Familiar or Not: Does It Matter with Team Performance?

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ABSTRACT

The effects of team structure and team trust on team performance were emphasized in the previous researches. However, team trust is not very stable but the team structure usually appears at the initial stage when the team is formed. In this study, McGrath’s IPO (input-process-output) model provides a conceptually view to examine these relationship. Friendship and external discipline were employed to examine the influence on team trust and team performance. Results showed that higher interpersonal trust occurs in a friendship team and higher institutional trust occurs in an external discipline team. But it remains an unsettled question what correlation between team structure and team performance. This paper propounds a starting-point to discuss in the future.

Keywords: Team Structure; Team Trust; Team Performance

RESEARCH TOPIC & THEORETICAL BACKGROUND

One of the key characteristics of modern organizations is that more and more organizations have adopted a team-based, rather than individual-based, working design (Dessler, 2000; Drucker, 1998; Katzenbach & Smith, 1993; McHugh, 1997). As every team has its distinctive structure, which affects its performance, many researchers have started to explore the relationship between team structure and team performance (Stark, Shaw & Duffy, 2007; Katzenbach & Smith, 1995; Marks, Mathieu, & Zaccaro, 2001). Team structure usually comprises three main aspects: a) the way members form a team, b) its working pattern, and c) its decision-making and management pattern (Wellins, Byham, & Dixon, 1994). In previous studies of team norm (Hart, 1991), member composition (Early and Mosakowski, 2000), team formalization and standardization (Huang, Chi, and Huang 2002), and team leadership (Huang, Cheng, and Wang, 2003), etc., most of the conclusions have shown that different team structures have different influences on team performance.

In the previous studies of team structure, many researchers emphasized the effects of member composition on team performance. For example, Pelled (1996) proposed that conflicts would occur if the differences among team members were too large. She found that increases in affective conflict lead to decreases in task performance in her study. Once the team members have to deal with interpersonal squabbles that are not related to the task, the team members’ creativity and ability to assess new information decreases, and their desire to propose ideas is restrained. Eventually the possibility of team cooperation will dramatically decrease, which negatively impacts team performance. Huang (1999) proposed similar ideas in her study. She suggested that greater similarity or consistency of the values of the team members would result in higher trust with each other. Emery & Barker (2007) consider this there is clear evidence that team structures increase team performance (productivity and net profit). Basically, these studies all proposed that the differences among team members should not be too great, in order to avoid negative impact on team performance. However, it has been unstated whether or not team performance will be affected if the team is formerly a friendship group, where the team members were already friends with similar interests before forming a working team based on task requirements. This study proposes that such a team composition be called a friendship team.

In addition to team structure, many studies (Hosmer, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998) have proposed that one of the premises for team cooperation and task completion is that members trust each other and the team as a whole. This is mainly because that trust effectively enhances team cohesion (Bradach & Eccles, 1989), and eliminates negative affective interactions among members (Edmondson, 1999). Amason and Mooney (1999) suggested that when trust is higher, the team is more willing to take risks, and as a result, different ideas and opinions are initiated, and the team is likely to perform better. Stark, Shaw & Duffy (2007) regard as preference for group work was
moderated by both winning orientation and task interdependence. Davis & Khazanchi (2007) and Khazanchi & Zigurs (2006) assert that the trust as the main issues that affect Team Performance.

Since trust plays an extremely important role in teamwork, the source of team trust must be considered. Based on previous studies (Doney, et al., 1998; Lewis and Weigert, 1985; McKnight, Cummings, and Chervany, 1998; Rousseau, et al., 1998; Shapiro, Sheppard, and Cheraskin, 1992; and Williamson, 1993) team trust is based on five types of trust: (a) Calculus-based trust, which is based on the opportunity for gain or loss from the other trading partners, determining whether to trust him/her or how much trust should be given; (b) relationship-based trust, which is the favorable impression or trust of a person, established through interpersonal interaction; (c) knowledge-based trust, which is linked to knowledge or information of the trustee allowing the trustor to more confidently trust him/her; (d) identification-based trust, which is a mutual identification and trust among team members based on faithful relationships; and (e) institution-based trust, which rests on culture and social norms, or clearly establishes measures of reward and punishment, such as laws, that are trusted by team members allowing them to believe that other members will follow the same norms underpinning their trust and protecting their rights.

In the above five trusts, the first four (calculus-based, relationship-based, knowledge-based, and identification-based) are trusts that mainly occur between the trustor and trustee, which are also considered interpersonal trusts. The fifth, institution-based trust, it is the trust an individual feels within an institution. It is completely different from interpersonal trusts. It is also defined as institutional trust.

Generally, team trust is not very stable initially, but increases or decreases based on the interaction of team members, implementation of disciplinary action, or solutions found to problems through task achievement. On the other hand, the team structure usually appears at the initial stage when the team is formed (i.e., member composition, job descriptions, basic standards and requirements, etc.). Even if the team structure could be changed in the task achievement process, the changes are usually not very significant; otherwise it becomes a new team. Therefore, considering the IPO (input-process-output) model proposed by McGrath (1984), the question is whether team structure at the input phase affects the trust that occurs during the project process further impacting the output -- the team performance.

**DEVELOPMENT OF HYPOTHESES**

Based on the question proposed above, we will first examine the impact of team structure on team trust, which includes interpersonal trust and institutional trust. Two variables were used in this study to describe team structure: (a) friendship team (yes or no), which is whether the team members are already good friends before the team was formed; and (b) external discipline team (yes or no), which is whether the team was required to follow some explicit external norms.

Friendship team was used as one of the variables in this research because some previous studies (Doney, Cannon, & Mullen, 1998; Huang, 1999; Pelled, 1996; Rotter, 1980) have suggested that interpersonal trust is established by mutual dependence between two entities, which is enhanced by interpersonal intimacy, and therefore affects interpersonal trust. While there are not many studies on friendship teams in particular, and the influence of a friendship team on team performance needs to be clarified. For example, Janis (1982) proposed that high team cohesion (usually found in friendship teams) was likely to result in groupthink and lower decision-making quality of the team. However, in practice the team members are already familiar with each other or have friendly relations is often taken into consideration when a team is formed in an organization. Therefore, Stark, Shaw, & Duffy (2007) examines the influence of friendship team on team trust and team performance.

The variable of team external discipline was employed in this research because more and more studies have suggested that the control of a team, such as discipline requirements, will affect the team’s interaction and institutional trust (Katzenbach & Smith, 1993; McKnight, Cummings, & Chervany, 1998; Rousseau, et al., 1998). However, except for the norms and restrictions established by the members themselves, most disciplinary measures are requirements from higher-level leaders or the overall organization. For example, Mayer, Davis, & Schoorman (1995) and Das & Teng (1998) proposed in their studies that a proper external monitoring mechanism, such as formal contracts, usually allow
strangers to be able to work together. André (2006) found that a strong internal governance structure presents great advantages, and organizational trust are important in this governance system. Therefore, the first hypothesis of this study is as follows:

H1: Team structure affects team trust.
H1-a: Higher interpersonal trust occurs in a friendship team, in which team members are familiar with each other before the team is formed.
H1-b: Higher institutional trust occurs in an external discipline team, which is strictly required to follow external norms.

Furthermore, this study also discusses how team trust affects team performance. Team performance generally contains two factors (Gladstein, 1984; Johnson & Johnson, 1989; Smith, Carroll, & Ashford, 1995). One is task performance, which refers to the actual work results, including the measurement of work effectiveness or efficiency. This can be measured by objective criteria like the task achievement rate or product quality (i.e., Ancona & Caldwell, 1997), or subjective judgment of the team supervisor or leader (i.e., Stewart & Barrick, 2000). The other factor of team performance is cooperation satisfaction, which refers to the psychological feelings and affective reactions of the team members, including satisfaction with the cooperation processes and results (Tjosvold, 1988), team commitment (Jehn & Shah, 1997), and team members’ willingness to remain in the team (Hackman, 1987; LePine, Hanson, Borman, & Motowidlo, 2000), all of which can be measured by team members themselves.

Although previous studies proposed that team trust was merely one of the many factors that affect team performance (Gladstein, 1984; Huang, Chi, & Huang, 2002), most researchers still believe that it is very important to team performance (Bradach and Eccles, 1989; Hosmer, 1995; Rousseau, et al., 1998; Edmondson, 1999; Amason & Mooney, 1999). What here needs to make clear is whether there are different influences on team performance between two types of trust. Tansley & Newell (2007) inferences that further research is needed to corroborate the two extreme cases (one where trust did not develop and one where trust did) means. Davis & Khazanchi (2007) and Khazanchi & Zigurs (2006) assert that the trust as the main issues that affect Team Performance. Therefore, the second hypothesis of this study is:

H2: Team trust affects team performance.
H2-a: Higher interpersonal trust among team members results in higher cooperation satisfaction.
H2-b: Higher institutional trust among team members results in higher cooperation satisfaction.
H2-c: A team with higher interpersonal trust has higher task performance.
H2-d: A team with higher institutional trust has higher task performance.

This study further examines how team structure affects team performance because many previous studies have suggested that team structure, including member composition, team institutions, and norms, usually affects team performance (Huang, Cheng, & Wang, 2003; Katzenbach & Smith, 1995; Marks, Mathieu, & Zaccaro, 2001; Pelled, 1996). However, opinions differed over the results of the effects proposed in these studies. Das & Teng (1998) suggested that institutions and norms are beneficial for the team members cooperation. Granovetter (1985) proposed that once the formal institutions fail to completely control opportunistic behavior, inevitable adverse effects are incurred. Mayer, Davis, & Schoorman (1995) further proposed that an appropriate external monitoring mechanism can contribute to team cooperation, but simultaneously, institutions often imply the use of threats and sanctions, which can possibly result in negative effects on performance if abused.

In addition to the different opinions of previous studies on how institutions affect team performance, related studies on the relationship between friendship teams and performance also have different perspectives. For example, some indirect studies (Huang, 1999; Pelled, 1996) suggested that the intimacy among members would help reduce conflicts, enhance trust, increase cooperation willingness, and result in further positive effects on performance. However, on the other hand, most people are likely to choose those who are similar rather than different from themselves as their friends based on the perceptual similar-to-me effect (Byrne, et al., 1986). Once they form a friendship team based on task requirements, groupthink in decision-making (Janis, 1982) and disadvantaged conditions of the members who are not functionally complementary (Katzenbach & Smith, 1993; Quick, 1992) are likely to occur.
Therefore, this study discusses whether team structure (friendship team vs. external discipline team) affects team performance, and the third hypothesis is as follows:

H3: Team structure affects team performance.

H3-a: Friendship team has higher cooperation satisfaction than external discipline team.

H3-b: External discipline team has higher cooperation satisfaction than friendship team.

H3-c: Friendship team has higher task performance than external discipline team.

H3-d: External discipline team has higher task performance than friendship team.

**METHODODOLOGY**

This study employed a field experiment in which only test stimuli were applied for data collection and analysis when not all external variables and experimental conditions were under control (Nachmias & Nachmias, 1996). This method allowed a strongly contrasting design of team structures, which was advantageous to the comparison of results. However, few subjects were studied using this method, which resulted in relatively low external validity. Therefore, this study further adopted various tools, such as questionnaires, surveys, observations, interviews, etc., to collect more data to support the analysis of the results and enhance the internal validity of this research.

**Experimental Design**

The sample consisted of eight task forces of a research institute in Taiwan that divide into four experimental groups and four control groups in the experiment. The experimental groups that there are four members in every group, who knew each other very well before the task force were formed, were selected to comprise the friendship teams which would be studied. One member quit later, leaving one team with 3. Another sixteen members were drawn (with 14 left as the participants), and randomly distributed into four task forces (three to four members in each team). All the members in these four task forces were confirmed unfamiliar with each other, which made them non-friendship teams.

All eight teams were required to participate in a three-month web design competition. To avoid significant differences in the technical skills among the team members, none of the selected students were Information Management majors, and all teams received the same basic web site design training. A set of standards was established for all teams, including two designated supervisors each of whom supervised four teams and designed the control and reward/punishment system. The teams were required to report their work progress, which was recorded. All groups were also asked to hold routine meetings scheduled at the same time, and were instructed how to write and keep a record of meeting minutes. However, only four teams (two friendship teams and two non-friendship teams) were strictly instructed and controlled, which made them external discipline teams. As for the other four teams, they were simply given “suggestions” without actual control, which made them non-external discipline teams. The structure distribution of all teams is shown in Figure 1.

<table>
<thead>
<tr>
<th>External Discipline Team</th>
<th>Non-External Discipline Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendship Team</td>
<td>2 Teams (4 Members and 3 Members)</td>
</tr>
<tr>
<td>Non-Friendship Team</td>
<td>2 Teams (4 Members and 3 Members)</td>
</tr>
</tbody>
</table>

**Figure 1: Structure Distribution of 8 experimental teams**

**Data Collection and Analysis**

In addition to the design of the experiment, which determined different team structures, a seven-point Likert scale survey, distributed to the participants one week before the web design project completion, was used to assess the interpersonal trust and institutional trust of the team members during their cooperation process. The questionnaire included 5 question items measuring interpersonal trust, which were revised from the study of Robinson, Shaver, and Wrightsman (1991). With a Cronbach $\alpha$ of 0.81 in the original research and 0.80 in this study, the reliability of these items was acceptable. In addition, another 5 question items were designed based on the definition proposed by Williamson, 1993; McKnight, Cummings, & Chervany, 1998; Rousseau, et al., 1998 to measure institutional trust. The items are shown in Appendix A. The Cronbach $\alpha$ value was 0.98, which indicates a high reliability level.
The survey also examined the subjective perception of cooperation satisfaction of the team members. Eleven questions were designed based on the adopted method of Tjosvold (1988), with 6 items measuring process satisfaction and 5 items measuring result satisfaction. The Cronbach α was 0.93 and 0.87 respectively, which indicated good internal consistency.

In addition, the teams’ task performance was measured by content analysis of the web pages according to the method proposed by Chou, Juan, and Sheng (2003). Three programmers, including one researcher and two supervisors, used seven criteria, each on a scale from 1 to 7, to evaluate the web pages designed by the 8 teams. The 7 evaluation criteria were: operation friendliness of the web pages, search convenience, information security, content richness, layout, user interaction and overall creativity. The programmers’ assessment resulted in a Cronbach α of 0.87, indicating a high consistency and reliability of test-retest (Budd, Thorp, & Donohew, 1967).

Statistical analyses, including analysis of variation (ANOVA), regression, correlation, and Chi-Square analysis, were performed on the collected data to verify the hypotheses proposed earlier. To further understand the operation of the teams, two successive sessions of panel discussions were held within one week after the web design competition to collect more complete data on the psychological interactions and feelings of the team members as supplementary explanations for the verification results.

RESULTS

The ANOVA results of H1, which discuss showed the effects of team structure on team trust, were shown in Table 1. After comparing the averages of team trust in different team structures, the results generally conform to H1, which was that team structure affects team trust, including H1-a, higher interpersonal trust occurred in a friendship team, and H1-b, higher institutional trust occurred in an external discipline team. However, as the interpersonal trust of the friendship teams was not significantly higher than that of the non-friendship teams (p-value 0.29>0.05), strictly speaking, only H1-b could be accepted, while H1-a could not.

<table>
<thead>
<tr>
<th>Team Structure</th>
<th>Team Trust (Average)</th>
<th>Interpersonal Trust</th>
<th>Institutional Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT</td>
<td>5.55</td>
<td>3.89</td>
<td></td>
</tr>
<tr>
<td>NFT</td>
<td>5.22</td>
<td>4.15</td>
<td></td>
</tr>
<tr>
<td>FT vs. NFT</td>
<td>FT&gt;NFT</td>
<td>NFT&gt;FT</td>
<td></td>
</tr>
<tr>
<td>EDT</td>
<td>5.31</td>
<td>5.82</td>
<td></td>
</tr>
<tr>
<td>NEDT</td>
<td>5.48</td>
<td>2.20</td>
<td></td>
</tr>
<tr>
<td>EDT vs. NEDT</td>
<td>NEDT&gt;EDT</td>
<td>EDT&gt;NEDT***</td>
<td></td>
</tr>
</tbody>
</table>

Note 1: FT= Friendship Team; NFT= Non-Friendship Team; EDT= External Discipline Team; NEDT= Non-External Discipline Team
Note 2: * p< .05, **p< .01, ***p< .001

The verification of H2-a and H2-b, which revealed the correlation and regression between teams’ interpersonal trust and cooperation satisfaction, as well as teams’ institutional trust and cooperation satisfaction, were performed. As shown in Table 2 and Table 3, the results indicated that interpersonal trust has significant positive effects on cooperation satisfaction of team members, therefore, we accept hypothesis H2-a. However, the results also revealed that institutional trust is not significantly correlated or is even negatively correlated with cooperation satisfaction; therefore, H2-b couldn’t be accepted.

<table>
<thead>
<tr>
<th>Interpersonal Trust</th>
<th>Institutional Trust</th>
<th>Process Satisfaction</th>
<th>Result Satisfaction</th>
<th>Cooperation Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Trust</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Trust</td>
<td>-0.05</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process Satisfaction</td>
<td>0.75***</td>
<td>-0.10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Result Satisfaction</td>
<td>0.51*</td>
<td>-0.16</td>
<td>0.69***</td>
<td>1</td>
</tr>
<tr>
<td>Cooperation Satisfaction</td>
<td>0.68***</td>
<td>-0.14</td>
<td>0.92***</td>
<td>0.92***</td>
</tr>
</tbody>
</table>

Note: * p< .05, **p< .01, ***p< .001
Table 3: Regressions of Cooperation Satisfaction on Team Trust

<table>
<thead>
<tr>
<th></th>
<th>Cooperation Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 (M1)</td>
</tr>
<tr>
<td>Interpersonal Trust</td>
<td>.65***</td>
</tr>
<tr>
<td>Institutional Trust</td>
<td>-.05</td>
</tr>
<tr>
<td>R-Square</td>
<td>.47</td>
</tr>
<tr>
<td>Adj R-Sq</td>
<td>.44</td>
</tr>
<tr>
<td>∆ R-Sq (M3 vs. M1)</td>
<td>.01</td>
</tr>
<tr>
<td>∆ R-Sq (M3 vs. M2)</td>
<td>.45**</td>
</tr>
</tbody>
</table>

Note: * p< .05, **p< .01, ***p< .001

In addition to H2-a and H2-b, H2-c and H2-d, which stated that interpersonal trust and institutional trust of a team affects its task performance, also revealed the relation between team trust and performance. To verify these two hypotheses, the web page content analysis was performed. The evaluation scores on the 7 criteria of each web page designed by different teams were calculated and added. The sorted list of total scores was divided into 4 categories: 2 of high performance teams, 2 medium-high performance teams, 2 medium-low performance teams, and 2 low performance teams. The ANOVA results of the averages of interpersonal trust and institutional trust of the two high performance teams and the two low performance teams were demonstrated in Table 4. The results showed that neither the interpersonal trust nor the institutional trust of the high performance teams is significantly higher than the low performance teams. Therefore, both H2-c (A team with higher interpersonal trust has higher task performance) and H2-d (A team with higher institutional trust has higher task performance) were rejected in this study.

Table 4: ANOVA Results of Team Trust and Task Performance

<table>
<thead>
<tr>
<th>Team Trust (Average)</th>
<th>Interpersonal Trust</th>
<th>Institutional Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Task Performance</td>
<td>5.73</td>
<td>3.18</td>
</tr>
<tr>
<td>Low Task Performance</td>
<td>5.40</td>
<td>4.30</td>
</tr>
<tr>
<td>High Task Performance (HTP) vs. Low Task Performance (LTP)</td>
<td>HTP&gt;LTP</td>
<td>LTP&gt;HTP</td>
</tr>
</tbody>
</table>

Note: * p< .05, **p< .01, ***p< .001

Statistical verification was performed to measure the effects of team structure on team performance. ANOVA was employed to verify H3-a and H3-b, which examined the effects of friendship and non-friendship teams, and external discipline and non-external discipline teams on cooperation satisfaction. The results in Table 5 suggested that in general, friendship teams have higher, but not significantly higher, cooperation satisfaction than non-friendship teams, and external discipline teams have lower, but not significantly lower, cooperation satisfaction than non-discipline teams. Therefore, H3-a and H3-b couldn’t be accepted.

Table 5: ANOVA Results of Team Structure and Cooperation Satisfaction

<table>
<thead>
<tr>
<th>Team Structure</th>
<th>Process Satisfaction</th>
<th>Result Satisfaction</th>
<th>Cooperation Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT</td>
<td>6.03</td>
<td>5.40</td>
<td>5.71</td>
</tr>
<tr>
<td>NFT</td>
<td>5.65</td>
<td>5.47</td>
<td>5.56</td>
</tr>
<tr>
<td>FT vs. NFT</td>
<td>FT&gt;NFT</td>
<td>NFT&gt;FT</td>
<td>FT&gt;NFT</td>
</tr>
<tr>
<td>EDT</td>
<td>5.72</td>
<td>5.28</td>
<td>5.50</td>
</tr>
<tr>
<td>NEDT</td>
<td>5.99</td>
<td>5.58</td>
<td>5.78</td>
</tr>
<tr>
<td>EDT vs. NEDT</td>
<td>NEDT&gt;EDT</td>
<td>NEDT&gt;EDT</td>
<td>NEDT&gt;EDT</td>
</tr>
</tbody>
</table>

Note 1: FT=Friendship Team; NFT= Non-Friendship Team; EDT= External Discipline Team; NEDT= Non-External Discipline Team
Note 2: * p< .05, **p< .01, ***p< .001

In terms of the verification of H3-c and H3-d, which investigated the effects of friendship and non-friendship teams, and external discipline and non-external discipline teams on task performance, Chi-Square analysis was conducted to test whether the task performance (high, medium-high, medium-low and low) is independent of the team structure (friendship and non-friendship or external discipline and non-external discipline). The data in Table 6 showed
that no significant results indicate friendship team structure and external discipline team structure affect task performance. Therefore, both H3-c and H3-d should be rejected.

<table>
<thead>
<tr>
<th>Table 6: Chi-Square Results of Team Structure and Task Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Performance vs. Friendship Team</td>
</tr>
<tr>
<td>D.F.</td>
</tr>
<tr>
<td>Chi-Square</td>
</tr>
</tbody>
</table>

Note 1: *p<.05, **p<.01, ***p<.001
Note 2: (1). Friendship teams and non-friendship teams had the same grade of task performance (one team in each grade of 1, 2, 3, and 4).
(2). External discipline teams and non-external discipline teams also had the same grade of task performance (one team in each grade of 1, 2, 3, and 4).

**DISCUSSION**

Only a few of the hypotheses proposed in this study, including H1-b, which states that higher institutional trust occurs in an external discipline team, and H2-a, higher interpersonal trust among team members results in higher cooperation satisfaction, are supported by the statistical data from the experiment. However, although the results of some of the hypotheses are not very significant, they are in the same direction of the hypotheses. For example, H1-a, which states that higher interpersonal trust occurs in a friendship team, H2-c, a team with higher interpersonal trust has higher task performance, and H3-a, friendship team has higher cooperation satisfaction.

The above results generally conform to the original hypotheses, except that some of them are not significant. However, a few of them are not in the same direction of the hypotheses and are not very significant, as well. For example, institutional trust is slightly negatively correlated with cooperation satisfaction of team members (which is contrary to H2-b); the teams with higher institutional trust have lower task performance (which is contrary to H2-d); and the members of external discipline teams have lower cooperation satisfaction (which is contrary to H3-b). As for H3-c and H3-d, the statistical results show that team structure, regardless of whether a friendship team or external discipline team, is not significantly correlated with task performance.

**Effects of Team Communication**

Two sessions of panel discussions were held for the author to understand the reasons behind the results that were not significant or contradicted the hypotheses. The recordings of the discussions indicate that the reason why some of the relations among friendship team members, interpersonal trust, and team performance are not significant is probably because the communication between the team members was often affected by their friendly relations (in either positive or negative ways), which further influenced interpersonal trust. For instance, a member of one friendship team commenting on the communication in his team said, “Everybody was so familiar with each other that sometimes we were embarrassed to be straightforward” (negative effects on communication). And her teammate said, “They never involved me in the discussions, but I was blamed for not doing anything. I just didn’t know what to do” (negative effects on interpersonal trust). A member of another friendship team said:

*They were nice in private. But it was very unpleasant for me to work with them.... We were not able to discuss the issues as a team. I had to solve the problems all by myself... I don’t want to be in the same team with them again.*

Although the familiarity among team members sometimes resulted in a communication barrier, which became the reason that some members were embarrassed to be straightforward or unwilling to participate in the discussion, the unfamiliarity experienced in non-friendship teams could also be a disadvantage to team communication and affect the interpersonal trust and cooperation satisfaction of the members. For example, two members (of two different non-friendship teams) said:

*They [members of the friendship teams] knew their teammates’ personalities and understood how to communicate with them very well, but we didn’t... I didn’t trust them [the teammates]... It often occurred to me that I wanted to do it in this way, but another member wanted it the other way around... I didn’t like it, so I became less involved.*
It was so difficult to communicate.... The communication issue did affect the web design... random match is no good... I don’t want to be in the same team with him [again].

The above discussion indicates that the correlation between friendship teams and interpersonal trust is affected by mediation effect of communication. This is the phenomenon where the make-up of a team --friendship or otherwise—has different effects on communication and further affects the interpersonal trust among team members. The reason that communication quality affects interpersonal trust may be explained by the concept of goodwill proposed by Ring and Van de Ven (1992). They suggested that “goodwill” is an important basis that the trustor uses to evaluate the trustee’s trustworthiness. The expression and feeling of goodwill is usually demonstrated through experience exchange between the trustor and trustee. Therefore, positive communication between teammates will become the basis of goodwill, and have positive effects on their propensity to trust, which determines the degree of trust in the other party (McKnight, Cummings, & Chervany, 1998).

The effects of friendship team on communication are indefinite, because if the team members are very unfamiliar with each other, the quality of communication and interaction will decrease due to lack of understanding. However, if the members are too familiar, they are often hesitant to express their opinions, especially when it comes to criticizing other members’ ideas, because they do not want to offend their teammates. This phenomenon is defined as groupthink by Janis (1982), which states that, because highly cohesive teams demand conformity, their members tend to become unwilling to criticize one another’s ideas. As a result, the quality of team communication and decision-making is affected.

Effects of Defined Responsibilities

This study reveals a slightly negative correlation between external discipline teams and cooperation satisfaction of team members. The members of external discipline teams actually had lower cooperation satisfaction (even though it is not significant). According to Mayer, Davis, & Schoorman (1995), this is probably because institutions usually imply attempts of threats or sanction, which result in dissatisfaction of team members. Furthermore, Granovetter (1985) proposed that unpleasant feelings of team members mainly result from the failure of institutions to completely affect and control of opportunistic behavior.

However, the results of the panel discussions show that the team members’ feelings are affected by the mid-term performance evaluation. Whether the influence is positive or negative depends on its target. If individuals’ performance is evaluated, such as evaluation on work progress, the results of poor performance often motivate individuals to work harder and be more willing to take responsibilities. But, if the team’s performance is evaluated, such as evaluation on the overall web design, the results of poor performance of the team, without determination of responsibilities, discourage the hardworking members. For example, one member said, “My work progress is poorly evaluated” because he was behind schedule. The participant continued, “I am really worried... I’ll have to work harder.” This shows that the individual will work harder if his mid-term performance evaluation results are poor. He further explains, “... We started with a big plan, but not much work was done with the web site.... I was very discouraged.” He said, “Why should I care if no one else cares?” Also, “What good does it do that I’m the only one who works hard?” This indicates that everybody's work is nobody's work. If the team does not perform well and the responsibilities are not clear, the individual will think it’s unfair and chooses to not work so hard.

The phenomenon that team members have negative feelings because the team’s performance is evaluated and responsibilities are undefined seems to conform to the perspectives of Granovetter (1985), which states that once the formal institutions fail to completely control opportunistic behavior, unpleasant feelings of the team members will occur. It is also similar to the phenomenon of “social loafing” proposed by Latane, Williams, & Harkins (1978), once team members feel their work is lost in the crowd, they will contribute less.

CONCLUSIONS

According to Pelled (1996) and Doney, Cannon, & Mullen (1998), if the familiarity and intimacy among teammates is higher, higher interpersonal trust and cooperation satisfaction will occur. As the members of friendship
teams are usually more familiar and intimate with each other, this study proposes the hypothesis that the interpersonal trust and cooperation satisfaction are both higher in friendship teams, which, according to the verification results, holds true to some extent. However, the discussion results in this study also suggest that many friendship teams experienced groupthink defined by Janis (1982), which not only has a negative influence on communication effectiveness, but also results in lower interpersonal trust and cooperation satisfaction than expected.

One of the effective solutions to reduce the negative impact of groupthink in a team is to promote open inquiry among team members. But, appropriate communication methods and decision-making skills, i.e., playing devil’s advocate, assigning a role of critical evaluator, etc. are necessary for this to occur. Meanwhile, with the development of technologies, some computer-mediated decision tools, such as electronic brainstorming (Gallupe & Cooper, 1993), will also help eliminate groupthink and enhance communication. One individual mentioned in the discussion, “It is actually better to discuss on MSN Messenger, because we can’t see each other face to face; it makes it easier for us to be upfront with each other.”

With the development of communication technologies, further studies could be conducted on the correlations among communication methods (including new communication tools and technologies), intimacy of team members, and communication effectiveness in the future. Hopefully more detailed solutions related to utilization of communication tools will be proposed.

In terms of external discipline of a team, the statistical results of this research, as Katzenbach & Smith (1993) and Rousseau, et al. (1998) predicted, show that external discipline has positive effects on institutional trust. However, this study also reveals that external discipline is slightly negatively correlated with team performance. According to the data analysis results of the discussion, this phenomenon is mainly due to the effects of social loafing, which causes the result predicted by Granovetter (1985), that is, once the formal institutions fail to completely control opportunistic behavior, adverse effects will be incurred, i.e., cooperation satisfaction of team members is decreased.

In regards to how a team can possibly eliminate social loafing, it seems that the best way is to identify individual performance and responsibility. However, with most team tasks, it is rather difficult to control every detail to make sure of each individual’s performance (Das & Teng, 1998). Therefore, Jones and George (1998) suggested that the causal attribution from the perspective of the trustor usually affects the amount of trust given to the trustee; i.e., if the causal attribution of poor performance is lack of hard work of other teammates, the trust in other members of the interested party will be decreased. Therefore, the influences of a team on the teammates’ causal attribution perception through information arrangement should be one of the research directions for future studies on team trust.

In addition, as McKnight, Cummings, and Chervany (1998) proposed, initial trust is often built on illusion. However, repeated interactions between two parties result in gradual exhibition of evidence of the trustee’s trustworthiness, which decreases the trust to low trust and distrust, or increases it to higher trust. Therefore, regardless of the benefits of the initial team structure to team trust or team performance, the operation of the cooperation process of the team has to be built upon gradual improvement and maintenance of the mutual trust among the team members through continuously improving communication, sharing of information, allocation of responsibilities, etc., to bring the team together and create the best performance.

APPENDIX A

Question Items of the Institutional Trust Survey
1. The guidance of the supervisors has contributed to the accomplishment of the tasks of our team.
2. The objectives of work progress have contributed to the accomplishment of the tasks of our team.
3. The requirement of holding routine meetings has contributed to the accomplishment of the tasks of our team.
4. The deadlines to turn in the meeting minutes have contributed to the accomplishment of the tasks of our team.
5. The guidelines on the content and format of the meeting minutes have contributed to the accomplishment of the tasks of our team.
REFERENCES


