to remain a member of partnership network because the association with your partners is quite pleasing.	0.797			0.7870	42.204
		Your company shows an affection towards partners	0.843				
	Calculative Commitment	The cost for terminating relationship with partners is very high for your company		0.820			
		The reason why your company maintains business with partners is that you have no other feasible choices		0.820		0.5130	69.121

Table 4 shows the analysis results of reliability and validity of mediating variable and control variable. According to the factor analysis results, the composition of various variables and questionnaire design are, after deleting the items incongruent with the selection rules set by us in advance, basically the same. Mediating variable and inter-firm trust variable is divided into three sub-variables in light of factor accountability, namely, honesty

trust, talent trust and benevolent trust.

The component items for control variable, environmental uncertainties and technical changes are congruent with the items we set in advance. Cronbach's α value of various factors are all larger than 0.6, showing that the measurement of above variables is of a fairly high reliability and validity (Table 4).

Table 4
Analysis Results of Reliability and Validity of Mediating Variable and Control Variable

Variables	Sub-variables	Items for questionnaire	Factor 1	Factor 2	Factor 3	Reliability (α)	Accumulative accountability (%)
Inter-firm Trust	Honesty Trust	Your company believes that partners are sincere	0.859			0.8073	26.844
		Your company believes that partners will be consistent in their actions	0.865				
	Talent Trust	Partners have rich professional knowledge		0.676		0.6951	52.187
		Partners are professionally qualified		0.713			
		Partners are capable of helping your company promote performance		0.821			
	Benevolent Trust	Partners will consider your company's interests when making important decisions			0.865	0.6109	73.877
		Partners express understanding for the difficulties your company faces			0.772		
Environmental Uncertainty	Environmental Uncertainty	Customers of the industry in which your company is engaged have quickly changing preferences	0.730			0.7770	60.182
		Customers in the industry in which your company is engaged has quickly changing demands	0.787				
		Rivals' activities on the market are quite uncertain	0.778				
		Market competition environment of the industry in which your company is engaged is unpredictable	0.807				
Technical Change	Technical Change	Technologies of the industry in which your company is engaged change quickly	0.578			0.7600	67.916
		In the industry in which your company is engaged, changed technologies can provide great opportunities for enterprises	0.761				
		In the industry in which your company is engaged, technical breakthroughs can make it more possible to produce a great number of creative products	0.698				

3.2 Empirical Results and Analysis

This paper adopts the standard test method proposed by Baron and Kenny (1986) for testing mediating effects. According to studies conducted by Baron and Kenny (1986), the existence of mediating effect must meet the following conditions: independent variable (relationship fairness) has a remarkable effect on mediating variable (inter-firm trust); independent variable (relationship fairness) and mediating variable (inter-firm trust) respectively have significant effects on dependent variable (relationship commitment); when independent variable (relationship fairness) and mediating variable (inter-

firm trust) regress to dependent variable (relationship commitment) at the same time, the original remarkable relationship between independent variable and dependant variable becomes less remarkable due to the introduction of mediating variable (full mediation) or significance level decreases (partial mediation).

3.2.1 Descriptive Statistical Analysis

Table 5 shows descriptive statistical analysis results of various primary research variables, and correlation of different degrees exist among factors such as relationship commitment, relationship fairness and inter-firm trust.

Table 5
Descriptive Statistical Analysis of Primary Variables

Variables	1	2	3	4	5	6	7
Interaction fairness	1						
Distributive fairness	0.32***	1					
Procedural fairness	0.380***	0.411***	1				
Affective commitment	0.112	0.222**	0.093	1			
Calculative commitment	-0.3***	-0.1	-0.1	0.01	1		
Honesty trust	0.23**	0.48***	0.42***	0.21**	-0.13	1	
Talent trust	0.33***	0.34***	0.49***	0.37***	0	0.49***	1
Benevolent trust	0.45***	0.40***	0.45***	0.20**	-0.22**	0.38***	0.32***

Note: *** represents remarkable level achieved at 0.01, ** represents remarkable level achieved at 0.05.

3.2.2 Effect of Relationship Fairness on Inter-Firm Trust

Table 6
Effects of Relationship Fairness on Inter-firm Trust

Independent variables	Dependant variables		
	Honesty trust	Talent trust	Benevolent trust
Constant term	0.002	0.002	0.002
Interaction fairness	0.128**	0.227***	0.393***
Distributive fairness	0.242***	0.238***	0.224***
Procedural fairness	0.302***	0.224***	-0.019
R ²	0.167	0.159	0.206
Adjusted R ²	0.156	0.148	0.196
Value F	14.949***	14.129***	19.416***

Note: *** represents a remarkable level achieved at 0.01, ** represents remarkable level achieved at 0.05, * represents remarkable level achieved at 0.10

Multiple regressions will be conducted by taking the three

dimensionalities of relationship fairness as independent variables and three dimensionalities of inter-firm trust as criterion variables (Table 6). With the exception of procedural fairness which has a less remarkable effect on benevolent trust, all dimensionalities of relationship fairness have significant positive effects on the three dimensionalities of inter-firm trust, of which effect of interaction fairness on honesty trust is less remarkable ($P < 0.05$), while the effects of other dimensionalities are very remarkable ($P < 0.01$).

3.2.3 Hierarchical and Multiple Regression Analysis

We have conducted separate hierarchical regression analysis against affective commitment and calculative commitment, the two sub-variables of relationship commitment, including 16 models, of which Models 1-8 show the hierarchical and multiple regression analysis results of affective commitment, and Models 9-16 show the hierarchical and multiple regression results of calculative commitment (Table 7 and Table 8).

Table 7
Hierarchical and Multiple Regression Analysis Results of Affective Commitment

Variables	Affective commitment							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Control Variable								
Environmental Uncertainty	0.044	0.032	0.037	0.030	0.006	0.002	0.032	0.032
Technical Change	0.087	0.095	0.087	0.095	0.101	0.112	0.095	0.095
Independent Variables								
Interaction Fairness		0.056		0.050		0.025		0.041
Distributive Fairness		0.216***		0.192**		0.181**		0.207***
Procedural Fairness		0.162*		0.132*		0.066		0.140*
Mediating Variables								
Honesty Trust			0.179**	0.060				
Talent Trust					0.316***	0.267***		
Benevolent Trust							0.104	0.041
R ²	0.013	0.185	0.104	0.188	0.210	0.245	0.032	0.187
Adjusted R ²	-0.006	0.104	0.102	0.103	0.184	0.193	0.003	0.103
Value F	0.669	2.792***	2.566***	2.574***	4.172***	3.779***	1.121	2.538***

Note: *** represents remarkable level achieved at 0.01, ** represents remarkable level achieved at 0.05, * represents remarkable level achieved at 0.10

In the hierarchical regression results, Model 1 shows regression analysis results of control variable and affective commitment. Model 2 shows regression results of control variable, relationship fairness and affective commitment, which suggest that distributive fairness and procedural fairness of relationship fairness have positive effects on affective commitment, and thus Assumption 1 is supported. Models 3-8 respectively test effects and mediating effects of honesty trust, talent trust and benevolent trust on calculative commitment. Model 3, Model 5 and Model 7 respectively test relationship between inter-firm trust and calculative commitment, and the results show that honesty trust and talent trust have remarkable positive effects on affective commitment while benevolent trust doesn't have a notable effect on affective commitment, thus Assumption 2 is partially supported. Models 4, 6 and 8 test the mediating effects of various factors of inter-firm trust on relationship fairness

and affective commitment, and the results show that the mediating effects of honesty trust and benevolent trust are not remarkable while that of talent trust on distributive fairness, procedural fairness and affective commitment is demonstrated. Specifically, talent trust has partial mediating effect on the relationship between distributive fairness and affective commitment, and the coefficient of distributive fairness and the significance level decrease; However, talent trust has a complete mediating effect on the relationship between procedural fairness and affective commitment and coefficient of procedural fairness becomes less remarkable, thus Assumption 3 is partially demonstrated (Table 7).

In the hierarchical regression results of calculative commitment, Model 9 represents the regression analysis results of control variable and calculative commitment, showing that environmental uncertainty factor has a remarkable positive correlation with the calculative

commitment, demonstrating that environmental changes can promote calculative commitment level of cooperative parties. Model 10 represents the regression results of control variable, relationship fairness and calculative commitment, showing that distributive fairness and procedural fairness in relationship fairness have an inconspicuous effect on calculative commitment, while interaction fairness is conducive to reducing level of calculative commitment between partners. Models 11-16 respectively check effects and mediating effects of honesty trust, talent trust and benevolent trust on calculative commitment. Model 11, Model 13 and Model 15 respectively test relationship between inter-firm trust and calculative commitment, and the result shows that

honesty trust and talent trust don't have remarkable effect on calculative commitment while benevolent trust has a notable negative effect on calculative commitment. Model 12, Model 14 and Model 16 test mediating effects of various factors of inter-firm trust on relationship fairness and calculative commitment and the result shows that honesty trust and talent trust don't have a remarkable mediating effect while partial mediating effect of factors of benevolent trust between interaction fairness and calculative commitment is proved. After introduction of benevolent trust factor, the coefficient of interaction fairness significantly decreases and Assumption 3 is partially demonstrated (Table 8).

Table 8
Hierarchical and Multiple Regression Results of Calculative Commitment

Variables	Calculative commitment							
	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16
Control Variable								
Environmental Uncertainty	0.179**	0.203**	0.176**	0.200**	0.180**	0.209**	0.184**	0.202**
Technical Change	0.016	0.029	0.017	0.030	0.005	0.015	0.019	0.028
Independent Variables								
Interaction Fairness		-0.28***		-0.28***		-0.29***		-0.221**
Distributive Fairness		0.034		0.025		0.013		0.064
Procedural Fairness		0.008		0.004		-0.036		0.052
Mediating Variables								
Honesty Trust			0.001	0.019				
Talent Trust					0.101	0.145*		
Benevolent Trust							-0.204**	-0.151*
R ²	0.104	0.211	0.103	0.211	0.104	0.228	0.107	0.227
Adjusted R ²	0.102	0.167	0.100	0.156	0.102	0.175	0.105	0.173
Value F	2.453***	3.499***	2.170**	3.027***	2.532***	3.395***	3.718***	3.374***

Note: *** represents remarkable level achieved at 0.01, ** represents remarkable level achieved at 0.05, * represents remarkable level achieved at 0.10

In conclusion, the mediating effect of inter-firm trust in relationship fairness and relationship commitment is shown as follows:

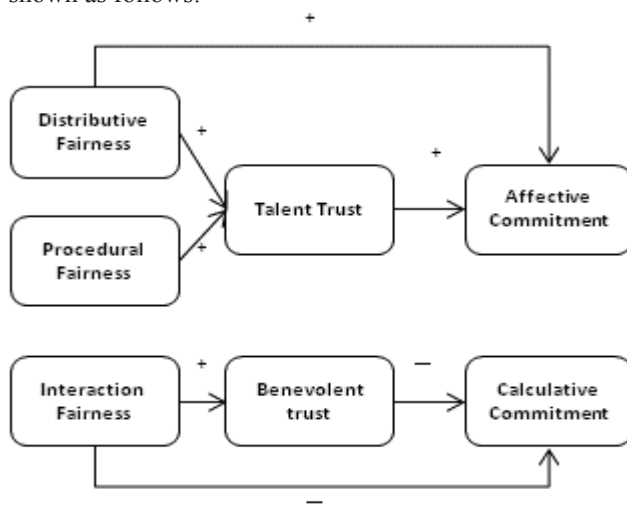


Figure 2
Model of Mediating Effects of Inter-Firm Trust

Note: The solid line represents remarkable effect, "+" represents positive effect, and "-" represents negative effect

Through the above analysis, we can see that relationship fairness indeed has positive effects on relationship commitment through inter-firm trust variables, and this empirical result also proves that our judgment made at the time of proposing assumptions, i.e. the view of social exchange theory, also applies to inter-firm partnership field. Specifically, in the social exchange relationship of inter-firm cooperation, fairness is also the key basic principle for guaranteeing continuity of partnership. Fair treatment between cooperation parties can remarkably promote mutual trust relationship and further strengthen both parties' affective commitment, which will further encourage the continuity of such social exchange relationship in return. Moreover, the above mechanism is also conducive to the reduction of level of calculative commitment between cooperative enterprises, while calculative commitment is actually a factor beneficial to economic exchange relationship but going against continuity of social exchange relationship; therefore, such changes can also boost efficient operation of relationship between partners.

CONCLUSIONS AND SUGGESTIONS

This paper takes inter-firm trust as the mediating variable to study the function mechanism of relationship fairness, inter-firm trust and relationship commitment, which is of a certain theoretical and realistic significance for analyzing the mechanism of relationship quality and cooperation performance between cooperative enterprises. Some researches conducted previously have analyzed effects of fairness factor on inter-firm trust, and some focused on discussing interaction between trust and commitment, but no one has ever included the three variables into one analysis model. From this perspective, the study of this paper is of a certain theoretical value.

Through this paper's empirical research, we may see that amongst the two component dimensionalities of relationship commitment, affective commitment is a comparatively stable dimensionality as it originates from pleasing experiences and affective reliance in cooperative process with cooperation parties and will not change with the changes of cooperative environments or technical environment. However, the empirical results of this paper show that variables of relationship fairness like distributive fairness and procedural fairness can help promote comparatively stable affective commitment factors between cooperation enterprises. Therefore, in handling cooperative partnership, Chinese enterprises should attach great importance to partners' perception of distributive fairness and procedural fairness so as to promote talent trust level in both parties' cooperative relationship and enhance cooperative parties' affective commitment level and obtain a comparatively good cooperation performance in the end. Meanwhile, in the cooperation process, enterprises should seriously consider partners' different opinions and suggestions and frequently communicate and exchange views with partners; in case the enterprise's policies may affect partners' interests, the enterprise should patiently explain such policies to partners. Only in such ways can the enterprise help improve partners' perception of fairness in daily interaction and reduce the understable calculative commitment level in partnership so that both parties' partnership will become increasingly stable without being affected by environment and other factors, and then better cooperation performance will be achieved in the end.

In the process of handling scales and tables, we find that Chinese enterprises haven't paid sufficient attention to the relationship fairness in partnerships. This phenomenon can be clearly seen when significant differences exist between cooperation parties, of which the dominant parties tend to pull rank on the weak party, causing the latter to have a low opinion of relationship fairness, inter-firm trust and relationship commitment. Under such circumstances, although dominant parties may get more benefits in a short term, it will lower its inter-firm relationship commitment level, and once some changes beneficial to the unfavorable party happened,

their own interests might be impaired. Therefore, in Chinese inter-firm partnerships, dominant enterprises should avoid short-sighted move and make efforts to maintain unfavorable partners' perception of fairness in interest distribution, cooperation procedures, interaction and communication, maintain both parties' trust and relationship commitment levels and avoid negative effect brought on the enterprise due to unstable partnership.

The limitations of this study are mainly embodied in the representativeness of samples. We just selected samples in one region for the reason of availability of data. Although the scale and number of samples for this study is not small compared with similar researches, further study may adopt samples in a broader scope. For example, enterprises in Yangtze River Delta, Pearl River Delta and other domestic representative regions can be used as samples for the study. This will be the working direction for our future study.

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