

# INTERPERSONAL TRUST AND TEAM PERFORMANCE: A QUANTITATIVE STUDY

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**Abstract** *The relationship between two variables in a team - interpersonal trust and team performance – was examined. Working teams (N-26) comprising 181 persons (84 female, 97 male) of several organisations participated in this study. It was predicted that higher level of interpersonal trust among team members will lead to high team performance while lower interpersonal trust will lead a team to poor team performance resulting in a positive correlation between the given two variables. Pearson product-moment correlation (Pearson's r) method was used. Interpersonal trust among team members had a significant positive effect on overall team performance. This study suggested that working teams in organisations can achieve their goal more easily if team members are high in interpersonal trust compared to teams who lack it.*

**Keywords:** *Teams, Interpersonal Trust, Team Performance, Team Dynamics*

## INTRODUCTION

Teamwork is considered an essential part of every organisation (Parker, 1996): the alternative approach would lead to anarchy and chaos causing an organisation to take ineffective and uncertain decisions (Erdem, Ozen & Atsan, 2003). In fact, without teamwork at some level, organisations face hard time in realising its goals effectively. In addition, team performance in the form of teamwork is subjected to many changes based on the role played by numerous intervening variables e.g. team motivation, job satisfaction, knowledge sharing among team members, difficulty level of the tasks and so on; one of the major variables is interpersonal trust which affects the performance of a whole team in a great degree (Wang, Liang & Chen, 2010).

Paul & McDaniel, Jr. (2004) found trust to be effective in inter-organisational team performance and networking. Furthermore, trust has been recognised as an important phenomenon across a number of social sciences and has primarily been concerned with issues related to trust within organisations (Blois, 1998). In another study by Hassan, Toyman, Semercioz & Aksel (2012), trust along with motivation was found to be playing an important role behind positive organisational outcomes. In addition to that, trust was also found to be associated positively with team performance and knowledge sharing within work teams (Wang, Liang & Chen, 2010). Although, trust had a significant impact on different variables prevailing in the organisations, sufficient investigation has not been done on the direct relationship between team performance and interpersonal trust within individual teams. Only study which examined direct relationship between these

two variables was done by Erdem, Ozen & Atsan (2003), which showed somewhat inconsistent relationship between the two variables. Apart from that some researchers also investigated the role of interpersonal trust in virtual teams which eventually led them to the findings of trust playing the similar role as found in face to face teams and posited that it is an important indicator for high team performance (Corbitt, Gardiner & Wright, 2004). Owen (1990) also presented that lack of trust in organisations would accompany with failings in communication, delegation, empowerment, and quality.

The relatively sparse research on interpersonal trust and team performance has left room for further investigation. First, much of the research has focused on virtual teams instead of face to face teams which showed somewhat inconsistent result regarding the relationship between trust and performance in varying contexts. Corbitt, Gardiner and Wright (2004) showed that no significant difference was found between the virtual and face to face teams regarding the relationship between two variables i.e. interpersonal trust and team performance, whereas another study presented that being highly virtual of teams not only weakened the relationship between the two but even caused the negative effect on performance (Riedl, Gallenkamp & Picot, 2013). Second, some of the investigations focused on only one industry (i.e. IT sector) constituting a narrow sample which cannot be reliable in generalizing results (Cong & Chau, 2007). Third, many researchers investigated this relationship at a broader level i.e. organisational trust and outcome but not on the basic level i.e. teams (Hassan, Toyman, Semercioz & Aksel, 2012).

According to some researchers, most of the results depicted that trust had a positive influence on performance and

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effectiveness (Ying, 2010; Paul & McDaniel, Jr., 2004). However, no significant conclusion can be drawn based on these few studies which clearly show a lack of truly representative sample. In addition to that, a very limited research also on the role of interpersonal trust towards team performance makes it questionable when it comes to generalisation of results. In fact, interpersonal trust among the team members facilitates good interpersonal relationship which is very important for a team to work cohesively (Cong & Chau, 2007).

Therefore, the current study helps us to understand the role of interpersonal trust among the team members affecting the overall team performance. Specifically, high level of interpersonal trust among the team members is expected to derive high team performance whereas low level of interpersonal trust is expected to yield poor team performance ultimately showing the positive correlation between the two variables.

## METHOD

### Sample

The data were obtained from a convenience sample of five different industries spread across India. The industries were: media, non-governmental organisations (NGOs), administration, manufacturing plants and textile industries. The sample consisted of 26 teams comprising 181 persons (84 female, 97 male) with the mean age of 38.4. 5 teams having 38 persons were from media industry, 6 teams consisting 41 persons from NGOs, 4 teams of 30 persons from administration industry, 7 teams carrying 45 persons were from manufacturing plants and finally 4 teams constituting 27 persons were from textile industry. The number of participants in a team ranged from 5 to 9 people per team.

### Measures

**Team Performance Scale** (as cited in Mohammed & Nadkarni, 2011; Mohammed & Nadkarni, 2014): Team performance was assessed via eight items capturing team's effort level towards project, planning and scheduling of tasks, amount and quality of work accomplished, timeliness in meeting project milestones, client satisfaction with team performance and overall performance. Participants rated team performance on a scale anchored by 1 = "poor", 3 = "Mediocre", and 5 = "exceptional". Team performance was calculated by adding the total ratings assigned to the items by the participants.

**Trust Orientation Profile** (Chartier, 1991): It contains twenty-four items, each consisting of two statements. Respondents distributed five points between the two

alternatives (A and B) based on how they actually behaved or felt or how they actually perceived the situation. Sample items include "(A) My co-workers have all the knowledge and experience they need to do their jobs effectively; (B) My co-workers seem to lack the knowledge and/or experience they need to do their jobs effectively"; "(A) When faced with a problem, I find out the best solution and present my idea to my co-workers (B) When faced with a problem, I collaborate with my co-workers to define the problem, explore alternatives, and arrive at a solution". Trust orientation was calculated by subtracting total mistrust score from total trust score on each profile.

### Procedure

Several organisations, which had teams working for them, were contacted and subsequently were briefed about the purpose of the study and its significance. After the approval from the administrative department, each team was contacted and provided with questionnaires along with proper instructions. Data of nine teams constituting 68 people was obtained using online questionnaire as these organisations were far away and couldn't be reached manually. All of the participants were informed about the study and its role in the organisations. To determine the authenticity of the data, each participant was asked to provide their demographic details along with contact no. and email ids in the questionnaire to ensure that they actually participated in the study. As per the precautions, it led the researcher to drop five participants' data since the researcher didn't receive any confirmation of participation from the subjects when contacted. The response rate was 94.02% in manual mode while in the online method it was 74.56%. After getting all the filled questionnaires, data was carefully analysed with the help of SPSS 16.0. Pearson product-moment correlation (Pearson's  $r$ ) method was used to determine the relationship between the two variables. The  $p$ -value was computed to test the significance of correlation coefficient.

## RESULTS

Table 1 presents the total correlation coefficient among the team members along with each specific industry. The correlation coefficient between interpersonal trust and team performance among all the team members across various organisations was found to be statistically significant with:  $r(179) = 0.67, p < 0.0001$ . The relationship between the variables was found to be statistically significant across all the industries, with  $p$ -values ranging from  $P < 0.0001$  to  $P < 0.01$  (see Table 1).

It was hypothesised that greater interpersonal trust among the team members will be associated with high team performance, while lower interpersonal trust would accompany poor team performance. According to Table 2,

the correlation coefficient of individual teams between the two variables was found to be statistically significant. There were 20 teams which showed significant positive correlation with the  $p$ -value of  $P<0.05$ , and rest 6 teams (1, 2, 3, 4, 8 & 22) were found to be significant with different  $p$ -values i.e.  $P<0.0001$ ,  $P<0.005$ , &  $P<0.01$ .

**Table 1: Total and Specific Industry Correlation Coefficient**

Sr.No	Industry Name	No. of Participants	Pearson's r	p – Value
1.	Media Industry	38	0.83	$P<0.0001$
2.	Non-Governmental Organisations (NGO)	41	0.39	$P<0.01$
3.	Administration Departments	30	0.69	$P<0.0001$
4.	Manufacturing Units	45	0.72	$P<0.0001$
5.	Textile Industry	27	0.45	$P<0.01$
	Total	181	0.67	$P<0.0001$

**Table 2: Correlation Coefficient of Individual Teams**

Team No.	No. of Participants	Pearson's r	P – Value
Team 1	9	0.95	$P<0.0001$
Team 2	8	0.86	$P<0.005$
Team 3	5	0.96	$P<0.005$
Team 4	7	0.85	$P<0.01$
Team 5	9	0.66	$P<0.05$
Team 6	5	0.81	$P<0.05$
Team 7	8	0.63	$P<0.05$
Team 8	7	0.90	$P<0.005$
Team 9	9	0.59	$P<0.05$
Team 10	5	0.87	$P<0.05$
Team 11	7	0.69	$P<0.05$
Team 12	5	0.93	$P<0.05$
Team 13	8	0.63	$P<0.05$
Team 14	9	0.70	$P<0.05$
Team 15	8	0.66	$P<0.05$
Team 16	5	0.81	$P<0.05$
Team 17	7	0.68	$P<0.05$
Team 18	7	0.70	$P<0.05$

Team 19	8	0.71	$P<0.05$
Team 20	5	0.82	$P<0.05$
Team 21	5	0.85	$P<0.05$
Team 22	8	0.84	$P<0.005$
Team 23	7	0.69	$P<0.05$
Team 24	7	0.84	$P<0.05$
Team 25	5	0.83	$P<0.05$
Team 26	8	0.65	$P<0.05$

After the result analysis, I found the support for the hypothesis that teams having greater interpersonal trust scored high on overall team performance while those teams which showed somewhat less level of trust among team members led to poor team performance.

## DISCUSSION

The purpose of the study was to test the relationship between the interpersonal trust and overall performance among the team members. The author predicted that team members scoring higher on interpersonal trust will lead to high team performance whereas lower interpersonal trust among the team members will yield poor team performance respectively. In the present study, it was hypothesised that there would be a positive correlation between the given variables i.e. interpersonal trust and team performance, later, which was found to be statistically significant (see Tables 1 and 2). Thus, the hypothesis was empirically supported that the interpersonal trust plays a very crucial role towards team performance.

The findings of this study are consistent with those of Wang *et al.* (2010), where interpersonal trust was found to be having a significant positive influence on overall team performance. The study finds that there are two industries i.e. NGOs and textile industry which show a lower positive correlation compared to rest of the industries. This inconsistency might be subjected to the weak sample size of teams in these fraternities as well as the variation in the methods (online and offline) of collecting data. The relationship of current study is partially supported by Erdem *et al.* (2003), where two organisations out of four showed the positive correlation between trust and team performance, this inconsistency can be attributed to the simple questionnaire employed in the study along with weak methodology and limited sample size.

The correlation across the individual teams, in the present study, was found significantly positive. It shows that there is a significant positive correlation between the interpersonal trust and team performance in each team. Most of the teams were found to be significant with  $p$ -value of  $p<0.05$  with few exceptions e.g. team one ( $p<0.0001$ ), team two, three,

eight & twenty two ( $p < 0.005$ ) and team four ( $p < 0.01$ ). This variation of significance level is subjected to the number of members in a team constituting strong sample size.

Research on the relationship between the interpersonal trust and team performance could continue in several directions. First, there are numerous mediating variables such as team motivation, knowledge of each team member and job satisfaction, which might affect the relationship between these two prescribed variables, which can be explored for further studies. Second, this relationship can be further studied via conducting an experiment to confirm whether there is causation between the two variables. Third, a more diverse and larger random sample could be constituted for the better generalisations of the findings.

In conclusion, the results of this study provide some fascinating insights towards the relationship of interpersonal trust and team performance. As per the prediction, interpersonal trust in a work group indeed proves to be a catalyst towards team performance. Employees high in interpersonal trust in a team can achieve their mutual target more easily than the employees who lack trust on their fellow workers as shown by the present study.

## CONCLUSION

This study concludes that trust among the team members can lead to high team performance and productivity. In the light of information obtained from literature review, it can be said that by encouraging trust among the employees of a team, it is possible to enhance organisational productivity and performance in all type of organisations whether public or private. Findings from the study also suggest that putting an effort to build strong interpersonal trust among the team members would be a significant milestone for the success of organisations or industries. Our research indicate that interpersonal trust is associated positively with team performance, so all the companies should promote the building of a harmonious, trusting and team culture, and ensure every task carry out in a condition of mutual trust. Hence, any organisation should primarily focus on improving the team trust to achieve the desired goal in terms of team performance and productivity.

This research and other research to follow will contribute to the knowledge of the relationship between both the variables i.e. interpersonal trust and team performance with minimizing the role of intervening variables. In the present study, the positive correlation between the two variables in a team suggests that we have much more to learn about the relationship which needs to be further explored in different settings.

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