The Impact of Interpersonal Trust on Group Cohesion: An empirical attestation among Scientists in R&D organizations

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**ABSTRACT**

Trust is the degree of confidence the individual partners have in the reliability and integrity of each other and lack of it can undermine almost any other developmental effort. In today's world of uncertainty, interpersonal trust is an imperative concept which has to be probed inorder to reap its benefits. Interpersonal trust implicitly means that the probability that one party will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of cooperation with the party. Trust is both the specific expectation that another's action will be beneficial rather than detrimental and the generalized ability to take for granted, to take under trust, a vast array of features of the social order. The second concept discussed in this paper is group cohesion. Group cohesion refers to the member's attraction to the group. It is the total field of forces which act on members to remain in the group and my research on the concept illuminate this verity. This study is based on primary data collected from 172 scientists working in a nationalized Research and Development organization in central Kerala. The survey conducted during the last quarter of 2015, is expected to enlighten the linkage between interpersonal trust as the predictor and group cohesion as the outcome. The realistic and the pragmatic findings outlined in this paper can be guidelines to harness, employee's trust in turn strengthening the group leading to better response, energy and enterprise.

**Keywords:** Interpersonal Trust, Group Cohesion, Scientists, Research & Development organisations

1. Introduction

Hosmer (1995) synthesized the following definition of trust, “Trust is the reliance by one person, group or firm, upon a voluntarily accepted duty on the part of another person, group
or firm, to recognize and protect the rights and interests of all others engaged in a joint endeavour or economic exchange.” (L.T, 1995). The second idea delineated through this study is that of group cohesion. Caron (1982) defines cohesion as a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives. It is the total set of forces that keep the members of the group together. This paper purports to highlight the interlinkages between the variables interpersonal trust and group cohesion and the study affirms that the interpersonal trust acts as a predictor variable and group cohesion acts as an outcome variable.

2.1 Literature Review On Interpersonal Trust

Trust studies in disciplines of psychology, social psychology and sociology have influenced trust literature in the field of business studies. The economic approach of trust is often calculative, emphasizing its risk decreasing nature, and enhancing the prediction or expectations of other actor’s future behaviour. (SeppAnnenn, 2007). There are a lot of definitions of trust, most of them treat trust as a state, belief or positive expectation. Some of the definitions with theoretical approaches are discussed below.

According to Luthman (1998) trust is a solution for specific problems of risk in relation between people, because it is an attitude that allows for risk taking. If people choose one course of action in preference to alternatives, inspite of the possibility of being disappointed by the action of others, they define the situation as one of trust. (N, 1998). Gambetta defines trust in line with Luhmann, as when we say we trust someone or that someone is trustworthy, we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of cooperation with him. Trust is both the specific expectation that another's action will be beneficial rather than detrimental and the generalized ability to take for granted, to take under trust, a vast array of features of the social order. (Creed, 1996)

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Trust can be broken down into three constituent parts – trust as a belief, as a decision and as an action. The first form of trust is a subjective, aggregated and confident set of beliefs about the other party and one’s relationship with her/him, which lead one to assume that the other party’s likely actions will have positive consequences for oneself. The second form of trust is the decision to actually trust the other party. The third form of trust is as an action to trust the other party. (Hartog, Vol 35, No 5, 2006)

According to Luhrmann (1998), trust is a solution for specific problems of risk in relation between actors, because it is an attitude that allows for risk taking. If actors choose one course of action in preference to alternatives, in spite of the possibility of being disappointed...
by the action of others, they define the situation as one of trust. (Luhmann, 1988). Trust is the willingness to rely on an exchange partner in whom one has confidence. (Ganeshan, 1994). Trust is the degree of confidence the individual partners have in the reliability and integrity of each other. (P.S, 1996). Trust is the level of expectation or degree of certainty in the reliability and trust/honesty of a person or thing. (Holden, 1997). Trust is defined as the perceived credibility and benevolence of a target of trust. (P.M, 1997). Trust as one party's confidence that the other party in the exchange relationship will not exploit its vulnerabilities. (W, 2000). Trust exists when one party has confidence in the honesty, reliability and integrity of their partner. (Coote L, 2003)

Trust has emerged as a central concept in a wide range of organizational studies including those focusing on performance. (Kramer, 1999, pp. 569-598; Lewicki, Wiethoff & Tomlinson, 2005, pp. 247-270; Mayer, Davis & Schoorman, 1995, pp. 709-734; McAllister, 1995, pp. 24-59; Colquitt et al., 2007, pp. 909-927). Trust is so important to performance because it is a critical precursor to those exchanges that are tied to so many performance outcomes. (Paliszkiewicz, Orientation on trust and organisational performance, 2012).

There are a lot of definitions of trust, most of them treat trust as a state, belief or positive expectation. According to Zand (1972), underlying the decision of trust is also the individual willingness to become vulnerable, and the expectation or belief that others will act in a way that is beneficial or not detrimental for the relationship. (Gambetta, 1998). The willingness to be vulnerable from Mayer, Davis and Schoorman (1995) is one of the most cited definitions of trust. (al, 1996) defines trust as the degree of confidence the individual partners have in the reliability and integrity of each other. For Lewicki and Bunker (1996) trust involves positive expectations about others. Chow (1997) opined that the level of expectation or degree of certainty in the reliability and truth/honesty of a person or thing. In the opinion of Donney (1997) trust can be defined as “perceived credibility and benevolence of a target of trust”. Trust is a significant source of co-operation, along with coercion and self-interest. (Nootseboom, 1997).

Smith (1997) defined trust as “the critical factor differentiating effective from ineffective selling-partner relationships”. According to Sako (1998), trust is an expectation held by an agent that its trading partner, will behave in a mutually acceptable manner. Zaheer (1998) opined that trust is the expectation that an actor can be relied on to fulfill obligations, will behave in a predictable manner, and will act fairly when the possibility for opportunism is present. Plank (1999), found trust as a global belief on the part of the buyer that the salesperson, product, and company will fulfill their obligations as understood by the buyer. Dyer (2000) was of the opinion that trust is one party's confidence that the other party in the exchange relationship will not exploit its vulnerabilities.

Coote (2003) defined trust as follows: “trust exists when one party has confidence in the honesty, reliability and integrity of their partner. Hosmer (1995) recognized the different definitions of trust in the different context as individual expectations, interpersonal relationships, economic exchanges, social structures and ethical principles. Trust is the reliance on one person, group or firm upon a voluntarily accepted duty on the part of another person, group or firm to recognize and protect the rights and interests of all others engaged in a joint endeavor or economic exchange (Hosmer, 1995, p 393). These definitions urges one to infer that trust is an optimistic expectation on behaviour of a person and it generally
occurs under the condition of vulnerability to the interests of the individual. In literature we come across different forms of trusts like the organizational trust and the interpersonal trust. Organizational trust refers to the positive expectations the individuals have about the competence, reliability and benevolence of organizational members as well as the institutional trust within the organization. (Mayer et al, 1995; McKnight et al, 1998). For the present study we limit our discussion to interpersonal trust.

Authentic and effective interpersonal relationships are almost always built upon the solid foundation of interpersonal trust (Deutsch 1960; Blake and Mouton 1964). It is probably impossible to carry out any activity in an organisation if the interpersonal trust is totally absent in its work culture. (Anwer K. P., 1994). The Oxford English Dictionary defines trust as confidence in or reliance on some quality or attribute of a person or thing; confidence in the ability and intention of a buyer to pay at a future time for goods supplied without payment; to place reliance on; to give credence to; believe; to confide or entrust something to the care and disposal of; and so on. Trust consists of two components: i) the expectations that the other person's behaviour will conform to his/her expectation ii) the translation of expectations into behaviour under conditions of risk. Thus interpersonal trust can be defined as having faith or confidence that other person's behaviour will conform to one's expectations, and behaving towards that person reflecting those expectations. (M.M.Anwer, Oct 1994). Interpersonal trust could be broken down into two dimensions; lateral trust which refers to trust within employees and vertical trust, refers to trust between employees and leaders. (Rikka Ellonen, 2008)

Interpersonal trust has been described as the trust between two parties who are to a certain extent interdependent with respect to the outcomes defined by their joint choices, and one of the parties (P) is confronted with the choice between trusting or not trusting the other (O). It is important to note that both P and O are cognizant of the risk to which P exposes himself in his decision to trust O. That is, P knows that O can betray him and O knows that P has extended his trust even in the face of risk. (C.Swap, 1982). Willingness to exhibit trust in any given situation will be determined by a number of specific factors. For example the individual you trust to feed your dog may not be the trusted to repair your car, and your trusted mechanic may not be your chosen target for intimate self disclosures. Interpersonal trust consists of 1.) Overall trust 2.) Emotional trust 3.) Reliability of which overall trust refers to the trust which a person feels towards other, Emotional trust explains how far a person can trust other on the basis of emotions and reliability refers to how far a person is reliable on another.

Both individual related factor and organisation related factors affect the interpersonal trust. The individual related factors are the personality of the individual, similarity of age, sex, experience, similarity of background, similarity of interests, similarity of problems or anxieties and so on. The organisation related factors are management practices and culture of the organisation. (M.M.Anwer, Oct 1994) Management practices followed in an organisation will have a significant bearing on the trust among members of a group. In order for an organisation to develop interpersonal trust the management needs to be fair and impartial while dealing with subordinates. Recent developments in human resource management and organizational science reflect the importance of interpersonal trust for sustaining individual and organizational effectiveness. (Zeffane D. M., 2010)

The variable interpersonal trust is imperative for organisations, especially for Research and Development Organisations. Only when the scientists trust each other, they will be effective
in their teams. To exist peacefully in organisations, people need to trust each other. It is the willingness to be vulnerable to other party with the confidence that the other party will not betray. Scientists who experience better interpersonal trust will have a sense of belongingness to the company, will trust the other party, and will not be reluctant to discuss ideas. Hence management must take necessary steps to foster interpersonal trust among employees. It is very important to develop interpersonal trust among scientists so that it could be further utilized to achieve the developmental goals of the organizations.

2.2 Literature Review On Group Cohesion

Fulk( 1993) and Yoo and Alavi (2001) defined group cohesion as the member's attraction to the group. Group cohesion is generally associated with normative pressure to conform, and hence with a drive for consensus and unanimity that implies intolerance towards dissent and intellectual independence of group members.(Deutsch & Gerard 1955). Group cohesion is a significant variable in the organizational setting. (Zixiu Guo, 2008). Caron (1982) defines cohesion as a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives. While the majority of group cohesion research has primarily focused on its relationship to performance, much less empirical study has been directed towards identifying the factors responsible for developing and maintaining team cohesion. (M. Weiss, 1991)

Cohesion has traditionally been defined as a unitary construct (Mullen Cooper, 1994; Zaccaro, 1991) and tended to reflect Festinger's (1950) notion that cohesion is "the total field of forces which act on members to remain in the group". These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members of the group, or the activities in which the group engages". (p.274). Hence cohesion has been operationalized as attraction to the group and assessed by asking members how much they liked one another or the how long they wanted to stay in the group. (Hogg, 1992).

According to Widmeyer and colleagues (1985), there are two key distinctions to be made when defining group cohesiveness. First, there is the distinction between the individual and the group. The individual aspect of cohesion is the notion of individual attraction to the group; that is the extent to which the individual wants to be accepted by group members and remains in the group. The group aspect is represented by perceptions of the group as a whole, which is the degree of closeness, similarity and unity within the group.

The second distinction is between task and social cohesiveness. Task cohesiveness is the extent of motivation towards achieving the organizational goals and objectives. (Widmeyer et al., 1985, pg 17). Social cohesiveness refers to the motivation to develop and maintain social relationships within the group. Based on the discussion above, Widmeyer and colleagues defined cohesion as a) Group-interaction task, which is an individual team member's perceptions about the similarity and closeness within the team about accomplishing the task; b) Group-Interaction Social, which reflects individual team member's perceptions about closeness and bonding regarding the team's social activities; c) Individual Attraction to Group Task, which describes individual team members' feelings about personal involvement in the social interaction of the group. d) Individual attraction to group social, which reflects individual team members' feelings about personal involvement in the social interaction of the
Cohesion represents individual’s beliefs in the ability of the team to work together which is very imperative. (P.Deortentis, 2013)

In summary, Group cohesion refers to the forces that keep the group members together and it is the degree of attractiveness that group members feel towards each other. The binding force which helps the group members to get along well with each other is the group cohesion. When we say that a group is cohesive, it means that the members accept each other, they can get along well. There are various factors that contribute to group cohesiveness. The members of a group will have group cohesion depending on the character of the group members, climate of the organization and the nature of task given to them. For a task to be accomplished by a group or team, group cohesion is indispensable. Therefore it is the tremendous driving force and thus fulfils the greater purposes of the organisation.

2.4 Linkages Between Interpersonal Trust And Group Cohesion

Among the most important factors in constructing group cohesion within a workplace is trust. Since individual employees possess their own values and beliefs, it can take time for each team member to develop trusting relationships with other coworker. Once trust is established, an employee is better able to focus on their individual tasks and trust that other employees abide by similar standards. Trust also permits employees to share advice within their cohort when finding themselves in an unfamiliar situation. Ultimately, trust enhances connectedness among coworkers and serves to promote group cohesion.

Interpersonal trust is an important antecedent of cohesion and studies show that people are motivated to create and maintain positive social relationships if they have inter-personal trust.(Soboroff, 2012). Group cohesion varied with expectations of group member competence. When there is interpersonal trust between members of a group, it acts as a binding force keeping the group members together.

Interdependency theory implies the importance of constructs like trust and cohesion, that influence or represent individual’s abilities to work together, as it is not only important for individuals to need to work together in order to achieve shared goals, but also be capable and willing to work together.(Philip S. DeOrtentiis, 2013). When conceptualized as a “willingness to be vulnerable,” trust within a team can serve as a means to describe individuals’ willingness to work as a team, and have the achievement of their goals be subject to the actions of individuals other than themselves. So, when trust exists within a team, interdependence theory implies that shared goals are more likely to be realized when individuals are able to stay together (i.e. be cohesive) and work as a team, than when individuals are unable to function as a unit (Deutsch, 1949).

In situations where the achievement of individuals’ goals depends on the actions of other members of the team, positive interdependence exists between the individuals and the team. As long as this exists, cohesion should materialize between individual team members, and influence the effectiveness of individuals working together to achieve common goals. Philip S. DeOrtentiis, 2013). Team cohesion depends on making the existence of the team matter to the individual (Fine and Holyfield, 1996). A fundamental means of accomplishing this is to establish a shell, which facilitates an environment for interpersonal risk-taking (Edmondson, 1999). Trust refers to a team member’s belief that another member will perform actions (e.g. including sharing information) that will prove helpful or not detrimental, thus permitting the
establishment of a cooperative setting for team members (e.g. Gambetta, 1988, p. 217). Without trust in teams, team members will be unwilling to be vulnerable within the group and participate in interdependent actions. If team members are not genuinely open with one another about their mistakes and weaknesses, then building a foundation of trust is nearly impossible. The failure to build trust negatively impacts a team's ability to build a cohesive unit, and engage in productive discussions (Lencioni, 2002). However, when team members trust one another, this increases their propensity to perceive their team as a tight collective or a cohesive unit that will aid individuals in achieving their goals. This perception of cohesion represents individuals' beliefs in the ability of the team to work together, which is a necessary criterion in order to obtain interdependent goals. Thus, we expect trust to be positively related to cohesion (Fine and Holyfield, 1996). The above discussion is a pointer to the fact that both the variables interpersonal trust and group cohesion are indispensable for organisations. Moreover, when there is interpersonal trust among employees, it would propel them in developing group cohesion.

3. Objectives And Hypothesis Of The Study

Main objective of the study
To establish the effect of Interpersonal Trust on Group Cohesion.

Based on the discussion the following hypothesis was developed

Hypothesis 1: There is positive relationship between interpersonal trust and group cohesion.

4. Theoretical Framework
Based on the literature review the theoretical framework is shown in the figure 1. The framework shows that interpersonal trust leads to group cohesion.

Fig 1 showing the theoretical framework of the study.

5. Sample Size

Scientists were selected for the sample. Scientists are a unique class of people whose performance is difficult to analyse because the idea for an innovation may occur at any time. Moreover there is a dearth of literature regarding the interpersonal trust and group cohesion of scientists in India. 172 scientists working in a nationalised research development in the central part of Kerala was selected for the study.
6. Measurements And Instruments

The Interpersonal Trust questionnaire was by Johnson-George, C & Swap, W.C, 1982. Responses were rated on a five point Likert scale with anchors—(1) strongly disagree to (5) strongly agree.

The Group cohesion was measured using Guo, Z, Tan, F B Tuner, T & Xu, H, 2010. The responses were measured using a five point Likert scale ranging from strongly disagree (1) to strongly agree (5).

7. Data Analysis

Reliability of the scales were checked. Reliability refers to the ability of the scale to give consistent results. Reliability evaluates the stability, equivalence and homogeneity of the scale. It answers questions like will the measure employed repeatedly on the same individual yield similar results. Will the measure employed by different investigators yield similar results. Will a set of different operational definitions of the same concept employed on the same individuals, using the same data collecting technique yield a highly correlated result, or will all items of the measure be internally consistent.

Cronbach Alpha was calculated for both the variables. The independent variable interpersonal trust has a cronbach alpha of 0.865 and the dependant variable group cohesion has a cronbach alpha of 0.936. Both the cronbach alpha values are above the accepted level of .07. Hence we can conclude that the scales interpersonal trust and group cohesion are reliable.

Regression analysis was used for the study. In regression analysis we fit a predictive model to our data and use that model to predict values of the dependant variable from one or more independent variables. Simple regression seeks to predict an outcome variable from a single predictor variable whereas multiple regression seeks to predict an outcome variable from several predictors. R square tells us how much of the variance in Y is accounted for by the regression model. The significance level should be less than .01. (Field, 2005)

7.1 Regression Of Interpersonal Trust On Group Cohesion

Table 1 showing the R square and beta value of the regression analysis

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<tr>
<th>R square</th>
<th>0.313</th>
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<td>Beta</td>
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Table 1 shows the R square and beta value of the regression analysis. From the regression analysis it is evident that there is a positive relationship between Interpersonal trust and Group Cohesion. The R square value for the regression analysis was found to be 0.313. From
this, it is evident that 31.3% variation in group cohesion is predicted by interpersonal trust. Beta value of 0.559 shows the strength of relationship between interpersonal trust and group cohesion.

8. Discussion And Conclusion

Through this empirical attestation, the study reiterates that there is a positive relationship between interpersonal trust and group cohesion. The practical implication of the positive relationship between interpersonal trust and group cohesion are highlighted below. Trust is a positive expectation that another will not through words, actions, or decisions act opportunistically. When there is trust between the members, it creates a sense of bonding among members. That results in group cohesion which refers to the binding force that keeps the members in a group together. Therefore trust helps the organizations in developing cohesion among the members.

In the case of the scientists, unless and until you have interpersonal trust, they will be reluctant to share ideas. Without sharing ideas and exchange of thoughts, there won’t be any innovation; there won’t be any group cohesion. Absence of trust leads to absence of communication. Only when there is trust people communicate openly and honestly which ultimately leads to group cohesion. Another remarkable feature of this study is that the finding urges the manager to devise ways through which they can develop trust inorder to have group cohesion. Herein lies the practical implication of the study.

Managers must develop an environment of trust in the organisation. When there is trust, people will be comfortable to contribute ideas, contribute their best in the organization and these will help in developing a bonding among the members. Hence trust is very important to develop group cohesion in organisations.

References


