

Can organization team culture benchmark effective teams – performance management concerns, insights and HR implications

Hardik Shah

Institute of Management, Nirma University, Ahmedabad, India

Shilpa Jain

The Open Polytechnic of New Zealand Limited, Lower Hutt, New Zealand, and

Vipul Jain

*School of Management, Wellington School of Business and Government,
Victoria University of Wellington, Wellington, New Zealand*

Abstract

Purpose – Teams have become the dominant mode of work in contemporary organizations and critical for successful completion of various tasks, projects and overall organizational effectiveness. Organizational factors such as organizational culture have often been investigated as contributing to team performance since it is difficult to develop and engage teams. But the effect of (organizational) team culture on team effectiveness (TE) has received less support. Therefore, this paper examines how factors such as organization team culture (OTC) affect different dimensions of TE in a power sector organization which has undergone a business transformation resulting in adoption of team-based work structures.

Design/methodology/approach – Survey instrument capturing the variables of organizational team culture and TE was administered to mid-level managers in a power sector organization in India. Structural equation modeling (SEM) was used to test the model fit for the proposed model.

Findings – A key finding of the research was that team culture (OTC dimensions) (i.e. participation, communication, trust, training inputs and support and support for teamwork) contribute to TE.

Originality/value – OTC and its impact on creating effective teams, particularly in the power sector, is an original contribution of this research. The OTC and TE framework may be used to diagnose team weaknesses and concerns and to design effective HR interventions.

Keywords Performance, Organizational performance, Organizational effectiveness, Team culture

Paper type Research paper

1. Introduction and motivation

Team-based working has become the dominant mode of work in contemporary organizations. Traditional organizational structures revolving around individuals have been replaced with team-based work in organizations around the world. Both large and small companies delegate responsibilities such as projects, budgets, operations, distribution, maintenance or important business work to work teams in order to keep up with competitors and meet customer demands. Numerous studies report the positive relationship between team-based working and the quality of products and services offered by an organization (Gibson *et al.*, 2007; Ervin, 2021; Gonzalez, 2021; Karia and Mahmoud Saleh, 2022; Ontrup and Kluge, 2022; Kériverel *et al.*, 2022). Employees working in effective teams help increase productivity, employee involvement and contribution, while reducing costs and flattening organizational structure (Adams, 2003; Gonzalez, 2021; Leifels and Bowen, 2021; Peeters *et al.*, 2022).



Team working has become the dominant norm in contemporary organizations but teams do not always act in an optimum way, and sometimes fail to achieve the high performance expected of them (Castka *et al.*, 2004; Che Ibrahim *et al.*, 2016; Gonzalez, 2021; Ontrup and Kluge, 2022). Pina *et al.* (2008) in their review of team effectiveness (TE) stated that understanding effectiveness is a key issue in team research. In terms of antecedents of TE, evidence suggests that organizational factors such as organizational culture affect TE (Nada, 2013; Luis, 2010). However, team culture is often embedded within the broader organizational culture but is often an immediate influence on team members' work and team performance (Singh and Gupta, 2015). A most basic definition of team culture is that it is made up of the values, beliefs, attitudes and behaviors shared by a team.

Therefore, this study investigates team culture within organizational context (referred to as organization team culture-OTC) as an antecedent of TE. It was also timely to investigate this relationship in a power sector organization that has undergone business transformation resulting in adoption of team-based work structures having seven strategic business units (SBUs) managing power generation, transmission and distribution. The organizational structure has been changed from departmental (more hierarchical) to project-based matrix structure emphasizing the need of team culture. In this study, OTC has been conceptualized including dimensions participation, communication, trust, training inputs and support and support for teamwork from the organization (West and Markiewicz, 2003). Further, TE is conceptualized in terms of seven dimensions – autonomy, confrontation, team support, accountability, cohesion, task clarity and collaboration. As TE is a multi-dimensional construct, these dimensions relate to the attitudinal outcomes proposed by Cohen and Bailey (1997) and were believed to be important in an organization that has undergone business and structural transformation.

1.1 Research questions and research objectives

1.1.1 Research question and objectives. The research question was to examine the nature and extent of relationship between constructs of OTC and TE.

1.1.2 Research objectives. In order to fill the research gap and establish relationship between OTC and TE among middle level managers working in a power sector organization, the following objectives have been decided:

- (1) To examine whether OTC affects TE.
- (2) To examine what kind of relationship exists between different dimensions of OTC and TE?
- (3) To gain an understanding of organization specific team challenges at selected organization and HR interventions that can be developed to help create effective teams?

2. About the organization

The selected sample organization is a power sector company in India which had in recent past changed its overall organizational identity from a state-owned electricity board to corporation. The *Electricity Act, 2003*, was passed by the *Central Government and State Act, 2013*, was passed by the Government of a western state to restructure the electricity industry with an aim to improve efficiency in management and delivery of services to consumers. This also resulted in adoption of team-based work structures formed from diverse functional employees across levels from all the seven SBUs with functional responsibilities of trading, generation, transmission, distribution, etc. since 2018.

While the vertical hierarchy was replaced with team structures, the organization has been facing team-related challenges particularly in terms of low engagement of team members, lack of autonomy and confrontation issues over the past few years. Making teams perform is key to the success of the SBUs in order to achieve organizational vision of becoming one of the most efficient power generating companies globally, having an efficient power transmission system, and provider of customer satisfaction through service excellence (Pandey and Ghodke, 2019; Das, 2021; Jha and Singh, 2021; Sengupta and Mukherjee, 2022). In order to achieve its energy vision 2025, the company endeavors to provide an environment in which each team member in the organization strives to be a high performer and is engaged on a continuous basis. Therefore, the study comes at an appropriate time for the company as it can provide an in-depth insight into the various variables that are affecting the teamwork as well as suggested HR interventions that could address the team-related challenges facing the organization.

3. Review of literature

The review of the relevant literature is structured as follows. An understanding of team-based working is described followed by the importance of teamwork for organizations. The subsequent sub-section discusses the concept of TE and its dimensions pertaining to this research and also relevant literature on the concept of OTC, and its dimensions. Finally, the hypotheses are derived at end of this section.

3.1 Understanding team based working (TBW)

The importance of teams was first realized since the Hawthorne studies conducted in the 1930s as one of the key differentiating factors for enhanced productivity. Teams are defined as “a group of people with different skills and different tasks, who work together on a common project, service, or goal, with a meshing of functions and mutual support” (Luthans and Avolio, 2003). Katzenbach and Smith (1993) have a comparatively comprehensive definition of teams that considers the size (numbering between 2 and 25), and the type of skills individuals bring to the team (i.e. decision making, technical skills and interpersonal skills). They state that members of an effective team are committed to a common purpose, have established goals, and hold each other mutually accountable. In order for members to achieve goals they must work cooperatively and with a sense of cohesiveness (Biech, 2001; Ingram and Desombre, 1999; Katzenbach and Smith, 1993).

An organization's efficiency and effectiveness to a large extent depends on the teams at workplace. It is absolutely imperative for organizations to take definitive action toward building and sustaining an organization team culture that supports engagement in order to have high performing work teams (Freudenberger and Richelson, 1980). For many knowledgeable employees, allocating their time for team projects appear to have increased from 65% (Zika-Viktorsson *et al.*, 2006) to 95% (Martin and Bal, 2006).

3.2 Importance of team based working

A lot of research has been done examining teamwork, and the benefits and outcomes for organizations structuring work around teams. Griffith *et al.* (2003) concluded that the use of teams increases capability, responsiveness and flexibility within organizations as it synergies different types of expertise, experience and knowledge of team members. Team-based approaches to work can (1) increase innovation, (2) improve quality, productivity, organizational responsiveness and flexibility, (3) serve customers better and (4) reduce the time it takes for an organization to transform an idea into a product that is viable and profitable within the marketplace (Glassop *et al.*, 2002; Hamilton *et al.*, 2003). As per Savelsbergh *et al.* (2010), the application of team based working is expected to result in greater adaptability,

productivity and creativity, and provide more innovative and comprehensive solutions to complex organizational problems as compared to what individual employees can offer (Beers, 2005).

3.3 Team effectiveness

Teamwork provides better utilization of the existing workforce, and therefore organizations have begun to function as a team of individuals. Almost all contemporary organizations which seek to improve the efficiency of their business must rely on the team approach. But in the words of Ross *et al.* (2008), an ineffective team can cause an organization to waste resources, fall short of performance objectives, rework designs and extend time to market. Therefore, mere teamwork is not the objective; rather, making the teams effective is the foremost concern. The members of an effective team are expected to complement and cover each other's shortcomings and absentia.

The evaluation of teams encompasses a variety of components. Many theories have addressed the multifaceted nature of TE (e.g. Shea and Guzzo, 1987; Gladstein, 1984; Hackman, 1987). Generally, two models of TE exist, which offer unidimensional and multidimensional perspectives. The unidimensional model uses objective measures of team performance, or the degree of real productivity. The multidimensional model is based on the assumption that TE depends on several other variables apart from performance or productivity (Pina *et al.*, 2008).

A contemporary multi-dimensional view of TE is that it is a function of (P) performance, (B) behavior and (A) attitude (Adams *et al.*, 2002). Further research expanded this functional relationship and included team members' characteristics and corporate culture as dimensions of TE (Ancona, 1990). Hence, TE is viewed as a function of performance, behavior, attitude, team member characteristics and corporate culture.

Assessing TE in "real" teams is very complex. Hackman (1987) stated, "most organizational tasks do not have clear right-or-wrong answers, for example, they do not lend themselves to qualitative measures that validly indicate how well a group has done its work". Moreover, one needs to be concerned about more than raw productivity or decision quality when assessing groups in organizations. He proposed that effectiveness is best "judged acceptable by those who receive it".

The theoretical base of this study has been drawn on TE model developed by Pareek (2002). In this model, there are two dimensions, namely team functioning (TF) and team empowerment (TE_m), where TF is the combination of cohesion, confrontation and collaboration; and TE_m is composed of task clarity, autonomy, support and accountability (Verma *et al.*, 2012).

Cohesion indicates the tendency of a team to stick together and stay united in pursuit of its goals and objectives regardless of difficulties and setbacks. Cohesiveness is "the strength of the force acting on members to maintain group affiliation" (Dailey, 1978 as cited in Lee *et al.*, 2009). Members' perception of being part of a team, rather than being independent, increases team cohesiveness (Guzzo and Shea, 1992). Mullen and Copper (1994) reported that cohesiveness enables members to display cooperation and be bound strongly together. The authors further report that a positive relationship exists between team cohesiveness and TE. Further, Zaccaro and Lowe (1988) found that there is a direct relationship between cohesiveness and task commitment.

Confrontation means the open, positive and healthy discussion on issues in the team. Sawyer (2001) reported that constructive confrontation enhances team performance and destructive confrontation (i.e. conflict) hinders it. Constructive confrontation is a structured approach that works by minimizing the gap between people's wants and an organization's needs (Hoover and DiSilvestro, 2005). Naturally, there are advantages to open and face-to-face discussion on team-related issues.

Collaboration among team members allows for exchanges of help and division of work through better communication throughout the tasks. Hence, when team members collaborate, they seek out help. Collaboration can also encourage further division of tasks within the team. Ebert and Neve (2001) noted that communication and its frequency affects the efficiency of a team.

Task clarity is essential since it enables clear understanding on what is to be done and who is to do that. Verma *et al.* (2011) reported that task clarity reduces unnecessary debate or confusion; hence, it increases the team's effectiveness. Mohammed and Dumville (2001) also found that team performance is greater when there is task clarity.

Autonomy means the degree to which a job provides discretion and independence to schedule one's own work and way of working. Autonomy enables certain positive effects for a team. It enables greater efforts and responsibility for one's performance. Verma *et al.* (2011) found that autonomy is a preliminary condition for the effectiveness of a team. Furthermore, Ozaralli (2003) also noted that autonomy, coupled with freedom and interdependence fosters innovation in teams. Jaca *et al.* (2013) examined the factors that actively contribute to the effectiveness of teams. Team factors such as interdependence, autonomy and team structure were highly scored. This shows that most organizations consider those factors to be important for their teams to be able to perform well.

Support not only refers to availability of sufficient material and human resources, but also a conducive and favorable environment within the team. Erez *et al.* (2002) found that support promotes a sense of integration and mutually facilitates the tasks of team members. Huckman *et al.* (2009) also found that support for others' innovative ideas and ways of working has a significant positive effect on team performance.

Accountability is the willingness or compulsion to accept responsibility for one's actions related to tasks. Price *et al.* (2006) noted that in effective teams, members are individually and jointly accountable for teams' overall purpose, goals and approach. Accountability in teams enables benchmarking a team's outcome against the goals set and minimizes misuse of autonomy and support.

Thus, it emerges that the dimensions of TE-cohesion, confrontation and collaboration; and task clarity, autonomy, support and accountability in the TE model used in this study are linked with team performance and TE.

3.4 Organizational team culture

Culture is the set of shared attitudes, values, goals and practices that characterize an institution, organization or group. Organizational culture can be defined in a number of ways, one of which is *the way things get done here* (Deal and Kennedy, 1982). Organizational culture has been examined as a precursor of TE in various studies (Nada, 2013; Luis, 2010).

However, as per our study, TE is more a function of team culture (referred to as an organization team culture) which has an immediate effect on work of teams. Defined by Earley and Mosakowski (2000) team culture is mainly based on norms, expectations and roles of the team members. A team culture consist of a set of rules that have been simplified within each other's expectations, perceptions and roles to accomplish any work and it may enhance the work performance based on the information shared between members.

To create a strong team culture an organization must derive from a pre-existing culture that drove the organizations' success and that same pattern will help the new team members to develop new services for organizational success. Team culture concerns members' delegation, self-evaluation and facilitating other team members' performance (Earley and Mosakowski, 2000). The culture of a team comprises vision, norms and principles and provides initiative for participation; thereby team members get familiar with all such knowledge that formulates the culture of a team. Practicing such team culture over a period of

time leads the team to function as a coherent team in completing team tasks (Kaur and Pankaj, 2013; Shin *et al.*, 2016; Weller *et al.*, 2014; Zhou *et al.*, 2011).

Previous studies (Pe'rez Lopez *et al.*, 2004; Shin *et al.*, 2016; Willard-Grace *et al.*, 2014) concluded that team culture collectively believes in teamwork, team members participation, respect and empowerment and influences the knowledge sharing behavior of team members which subsequently affect team performance. Research provides evidence that team members belong to particular team structure, their behavior and attitude are influenced according to the prevailing culture of teams subsequently, influencing team performance (Avey *et al.*, 2008; Ham *et al.*, 2007).

In the present study, we conceptualize (organizational) team culture as comprising of participation, communication, trust, training inputs and support and support for teamwork from the organization (West and Markiewicz, 2003). Each of these variables has received support as factors contributing to TE. Patterson *et al.* (2004) reported that a *supervisor's support* was positively related to subsequent organizational performance. Organizational support theory posits that perceived support from the organization elicits employees' feelings of obligation to help the organization achieve its goals. They will reciprocate the organization's support through greater efforts at work in teams (Eisenberger *et al.*, 2001).

Doolen *et al.* (2006) investigated the role of organizational context on the effectiveness of engineering work teams and found that management support for teams and teamwork was found to have a significant positive linear relationship with team performance and team member satisfaction. Also, team-level training was found to have a significant and positive linear relationship with team member satisfaction. In another study, Kiffin-Petersen (2004) stated that *trust* is a neglected variable within TE research and that requires further empirical investigation.

Researchers nowadays are talking about culture strength which is the degree of within unit agreement of employees' culture perceptions. Low culture strength means that idiosyncratic team perceptions within a team develop, leading to wide variability in individual behaviors and reduced team performance (Ostroff *et al.*, 2003).

In the present study, we consider five important facets of OTC (West and Markiewicz, 2003): participation, communication, trust, training inputs and support and support for teamwork from the organization. We expect that these OTC dimensions will be related to TE's seven dimensions – autonomy, confrontation, team support, accountability, cohesion, task clarity and collaboration.

Therefore, we hypothesize the below main hypothesis and further flowing into sub-hypotheses:

H. OTC variables are positively related to dimensions of TE.

Sundstrom *et al.* (1990) presented an analytic framework depicting TE as interdependent with organizational context, boundaries and team development. Key context factors include (1) organizational culture, (2) technology and task design, (3) mission clarity, (4) autonomy, (5) rewards, (6) performance feedback, (7) training/consultation and (8) physical environment.

H1. OTC variables are positively related to task clarity.

Dala *et al.* (2021) found that the entrepreneurial and team culture positively predict autonomy at work and negatively overload.

H2. OTC variables are positively related to autonomy.

Abuzid (2017) found a direct positive significance of the components of teamwork and their impact on organizational performance and mediating role of organizational support and team leader's readiness in making teams effective and eventually improving the organizational performance.

H3. OTC variables are positively related to team support.

Prinsloo and Hofmeyr (2022) indicate that the tendency of a supervisor to hold herself and her team accountable is positively correlated with good safety behavior and is the strongest predictor of safety behavior when considering safety climate and supervisory engagement and supervisory accountability.

H4. OTC variables are positively related to accountability.

Daspit et al. (2013) in their study of cross-functional TE found that internal team environment influences effectiveness through shared leadership and cohesion.

H5. OTC variables are positively related to cohesion.

Sawyer (2001) reported that a culture of constructive confrontation enhances team performance and destructive confrontation (i.e. conflict) hinders it.

H6. OTC variables are positively related to confrontation.

Culture is one of the key contextual factors in which collaboration takes place (Patel et al., 2012). According to Weiseth et al. (2006), “culture” can influence the “openness” of communication channels, willingness to change, the types of social interaction that take place between people, organizational trust and organizational effectiveness.

H7. OTC variables are positively related to collaboration.

4. Research design

4.1 Conceptual model

Designation of the variables includes five metric-dependent and seven metric-independent variables. The conceptual basis of both sets is well established, so there was no need for alternative model formulations testing different sets of variables; Figure 1 pictorially describes the framework under study. In order to find the relationship among OTC and TE dimensions and to test the model for the present study, the above mentioned seven hypotheses were formulated to find the degree and directions among the variables for the selected sample of the power sector professionals.

4.1.1 Data collection. Survey method for research has been used to collect quantitative data on the study variables. The sample for data collection is selected from one power sector organization, from western India. The data were collected through a structured

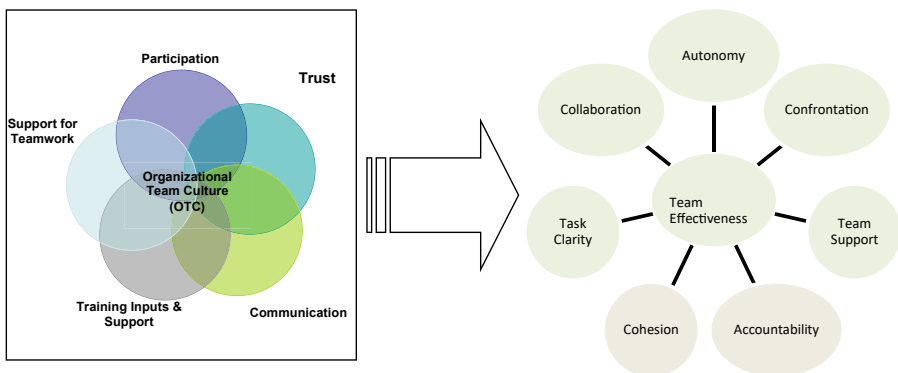


Figure 1.
Proposed model – OTC
and TE

questionnaire. Reliability of the questionnaires was tested as they are adopted ones with minor changes as per study requirement. Additionally, five semi-structured interviews (two HR managers and three team leaders) were conducted to gain insights into organizational specific team challenges and developing HR interventions. Please refer [Appendix 1](#) for interview protocol for qualitative data collection.

4.2 Instruments

Two questionnaires were administered to the middle level executives of the selected organization to gather requisite data for the study. OTC variables were assessed using “TC Scale” developed by [West and Markiewicz \(2004\)](#). The TC scale consists of five dimensions – communication, trust, participation, training inputs and support and support for teamwork. TE was assessed using TEAM scale ([Pareek, 1997](#)). The scale comprises of seven dimensions- i.e. task clarity, autonomy, team support, accountability, cohesion, confrontation and collaboration.

4.3 Sampling

The sample for the study has been selected using judgmental sampling design. Respondents were senior managers to deputy general manager level (called middle-level managers i.e. upto E4 level in the organization). Each one of them was part of different teams and expected to play crucial role in managing and leading work teams. The sample consisted of 92% males and 8% women employees. The total work experience for sample ranges from five to twenty years. The sample has 58% employees with 5–10 years of experience, 31% employees with 10–15 years of experience and around 11% with more than 15 years of experience. Among the selected population, those who attended team building workshops had been approached with prior information and permission from training head. A total of 300 questionnaires were distributed to the selected employees and 164 filled-in responses were received, which were used for the final data analysis. This indicates a response rate of 54.67% for the study.

4.4 Data analysis

Survey method for research has been used to collect quantitative data through study instruments and relationship among OTC and TE dimensions was tested using SEM model. Additionally, qualitative data collected through five in-depth interviews to gain further insights into organizational specific team challenges and developing HR interventions was analyzed for broad themes and presented in the form of themes in the Discussion section.

5. Results

Two-stage procedure prescribed by [Anderson and Gerbing \(1988\)](#) was used for testing the theoretical model. The two-stage approach emphasizes the analysis of two conceptually distinct latent variable models: the measurement model and the structural model. First, the measurement model, which provides an assessment of convergent and discriminate validity, is estimated before the structural model tests the hypotheses.

5.1 Measurement model

In order to test the reliability, convergent and discriminate validity of the measurement model, confirmatory factor analyses (CFA) were carried out for the selected two instruments: (1) OCT components and (2) TE constructs. A total of 48 items were generated to measure 12 constructs undertaken in the study. As per [Bollen \(1989\)](#), internal consistency is not applicable to such multidimensional composites. It was conservatively chosen to eliminate

items with factor loadings less than 0.50. The purpose of this stage of the analysis was to identify and eliminate poorly performing items and to reaffirm the convergent validity of items in each construct. All factor loadings in the sample were highly significant and exceeded the 0.5 level, which is considered meaningful in factor analytic investigation. Please refer [Appendix 2](#) (CFA – factor loadings for OTC and TE dimensions).

CFA was used to understand the unidimensionality, convergent and discriminant validity for each of the two constructs, OTC and TE, in order to determine whether all the dimensions considered for the study measured the construct adequately as they had been proposed model. AMOS program was used to conduct structural equation modeling (SEM) and maximum likelihood estimation (MLH) was applied to estimate the CFA models. Along with descriptive statistics and factor loadings, various fit measures of goodness of fit index (GFI), RMR (root mean square residual), adjusted goodness of fit index (AGFI), comparative fit index (CFI), parsimony adjustment to the CFI (PCFI), normed fit index (NFI), and root mean square error of approximation (RMSEA), of the scales were obtained ([Table 1](#)).

The scores for all the constructs were found to be consistently indicating that a significant proportion of variance in the sample variance-covariance matrix is accounted for by the model and good fit has been achieved ([Baumgartner and Homburg, 1996](#); [Byrne, 2001](#)). The RMR value was obtained as 0.07 and close to zero indicates perfect fit for the model. CFI and PCFI value for both the constructs understudy were obtained and as CFI value is >0.900, it indicated an acceptable fit for the data ([Nentler and Bonett, 1980](#)). The RMSEA values obtained are <0.008 for an adequate model fit ([Hu and Bentler, 1999](#)). The Cronbach’s alpha values were consistently = >0.7 for all the subscales of OTC and TE and hence the scales are reliable ([Nunnally and Bernstein, 1994](#)).

5.2 Structural model

SEM (also referred to as causal modeling or covariance structure modeling) has been used to estimate and test the validity of the model. A structural estimate of the parameters of the models has been generated using AMOS. [Figure 2](#) presents the parameter estimates of the proposed theoretical predictive models. These parameter estimates are indices that represent the simultaneous contribution of each observed and latent variables to the overall model. The research model holds as well as the fit-indices supported adequately the model fit to the data. For the OTC dimensions predicting each of the TE dimensions, regression weights have been calculated which are presented in [Tables 2 and 3](#) as well as in [Figure 2](#).

Based on the above results, we observe that OTC variables are strongly and positively related to TE variables and based on the above results, all the seven hypotheses have accepted.

It meant that better and stronger the team values and team culture, better will be the TE. [Sun et al. \(2014\)](#) also found that in project teams where team members and leaders have higher sense and commitment for the given tasks and positive confrontation among team leaders and team members may enhance teams effectiveness. The results further suggested higher and significant positive relationship between improved and direct communication among team members, stronger team values ([Maitlis, 2005](#)), training support and autonomy to take faster decisions enhanced overall TE. It further concluded that support for teamwork ($\beta = 0.93$) and Trust ($\beta = 0.90$) is also strongly related to TE ([Breuer et al., 2016](#)).

Table 1.
Goodness-of- fit
statistics

GFI	RMR	AGFI	CFI	PCFI	NFI	Goodness-of- fit statistics		Cronbach α -value (overall)
						RMSEA	Factor loading	
0.946	0.07	0.937	0.966	0.81	0.949	0.067	0.880	0.921

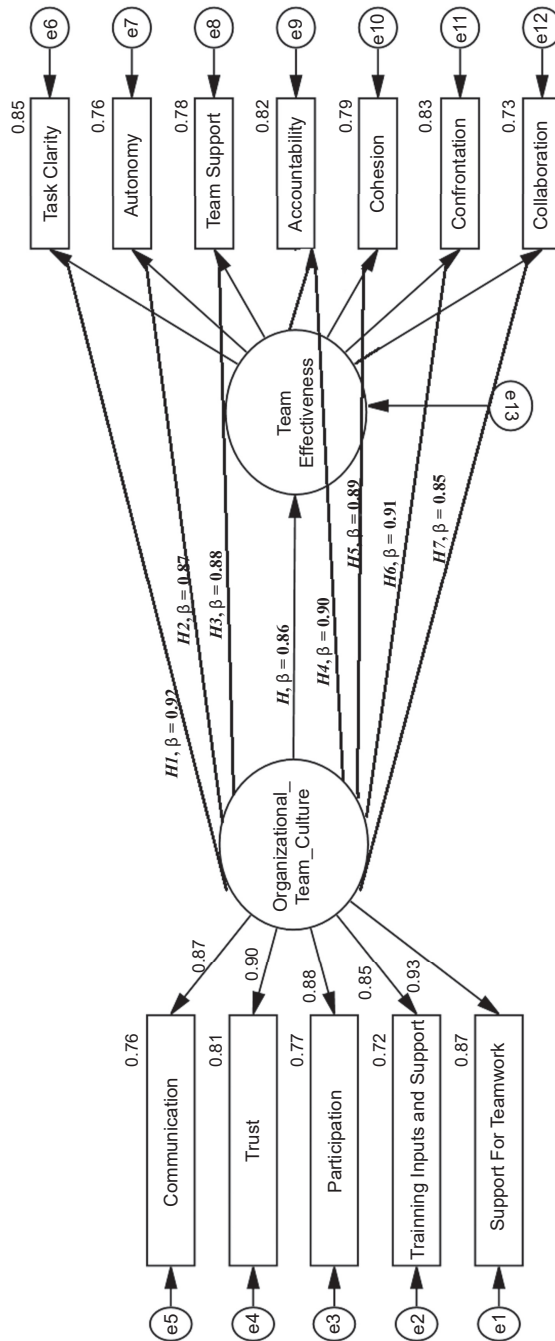


Figure 2.
Direct Effect Model –
parameter estimates
for OTC and TE
dimensions
using AMOS

Table 2.
Standardized
regression weights-
default model

Endogenous construct		Exogenous constructs	Estimated β	<i>p</i> -value
<i>Team Effectiveness</i>	←	<i>Organizational Team Culture</i>	0.856	0.000
Training Inputs and Support	←	Organizational Team Culture	0.847	0.000
Participation	←	Organizational Team Culture	0.878	0.000
<i>Trust</i>	←	<i>Organizational Team Culture</i>	0.902	0.000
Communication	←	Organizational Team Culture	0.872	0.000
<i>Support For Teamwork</i>	←	<i>Organizational Team Culture</i>	0.933	0.000
<i>Task Clarity</i>	←	<i>Team Effectiveness</i>	0.923	0.000
Autonomy	←	Team Effectiveness	0.873	0.000
Team Support	←	Team Effectiveness	0.882	0.000
<i>Accountability</i>	←	<i>Team Effectiveness</i>	0.903	0.000
Cohesion	←	Team Effectiveness	0.891	0.000
<i>Confrontation</i>	←	<i>Team Effectiveness</i>	0.910	0.000
Collaboration	←	Team Effectiveness	0.853	0.000

Table 3.
Support for hypotheses

Hypotheses	Estimated β	<i>p</i> -value
H(1): OTC variables are positively related to task clarity	0.92	0.000
H(2): OTC variables are positively related to autonomy	0.87	0.000
H(3): OTC variables are positively related to team support	0.88	0.000
H(4): OTC variables are positively related to accountability	0.90	0.000
H(5): OTC variables are positively related to cohesion	0.89	0.000
H(6): OTC variables are positively related to confrontation	0.91	0.000
H(7): OTC variables are positively related to collaboration	0.85	0.000

6. Discussion

As per the results of this study, the dimensions of OTC are significantly and positively related to TE. In this research, OTC was operationalized in terms of the variables such as participation, trust, communication, training inputs and support and support for teamwork. The TE was operationalized in terms of TF (combination of cohesion, confrontation and collaboration) and TEm (composed of task clarity, autonomy, support and accountability). Especially highly significant was the relationship between OTC and *task clarity*, *confrontation* and *accountability* as shown by the results of the structural model. Thus, according to the study, a favorable OTC leads to reducing unnecessary debates and confusions with improved role boundaries (task clarity, [Laschinger et al., 2001](#)); facilitates open, healthy and positive discussion on issues (constructive confrontation) and ensures that roles are individually and jointly accountable for team's overall purpose, goals and approach (accountability) and all these contribute to TE. Also found important was the role of OTC variables such as *support for teamwork* and *trust* in contributing to TE. In general team trust facilitates coordination and cooperation in teams and therefore is positively related with TE ([Breuer et al., 2016](#)). We note that favorable team culture is particularly related to TE through empowering teams by facilitating clarity on team tasks and team roles and holding the team members' individually and jointly accountable for team results. A favorable team culture also promotes TE through facilitating TF through processes of constructive confrontation.

We further discuss findings of qualitative data collected through semi structured interviews and presented in form of themes/broad points derived from thematic analysis.

6.1 Qualitative insights

Although there are many dimensions necessary for effective teamwork, there is nevertheless an underlying common theme. The ideal fit for the proposed model suggests that if OTC

dimensions are taken care and nurtured, then the teams achieve effectiveness, the qualitative data obtained from the sample company highlighted that elements of OTC like communication, trust, participation, training inputs and support and support for teamwork could be strengthened further so as to improve overall effectiveness in this recently transformed organization. Based on five in-depth interviews conducted with two HR managers and three team leaders in the sample organization, following broad themes/points were inferred:

- (1) Lack of “Trusting Relationships” with peers/colleagues was observed in the sample organization which hindered team success. In the sample organization, the historical legacy of it being a bureaucratic organization remained strong. Having a high level of process adherence and compliance, a resistance to work as teams outside their respective function and departments and organizational politics were key causes for mistrust among team members. This also hindered development of trust and thereby the company failed to realize the synergies from teamwork in the sample organization.
- (2) “Working in Silos” and inappropriate team structure- In the sample organization, it was seen that the legacy of the bureaucratic hierarchy remained prevalent and hindered TE despite the company changing its form from a state owned company to SBUs. The team hierarchy still remained bureaucratic and people with higher designation were now in team lead positions, affecting the team synergy negatively. It was advised that team members should be given suitable structural frame (e.g. project matrix structure) to execute different projects effectively as teams. It was also suggested that the organization should use project management principles to create robust, agile and dynamic team structures within SBUs for different projects. Furthermore, in the sample organization, teams’ members from different departments do not communicate with other members from other departments. Thus, this hindered engagement of team members and their contribution in a participative way. [Tseng and Yeh \(2013\)](#) reported that lack of communication and low level of individual accountability were negative factors of their teamwork experiences. Also, one department’s key results area may be in conflict with another department reducing their active participation. For example, for an operation team, they might have a goal of reducing operations cost while a distribution team in rural area has a goal of providing subsidized electricity which led to team concerns.
- (3) Lack of communication and “Role Clarity” – Based on the interactions with team members and interviews with HR and team leaders, it was identified that lack of communication was an issue plaguing the teams as they were formed for specific project or they represented different departments. For example, there existed lack of communication from electrical and civil team members who were not able to articulate their goals as one team for project which is building a new substation. Team leaders did not follow rigors and scientific way of selecting team members due to time and resource constraints. Mostly roles were assigned based on project/client requirements which may change during the execution of the project/s. Assigning roles in teams as per competencies are critical to achieve the TE.
- (4) “Lack of measures of team contribution and team rewards” – In the sample organization, there was focus on individual performance-based rewards and lack of team rewards mechanisms. Team rewards are critical to encouraging teamwork in organizations. An organization’s reward system needs to be designed to reinforce teamwork. Group incentives plans in general are critical to fostering the team-based work environment sought by so many firms ([Lawler et al., 1989](#); [Milkovich and Wigdor, 1991](#)). It was therefore suggested that some proportion of performance-

related pay should be given as team rewards. One of its competitors in Northern India is providing team rewards to motivate teamwork and team collaboration.

- (5) Ensure customer participation and engagement – At times, a team become so focused on internal deliverables, deadlines and processes that internal and external stakeholders' expectations were not aligned or taken care of. It was suggested that they should be involved and engaged at every stage. Continuous and active engagement will ensure effective outputs and better alignment for diverse expectations from internal or external stakeholders.

7. Implications

7.1 Managerial implications

Teams play a fundamental role in the organizational success in a global, changeable and client-oriented economy (Mathieu *et al.*, 2006). This study identified the important role of OTC in building effective teams. To influence TE, managers should focus on creating a positive team culture particularly providing support for teamwork and a climate of trust and cohesiveness. This would help improve task clarity, constructive confrontation and accountability among team members and contribute toward TE.

7.1.1 Providing task clarity. Managers' need to promote a positive team culture that facilitates task clarity with clear communication, clarity on key performance areas, project goals and deliverables, and ensure timely "official continuous" communication so that there is no time lag in projects-overcoming vagueness must act as a major goal to the team's success. Importance of task clarity for TE has been reported by Verma *et al.* (2011) and Mohammed and Dumville (2001).

7.1.2 Encouraging confrontation. Managers' need to promote a positive team culture that supports constructive confrontation and cooperation and reduces likely conflicts between different team's key results areas to facilitate active participation. The manager/leader of the project needs to be made a POC (point of contact) for upward communication and downward flow of information. The manager/leader of the project could also act as conflict managing officer/grievance handling officer to resolve project-related conflicts that arise in teams for project in the organization.

7.1.3 Promoting accountability. Price *et al.* (2006) noted that in effective teams, members are individually and jointly accountable for teams' overall purpose, goals and approach. Managers' need to ensure a culture of having robust ways of measuring team contributions, and incorporate team-based criteria into key result areas (KRAs). The performance measurement system needs to evolve by adding more competencies measuring team contributions. Furthermore, each KRA needs to be given weights and team behaviors are to be measured and aligned for measuring overall employee performance. This would flow on to reward systems and team rewards are critical to encouraging team-work in organizations.

7.1.4 Ensuring support for teamwork. Erez *et al.* (2002) and Huckman *et al.* (2009) reported the important role of support on team performance. Managers needs to promote culture that supports teamwork by ensuring sufficient team skills, training in areas of conflict management, confrontation, role negotiation, etc. to build effective teams. Also, use of some psychometric tool like MBTI or Belbin role inventory could be made to allocate team resources for the projects in right manner and in order to provide better "person-job- role" fit.

7.1.5 Building trust. Work values play an important role in organizational practice. Teams are generally composed of diverse members in terms of race, ethnicity, age, culture, gender, etc. Differences or similarity in work values should have a bearing on issues of team composition and subsequent discussions on impact of team diversity on

performance. [Dose and Klimoski \(1999\)](#) discussed the relevance of individual's work values and their similarity for effective team processes. They proposed that values similarity would lead to greater cohesiveness in teams and also perceived values similarity will enable.

7.2 Societal implications

People-centric corporate social responsibilities (CSR) initiatives: As the sample company adopted the mission to facilitate availability of reliable and quality power at competitive cost and being ethically and socially responsive in the areas of operation, it is creating frameworks to identify, access and manage socio-economic development. The organization's teams must understand and align themselves to an interconnected vision of people's welfare, social growth and environmental conservation through adopting people-centric approaches within the business.

7.2.1 Developing service orientation. As the sample organization is in the business of providing essential services like energy, it is also important that their projects meet their timelines so that different regions will be benefited in terms of electrification of rural areas and longer hours of power distribution for agriculture and industrial sectors. A strong emphasis on high standard of authenticity, responsibility, accountability and service toward all stakeholders is the key to the success. It was felt that if service orientation as a value is inculcated in project teams, then they will be engaged effectively and achieve the larger vision of improving quality of work life for a larger population from rural and urban areas.

7.3 Theoretical implications

TE as a multi-dimensional construct has been studied extensively. There is lot of research that examines organizational level contextual factors such as leadership and organizational culture as contributing to TE. For instance, [Wu et al. \(2010\)](#) discussed organization culture, team interactions, TE and their relationships with leadership styles; [Mysirlaki and Paraskeva \(2020\)](#) studied the effects of leaders' emotional intelligence and transformational leadership on virtual TE; [Yang and Chu \(2012\)](#) investigated the relationship between team leader's people value and TE based on social identity theory; [Daniel \(2010\)](#) proposed that workplace spirituality is an element of the organizational culture and that it has an important effect on TE. However, researchers have somehow remained oblivious to the impact of constructs of team culture on TE for a power sector organization in India. Also, this power sector organization had recently undergone a business transformation in terms of their strategic focus on renewables, automation and digitization of its transmission and distribution services. So, this research makes a unique contribution by examining key constructs – TE as a function of team culture-which have an immediate effect on work of teams.

8. Scope for further research

The research was conducted in one large power sector organization in western India. Therefore, our future research would be aimed at examining the proposed model in varied sectors so as to obtain further generalizability of the findings. Also, the proposed model examined specific dimensions of OTC and TE. However, since these are multi-dimensional constructs with differing interpretations in different contexts, we could make an attempt in future to examine other dimensions as well representing OTC and TE.

9. Conclusion

The role of teams has become quite critical for successful completion of various tasks, projects and overall organizational effectiveness as many large corporations are changing

from hierarchical to matrix organizations. However, mere formation of teams is not the answer; teams need to be managed effectively in order to derive the synergistic benefits of teamwork. TE is a multi-dimensional concept incorporating many variables. However, contextual and organizational level variables assume significance in TE. Often the entire culture of the workplace itself must undergo some significant changes to be conducive to a teamwork philosophy.

As it is difficult to develop and engage teams, this paper has explored how organizational factors in terms of an organization's team culture affect different dimensions of TE. Based on data collected using structured survey of midlevel working executives (senior manager to deputy general manager level) who are part of different teams in a power sector organization, it was found that OTC plays an important role in TE. The ideal fit for the proposed model suggests that if OTC dimensions like communication, participation, trust, training inputs and support and support for teamwork are taken care and nurtured, then the teams achieve effectiveness. Especially important was the role of factors such as confrontation i.e. constructive confrontation which minimizes gap between people's wants and organization's needs'; task clarity which reduces unnecessary debate or confusion and accountability which encourages which enables responsibility for one's actions related to tasks.

References

- Abuzid, H.F. (2017), "Impact of teamwork effectiveness on organizational performance vis-a-vis role of organizational support", *Journal of Engineering and Applied Sciences*, Vol. 12 No. 8, pp. 2229-2237.
- Adams, S.J. (2003), "Building successful student teams in the engineering classroom", *Journal of STEM Education*, Vol. 4 No. 3, pp. D1-D6.
- Adams, S., Simon, L. and Ruiz, B. (2002), "A pilot study of the performance of student teams in engineering education", *Proceedings of the American Society for Engineering Education Annual Conference and Expositions*, Montreal, June.
- Ancona, D.G. (1990), "Outward bound: strategies for team survival in the organization", *Academy of Management Journal*, Vol. 33, pp. 334-365.
- Anderson, J.C. and Gerbing, D.W. (1988), "Structural Equation Modeling in Practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.
- Avey, J.B., Wernsing, T.S. and Luthans, F. (2008), "Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors", *The Journal of Applied Behavioral Science*, Vol. 44 No. 1, pp. 48-70.
- Baumgartner, H. and Homburg, C. (1996), "Applications of structural equation modeling in marketing and consumer research: a review", *International Journal of Research in Marketing*, Vol. 13 No. 2, pp. 139-161.
- Beers, P.J. (2005), "Negotiating common ground: tools for multidisciplinary teams", Unpublished doctoral thesis, Open University, Heerlen.
- Biech, E. (2001), "A model for building teamwork", *The Pfeiffer Book of Successful Teambuilding Tools*, Jossey-Bass/Pfeiffer, San Francisco, pp. 13-26.
- Bollen, K.A. (1989), *Structural Equations with Latent Variables*, John Wiley & Sons, New York.
- Breuer, C., Hertel, G. and Huffmeier, J. (2016), "Does trust matter more in virtual teams? A meta-analysis of trust and team effectiveness considering virtuality and documentation as moderators", *Journal of Applied Psychology*, Vol. 101 No. 8, pp. 1151-1177.
- Byrne, B.M. (2001), *Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming*, Erlbaum, Mahwah, NJ.

- Castka, P., Bamber, C.J. and Sharp, J.M. (2004), "Benchmarking intangible assets: enhancing teamwork performance using self-assessment", *Benchmarking: An International Journal*, Vol. 11 No. 6, pp. 571-583.
- Che Ibrahim, C.K.I., Costello, S.B. and Wilkinson, S. (2016), "Application of a team integration performance index in road infrastructure alliance projects", *Benchmarking: An International Journal*, Vol. 23 No. 5, pp. 1341-1362, doi: [10.1108/BIJ-06-2015-0058](https://doi.org/10.1108/BIJ-06-2015-0058).
- Cohen, S.G. and Bailey, D.E. (1997), "What makes teams work: group effectiveness research from the shop floor to the executive suite", *Journal of Management*, Vol. 23, pp. 239-290.
- Dailey, R.C. (1978), "The role of team and task characteristics in R&D team collaborative problem solving and productivity", *Management Science*, Vol. 24 No. 15, pp. 1579-1588.
- Dala, M., Sobral, F. and Morais, C. (2021), *Organizational Culture and the Perception of Autonomy and Work Overload in Startups*.
- Daniel, J.L. (2010), "The effect of workplace spirituality on team effectiveness", *Journal of Management Development ADDED*, Vol. 29, pp. 442-456, doi: [10.1108/02621711011039213](https://doi.org/10.1108/02621711011039213).
- Das, M. (2021), "Unveiling benefits through franchising in Indian power distribution: addressing the resources scarcity", *Journal of Economic and Administrative Sciences*. doi: [10.1108/JEAS-05-2021-0098](https://doi.org/10.1108/JEAS-05-2021-0098) (In press).
- Daspit, J., Tillman, C.J., Boyd, N.G. and Mckee, V. (2013), *Team Performance Management*, Vol. 19 Nos 1/2, pp. 34-56.
- Deal, T.E. and Kennedy, A.A. (1982), *Corporate Cultures*, Addison-Wesley Publishing Co, Reading.
- Doolen, T.L., Hacker, M.E. and Aken, E.V. (2006), "Managing organizational context for engineering team effectiveness", *Team Performance Management*, Vol. 12 Nos 5-6, pp. 138-154.
- Dose, J.J. and Klimoski, R.J. (1999), "The Diversity of Diversity: work values effects on formative team processes", *Human Resource Management Review*, Vol. 9 No. 1, pp. 83-108.
- Earley, P.C. and Mosakowski, E. (2000), "Creating hybrid team cultures: an empirical test of transnational team functioning", *The Academy of Management Journal*, Vol. 43 No. 1, pp. 26-49, doi: [10.2307/1556384](https://doi.org/10.2307/1556384).
- Ebert, C. and Neve, P.D. (2001), "Surviving global software development", *IEEE Software*, Vol. 18 No. 2, pp. 62-69.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P.D. and Rhoades, L. (2001), "Reciprocation of perceived organizational support", *Journal of Applied Psychology*, Vol. 86, pp. 42-51.
- Erez, A., Lepine, J.A. and Elms, H. (2002), "Effects of rotated leadership and peer evaluation on the functioning and effectiveness of self-managed teams: a quasi-experiment", *Personnel Psychology*, Vol. 55 No. 4, pp. 929-948.
- Ervin, J.N. (2021), "Work groups and action teams: distinguishing among task-oriented groups", in Beck, S.J., Keyton, J. and Poole, M.S. (Eds), *The Emerald Handbook of Group and Team Communication Research*, Emerald Publishing, Bingley, pp. 429-442, doi: [10.1108/978-1-80043-500-120211027](https://doi.org/10.1108/978-1-80043-500-120211027).
- Freudenberger, H.J. and Richelson, G. (1980), *Burnout: the High-Cost of High Achievement*, Doubleday, Garden City, NY.
- Gibson, C.B., Porath, C.L., Benson, G.S. and Lawler, E.E. (2007), "What results when firms implement practices: the differential relationship between specific practices, firm financial performance, customer service, and quality", *Journal of Applied Psychology*, Vol. 92, pp. 1467-1480.
- Gladstein, D. (1984), "Groups in context: a model of task group effectiveness", *Administrative Science Quarterly*, Vol. 29, pp. 499-517.
- Glassop, L., Cohen, S.G. and Bailey, D.E. (2002), "The organizational benefits of teams what makes teams work: group effectiveness research from the shop floor to the executive suite", *Human Relations Journal of Management*, Vol. 23, pp. 239-290.

- Gonzalez, R.V.D. (2021), "Effects of learning culture and teamwork context on team performance mediated by dynamic capability", *Journal of Knowledge Management*, Vol. 25 No. 8, pp. 2000-2021, doi: [10.1108/JKM-05-2020-0385](https://doi.org/10.1108/JKM-05-2020-0385).
- Griffith, T.L., Mannix, E.A. and Neaie, M.A. (2003), "Conflict in virtual teams", in Cohen, S.G. and Gibson, C.B. (Eds), *Virtual Teams that Work*, Jossey-Bass, San Francisco, pp. 335-352.
- Guzzo, R.A. and Shea, G.P. (1992), "Group performance and intergroup relations in organizations", in Dunette, M.D. and Hough, L.M. (Eds), *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA, Vol. 3.
- Hackman, J. (1987), "The design of work teams", in Lorsch, J.W. (Ed.), *Handbook of Organisational Behaviour*, Prentice-Hall, Englewood Cliffs, NY, pp. 315-342.
- Hamilton, B.H., Nickerson, J.A. and Owan, H. (2003), "Team incentives and worker heterogeneity: empirical analysis of the impact of teams on productivity and participation", *Journal of Political Economy*, Vol. 111 No. 3, pp. 465-497.
- Hann, M., Bower, P., Campbell, S., Marshall, M. and Reeves, D. (2007), "The association between culture, climate and quality of care in primary health care teams", *Family Practice*, Vol. 24 No. 4, pp. 323-329.
- Hoover, J. and DiSilvestro, R. (2005), *The Art of Constructive Confrontation*, John Wiley & Sons, Hoboken, NJ.
- Hu, L. and Bentler, P. (1999), "Cutoff criteria for fit indices in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling*, Vol. 6, pp. 1-55.
- Huckman, R.S., Staats, B.R. and Upton, D.M. (2009), "Team familiarity, role experience, and performance: evidence from Indian software services", *Management Science*, Vol. 55 No. 1, pp. 85-100.
- Ingram, H. and Desombre, T. (1999), "Team working health care: lessons from the literature and good practice around the world", *Journal of Management in Medicine*, Vol. 13 No. 1, pp. 51-58.
- Jaca, C., Viles, E., Tanco, M., Mateo, R. and Santos, J. (2013), "Teamwork effectiveness factors in healthcare & manufacturing industries", *Team Performance Management*, Vol. 19 Nos 3-4, pp. 222-236.
- Jha, A.P. and Singh, S.K. (2021), "The dynamics of Indian energy mix: a two-phase analysis", *Benchmarking: An International Journal*, Vol. 29 No. 4, doi: [10.1108/BIJ-10-2020-0557](https://doi.org/10.1108/BIJ-10-2020-0557).
- Karia, N. and Mahmoud Saleh, F.I. (2022), "The effect of TQM practices on INGOs' staff work-related attitudes", *Benchmarking: An International Journal*, Vol. 29 No. 2, pp. 596-621, doi: [10.1108/BIJ-02-2021-0080](https://doi.org/10.1108/BIJ-02-2021-0080).
- Katzenbach, J.R. and Smith, D.K. (1993), "The discipline of teams", *Harvard Business Review*.
- Kaur, B. and Pankaj, M. (2013), "Antecedents of turnover intentions: a literature review", *Global Journal of Management and Business Studies*, Vol. 3 No. 10, pp. 1219-1230.
- Kérivel, T., Bossard, C. and Kermarrec, G. (2022), "Team learning process: a longitudinal study in dynamic situation", *The Learning Organization*, Vol. 29 No. 1, pp. 52-68, doi: [10.1108/TLO-09-2020-0177](https://doi.org/10.1108/TLO-09-2020-0177).
- Kiffin-Petersen, S. (2004), "Trust: a neglected variable in team effectiveness research", *Journal of Management and Organization*, Vol. 10 No. 1, pp. 38-53.
- Laschinger, H., Finegan, J. and Shamian, J. (2001), "The impact of workplace empowerment, organizational trust on staff nurses' work satisfaction and organizational commitment", *Health Care Management Review*, Vol. 26 No. 1, pp. 7-23.
- Lawler, E.E., Ledford, G.E. and Mohrman, S. (1989), *Employee Involvement in America*, American Productivity and Quality Center, Houston, TX.
- Lee, H.J., Kim, J.W. and Koh, J. (2009), "A contingent approach on knowledge portal design for R&D teams: relative importance of knowledge portal functionalities", *Expert Systems with Applications*, Vol. 36, pp. 3662-3670.

- Leifels, K. and Bowen, P. (2021), "The dark side of teamwork—the relationship between social stressors, social resources and team member well-being in monocultural and multicultural work teams", *Cross Cultural and Strategic Management*, Vol. 28 No. 4, pp. 867-893, doi: [10.1108/CCSM-08-2020-0172](https://doi.org/10.1108/CCSM-08-2020-0172).
- Luis, D.J. (2010), "The effect of workplace spirituality on team effectiveness", *Journal of Management Development*, Vol. 29 No. 5, pp. 442-456.
- Luthans, F. and Avolio, B.J. (2003), "Authentic leadership: a positive development approach", in Cameron, K.S., Dutton, J.E. and Quinn, R.E. (Eds), *Positive Organizational Scholarship*, Barrett-Koehler, San Francisco, pp. 241-261.
- Maitlis, S. (2005), "The social processes of organizational sense making", *Academy of Management Journal*, Vol. 48 No. 1, pp. 21-49.
- Martin, A. and Bal, V. (2006), *The State of Teams: CCL Research Report*, Center for Creative Leadership, Greensboro, NC.
- Mathieu, J., Gilson, L. and Ruddy, T. (2006), "Empowerment and team effectiveness: an empirical test of an integrated model", *The Journal of Applied Psychology ADDED*, Vol. 91, pp. 97-108, doi: [10.1037/0021-9010.91.1.97](https://doi.org/10.1037/0021-9010.91.1.97).
- Milkovich, G.T. and Wigdor, A.K. (1991), *Pay for Performance*, National Academy Press, Washington, DC.
- Ministry of Law and Justice, The Electricity Act (Central Act) (2003), available at: <https://cercind.gov.in/Act-with-amendment.pdf> (accessed 25 October 2021).
- Mohammed, S. and Dumville, B.C. (2001), "Team mental models in a team knowledge framework: expanding theory and measurement across disciplinary boundaries", *Journal of Organizational Behavior*, Vol. 22, pp. 89-106.
- Mullen, B. and Copper, C. (1994), "The relation between group cohesiveness and performance: an integration", *Psychological Bulletin*, Vol. 115 No. 2, pp. 210-227.
- Mysirlaki, S. and Paraskeva, F. (2020), "Emotional intelligence and transformational leadership in virtual teams: lessons from MMOGs", *Leadership and Organization Development Journal*, Vol. 41 No. 4, pp. 551-566, doi: [10.1108/LODJ-01-2019-0035](https://doi.org/10.1108/LODJ-01-2019-0035).
- Nada, R.M. (2013), "Examining the relationship between organizational culture, global mindset, and team effectiveness in American global corporations", *Dissertation Abstracts International Section A: Humanities and Social Sciences*, Vol. 73 No. 7A-E, ProQuest Information & Learning, Arizona.
- Nentler, P.M. and Bonett, D.G. (1980), "Significance test and goodness of fit in the analysis of covariance structures", *Psychological Bulletin*, Vol. 88, pp. 588-606.
- Nunnally, J.C. and Bernstein, I.H. (1994), *Psychometric Theory*, 3rd ed., McGraw-Hill, New York.
- Ontrup, G. and Kluge, A. (2022), "My team makes me think I can (not) do it: team processes influence proactive motivational profiles over time", *Team Performance Management*, Vol. 28 Nos 1-2, pp. 21-44, doi: [10.1108/TPM-05-2021-0036](https://doi.org/10.1108/TPM-05-2021-0036).
- Ostroff, C., Kinicki, A.J. and Tamkins, M.M. (2003), "Organizational culture and climate", in Borman, W.C., Ilgen, D.R., Klimoski, R.J. and Weiner, I. (Eds), *Handbook of Psychology*, Wiley, Hoboken, NJ, Vol. 12, pp. 565-593.
- Ozaralli, N. (2003), "Effects of transformational leadership on empowerment and team effectiveness", *Leadership and Organization Development Journal*, Vol. 24 No. 6, pp. 335-344.
- Pandey, A.K. and Ghodke, M. (2019), "Barriers to viability of Indian power distribution companies", *International Journal of Energy Sector Management*, Vol. 13 No. 4, pp. 916-934, doi: [10.1108/IJESM-10-2018-0006](https://doi.org/10.1108/IJESM-10-2018-0006).
- Pareek, U. (1997), "Role stress and coping: a framework", in Pestonjee, D.M. and Pareek, U. (Eds), *Studies in Organizational Role Stress and Coping*, Rawat, Jaipur, pp. 109-115.

- Pareek, U. (2002), *Training Instruments in HRD and OD*, 2nd ed., Tata McGraw-Hill Publishing Company, New Delhi.
- Patel, H., Pettitt, M. and Wilson, J.R. (2012), "Factors of collaborative working: a framework for a collaboration model", *Applied Ergonomics*, Vol. 43 No. 1, pp. 1-26.
- Patterson, M.G., Warr, P.B. and West, M.A. (2004), "Organizational climate and company performance: the role of employee affect and employee level", *Journal of Occupational and Organizational Psychology*, Vol. 77, pp. 193-216.
- Peeters, T., Van De Voorde, K. and Paauwe, J. (2022), "The effects of working agile on team performance and engagement", *Team Performance Management*. doi: [10.1108/TPM-07-2021-0049](https://doi.org/10.1108/TPM-07-2021-0049) (In press).
- Perez Lopez, S., Manuel Montes Peon, J. and Jose Vazquez Ordas, C. (2004), "Managing knowledge: the link between culture and organizational learning", *Journal of Knowledge Management*, Vol. 8 No. 6, pp. 93-104.
- Pina, M., Martinez, A. and Martinez, L. (2008), "Teams in organizations: a review on team effectiveness", *Team Performance Management*, Vol. 14 Nos 1/2, pp. 7-21.
- Price, K.H., Harrison, D.A. and Gavin, J.H. (2006), "Withholding inputs in team contexts: member composition, interaction processes, evaluation structure, and social loafing", *Journal of Applied Psychology*, Vol. 91, pp. 1375-1384.
- Prinsloo, H. and Hofmeyr, K.B. (2022), "Organisational culture, frontline supervisory engagement and accountability, as drivers of safety behaviour in a platinum mining organisation", *SA Journal of Human Resource Management*, Vol. 20, p. 13.
- Ross, T.M., Jones, E.C. and Adams, S.G. (2008), "Can team effectiveness be predicted?", *Team Performance Management*, Vol. 14 Nos 5/6, pp. 248-268.
- Savelsbergh, C.M.J.H., Heijden, B.I.J.M.V.D. and Poell, R.F. (2010), "Attitudes towards factors influencing team performance: a multi-rater approach aimed at establishing the relative importance of team learning behaviors in comparison with other predictors of team performance", *Team Performance Management*, Vol. 16 Nos 7/8, pp. 451-474.
- Sawyer, S. (2001), "Effects of conflict on packaged software development team performance", *Information Systems Journal*, Vol. 11 No. 2, pp. 55-78.
- Sengupta, D. and Mukherjee, D. (2022), "By-production of electricity and particulates: efficiency of Indian thermal power plants revisited", *International Journal of Energy Sector Management*, Vol. 16 No. 2, pp. 265-283, doi: [10.1108/IJESM-12-2020-0002](https://doi.org/10.1108/IJESM-12-2020-0002).
- Shea, G.P. and Guzzo, R.A. (1987), "Groups as human resources", in Rowland, K.M. and Ferris, G.R. (Eds), *Research in Human Resources and Personnel Management*, JAI Press, Greenwich, CT, Vol. 5, pp. 323-356.
- Shin, Y., Kim, M., Choi, J.N. and Lee, S.H. (2016), "Does team culture matter? Roles of team culture and collective regulatory focus in team task and creative performance", *Group and Organization Management*, Vol. 41 No. 2, pp. 232-265.
- Singh, A. and Gupta, B. (2015), "Job involvement, organizational commitment, professional commitment and team commitment: a study of generational diversity", *Benchmarking: An International Journal*, Vol. 22 No. 6, pp. 1192-1211.
- Sun, W., Xu, A. and Shang, Y. (2014), "Transformational leadership, team climate, and team performance within the NPD team: evidence from China", *Asia Pacific Journal of Management*, Vol. 31, pp. 127-147, doi: [10.1007/s10490-012-9327-3](https://doi.org/10.1007/s10490-012-9327-3).
- Sundstrom, E., De Meuse, K.P. and Futrell, D. (1990), "Work teams: applications and effectiveness", *American Psychologist*, Vol. 45 No. 2, pp. 120-133, doi: [10.1037/0003-066X.45.2.120](https://doi.org/10.1037/0003-066X.45.2.120).
- The Gujarat Government Gazzatte. The Gujarat Electricity Industry (Re-organization & Regulation) Rules (2013), available at: https://ceiced.gujarat.gov.in/assets/downloads/circular_22042013.pdf (accessed 26 October 2021).

- Tseng, H.W. and Yeh, H.T. (2013), "Team members' perceptions of online teamwork learning experiences and building teamwork trust: a qualitative study", *Computers and Education*, Vol. 63, pp. 1-9.
- Verma, N., Rangnekar, S. and Barua, M.K. (2011), "The impact of need pattern on team effectiveness: a study in Indian perspective", in Jha, S., Jha, S. and Malviya, V. (Eds), *Contemporary Issues in Human Resource Management*, Management Development Research Foundation, New Delhi, pp. 127-141.
- Verma, N., Rangnekar, S. and Barua, M.K. (2012), "Team effectiveness in Indian organizations", *Delhi Business Review*, Vol. 13 No. 2, pp. 43-54.
- Weiseth, P.E., Munkvold, B.E., Tvedte, B. and Larsen, S. (2006), "The wheel of collaboration tools: a typology for analysis within a holistic framework", *Proceedings of CSCW'06*, Banff, AB, pp. 239-248.
- Weller, J., Boyd, M. and Cumin, D. (2014), "Teams, tribes and patient safety: overcoming barriers to effective teamwork in healthcare", *Postgraduate Medical Journal*, Vol. 90 No. 1061, pp. 149-154.
- West, M.A. and Markiewicz, L. (2003), *Building Team-Based Working: A Practical Guide to Organizational Transformation*, Wiley-Blackwell, Oxford.
- West, M.A. and Markiewicz, L. (2004), *Building Team Based Working. A Practical Guide to Organizational Transformation*, BPS/Blackwell, Oxford.
- Willard-Grace, R., Hessler, D., Rogers, E., Dube, K., Bodenheimer, T. and Grumbach, K. (2014), "Team structure and culture are associated with lower burnout in primary care", *The Journal of the American Board of Family Medicine*, Vol. 27 No. 2, pp. 229-238.
- Wu, C.S., Wang, P.W. and Tsai, L.F. (2010), "The effect of organizational culture on team interaction and team effectiveness: team leadership as a medium", *The Journal of International Management Studies*, Vol. 5 No. 2, pp. 190-198.
- Yang, X. and Chu, X. (2012), "People value for team effectiveness in China: the mediating role of leader identification", *Nankai Business Review International*, Vol. 3 No. 1, pp. 65-74, doi: [10.1108/20408741211201926](https://doi.org/10.1108/20408741211201926).
- Zaccaro, S.J. and Lowe, C.A. (1988), "Cohesiveness and Performance on an additive task: evidence for multidimensionality", *The Journal of Social Psychology*, Vol. 128 No. 4, pp. 547-558.
- Zhou, P., Bundorf, K., Chang, J., Huang, J.X. and Xue, D. (2011), "Organizational culture and its relationship with hospital performance in public hospitals in China", *Health Services Research*, Vol. 46 No. 6pt2, pp. 2139-2160.
- Zika-Viktorsson, A., Sundstrom, P. and Engwall, M. (2006), "Project overload: an exploratory study of work and management in multi-project settings", *International Journal of Project Management*, Vol. 24, pp. 385-394.

Appendix 1

Interview protocol for qualitative data collection

Interview Protocol:

- (1) What are the team challenges in the organization?
- (2) How does communication affect team performance for your team/s?
- (3) What would like build trust among your team members?
- (4) How do you motivate your team members to participate and contribute for team effectiveness?
- (5) What training inputs are needed for developing your teams?
- (6) What support you think is required from organization to enhance the team effectiveness?
- (7) What recommendations/suggestions will you propose for enhanced team effectiveness?

Factors	Items	Factor loadings
Communication	Enough effort is made by the organization to understand the opinions and thinking of people who work here	0.737
	People are kept well informed about any change in organizational policy and the reasons behind such changes	0.718
	People are often kept in the dark about what is going on in the organization	0.778
Trust	There is poor communication in this organization	0.789
	There is a “them” and “us” relationship between different levels of employees	0.876
	People feel confident that the company will always treat them fairly	0.851
	This company is not interested in employees’ welfare if it gets in the way of making a profit	0.7500
Participation	There is a healthy relationship between employees at all levels	0.788
	Lower-level employees have a lot of influence over decisions that affect them	0.786
	People feel decisions are frequently made over their heads	0.798
	Changes are made without talking to the people affected by them	0.775
Support for training	Management always tries to involve all employees in any changes which affect them	0.755
	People are strongly encouraged to develop their skills	0.774
	This organization strongly believes in the importance of training	0.69
Support for team working	This organization only gives people the minimum training needed to do the job	0.679
	People could do their jobs more effectively if they were given more training	0.756
	Team working is seen here as a gimmick or fad	0.833
	People here are enthusiastic about the idea of working in teams	0.888
	People here are enthusiastic about the idea of working in teams	0.892
	There is a genuine spirit of cooperation in this organization	0.853
	People here do not believe in team working	0.843
People here prefer to work together rather than alone	0.888	
Task Clarity	There is currently very little enthusiasm for team working in this organization	0.899
	People in this organization are very good at working in teams	0.863
	The goals of this team are well defined	0.93
	There is confusion amongst members of the team about its main tasks	0.898
	Each member knows what his/her role in the team is	0.955
Cohesion	Members of the team are not clear how to work towards the team goals	0.924
	Members of this team generally feel that their concerns and views are ignored by the other members	0.93
	Members support each other when required	0.881
	This team does not function as a strong team	0.898
Autonomy	Members back the decisions taken by the group	0.895
	The team has enough freedom to decide its way of working	0.9
	The team only carries out the tasks given to it; it cannot decide its own priorities	0.851
	The members of the team have enough freedom in their own areas	0.878
	The team does not have autonomy in vital aspects of its working	0.855

Table A1.
CFA – factor loadings
for OTC and TE
dimensions

(continued)

			Organization team culture
Factors	Items	Factor loadings	
Confrontation	Members generally avoid discussing the problems facing the team	0.93	<hr style="border: 1px solid black;"/> 787 <hr style="border: 1px solid black;"/>
	The team generates alternative solutions for a problem	0.888	
	There is a lot of hesitation in taking hard decisions in this team	0.945	
	Members in this group do not hesitate to express their differences with each other	0.914	
Support	The team is given adequate resources to carry out its functions	0.887	
	The team does not get adequate support needed to perform its tasks	0.869	
	The team has enough competent persons needed for its work	0.854	
	There is lack of various resources (human and financial) required by the team	0.924	
Collaboration	Members do not volunteer to help others and to take responsibility	0.857	
	In the group the task is divided into small teams	0.871	
	Members in this team hesitate to ask for others help when they need help	0.874	
	Members respond positively to the help requested	0.811	
Accountability	The sense of responsibility and accountability is pretty high amongst the team members	0.93	
	No one cares to assess true extent of achievement of the goals of the team	0.881	
	The team uses appropriate ways of assessing its accountability	0.898	
	The team does not have internal mechanism of assessing its progress in achieving its tasks	0.895	

Table A1.

Corresponding author

Vipul Jain can be contacted at: VipulJain@vuw.ac.nz

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com