

## 중국기업에서 IT로 인한 폴트라인이 그룹 퍼포먼스에 미치는 영향에 관한 검증적 연구

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### An Empirical Study of IT-based Faultlines on Group Performance in Chinese IT Corporations

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#### 요약

1998년 Lau와 Murnighan의 faultline 이론이후 많은 연구가 진행되었으며 이는 기존의 인구통계학 연구가 밝혀낸 것 외에 많은 유용한 해석을 가능하게 하였다. 그러나 종전의 연구들은 직장환경이 미치는 영향에 대해 충분히 검토하지 못하였으며 IT기업에 있어 faultline의 영향은 탐구되지 못하였다. 본 논문에서는 이전의 faultline 이론을 바탕으로 IT-based faultlines을 제시하였고 그 영향력을 연구하였다. 본 연구는 IT-based faultlines은 task conflict와 process conflict에 부정적인 영향을 미치며, 이 두 종류의 conflict는 IT-based faultlines의 영향을 그룹 퍼포먼스에 전달하는 것을 보여주었다. 또한 조절변수 commitment는 IT-based faultlines과 그룹 퍼포먼스사이에서 조절작용이 없는 것으로 나타난 반면 open communication는 강력한 조절작용을 나타냈다. 이 연구의 결과는 faultline은 그룹워크에서 중요한 요소임을 나타냄과 동시에, conflict 및 그룹 퍼포먼스와의 깊은 관련성이 있음을 보여주었다.

#### Abstract

Faultline theory, introduced by Lau and Murnighan in 1998, adds valuable explanations in addition to what previous demographic studies have explored. However, previous research has not been able to fully integrate the characteristics embedded in the workplace environments, and the influence of faultlines in IT industries has yet to be explored. In this study, IT related influence is given considerable weight into traditional faultline theory and the impact of IT-based faultlines is revealed. Our study indicates that IT-based faultlines have a negative impact on task conflict and process conflict, and these two conflicts also effectively mediate the influence of IT-based faultlines to group performance. Two potential moderators are studied and the results indicate that commitment has no moderating effect between IT-based faultlines and group performance while open communication has strong moderating effect. Our empirical study reconfirmed that faultlines are important indicators in group work and also that faultlines are intimately related to various conflicts and group outcomes. We hope our research findings will be

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beneficial to organizations concerned with effective and efficient group work.

▶ Keyword : Faultline, Group Work, Performance, Organization

## I. Introduction

Organizational demography is “the study of the composition of a social entity in terms of its members’ attribute” [1]. So far most studies have been focused on how different demographic attributes or various compositions of these demographic attributes affect individuals or organizational outcomes [2]. One original yet very interesting research direction is faultline theory introduced by Lau and Murnighan [3]. According to the faultline theory, the combined consequence of two or more multiple demographic attributes makes a group split into subgroups based on similarity and closeness. Faultline theory provides researchers a fresh perspective for studying diversity-related issues by adding valuable information that existing studies failed to explore.

So far research about faultlines in organizations is mostly focused on those apparent or easily retrievable social attributes, thus IT-related attributes’ influence is unconsciously neglected or unnoticed. So it is important to figure out how faultlines form and what would be the outcomes when IT-related effects are taken into account in organizational settings.

IT has emerged as one of the most prosperous industries and showed rapid growth in the whole world. As more and more industries found themselves inseparable with IT and IT personnel, the increasing dependence on IT and IT personnel is also clearly foreseeable. Also as organizations evolve into new information-based business stage and the complexity inside and outside organizations intensifies, the desire to understand how newly emerging IT personnel behaves and the need to manage and control IT personnel into existing business environment have become increasingly

urgent and critical.

In this research, we extend existing diversity and faultline studies and develop theoretical model to facilitate our exploration for IT-based faultlines and also to discover the roles of mediators and moderators in our proposed model.

## II. Literature Review

### 2.1 Diversity Research

Pelled et al. [4] refer to demographic diversity as the extent that demographic attributes are different by their contents in a workgroup or an organization. As demographic attributes shape the characteristics and behavior of each individual in a unique way, many researchers have concentrated on how demographic diversity affects individuals or groups, and further discover how these demographic attributes affect organizational outcomes.

One commonly discussed construct related to diversity is various types of conflicts in work groups [5]. Jehn [6] introduced three distinctive types of conflicts that are supposed to arouse at work places in business organizations. Task conflict is the differences on how any specified job is carried out, relationship conflict is interpersonal incompatibilities at work place, and process conflict is the differences of work related procedures. Different forms of diversity interact with different types of conflicts, and are also associated with various organizational outcomes in different ways.

For the summary of previous demographic diversity research, Williams and O’Reilly [7] concluded that it is still in the early stage to acknowledge convincing and consistent effects of diversity on organizational outcomes. They proposed that a new research paradigm be required.

## 2.2 Intergroup Theory and Social Identity Theory

Organization is a complex multi-dimensional system in which competition, conflict and challenge arise among its groups for specific powers or resources [8] and also in which members of groups depend on each other in order to retrieve and take control of crucial values [9]. That is, individuals often act to ally with people who share similar interests or perspectives for the purpose of joint objectives. In regards to the aforementioned psychological processes, there are a few existing theories such as intergroup theory, social identity theory and self-categorization theory that illustrate, from theoretical point of view, how people think and behave in a group working environment.

Intergroup relation is initially defined by Sherif and Sherif [10] as “functional relations between two or more groups and their respective members.” Intergroup relation is a vague form of expression by definition as it does not require people to coincide in every dimensions to be considered in the same internal group and share common characteristics. People have desire to belong to one distinct social group that best fits his social identification and self concept, so that they could obtain a unique and favorable position from their own group.

Previous research [11, 12] indicates that there is intergroup competition resulting from various social groups by which people behave attitudinal and perceptual biases favoring their own group members over members of other groups. Individuals have the tendency to evaluate members of their own subgroup more positively than members of other subgroups.

Tajfel [13] first defined social identity as “the individual’s knowledge that he belongs to certain social group together with some emotional and value significance to him of this group membership.” The social identity perspective argues that people are motivated to identify themselves

into groups for two main reasons: subjective uncertainty reduction and enhancement of self-esteem [14]. Inspired by the inner motivation of identification and self-esteem, social identity is primarily based on social intergroup comparisons which strive to distinguish ingroup and outgroup in order to evaluate and determine the potential group that people intend to identify with [15]. Social identity theory indicates ingroup favoritism and outgroup discrimination for group studies.

## 2.3 Concept and Characteristics of Faultlines & Previous Research on Faultlines

The theories we discussed above all analyzed one to one relationships between demographic variables and dependent variables until Lau and Murnighan [3] introduced a new concept, known as group faultline, “which depends on the compositional dynamics of multiple demographic attributes that can potentially subdivide a group.” The authors state that members in a group are split into subgroups according to similarity and closeness based on one or more demographic attributes. That is, the separation of members in a group is the consequence of combined influence of more than one demographic attribute. Thus by evaluating the effect of one attribute at a time, previous studies on demographic attributes may have missed crucial but easily unnoticeable constructs.

Compared to previous demographic diversity research, faultline theory possesses three major properties which are essential in the formation of faultlines in group works. These properties are as follows [3]. First, group members have multiple demographic dimensions. Second, group faultlines usually become major issue with the appearance of external force. And finally, there is huge impact of strong and hidden faultlines whenever exposed. When we consider faultlines, not only are the factors that influence the formation of faultlines reviewed, but also the factors that are associated with the strength of faultlines are considered.

Thatcher et al. [16] developed theory-based algorithm to calculate the strength of faultlines by comparing multiple dimensions of group members simultaneously. They applied recoding and rescaling method to combine nominal and numerical variables together into a single comparable measurement, and this makes the comparison of different faultline strengths possible. Gibson et al. [17] examined the relationship between subgroups and team learning behavior. Contrary to Lau and Murnighan's [3] statements, the authors conclude that the presence of subgroups within teams is not always detrimental, but might stimulate learning behavior according to different levels of subgroup strength.

As can be seen from previous research, faultlines are a unique construct that has not been revealed until recently and are still in the early stage of exploration.

### III. Conceptual Model & Hypotheses

#### 3.1 Conceptual Model

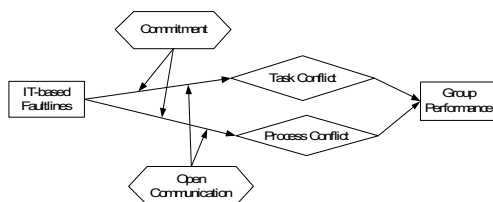


Fig. 1. Conceptual Model of IT-based Faultlines

In an effort to discover the dynamics of culture based faultlines, we explain how the same demographic variables affect the formation of faultlines in different ways when IT-related features are taken into account. In the organizational workplace process, we introduce two types of conflicts (task conflict, process conflict) that are explored in connection with IT-based faultlines, and the mediating roles of the two types of conflicts are proposed which are supposed to

interact between faultlines and group performance. Also moderating effect of commitment and open communication is measured and discussed. A conceptual model for IT-based faultlines is introduced in Figure 1.

#### 3.2 Hypotheses

For last two decades, IT industry was considered as one of the most fast-growing areas in the global world. With improvement and development in technology, more and more traditional industries incorporated with information technology for their continued growth and further development, and IT has become inseparable part of every industry. As the result, the world witnessed tremendous growth in the number of IT-related professionals and these IT professionals have become one of the major work forces distinguishable from other non-IT professionals, and constitute an increasingly important component of the work force in many organizations [18].

IT workers show characteristics distinct from the workers in other professions. First, as information technology is rapidly changing, IT professionals have to keep up with the pace of fast technological development. To frequently acquire and update required knowledge or skills is one of the main differences between IT and non-IT professionals [19]. Second, compared to the workers in other areas, IT workers are more prone to work alone and there is less cooperation or coordination with other workers compared to the rest of professions.

The requirements for IT individuals have become more demanding especially when they are related to functional knowledge in business areas [20]. Also, less job-related attributes such as age or gender are unlikely to have direct and close influence on technical work [21]. The projects for IT workers usually require knowledge from different functional areas, and this makes IT workers interact and coordinate with people who has various functional backgrounds [22]. So,

Hypothesis 1: When a group is mostly comprised of IT workers, functional tenure is likely the most important factor in the formation of faultlines.

Since IT professionals are more likely to work independently, they usually have less chance of interaction with other people, even with other members in their own work group. This will make them have less opportunity or chance to communicate with other people compared to the workers in a more ordinary working environment. If the group members are all IT related professionals, the situation might be worse, and this probably causes more unnecessary or avoidable expressions or feelings among group members.

Also every IT workers are more familiar with the way he has been doing in work related procedures and they might have strong belief that they have better expertise in their work, and this might hinder them from effectively solving work related problems with their group members. Highly job-related diversity attributes such as functional or industry backgrounds are proposed to have a stronger impact on the task related group processes [21]. So,

Hypothesis 2-1: IT-based faultlines are positively associated with task conflict.

Hypothesis 2-2: IT-based faultlines are positively associated with process conflict.

When individuals consider themselves as members of a certain work group, they tend to define their work roles in terms of their values as contributors to the group's primary task rather than in relation to one specific job. These individuals commit themselves to their work and are proud at where they work and what they do. It is noted that loyalty have an impact on the way team members process and interpret the information provided through dissenting points of

view [23]. When people possess loyalty toward their work, they tend to have more commitment as well. This commitment toward organizations promotes open communication and information sharing, in addition to the belief that they work together to achieve ultimate group goals. Given high commitments, people are less likely to take job related dissents personally and are more likely to focus on solving the gaps caused by different perspectives and opinions. So,

Hypothesis 3-1: Commitment plays moderating role between IT-based faultlines and task conflict.

Hypothesis 3-2: Commitment plays moderating role between IT-based faultlines and process conflict.

It is observed from previous research that group members are more inclined to the information that they know than to exchange, share and convey the unique information they know, thus resulting in less productive outcomes [24]. Phillips et al. [25] stated that whenever a task is conducted by a group with diversity, performance is affected by the fact that who knows what and also whether the information among group members are shared. Willing to share available knowledge or information among group members can make group members have more open communication.

Gruenfeld et al. [26] studied decision making in groups composed of three strangers, three familiars, or two familiars and a stranger. Their study indicates that open communication is the most important key in making group members to share and exchange knowledge for better decision making and performance. Informal communication encourages members to interact frequently and also to become socially integrated or close to one another. Especially for IT workers, more frequent interaction and communication are required in order to work with people from different functional backgrounds to establish common job-related

vocabulary, experience and knowledge [22, 27]. So,

Hypothesis 4-1: Open communication plays moderating role between IT-based faultlines and task conflict.

Hypothesis 4-2: Open communication plays moderating role between IT-based faultlines and process conflict.

In business organizations, conflict is inseparable part of everyday social relations, and it will lead to frustration and disappointment if not handled or controlled appropriately. There have been many studies about the relationships between faultlines, conflicts and organizational outcomes [17, 16]. As Lawrence [28] stated, previous demography studies overemphasized the relationship between demographic attributes and organizational outcomes and underestimated the important roles of mediators between these antecedents and consequents.

There is a study about intervening variables which play essential roles in faultline research [16]. Although settings of corporate goals, task routineness and longevity are all studied as potential intervening factors, the most common mediators are task conflict and process conflict.

When there is high level of IT-based faultlines, people who belong to different subgroups have less commonality and thus have less interest in understanding each other. Consequently, there are less interaction and mutual preference and these will result in more conflicts including relationship, task and process conflict. Also as previous studies have shown various conflicts are closely related to organizational outcomes and would reduce performance whenever there is high level of conflicts among group members. So,

Hypothesis 5-1: Task conflict plays mediating role between IT-based faultlines and

group performance.

Hypothesis 5-2: Process conflict plays mediating role between IT-based faultlines and group performance.

## IV. Methodology

### 4.1 Sites and Sample

Survey data were collected from medium and large sized business corporations located in China. Then each participating business organization in our survey is selected with extreme care and the author fully explains the purpose of this survey and the procedure to all participants. Also the author takes questions and answers each question until everybody fully understands and there is no ambiguity for this survey.

A survey instrument was developed to collect the quantitative data needed for our theoretical model and hypothesis testing. Survey is conducted at eight Chinese corporations and total 77 valid data sets are collected with total 16 groups. Among 16 groups, 7 groups consist of four group members, 5 groups have five group members and 4 groups have six members respectively. All survey questions are measured by 7 point Likert scale except the ones for demographic variables.

### 4.2 Measurement Variables

In this study, all the variables in our conceptual model except faultline are measured by survey questions. The detailed explanations of each variable are specified in Table 1. Faultline, the only independent variable, is obtained by six demographic attributes (refer to reference [16] for detailed discussion on how to calculate faultline score) including age, gender, educational background, functional tenure, group tenure and organizational tenure.

### 4.3 Measurement Model

Partial Least Squares (PLS) structural equation analysis is applied in our theoretical model to test proposed hypotheses. In PLS, internal consistency, convergent validity, and discriminant validity of constructs and measurement indicators should be carefully evaluated. The results for internal consistency, convergent validity and discriminant validity are presented in Table 2. Table 3 presents factor loadings and cross-loadings for all indicators. As can be seen from Table 2, Cronbach's  $\alpha$  values are all over .60, composite reliability values are all over .70 cut-off and AVE values are greater than .50 cut-off, so internal consistency and convergent validity are well supported. Table 2 also shows correlations of constructs and square roots of AVE values at diagonal line. It is clear that the values at diagonal line exceed the highest value in off-diagonal elements, thus demonstrating discriminant validity is well supported. In addition, Table 3 shows factor loading values of each indicator. As can be seen, each indicator has higher value on the construct where it is supposed to belong than any other construct. In summary, the results collectively suggest good measurement properties for proposed model.

To test our hypotheses, we applied multiple regression analysis method by SPSS instead of PLS's structural model. The detailed analyses and results are provided in the following section.

#### 4.4 Results

For hypothesis 1, we applied the algorithm developed by Thatcher et al. [16] to calculate faultline scores for each group and also calculated the percentage of each demographic variable accounting for its assigned group's faultline score. As a result, sex accounts for 7.0% of total faultline score, age 11.9%, education background 21.2%, functional tenure 38.5%, group tenure 11.5% and organizational tenure 10.0%. As can be seen, functional tenure alone accounts for nearly 40% of total faultline score indicating that our hypothesis

is well supported.

For hypothesis 2 and 3, we tested our hypotheses using single linear regression method provided by SPSS, and the results are presented in Table 4.

Table 4. Results of Hypothesis 2-1 & 2-2

Hypothesis	T value	Significance	Result
2-1	7.058	.000	Accept
2-2	6.736	.000	Accept

From the table above, it is clear that both hypothesis 2 and 3 are well supported and they are both significant at .001 level. It reconfirmed our prediction that faultlines are the primary reason of various conflicts in group works, and that faultlines are positively and significantly associated with task conflict and process conflict. Thus with strong faultlines, the possibility of task conflict and process conflict is much higher in group works and this will result in unanticipated and unpleasant atmosphere for groups. Whenever there are weak faultlines, there is less chance of severe task conflict and process conflict resulting in much harmonious working atmosphere.

For the hypotheses related to moderating effect, raw data of independent variable and moderator are converted to standardized values in order to obtain accurate result. Hypothesis 3-1 and 3-2 are to evaluate the moderating effect of commitment, and the results are presented in Table 5. As can be seen, hypothesis 3-1 has a t-value of -1.222 and hypothesis 3-2 has a t-value of -1.386, and they are both not significant at pre-specified confidence level.

Table 5. Results of Hypothesis 3-1 & 3-2

Hypothesis	T value	Significance	Result
3-1	-1.222	.225	Reject
3-2	-1.386	.170	Reject

Table 5 clearly presents that hypothesis 3-1 and 3-2 are all rejected by the specified criteria ( $p > .05$ ). It indicates that commitment has no moderating effect between faultlines and various types of conflicts. Contrary to our prediction, commitment does not play any mitigating role between faultlines and conflicts. For IT-based faultlines, no sign of moderating effect is detected which requires future exploration for possible reasons.

Hypothesis 4-1 and 4-2 intend to verify whether open communication has moderating effect between faultlines and conflicts, and the results are presented in Table 6. As can be seen, hypothesis 4-1 has a t-value of -4.661 and it is significant at .001 confidence level. Similarly, hypothesis 4-2 has a t-value of -4.776 and is also statistically significant at .001 confidence level.

Table 6. Results of Hypothesis 4-1 & 4-2

Hypothesis	T value	Significance	Result
4-1	-4.661	.000	Accept
4-2	-4.776	.000	Accept

Table 6 clearly presents that hypothesis 4-1 and 4-2 are all accepted as they are highly significant ( $p < .001$ ). It indicates that open communication has strong moderating effect between faultlines and conflicts. Since the Beta values are all negative, it is known that the moderating effect of open communication on the relationship between faultlines and conflicts is also negative. With more open communication, there is weak correlation between faultlines and conflicts. On the other hand, strong correlation is unlikely when there is less open communication among group members. In summary, open communication mitigates the influence of faultlines on conflicts. For IT-based faultlines, open communication consistently plays moderating role between faultlines and task/process conflict.

For the mediator-related hypothesis 5-1 and 5-2,

we tested our hypotheses using multi-step multi-variable regression method provided by SPSS with faultline in step 1 and task/process conflict in step 2, and the results are presented in Table 7 and 8.

Table 7. Result of Hypothesis 5-1

Hypothesis 5-1	T value	Significance	F Change	Result
Step 1 Faultline	-4.031	.000	16.252	Accept
Step 2 Faultline Task conflict	-1.780 -2.264	.079 .027	5.125	Accept

For hypothesis 5-1, when faultline is entered alone into the regression model, faultline accounts for 17.8% of total variance and it is significant at .001 confidence level. When faultline is entered together with task conflict in step 2, the significance of faultline decreases and becomes non-significant. With F change score of 5.125 in step 2, task conflict accounts for additional 6.7% variance and it is significant at .027 confidence level with a t-value of -2.264. This indicates that task conflict is significantly associated with group performance and it strongly mediates the effect of faultline to group performance.

Table 8. Result of Hypothesis 5-2

Hypothesis 5-2	T value	Significance	F Change	Result
Step 1 Faultline	-4.031	.000	16.252	Accept
Step 2 Faultline Process conflict	-1.725 -2.562	.089 .012	6.564	Accept

For hypothesis 5-2, when faultline is entered alone into the regression model, faultline accounts for 17.8% of total variance and it is significant at



.001 confidence level. When faultline is entered together with process conflict in step 2, the significance of faultline decreases and becomes non-significant. With F change score of 6.564 in step 2, process conflict accounts for additional 7.3% variance and it is significant at .012 confidence level with a t-value of -2.562. This indicates that process conflict is significantly associated with group performance and it strongly mediates the effect of faultline to group performance.

## V. Discussion and Conclusion

In this study, we investigated how faultlines form in Chinese IT corporations and also explored the most crucial factor in the formation of IT-based faultlines. In agreement with our prediction, functional tenure influences IT professionals the most and IT-based faultlines are aroused mostly by the differences in functional tenure. IT professionals are proud of their specialities and the field experiences over time have shaped their personalities and judgment during work. So it is convincing that functional tenure has become the most important factor whenever faultlines are formed. We also confirmed our hypotheses that faultlines are positively and significantly associated with task conflict and process conflict, and also confirmed that these two conflicts (task conflict and process conflict) play mediating roles between faultlines and group performance.

Faultlines, by its nature, create work related contradictions and complications among group members and this eventually affect organizational outcomes. Our study makes it clear that IT-based faultlines, conflicts and group performance are inseparable and highly correlated constructs. In our proposed model, commitment and open communication are tested as possible moderators between IT-based faultlines and conflicts. The results indicate that commitment has no

moderating effect while open communication has strong moderating impact. Even though IT professionals commit themselves to their daily work, this does not imply that they commit to create harmonious workplace environment. In fact, commitment to work makes IT professionals less likely reach a compromise when having work related issues. On the other hand, people are more likely to interact with other group members, to understand any differences among group members, and to concentrate on job itself with open communication. Consequently, people are more likely to have less job related task conflict and process conflict compared to when there are less interaction and communication.

This study has important implications for faultline theory research. Our study has extended original faultline theory by adding IT dimension which has not yet been approached. This is a pioneering work to prove that the general idea of faultlines is also acceptable in IT corporations. The results imply that IT-based faultlines are similar to general group faultlines, thereby further supporting the concept and influence of faultline theory. Also the results reconfirms that faultlines are closely associated with various types of conflicts such as task conflict or process conflict, and IT-based faultlines are indeed very strong predictors for a variety of conflicts. In addition, our study has shown that various types of conflicts play mediating roles between faultlines and organizational outcomes.

The results from this study are beneficial to high level personnel in IT organizations. Since strong faultlines result in detrimental group outcomes and this will lead to overall negative organizational performance, managers who are in charge of work groups should be aware of the important impact of faultlines and should be extremely careful when they organize group members. It is advisable to compose groups in such a way that the possibility of faultlines is kept to a minimum.

It is a good strategy for organizations to take advantage of well organized group work. Despite ample studies on group work, it has not yet come to thorough and overwhelming conclusion on how to improve group work effectively and efficiently. Faultline theory has become an emerging field of research after decades of diversity research, and faultlines are acknowledged to be important constructs in group work. Its influence on organizational outcomes can not be neglected despite the fact that faultline related studies are still in its early stages. Our research is an extended study on previous faultline theory research and opens new dimensions for further exploration in this area.

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## Appendix

Table 1. Operational Definitions

Variable	Measurements	Related Research
Task Conflict	- How frequently are there conflicts about ideas in your work group/team - How often do people in your work group/team disagree about opinions	Jehn (6)
Process Conflict	- How often do members of your work group/team disagree about who should do what - How frequently do members of your work group/team disagree about the way to complete a group task - How much conflict is there about delegation of tasks within your work group/team	Jehn (6)
Group Performance	- What is the quality of the work performed by your group/team - What is the amount of the work performed by your group/team - What is the quantity of creative or innovative ideas, suggestions or opinions contributed by your group/team?	Hackman & Morris (29)
Commitment	- I talk up this work group/team to my friends as a great group to work in - I am very committed to my work group/team - I feel a sense of ownership for this work unit rather than being just an employee	O'Reilly & Chatman (30)
Open Communication	- There is open communication in this group/team - Everyone has a chance to express their opinion - Team members maintain a high level of idea exchange	Manz & Sims (31)

Table 2. Internal Consistency, Convergent Validity, &Discriminant Validity

Construct	Cronbach's $\alpha$	Composite Reliability	AVE	Discriminant Validity				
				Task Conflict	Process Conflict	Group Performance	Commitment	Open Communication
Task Conflict	.7546	0.895	0.810	<b>0.900</b>				
Process Conflict	.7924	0.877	0.709	0.308	<b>0.842</b>			
Group Performance	.8549	0.914	0.779	-0.294	-0.314	<b>0.883</b>		
Commitment	.8088	0.888	0.725	-0.037	0.054	0.195	<b>0.851</b>	
Open Communication	.7828	0.874	0.697	-0.271	-0.177	0.431	0.504	<b>0.835</b>

Table 3. Factor Loadings of Constructs

	Indicators	Task Conflict	Process Conflict	Group Performance	Commitment	Open Communication
Task Conflict	TC-1	0.900	0.428	-0.317	-0.059	-0.291
	TC-2	0.900	0.126	-0.212	-0.007	-0.198
Process Conflict	PC-1	0.371	0.902	-0.283	0.037	-0.178
	PC-2	0.174	0.942	-0.326	0.006	-0.173
	PC-3	0.239	0.857	-0.163	0.115	-0.082
Group Performance	GP-1	-0.202	-0.332	0.912	0.190	0.445
	GP-2	-0.332	-0.078	0.815	0.151	0.282
	GP-3	-0.252	-0.401	0.918	0.173	0.405
Commitment	CM-1	0.174	0.025	0.147	0.842	0.423
	CM-2	-0.110	0.086	0.127	0.856	0.401
	CM-3	-0.155	0.027	0.226	0.857	0.464
Open Communication	OC-1	-0.270	-0.090	0.298	0.468	0.867
	OC-2	-0.202	-0.276	0.418	0.268	0.831
	OC-3	-0.205	-0.078	0.368	0.529	0.8064