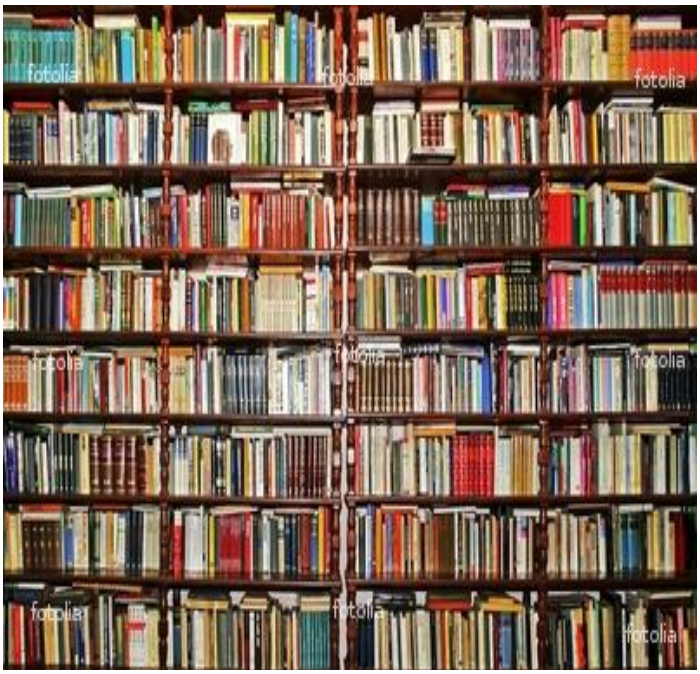
CHAPTER 2

REVIEW OF LITERATURE

REVIEW OF RELATED LITERATURE



CHAPTER-2

REVIEW OF LITERATURE

This chapter is constructed to provide detail of reviewed the literature regarding the concept of team, team climate, team effectiveness and organizational development how they are linked and focuses on others work in this area of study. To identify various research gaps and quite a few implications of studies which provide a platform to go further in understanding the application of this study.

2.1. CONCEPT OF TEAMS

According to Pasmore et.al (1982) described that overview of "work groups" was most observed aspect in 134 manufacturing firms.

"The production teams stated among 4 broad categories of work team applications:

(a) "Advice and involvement," (QC) Quality Control (QC) circles and employee participation groups have been common for employee involvement (Cole, 1982). Thus present study involves quality control and quality circle team members as well as quality assurance department for study.

(b) "Production and service," Teams use machinery to produce products or services, as in assembly, maintenance, sales, marketing, commercial and others (Katz and Kahn, 1978). They elect their own leaders and divide their tasks, but have output measures. (Cummings, 1978), the present study considered as respondents from Production, maintenance, commercial, packaging, marketing and sales for the research.

(c) "Projects and development," Groups of managerial professionals such as researchers, engineers, designers are often collaborate on assigned or original projects. Their cycles of work may be longer than in "production and service", and outputs may be complex and unique. (Kidder, 1981). The current study took into account and considered R & D, Engineering, and Design department as part of the respondent.

(d) "Action and negotiation." They often have elaborate, specialized roles for members. Their missions usually call for outcomes such as negotiating a contract or winning a competition. (Dyer, 1984). Thus HR department is considered for the study.

According to Sundstrom, Meuse, Futrell (1990), Work teams are defined as "interdependent collections of individuals who share responsibility for specific outcomes for their organizations." They even stated that an "ecological approach" to examine characteristics in the effectiveness of work teams. Applications include advice and involvement, as in quality control and circles committees; production and service, as in

engineering research groups; and action and negotiating teams. An analytic framework depicts team effectiveness as interdependent with organizational context, boundaries, and team development. Key context factors include (a) organizational atmosphere, (b) technology and task design, (c) role clarity, (d) autonomy, (e) rewards, (f) performance feedback, (g) training and development, and (h) physical environment. Team boundaries may mediate the impact of organizational context on team development. Current research suggests that team effectiveness depends on organizational context as much as on internal processes. Thus present study considered key factors such as role clarity, reward, development from above study to understand team effectiveness in depth.

According to Doolen (2001), comparisons between the production team and engineering team results also provide limited support for a statement that different types of teams may be impacted in different ways by the organizational context. In particular, it is quite interesting that there was no evidence for intervened relationships between any "organizational context factor and team member satisfaction for production teams." Thus it can be observed in present study relationship between the team outcome and team effectiveness.

2.2 CONCEPT OF TEAM CLIMATE

According to James and Sells (1981), climate can be refers as "individuals' cognitive indication of "proximal environments", expressed in terms of psychological meaning and is significant to individuals". According to Reichers and Schneider (1990), "Organizational climate is the shared perception of organizational policies, procedures, and practices". According to the definition, the climate is all about individual behavior in the organization through their shared perception about the policies and practices govern by the organization. Interpersonal mutual understanding based on the characteristics of intra-group members and but the relationships between individuals cannot be assumed in the modem team context, as team membership stability assumptions are no longer applicable. Thus factor such as mutual trust, participative safety, and team stability needs to understand. The question of whether a distinct and changing team members can form and maintain any perspective of a team climate needs to be addressed. It may be argued that if self-concept and maturity among team members occurs, the resultant interpersonal trust, in turn, influences the individual perception of team climate. As the climate literature has long since acknowledged the importance of shared perceptions, importance to collective perceptions of 'how things are around here'

(Reichers and Schneider, 1990: 22) may justifiably be stimulated the team tasks and performance. In taking this approach, this thesis relates to the area and industries based perspective of trust as an incentive for mutual benefit, and any abuse of that trust is likely to result in a loss to whole teams.

An integrated collective unit can emerge with members exhibiting strong commitment behavior, which is noticed and appreciated by others in the team. This is evidenced by the willingness to take the risk, make sacrifices and behave in a trustworthy manner. The perceived team climate then becomes the psychological frame of reference for evaluating their own and others' professionalism and individual behavior.

According to Anderson and West (1998) and West (1990), team climate for innovation consists of the four constructs such as "vision, task orientation, support for innovation and participative safety". Thus present study considered this four construct as a major factor in understanding team climate. The concept "team climate" has got a lot of significance for the past three decades from the organizational sociologists and applied psychologists. They also define of Climate has two approaches such as "Cognitive schema approach" and "shared perceptions approach". Team climate is the shared perceptions referring to the proximal work group (Anderson and West, 1998).

According to Anderson and West (1994), team climate can be defined as the manner of working together which includes aspects of vision, innovation, communication patterns, participation safety, norms, task style and cohesion.

Bain, Mann, and Pirola-Merlo (2001) have studied 18 research and 13 development teams in Australian Rand D organizations to find out the relationship between" team climate and team performance" and 'innovation" in research and development teams. According to them, team climate for innovation is very important for R & D teams. Because Rand D involves producing innovations. Thus present study included R & D department of manufacturing units to understand team climate of it and its relation to innovation. Team climate for innovation is supportive of team performance (Bain, Mann, and Pirola-Merlo, 2001). Their study found that "team climate has a strong relationship with team innovation and team performance in research projects than the development projects".

Curral, Forrester, Dawson and West (2001) have surveyed 87 cross-industry Portuguese teams (advertising, pharmaceutical, health, banking, manufacturing, IT and research teams) to find the relationship between "task type, team size, and innovation related team processes." They found that teams reported high levels of participative safety and support for innovation reported high scores on a measure of team processes.

As Brodbeck (2002) able to show in a theoretical context, a good team climate for learning forecasts both individual and group level outcomes. A team climate for learning defined as "shared individual perceptions of work environments" between team members of a team or an organization that encourages or hinder learning in the workplace (Nixon, 1991; James, Choi, Ko, McNeil, Minton and Wright, 2008; Brodbeck, 2003, 2010). Following Brodbeck (2003, 2010), it is considered as one in which: (1) There is support as well as a common understanding among its members, conveying an atmosphere of mutual trust, (2) There is a regular contact as well as an informal and formal communication among its members, (3) There exists a mutual agreement with the goals and objectives to be achieved, and these shared goals are clear, realistic and really achievable, (4) There is positive attitude and equality between team members, (5) Members observe individual development as the group enhances their creativity and provides them new ideas. Thus research done by Brodbeck (2003, 2010) focused on trust, regular contact, communication, objectives, and goals, unity and collaboration, individual development and support for new ideas are considered in the present study to find out its relation with team outcome as part of organization development. Therefore, it becomes clear that climates have a positive impact on learning which is definitely a fruitful field of future research and should also be studied in organizational settings.

Mathisen, Eiinarsen, Jorstad and Bronnick (2004) have studied 395 Norwegian postal distribution teams to find the association between team climate and customer satisfaction and they found the positive association between these two. They found that the positive team climate leads to the satisfied customers and satisfied customers lead even better team climate.

Ganesh and Gupta (2006) have studied 25 software development teams in India having 125 team members to find the relationship of "virtual-ness", "task interdependence" and "role performance with team climate".

Stewart and Gosain (2006) have studied 67 free/open source software project teams using an online survey to "find out the impact of team climate" in terms of "shared ideology and trust on team effectiveness". They found that team size and task accomplishment have more impact in later stages of a project than in early stages of the project and also the effect of task completion on team effectiveness is more in later stages of a project than in early stages of the project. They just used the variables such as trust and shared ideology.

Harm, Bower, Campbell, Marshall and Reeves (2007) have surveyed 492 professionals working in 42 general practice teams in the UK health care industry to find the relationship between culture, climate, and quality of primary health care teams. They found that there is no significant relationship between “culture and quality of service” in healthcare teams. However, there is evidence of an association between climate and quality in primary health care teams.

Proudfoot, et.al, and PRACCAP Research Team (2007) have studied 654 general practitioners and staff, 7505 ill patients in Australian hospitals to find the correlation between “team climate and patient's satisfaction and job satisfaction” of the staff. They found that the better team climate resulted in greater patients' satisfaction and job satisfaction of the staff and general practitioners.

Kivimaki, Vanhala, Pentti, Lansisalmi, Virtanen, Elovainio, and Vahtera (2007) have done a longitudinal study of 6,441 hospital employees in Finland to find out the relationship between “team climate and intention” to leave the job and actual turnover among hospital employees. They found that the likely hood of leaving the job is high for those employees who have self-rated the poor team climate.

Gautama, Upadhyay, Dick and Wagner (2004) have surveyed 450 employees of five Nepalese organizations in Bank, Telecom, and Television industries to find the association between “team climate and organizational commitment” in Nepal. They found that team climate predicts the affective and normative commitment in Nepal. They have used 14 item short version of TCI developed by Kivimaki and Elavionio.

Yuan, Chaoying, and Peng (2008) said: "team climate varies from organizational climate, as it focuses on the work environment for individuals who are related to each other more closely".

According to Yuan et.al. (2008) measured 208 respondents as team members in 31 R & D teams. They studied a “positive correlation between team climate and perceived innovativeness.” They also found significant associations between “support for innovation, task orientation, and perceived innovativeness.”

According to Acuna.et.al (2008). The researchers have used the team climate factors inventory developed by Anderson and West (1998) such as “team vision, task orientation, support for innovation and participative safety”. They observed that high team vision and high participative safety resulted in a better quality product.

Strating and Nieboer (2009) have studied the correlation between "team climate and perceived team effectiveness in health care quality improvement teams." The study design was a longitudinal study .Total respondents are 270 team members at the beginning and 139 members at the end of the survey. They indicated that TCI has been a useful instrument to find the team climate and the "team climate impact on perceived team effectiveness in quality improvement teams." They also observed that the "team vision and participation in decision-making are keys to achieving a higher order of task performance."

According to several researchers, the most popular model for team climate has been developed by West (1990). West (1990) has developed the four-factor theory of climate for work group innovation. The four factors include vision, task orientation, support for innovation and participative safety (West, 1990; Anderson and West, 1998). Anderson and West (1998) have studied 27 hospital management teams in the UK to validate and measure the multi-dimensional facet-specific climate for innovation within work teams known as Team Climate Inventory (TCI). TCI is a measure to find the team climate for innovation in work groups. TCI has been used in many studies (Liu and Cheng (1996); Anderson and West (1998); Curral, Forrester, Dawson and West (2001); Bain, Mann and Pirola-Merlo (2001); Mathisen, Einarsen, Jorstad and Bronnick (2004); Ganesh and Gupta (2006); Hann, Bower, Campbell, Marshall and Reeves (2007); Proudfoot, Jayasinghe, Holton, Grimm, Burner, Amoroso, Beilby, Harris and PRACCAP Research Team (2007); Kivimaki, Manhala, Pentti, Lansisalmi, Virtanen, Elovainio, and Vahtera (2007); Gautam, Upadhyay, Dick and Wagner (2004); Bosch, Dijkstra, Wensing, Weijden and Grol (2008); Yuan, Chaoying, Peng (2008); Acuna, Gomez and Juristo (2008); Strating and Nieboer (2009)). TCI has been used in health care teams, social service teams, software teams, community psychiatric care teams, oil company teams (Bain, Mann, and Pirola-Merlo, 2001) and management teams (Mathisen, Einarsen, Jorstad and Bronnick, 2004).**Thus present studied applied modified version of TCI (Anderson and West, 1998) with total 35 items.**

2.2.1. Summary for evolution of Team climate terms (empirical studies on team climate)

Researchers	Year	Findings
Lewin , Lippitt and White	1939	Notion of climate as to interpreted group situation or environment
James and Jones	1974	Climate as cognitively based, descriptive and Interpretive perception of salient features, events and Process.
Schneider and Bowen	1985	Shared , collective climate for services (Bank)
Kozlowski and Hults	1987	Sharing organization climate at Strategic imperatives of Organisation
Schneider , Wheels and Cox	1992	Strategic imperatives of organisation and team context
Rentsch	1990	Sharing of perception and collective sense making
Hoffmann and steer	1996	Team climate reflective of safety predicted safety – related behavior
Kozlowski and Klein	2000	Collective climate perception within teams, larger units or organization
Carr, Ford, Schmidt, DeShon	2003	Climate perceptions influences job performance , well-being and withdrawal

Source – "Kozlowski and Ilgen (2006), enhancing the effectiveness of workgroup and teams, Psychological science, Michigan state University".

2.2.2. Factors of Team climate:	
Authors / Researchers	**Findings**
West (1990)	Team climate for innovation ,
(Burningham and West, 1995).	Researcher mention in their study that the best predictor of work team innovation assessed externally has been the support for innovation dimension
Liu and Cheng (1996)	They surveyed 212 administrators and information managers working in 26 teams in a Health sector in Taiwan to "find the correlation between team climate for innovation and knowledge sharing behavior". They have observed that the degree of self-sacrifice and climate for "participative safety are positively related to the knowledge sharing behavior".
(Anderson and West, 1998)	As per the study Factor team Vision, task orientation, support for innovation and participative safety. Team climate predicted overall team performance.
(Zohar, 2000)	The safety climate has provided a significant level of prediction with regard to accident rate in the group,
(Colquitt, Noe, and Jackson, 2002),	The Justice climate it directly and significantly related to team performance and inversely to absenteeism.
(Pirola-Merlo et al., 2002)	The Team climate is stated as the set of perceived norms, attitudes and expectations operating in a given social context
(Gonzalez-Roma, Peiro, and Tordera, 2002)	Its study has been developed with the emergence of concepts such as climate strength and the flourishing of specific climate dimensions, such as climate for innovation, safety climate or justice climate
(Neal and Griffin, 2006)	Researcher focused on a multilevel perspective, predicting individual-level changes related to safety motivation.

Source: Ramón Rico*, Carlos María Alcover de la Hera** and Carmen Tabernero*** *Work Team Effectiveness*, A review of research from the last decade (1999-2009). Psychology in Spain, 2011, Vol. 15. No 1, 57-79

2.3. CONCEPT OF TEAM EFFECTIVENESS:

Authors / Researchers	**Findings**
Hackman (1987),	Team effectiveness can be defined in terms of three criteria: Output - The final outputs produced by the team must meet or exceed the standards set by key constituents within the organization Social processes - The internal social processes operating as the team interacts should improve ability to work together in the future. Learning - The experience of working in the team environment should act to content rather than magnify the personal needs of team members.
Mohrman et al. (1995)	Define team effectiveness, based on three aspects. First, team performance is impact on the groups' productive output meets the approval of its customers. Second, interdependent functioning is the extent to which the team is inter-reliant on one another. Third, team satisfaction is the level of team satisfaction with team membership.
Cohen et al. (1996)	Define team effectiveness in terms of both high performance and employee quality of work life. This knowledge was undertaken from socio-technical theory, which states both social and technical systems must be maximized for optimally effective teams.
Cleland (1996),	According to the researcher, the characteristic of an effective team includes focus, cohesion, trust, communications, and interdependence.
Tannenbaum et al. (1996)	The Author , define effectiveness as a combination of performance in terms of outputs, and the team's ability to grow and regenerate itself
Henderson and Walkinshaw (2002),	Team performance can be viewed as the execution of an action, An effective team is believed to produce high-end project outcomes that exceed standards and, therefore, enhance overall productivity.
Zhuge (2003),	According to researcher cooperation between members determines efficiency and effectiveness of the team.

Researcher compilation

2.4. DIMENSIONS OF TEAM EFFECTIVENESS

The team effectiveness from numerous studies undertaken the following list represents a compilation of the dimensions that are occurring frequently in the team effectiveness literature, This present study observed and experience working with teams, and on team effectiveness assessments developed and used by other consulting firms and within organizations. The team effectiveness assessments found in the literature, none provided information to indicate that a thorough statistical analysis was performed to demonstrate the proper indicated actual factors that can be considered for the study. Few empirical studies were found assessing only team effectiveness.

The data has been cited where possible to support the team effectiveness dimensions included in this study. Some dimensions have little if any, data from the literature search to support their presence in this study. The purpose of including these factors in this study is to empirically evaluate if they are statistically significant factors that contribute to team effectiveness or not. A brief description for each of the factor has been incorporated into the study to highlight and to indicate the scope of the factors and its relation to this study.

2.4.1. Factor of team effectiveness		
Factors	**Factor of team effectiveness**	**Findings**
Team spirit	Woodcock and Francis,1981,p. 35	They stated that attitudes and relationships are, on balance, friendly, cooperative, open and positive. Synergistic effort and collaboration to achieve the goals.
Relationship	Woodcock and Francis,1981,p. 35	They stated “Balance power relationship” is all about the relationship between management and group operates with fairness and integrity.p.35. They also stated that “sound inter-group relations build a supportive climate between the groups,” which creates bound between them and increases overall effectiveness.p.153.
Cohesiveness / team relationship	(Pelled et al., 1999)	Cohesiveness/Team Relationships Cohesiveness is dominant and is largely subjective by the interpersonal relationships of group members.

Cohesion	Bettenhausen's (1991)	Review of group research linked team cohesion with team variables that included satisfaction, productivity, and member interaction.
Cohesion and team performance	(Weaver et al., 1997)	Team cohesion has also been noted as a critical motivational driver influencing team performance in prior empirical research
Cohesion and team effectiveness	Jones (1993)	A measure of team cohesiveness in his research on team effectiveness.
Collaboration	Vinokur-Kaplan (1995)	They stated that Collaboration is a positive predictor of interdisciplinary team members' in health sector perceptions of their overall effectiveness and individual well-being.
Collaboration and delivery	Seers et al. (1995)	They stated that "team member exchange" with factors of mixed communication and collaboration items measuring internal coordination. Departments with higher team member exchange had significantly higher efficiency as captured from available records.
Collaborative Problem-Solving/Decision-Making	(Guzzo and Shea, 1992; West et al, 1998).	Collaborative Problem-Solving/Decision-Making Problem-solving is an important skill for work teams
Purpose and objective	Woodcock and Francis ,1981, p.119-120	They stated that when a team possesses clearly stated sets of objectives to which all members feel committed it has achieved a great deal.it improves motivation, better problem solving , mutual understanding which provides desired outcomes of clearly stated objectives and its purpose.
Process	Guzzo and Dickson , 1996, p.335	They noted that greatest change in team effectiveness are most likely to be realized when a change in an organizational context are supported by team design and process.

Communication	Swezey and Salas (1992)	Communication as one of the seven primary categories that reports team effectiveness as main principle, and thus may distinguish between "effective and ineffective" teams.
Communication and team effectiveness	Campion et al. (1996)	They found that process characteristics of the team, including "communication", most strongly related to "team effectiveness" measures in their study of various team design features.
Leadership	Woodcock and Francis, 1981,p.142	Effective leadership is essential for the development of teamwork. One of the most important function is to provide individual's role clarity built an interpersonal relationship strong, open and trust yet supportive climate and team satisfaction.
leadership	(Hackman, 1987).	The team leader provides appropriate resources to the team, training and developmental opportunities provides rewards and recognition and, ultimately, directly influences to accomplish its goals.
Leadership	Jones, 1993	When team leaders delegate responsibility, enhance team members' senses of personal control, the team members are more likely to experience meaning and impact in their work.
Conflict Management	(Rahim, 1992)	As research has found evidence that effective "conflict management" improves team performance and functioning
Role clarity	Henderson and Lee (1992)	They stated that the highest performing teams were those in which "managers retained control over assigning specific work assignments" to team members and developing task procedures.
Role clarity	Woodcock and Francis ,1981,p.132	They stated that behavior of team members affects each other and procedures for clarifying roles, channeling communication and managing meeting need to be effective for team effectiveness.

Role regular review	Wood--cock and Francis 1981,p.143-144	Regular review of performance is essential to the development of competence. The regular review helps a team to evolve towards team maturity. The role can be improved through team monitoring and reviewing for better performance. The process of review is vital in developing team effectiveness.
Role Clarity	(Danish et al., 2014)	Role clarity play vital role in Team functioning because if individual is not clear about his role in the team it may leads to increase the organizational politics, it may causes the harmful effects on the performance of organisation.
Problem-solving and decision making	Woodcock and Francis , 1981,p.135	A Systematic approach to "problem-solving and decision-making" cycle is deliberate to set aside time to time review performance of team members with intention of learning from the past experiences.
Problem-solving and decision making	Woodcock and Francis , 1981,p.137	Effective "decision making in teams required sound information handling, communication, and skills of problem-solving". It is important that procedures are reviewed and challenged from time to time to enable maximum return.
Development and improvement	Woodcock and Francis , 1981,p.146	The purpose of teamwork is to take out the skills of individuals and so produce a better result that individual can achieve. The effectiveness of a team should be greater than its input as teams need to pay attention towards individual skills and abilities development. If an individual contributes weakly to team it will diminish overall team output.
Customer Focus	(Sundstrom, 1999).	Customer Focus As the definition of team effectiveness used for this research states, effective work teams seeks to meet the expectations of key counterparts, including customers.
Reward and recognition	(Tesluk, Vance, and Mathieu,	Appropriate rewards and recognition help reinforce areas of excellent performance. "The methods of

	1999; Kopelman, 1979; Rubin, Munz, and Bommer, 2005).	appreciation and acknowledgment used within the team."

(Researcher compiled)

Cohesiveness/Team Relationships: Cohesiveness is fundamental element to the study of groups which influenced by the "interpersonal relationships of group members" (Pelled et al., 1999). Cohesiveness implies a feeling of solidarity with other group members. Healthy "interpersonal relations help to maintain effective and appropriate relationships" with team members which contribute to better information sharing and decision-making in teams (Pelled et al., 1999). Highly cohesive teams tend to reduced amount of absenteeism, "high participation" in team activities and high levels of member "coordination" during "team tasks performance" (Morgan and Lassiter, 1992). Furthermore, some researcher's review that team cohesion with team various variables that included satisfaction, productivity, and member interactions. "Team cohesion" has also been noted as a critical motivational factors which influence team performance in research. According to Weaver et al., (1997) and Jones (1993) also includes a measure of team cohesiveness in his research on team effectiveness. For the purposes of this study, "the feeling of unity or oneness that exists among team members and the degree to which a group exists or operates as a unified entity" will be used as the definition for team relationships.

Collaborative Problem-Solving/Decision-Making: Problem-solving is an important skill for work teams (Guzzo and Shea, 1992; West et al, 1998). Work teams face what can sometimes be a challenge in problem-solving efforts—collaboration with others on their team. Additionally, most groups jump right into coming up with solutions before clearly defining the problem. Kirkman and Rosen (1999) ask respondents to provide feedback on problem-solving on their team assessment. After considering the key points presented that "the ability to recognize situations in which team members need to work together to solve problems, identify the appropriate people to be involved in the problem-solving, and determine an appropriate solution to the problem" will be used as the definition to represent the collaborative problem-solving dimension.

Communication: Communication is addressed frequently in literature and on published team effectiveness assessments (Swezey and Salas, 1992; Campion et al., 1996; Hill et al., n.d.; Jones, 1993; Swezey and Salas (1992) included communication as one of the important factor that depicts team effectiveness measurement, and thus may discriminate between teams effectiveness and ineffectiveness. Campion et al. (1996) found that "process characteristics and communication" are strongly related to team effectiveness criteria in their study of various team design characteristics. The ongoing practice of open and honest communication seems essential for any team that aspires to quality and longevity. According to Varney (1989). A team is only as good as each member's ability to communicate effectively including sharing of information, proper interpretation, and perception of others and properly attending to nonverbal aspects. The principle of communication can be concise as "the methods and processes for collecting, allocating, attending and informing; the ability to share ideas openly, supportively, and objectively using appropriate verbal as well as non-verbal behaviors while actively listening."

Problem-solving and Conflict Management: A conflict develops damaging tension within or between teams that it inhibits members from clear thinking or making correct decisions (Zander, 1994). Conflict may be useful if it awakens members to alternative points of view and stimulates creativity in problem-solving and decision-making. (Dyer, 1987; Dyer, 1995; Zander, 1994). According to the literature reviewed it showed that the conflict depend on how the members of a team manage, control and resolve the problem. It is important for teams to encourage useful conflict over substantive issues while taking the time to resolve issues among members. According to (Rahim, 1992) as a researcher, he stated that evidence was found that effective conflict management improves team performance and functioning which is also supported by other researchers.(Montoya-Weiss et al., 2001; Jehn and Chatman, 2000; Evans and Dion, 1991; Sundstrom et al., 1990). Varney (1989) reports that conflict persisted numerous problem for operation teams within a large scale company, even after repeated training sessions on how to handle conflict and how to minimize the negative impact on team members is still a dilemma. Thus, further research is required in this area.

Continuous Improvement: According to Imai, (1986), Jha.S (1996) an incorporation of the various items and concepts led to the following definition of continuous improvement: "the constant effort by the team to the reduction of wastage, task

simplification of both products and processes, and improve quality and customer service." Continuous improvement is often associated with incremental changes in the everyday process of work with improvements being suggested by the workers themselves. The continuous improvement involves producing a constant improvements in all aspects of customer value, including quality, design, and timely delivery while lowering cost at the same time. Although the concepts of continuous improvement were covered in some of the individual items on team assessments, the only Team Effectiveness Assessment (TEA) measure it as one item ("Team Effectiveness," n.d.). Thus present study tried to inculcate continuous improvement in form of individual and team development as one of the factors for the study.

Customer Focus: it defines as "the degree to which the team attitude revolves around customers and their needs and to which team actions and delivery support that approach." As this research states, effective work teams seek to meet the expectations of key counterparts, including customers (Sundstrom, 1999). If teams are allowed to decide how to best work with each of their customers, having direct access to evidence that allows them to plan, control and improve their operations and take corrective actions to resolve routine problems, it seems that they should be able to better meet the expectations of their customers. Some team effectiveness assessments (Kirkman and Rosen, 1999; "Team Feedback System," n.d.) include statements about the customer perspective and others ("Team Effectiveness," n.d.) focus more in depth on multiple questions around whether the team knows the customer expectations, seeks out the customer's input and uses the information to improve product delivery and customer relationships.

Leadership: defined as, "the degree to which a leader serves as an effective guide to the team and provides necessary support and encouragement." Leadership support is vital to team success. Specifically, it is the support of the team's external leader, the leader with a supervisory role that is not a member of the teams they lead (Manz and Sims, 1993). It is likely the topic that appears most commonly in the literature about team effectiveness. When team leaders delegate responsibility, ask for and use employee input and enhance team members' understandings of individual control, the team members are more likely to experience meaning and influence in their work. (Hackman, 1987). The team leader must provide appropriate resources which are available to them, must provide training and developmental opportunities, focus on their rewards and recognition and, ultimately,

directly influences whether the team is allowed the empowerment it needs to accomplish its goals. Moran's (1996) research suggests that 77% of work team failure is due to lack of leadership support. Because of the emphasis on the importance of external leadership support in the literature, this dimension is taken into consideration.

Purpose and objectives: The definition that will be used for purpose and objectives is, "the ability to coordinate and conduct team meetings so that appropriate items are addressed, team processes are managed well, all team members have an equal opportunity, role clarity, and time is managed appropriately." Much of the work a team conduct occurs in a collaborative manner and/or setting such as a meeting. Unfortunately, (Weaver, 1997) stated the purpose of most meetings is to address items that relate to team process or project items, it stands that effectively conducting such meetings contributes to a team's ability to meet performance goals and expectations.

Recognition/Rewards:

Various studies have revealed a positive relationship between recognition given for work that is well done and performance and the length of time an employee intends to stay with their current employer (Tesluk, Vance, and Mathieu, 1999; Kopelman, 1979; Rubin, Munz, and Bommer, 2005). As such, the meaning of recognition/rewards in this study will be represented by, "the methods of appreciation and acknowledgment used within the team." Appropriate rewards and recognition help reinforce areas of excellent performance (Tesluk, Vance, and Mathieu, 1999; Kopelman, 1979; Rubin, Munz, and Bommer, 2005). In areas where improvement is needed, teams can benefit by participating in related learning modules or developmental opportunities.

According to Maynard M, Rapp T, Gilson L, Mathieu J, (1997-2007) They argue the aspects of work teams in context and note the functional variations underlying different types of teams. They then examine descriptive studies that have appeared in the past decade in the framework of a developed input-process-outcome context that has evolved into an inputs-mediators-outcome approach. They closely reconsidered the typical types of team which was researched and investigated to embrace the complexity that surrounds modern team-based organizational designs.

Charles L, and McGuire W, (2004)

This review of "health care team effectiveness literature from 1985 to 2004" distinguishes among interference studies that compared the team with usual care; in the studies they examine the impact of team redesign on team effectiveness; and field studies that explore associations between team context, structure, processes, and outcomes. They studied that "collaboration, conflict resolution, participation, and cohesion" are most likely to influence "staff satisfaction and perceived team effectiveness". The studies studied the importance of investigating the contexts in which teams are rooted. Their study provides a useful framework for abstracting relationships between multiple dimensions of team context, structure, processes, and outcomes. Thus this study provides and better representation of factors impacting team effectiveness.

Cantu, Cynthia J. (2007) the study measured work team effectiveness as a basis of feedback provided by work teams. The proposed TEAM Assessment Tool includes 90 items total which covered 12 dimensions of work team effectiveness. Data were collected from employees of a large aerospace industry headquartered in the United States who are contributing in work teams (N= 554). The study assessed work team effectiveness as a basis of feedback provided by work teams. The proposed TEAM Assessment Tool includes 90 items total which covered 12 dimensions of work team effectiveness. "The dimension names are (a) communication, (b) decision-making, (c) performance, (d) customer focus, (e) team meetings, (f) continuous improvement, (g) handling conflict, (h) leadership, (i) empowerment, (j) trust, (k) cohesiveness/team relationships, and (l) recognition and rewards." On basis of this present study considered 11 dimensions for team effectiveness. The factor analysis directed the development of new scales of team effectiveness as follows: (1) teamwork, (2) decision-making, (3) leadership, (4) trust and respect, (5) recognition and rewards, and (6) customer focus. Reliability of scales was demonstrated using Cronbach's coefficient alpha. Criterion validity was confirmed by significant correlations at the $p<.01$ level associating two measures of team member opinion of team performance and level of performance as specified by the six subscale scores and overall scale scores of the final TEAM Assessment Tool. This research helps the present study to focus on which factor need to be considered for team effectiveness and correlated with different factors and understanding the need of Factor analysis for the present study.

Gil, Rico, and Sanchez- Manzanares, (2008), Effectiveness is analyzed in terms of work outcomes, as objectively assessed the performance of the team. But it also includes outcomes that help to maintain the group's performance over time, such as member satisfaction, team stability (the degree to which team members want to stay together) and innovation.

Ramon Rico. Carlos Maria Alcover de la Hera, Carmen Taberner, (1999-2009) they reviewed work teams effectiveness literature extensively. It summarizes the results of study on work teams carried out over the period from 1999-2009. The framework for the effectiveness of work teams based on a differentiated analysis of inputs, mediators, and outcomes. They used the approach of SWOT analysis technique, which identifies strengths, weakness, opportunities and threats in relation to teamwork research for a new decade. Finally, this reviewed paper extensively helped present study to analyze the area of team effectiveness and to focus on the areas which were not focused that much such as the importance of team climate factor as an input and its relationship as a process to get an output in terms of team effectiveness which is desired by the organisation.

Azmy N, (2012). The study focused on the imperative for construction teams to know the contributing factors of team effectiveness in construction projects. The study conclude the role of "team effectiveness" in construction project teams on the overall performance. It examines different factors that were associated with team effectiveness and the association between the team effectiveness factors and project team performance. Process factor is "communication, collaboration, conflict, problem-solving and decision-making." These all factors are included in present study by researcher as team effectiveness factors. Situational factors are reward structure and organizational support, organizational climate, environmental stress, information system. Task factors are organization structure, performance, task complexity, and strategies. Other factors are objectives and goals, feedback and audit, clear roles and responsibilities, mutual trust, material resources. (Hackman, 1983 tried to covered all factors). Quantitative and qualitative research methods are used for this study, as well as survey and a semi-structured interview was carried out. The data collected was analyzed using several statistical tests, including Analysis of Variance (ANOVA) and linear regression. The results obtained from the data analysis are validated. Thus present study tried to included Analysis of Variance (ANOVA) and linear regression. It was found that team leadership

is the most important factor in change management. The outcomes from this study are anticipated to provide construction project teams with the ideas on the factors that need to be focused in order to improve team effectiveness on team performance. Additionally, the meaning of team effectiveness from the team members and owner's point of view are developed to provide a better understanding of team. This study helped to define team effectiveness for manufacturing unit for current study purpose.

Verma N., Rangnekar, S.Barua M.(2012). Authors depicted that the prime purpose of this study was to find out the difference in team effectiveness (TE) of Indian public and private sector organizations. It also aimed to explore the dissimilarities between TE of small and large teams. Total 88 samples (37 from the public sector and 51 from the private sector, total 8 teams of different sizes) from Indian manufacturing units were gathered using TEAM (Team Effectiveness Assessment Measure). "Team functioning (TF) and team empowerment (Tem) dimensions were measured on the factors like cohesion, confrontation, collaboration, task clarity, autonomy, support, and accountability." Finding depicts that the public sector had higher cohesion, confrontation, and TF, while the private sector had higher other factors. The limitations of study such as small sample size and survey of few teams from a certain type of manufacturing organizations, this research carries implications for researchers to investigate the unidentified facts on TE in Indian contexts. Recommendations for better cooperation have been made on the basis of preliminary scores. For instance, public sector managers may increase their TE through higher autonomy and the private sector managers may also achieve higher TE through increasing cohesion, as interpreted from the findings. This study provides a clear picture and understanding of Indian manufacturing team effectiveness level. Therefore present study was able to frame questionnaire and design research method out of it.

Fapohunda, M. (2013)

The author described that team building includes a diverse range of activities, intended for improving team performance. Its aim is to deliver best results in a team to ensure self-development, positive communication, leadership skills and the collaborative effort as a team to solve problem. This article assisted to literature on teams in an attempt to concise challenges of implementing teams so as to give a precise performance of that can be achieved through teamwork. The collected works point out that the effects of teamwork

are both positive as well as negative due to limitations of many factors, including the organization climate, team leadership, employee commitment, the compensation and rewards, and the level of employee decision-making abilities. This study depicts eight key points that were identified by a number of authors which enable the effective development of teams. These points are “clear goals; decision-making authority; accountability and responsibility; effective leadership; training and development; provision of resources; organizational support; and rewards” for team success. Thus it provides few points to be considered for the present study to look forward such as leadership, development, reward as part of team effectiveness.

Peters J and Carr C, (2013), this paper provides a summary of team coaching literature and includes team effectiveness studies. Key team effectiveness topics reviewed include communication, decision-making, and conflict which is also considered in the present study by the researcher.

Carmen Jaca, et.al. (2013) the purpose of this study is to examine the factors that contribute to the effectiveness of teams. This research looks at two types of teams: care delivery teams representing healthcare and improvement teams representing the manufacturing industry. The aim is to provide information about the application of teamwork factors in various work environments. “Qualitative interviews about teamwork factors were conducted with 17 leaders of teams from healthcare and 22 leaders from manufacturing industries.” On the other hand, they found significant differences between hospitals and the manufacturing industry pertaining to the factors such as strategies, feedback on results, leadership, participation and communication.

2.5. TEAM CLIMATE AND RELATION WITH TEAM EFFECTIVENESS

Researchers	Team climate and relation to team effectiveness
J. Rose; D. Schelewa-Davis; (March 1991: 1924)	This research is based on the "relationship between stress and team climate" which proposed that the higher the stress the worse the perceived team climate. Further, the analysis indicated that the individual's respondents viewed several aspects of the organizational climate had some impact upon their individual well-being.
Poulton and West, 1990	The relationship between "team structure (team size), process (considered as team climate), and outcomes." The climate factor "shared objectives" was most highly related to team effectiveness.
Doolen.T, 2001	In the study, "clear goals were also positively related to team leader ratings of overall team effectiveness." As well as the management processes associated with clear goals which are positively correlated to team member satisfaction and both team leader performance ratings for engineering teams. Thus present study focus on team vision relation with team leadership and team outcome.
Doolen.T, Marla E. Hacker, And Eileen M. Van Aken (2003)	The research was conducted on "Twenty-one intact production work teams were the focus of the study. Path analysis was applied, significant direct associations between 6 organizational context factors and 3 measures of team effectiveness" were found. An organizational culture that supports communication and cooperation among teams and the integration of teams was found to have a significant and positive linear relationship with two different team leader ratings of effectiveness and with team member satisfaction." 'Thus present study considered positive relationship can be possible between team vision and team effectiveness and also between team effectiveness and team outcome.
P Bower, S Campbell, C Bojke, B Sibbald, - (2003)	The study suggests that there are significant relationships between "team structure, process, and outcome that may be of relevance to quality improvement initiatives in primary care." Thus present study can also correlate between the team processes and team outcome.

ThyleforsI, Persson O, Hellstrom D (2005)	A moderate positive association was found between team type and perceived efficiency as well as team climate. They stated that if greater the interdependence and the closer the co-operation, than it will show result as higher the efficiency and the better the climate.
Andrew Pirola-Merlo , 2006	Teams with more "positive team climates for innovation" progressed significantly faster towards project completion than teams with less positive climates.
According to Kozlowski and Ilgen (2006)	Factors which influence climate consensus or strength such as strategic requirements, leadership and social interaction represents influential points for "shaping collective climates so as to affect team effectiveness". They also concluded that more collectively will demonstrate enhanced effectiveness. They also concluded that "teams with the greater collective task, pride, and interpersonal cohesion will be more effective." Thus further research in enhancing team effectiveness can be done was recommended by them.
Gil F, Barrasa A, Alcover C (2006)	To make more useful change-oriented leader actions, it would be advisable to identify, "modify or improve team climate, using strategies such as management by objectives, delegation, and empowerment". Thus the present focused on leadership as one of the factors considered for team climate.
Angela Barrasa (2006)	The study showed different types of teamwork specific data (N= 239 teams, 1099 individuals respondents, from hospitals, public administration, and software company) were examined via structural equation modeling (SEM). Results states that "supporting the team climate for innovation impact on team satisfaction and performance." Thus present study also focused on the relationship between support for innovation and its impact on team effectiveness.
Xue Y, Bradley J, Liang H, (2010)	The study focused on the relationship between Team climate and empowering leadership which is significantly associated with individuals' knowledge-sharing behavior. Team climate also has significant direct effects on the knowledge-sharing behavior. Thus current study focused on team climate and its relationship with Team leadership.

Pedro T. et.al (2012)	The study analyzes the role of teamwork engagement between supportive team climate, coordination, team effectiveness, and team performance in terms of its in-role and extra-role performance which was analyzed. Collected data of 62 teams out of 533 participants and 13 organizations were used. Therefore present study tried to involve at least 70 teams of a different organization.
R. Heller, et.al. (2013)	The study focused on TCL which offers managers the opportunity to assess the "learning climate" and the "quality of knowledge transfer" within their teams, providing them with useful information to improve the current learning processes. Additionally, a "team climate conducive to learning is a significant predictor of group performance, support for innovation and team effectiveness." As a significance, gaining information on the climate for learning it enables the management to develop effective strategies that improve the knowledge sharing in teams and positive effects on innovation and effective performances.
Fapohunda, T. M. (2013)	The study showed that the effects of team effectiveness are depending upon several factors important for the organizations such as "climate, team leadership," employee commitment, the system of compensation and rewards. The study tried to covered team leadership, rewards as a factor for team effectiveness.
Khurana, P. (2013)	The results point out that "personal ethics" are observed to be positively correlated with organizational effectiveness, team effectiveness and also with the personal effectiveness. Thus Individual development and improvement were considered as one of the factors for team effectiveness.
Acuña T.S. et.al (2014)	There is a "positive relationship between all four team climate factors and satisfaction in software development teams." Teams member showed high score on participative safety and task orientation climate perceptions are significantly. Therefore present study tried to focus on participative safety, task orientation, team vision and support for innovation as major four factors for team climate.
R. Heller, et.al. .(2014)	They studied the factor which facilitates team climate learning (TCL) in a business context and it showed a positive correlation to group

	performance, "support for innovation" and other factors of team effectiveness based on this criterion considered by the organization. The TCL data were gathered from total 18 workgroups out of 119 participants of the organizations in Germany, Switzerland, and Belgium which showed the level of group development as a related process, and measures of "group performance, innovation, and effectiveness". The present study undertook support for innovation as an important factor for team climate which may directly enhance the level of team effectiveness.
J. Yuan and R. Jing (2014)	They studied that "team climate intermediates the relation between conflict and team effectiveness." The research was based on a factor such as a team climate and team effectiveness factors as team leaders appreciate risk-taking, encourage mutual sharing, promote open communication and set clear expectations. With a free expression of ideas in an environment which encourages team members. They are more likely to seek solutions that allow team members to participate according to their level of skill. When each member of the team is engaged, the team as a whole is productive. Therefore present study considered team leadership, mutual sharing, communication and purpose and objectives.
Lynn and Kalay 2015	They studied on "75 team members as respondents on team vision and role clarity". However, numerous studies conclude that vision and role clarity is significant at the organizational level, the impacts of vision and role clarity on innovation/teams have provided less attention. They discuss vision components and role clarity and explore their impacts on team performance. After studying the vision on 9 innovation teams at 3 companies (Apple, IBM, and HP), they tested the impact of the two factor of vision as vision clarity, and vision support between role clarity on overall team performance. They found that vision clarity has a positive outcome on team performance.

Researcher compilation (From numerous studies which were reviewed)

According to Hackman (1987), a team can be considered as efficient and successful if its output meets or even go beyond the performance criteria of its clients, if it increases the capability of its members to collaborate on subsequent team tasks, and if the individual experience of being part of the group satisfies the personal needs of team member. Considering criteria for effectiveness, it should be pointed out that a high-performing team is one that stands out to new innovations. (Brodbeck, 2003, 2010)

Campion, et.al. (1993). Studied the literature on effective work groups, and then characteristics representing the themes were related to effectiveness criteria. Themes included job design, interdependence, composition, context, and process. They are total 19 group characteristics which were evaluated by employees and managers. Effectiveness criteria included productivity, employee satisfaction, and manager judgments. From 391 employees, 70 managers, and archival records for 80 work groups in a financial organization data was gathered. The results showed that all 3 effectiveness criteria were predicted by the characteristics. The job design and process themes were slightly more predictive than the interdependence, composition, and context themes. Implications for designing effective work groups were discussed, and a 54-item measure of the 19 characteristics was presented for future research.

Doolen L.T, et.al. (2003) this paper determines the relationships between 9 organizational context variables, team processes, and three measures of team effectiveness. The research was conducted in 50 high-technology Company. 21 production work teams were the focus of the study. The path analysis was applied to analyze the significant direct relationships between six organizational context factors and three measures of team effectiveness were found. The management processes related with is associated with organizational goals and critical resources were both positively related to team member satisfaction. "Communication and cooperation" between teams were found to "positive linear relationship with team leader ratings and with team member satisfaction" which was significant. "Organizational systems had a significant and positive linear relationship with both team leader ratings of effectiveness and team member satisfaction." Teams with the necessary training were found to have a significant and positive linear relationship with team member satisfaction.

P Bower, S Campbell, C Bojke, B Sibbald, - (2003)

The objective of the study is to know about the practice structure which predicts team processes, team process, and team outcomes. The research design is observational study using postal questionnaires and audit. "Team process was measured through a measurement of climate which inspects shared perceptions of organizational policies, practices, and procedures." They stated that teams self-reported ratings of effectiveness, and innovation. Higher team climate scores were associated with superior innovation and effectiveness. Thus study concluded that because of the limited sample size, the study suggests that there are significant relationships between team structure, process, and outcome that may be of relevance to quality improvement initiatives in primary care.

ThyleforsI, Persson O, Hellstrom D, (2005),

This paper aims to distinguish the types of team organization in cross-professional Swedish human service organizations and the association between team type and perceived efficiency as well as team climate for work satisfaction. A questionnaire was answered to by 337 individual professionals from 59 teams. "**A moderate positive correlation was found between team type and perceived efficiency as well as team climate**." The larger the interdependence and the closer the co-operation, the greater the efficiency and the better the climate.

ZarragaC, Bonache J, 2005

This study describes the conceptual frame work of a team atmosphere and offers a framework of a team atmosphere in knowledge transfer and creation which was empirically examined. Using a survey of 363 individuals of 12 companies who worked in self-managed teams data were collected. The study indicated results that 'high care' atmosphere among team members favors both the transfer and the creation of knowledge. Findings also exhibited that certain management initiatives for creating a conducive team atmosphere.

Andrew Pirola-Merlo, 2006

The impact of team dynamics on the speed of R & D project completion was studied in a sample of 35 R & D teams. West's (1990) model of team climate for innovation was measured and examined in relation to ratings of project development for 9 months. Linear modeling was used to analyze the longitudinal data, and results show that team climate

was a significant interpreter of project progress. Teams with more positive team climates for innovation increased significantly faster towards project completion than teams with less positive climates. The results supplement previous research has linked team climate with levels of team innovation. The results support Nonaka's(1990) argued that when multifunctional teams establish positive team processes and interpersonal dynamics, as projects completed much faster.

According to Kozlowski and Ilgen (2006) Based on this systematic research, he concluded that a "collective climate" as a strategic imperatives reflective of the core mission and objectives of organization unit or team is a key cognitive structure that shapes processes that are relevant to goals and their accomplishment. They further concluded that factors which influence climate strength such as strategic imperatives, leadership and social interaction represent influence viewpoints for shaping collective climates that have an impact on team effectiveness. They also concluded that teams with the greater collective task, pride, and interpersonal cohesion will be more effective. Thus further research in enhancing team effectiveness can be done was recommended.

Barrasa .A (2006) the first objective of this study is to analyses the backgrounds and structure of the model, leadership behaviors, and its impact on team effectiveness. Exploratory and confirmatory factor analysis, path analysis and regression analysis were carried out to test these hypotheses. The study also focused on the team climate for innovation model in explaining satisfaction and performance at the group level. **(N= 239 teams)** were analyzed via multi-group structural equation modeling. The **team climate represents the relationship intervening between change-oriented leadership and group outcomes** while group potency strengthens the relationship. The results provided supported the proposed model, comparisons showed that the obtained associations were similar for the three different types of teamwork with invariance of factor loadings. This study examined the estimates of the "**team climate for innovation model in explaining satisfaction and performance at the group level**." The results provided evidence supporting the team climate for innovation influence on team satisfaction and performance**. Conclusions indicate both that underlying four factors of team climate for innovation is important in predicting outcomes of team climate for different types of teamwork in order to achieve adequate levels of team effectiveness (satisfaction and performance).**

Prabhakar G.P., (October 2008) this paper attempts to focus on the elements of a team, criteria for "team membership, team climate and the role of a project manager" in leading teams.

Verma (1995, 1996) brings out the essential interpersonal skills required to be a project manager such as "communication, team building, motivating, decision-making, delegating, training, directing, negotiating, and supporting" those involved in the project. Project managers must establish a climate of open communication and maintain effective communication links across the organizational boundaries.

Jonathan Bennett, Giles St J Burch (2007)

The study carried out to examine this relationship in a New Zealand public sector organization. In this study, members of 63 four-person teams (n = 252) , 'Big Five' factors of personality traits and the 'team climate inventory' (Anderson and West, 1998), a measure of a team's working climate across four climate scales (participative safety, support for innovation, vision, task orientation) was used. Results found extraversion to be a predictor of 'positive' team climates of participative safety and support for innovation. These findings highlight the importance of extraversion in team leadership, suggesting that increases in the leader's level of extraversion increase the team's climates of participative safety (characterized by trust and psychological safety) and support for innovation (characterized by articulated and enacted support for ideas) – key factors that may facilitate 'healthy' relations and dynamics in teams.

Xue Y, Bradley J, Liang H, (2010)

The purpose of this research is to investigate the impact of team climate and empowering leadership on team members' knowledge-sharing behavior. They found that team climate and empowering leadership significantly influence individuals' knowledge-sharing behavior by affecting their attitude toward knowledge sharing. Thus, this research has practical implications for how to design teams to facilitate knowledge sharing. It suggests that cohesive, innovative teams with members trusting one another and led by empowering leaders will have a higher level of knowledge sharing. This research examines the effects of both team climate and empowering leadership on knowledge sharing.

Kumar, R. (2011). The study analyses the impact of team environment among the employees of Commercial Bank of Ethiopia. The purpose of this study is to identify the levels of team climate and to analyze the important characteristics that affect team climate. In direction to evaluate the impact of team climate and work environment, the following factors are considered; "open communication," commitment to common 'purpose and performance goals," shared responsibility, use of resources and talents, capacity for self-evaluation and participative leadership. The levels of team climate are classified as low, medium and high. The study showed Chi-square test was applied to estimate the significance of each factor with gender, age, and experience of the employees. Analysis of variance (ANOVA) is used to find out the difference among means of team climate variables. The study also suggests how to make team climate effective in organizations.

Liu F, Kai-Lin , Chao1 M ; Hsu-Min Tseng, (2012)

This study aims to provide evidence concerning the impact of team climate on knowledge sharing behavior and the mediating effects of individual's altruistic intentions in the context of healthcare settings. The study utilized questionnaire method for data collection, data were collected from 212 administrators employed at a medical center in Taiwan. Team climate was assessed by the Team Climate Inventory composed of four factors, participative safety, and support for innovation, vision, and task orientation. The proposed hypotheses were tested using structural equation modeling. They found that the influence of the team innovation climate on knowledge sharing behavior was evident. Furthermore, "individual's altruistic intentions have a positive relationship between team innovation climate and knowledge sharing behavior." These findings contribute to the field of the people-orientated perspective in knowledge management.

Pedro Torrente et.al. (2012)

In this study, they analyze the mediating role of teamwork engagement between supportive team climate, coordination, teamwork, and team performance as predicted. Total data gathered from 62 teams out of 533 employees and 13 organizations were used, whereas team performance was assessed by supervisor ratings. Structural equation modeling revealed that, as expected, teamwork engagement plays a mediating role between team climates perceived at the team level and team performance as assessed by the supervisor.

Sudhakar, G. P. (2012) the "relationship between team climate and performance in software development teams". He conducted a research study to find out the factors affecting team climate. In the study, some differences in team climate constructs are observed against the organizational variable. The research findings indicate that support for innovation is strongly related to team innovation and participative safety is moderately related to team innovation in software development teams. Vision and task orientation are not related to team innovation at all according to this current study of software development teams.

Lin,Chieh-Peng, Joe, Sheng-Wuu et.al., (2013)

This study proposes a model based on the team climate theory to explain the formation of team performance, proficiency, and proactively in the contexts of technology industries. In the proposed model, team performance, proficiency and proactively are indirectly affected by three factors related to team climate. Empirical testing of the theoretical applicability of team climate across high-tech working groups and also provides managerial implications and research limitations based on their findings.

Khurana, Poonam (2013) The study has set out to analyze the role of ethics in personal, team and organizational effectiveness. The objective is to propose a model of personal ethics in relation to personal, team and organizational effectiveness. The sample for the study consisted of executives at different levels working in three sectors (Information Technology, Banking, and Telecom) in and around Delhi. The findings of the study are based on the quantitative analysis of the data relating to the selected variables of the study. "Results indicate that personal ethics are significantly positively correlated to personal effectiveness, team effectiveness, and organizational effectiveness." Among the all three, personal ethics are found to be highly correlated with organizational effectiveness followed by team effectiveness and lastly by the personal effectiveness. There is a significant difference in the computed ethical values in the three sectors under study. The employees in the telecom sector are having highest ethical values as compared to IT and banking Sector. The results also revealed that the variables fairness in competition, responsibility, organizational culture, loyalty, trustworthiness and job satisfaction are found to be the significant predictors of personal ethics.

Fapohunda, Tinuke. M. (2013)

Abstract This article reviews the literature on teams in an attempt to outline some of the attractions and challenges of implementing teams so as to give a realistic preview of what can be achieved through teamwork. The literature indicates that the effects of factors, including the organizations' culture and climate, the effectiveness of team leadership, employee commitment, the system of compensation and rewards, and the level of employee autonomy. This article outlines eight key points that have been identified by a number of authors which facilitate the effective development of teams. These points are clear goals; decision-making authority; accountability and responsibility; effective leadership; training and development; provision of resources; organizational support; and rewards for team success.

Jia Yuan and Runtian Jing (2014)

This empirical study explores the linkages between team conflict, team climate, and team effectiveness in research team context at Universities of China. Respondents are the staff of universities and administrators. High participative safety states that the team members feel secure in contributing towards new ideas, information sharing, and decision-making process. Hence, the whole team could be effective. But when participative safety is too high, all the team members participate in decision making and the decision-making time may be very long, which hinders team effectiveness. When teams are too high in participative safety and team effectiveness will be lower down due to lack of desire. They found that participative safety is not significantly related to team effectiveness, which might be the result of the research participants responded. Additionally, it is found that team climate mediates the relation between conflict and team effectiveness. In a research team with good team climate, team leaders appreciate risk-taking, encourage mutual sharing, promote open communication and set clear expectations. The study focused on an environment which encourages people, team members are more proactively acting on problem solving in a way that allows team members to participate as per their skills in decision-making and problem-solving. The results of this study have a number of implications for future management practice for structuring teams and stimulating team effectiveness, especially in China and other collectivist cultures. This study encourages us to recognize that conflict resolution effectively necessary for team effectiveness. It also suggests that cooperative approach to handle conflict for teams to strengthen their relationships. In addition, the study also reflects important practical implications for

administrators in helping universities to develop effective teamwork and stimulate team effectiveness. The leaders should work at adopting, put the situation in perspective, and develop some mutually supportive relationships with the team members. Thus this study helped present study to understand implication associated with team climate with that of team effectiveness. This study encourages present study to focus team climate aspects in the manufacturing sector as most of the organization require proper understanding of team climate and managing conflict and to be more effective as a team.

Acuña. T.S. et.al (2014)

The Context of this research focuses on human and social team factors into software engineering teams. The study deals with an understanding of team formation and has found that personality factors and group processes such as team climate are related to team effectiveness. However, this study deals with personality and team climate and their relationship to software development team effectiveness. "The objective of the study states that assesses the associations between personality, team climate, product quality and satisfaction in software development teams." It showed research methodology was experimental-based research design study which measures the personalities of team members based on the Big Five personality traits and team climate factors (participative safety, support for innovation, team vision, and task orientation) preferences and perceptions. The study reveals the results of the 3 studies through a meta-analysis of correlations. The combination of results from the baseline experiment with the following findings "there is a positive relationship between all four climate factors and satisfaction in software development teams." The results indicated a significant positive correlate with the extraversion personality factor and software product quality and also stated that high participative safety and task orientation climate perceptions are significantly related to quality."They concluded that the team climate generated in software development team should be monitored for team member satisfaction." Finally, aspects of participative safety and trust have a great impact on software quality.The study implication stated as Software project managers can take advantage of these factors to promote developer satisfaction and improve the resulting product. Therefore current study after reviewing this article tried to focus on team climate implication in manufacturing unit as most studied was focus on software developing the organization. Thus it was a need-based study for any manufacturing unit to get the output from their teams.

R. Heller, et.al. (2014)

This paper reports the application and psychometric validation of a multi-dimensional measure of "team climate for learning" in a multinational organization. The research project aimed at using 33-item version of Brodbeck's Team Climate learning (TCL) questionnaire for TCL to assess the factors that facilitate team learning in a business context and analyze its relationship to group performance, support for innovation and different effectiveness criteria chosen by the organization. The data of group performance, innovation and effectiveness were gathered from 18 work groups out of 119 participants of the organization's headquarters of subsidiaries units from Germany, Switzerland, and Belgium. The study examined data using a cross-sectional and correlated design. The assessment tool proved to have good psychometric properties, providing an adequate reliability, validity and power of prediction regarding team performance ($R^2 = .81$), support for innovation ($R^2 = .69$) and team effectiveness (e.g. $R^2 = .59$. This research shows that the TCL should be of interest to all group leaders, managers, and organizations that strive to achieve sustainable goals of the organization. In this regard, the TCL offers leaders the chance to measure the usual learning climate and the quality of knowledge transfer within their teams, providing them with useful information to improve the current learning processes. **Furthermore, a team climate conducive to learning has been proved to be a significant predictor of group performance, support for innovation and team effectiveness**.

Hanpeng Zhang a, Xin (Robert) Luo b, Qinyu Liao c, Liang Peng d,(2015)

This study seeks to determine the impact of IT co-workers on individual deviance behavior in organizations. Using data collected from 322 IT employees and their supervisors in Chinese software companies. "The results suggest that both co-workers' production deviance and the Confucian work ethic have impacts on individuals' production deviance. The influence of IT co-workers' production deviance was larger extent in high team climates and low and neutral team climates. The Confucian work ethic has no significant impact on production deviance in low team climates. As such, the IT team climate is important to the ultimate success of IT projects and therefore represents the objective of this study, which endeavors to extend the line of deviant workplace behavior research in the IT community. Deviant workplace behaviors are worldwide in organizations, with approximately 95% of all companies reporting numerous forms of deviance-related behaviors. For illustration, organizations have lost

up to $178 billion annually due to employees' non-work-related computing. In the United States, a loss of $200 million per year was reported because of deviant workplace behavior. Thus "**IT team climate is one of the most crucial factors." Issues associated with the team members as reflected in the team climate can increase the opportunity for IT project deviance behavior, such as team member turnover, a lack of motivation, absenteeism, and intention to leave.** From this study the purpose of present study is to focus on the importance of team climate for team effectiveness to benefit the organization.

Floortje Blindenbach-Driessen (2015) , This paper investigates the moderating role of **organizational context on the relationship between cross-functional teams and performance**. A multilevel sample of 142 projects in 95 firms is used to determine that cross-functionality contributes to the performance of innovation in functionally organized firms, with a separate innovation unit.

Soomro, A.B. (2016). The investigation of personality traits and its impact on the software development process is still an area of debate. The aim of this paper is to examine how software professionals' personality is associated with team climate and team performance. In this paper studied Systematic Literature Review (SLR) of the effect of software engineers' personality traits and team climate on software team performance. The findings comprise of 35 primary studies that have described about the relationship between personality and team performance. The findings showed that team climate comprises a wide range of factors that fall within the fields of management and behavioral sciences.

2.6 TEAM CLIMATE, TEAM EFFECTIVENESS, AND ORGANISATIONAL DEVELOPMENT

Researcher	Findings
Ismi Arif Ismail, Habibah Ab Jalil, Steven Eric Krauss, Aminuddin Hassan (2008	Organizational development is an uninterrupted effort at assisting people to enjoy collaboration as a team towards reaching their individual and organizational goals (Argyris and Schon, 1978, 1996, French and Bell, 1995, Bolman and Deal, 1997). One of the mechanisms of Team building activity is to develop sustainable organizational culture for organisation (Finger and Brand, 1999; Prichard and Ashleigh, 2007; Senge, 1990). The findings of the study contribute to the understanding on how team building activities can assist universities in developing a sustainable organizational culture in academia.
H.S. Kriek and P. Venter (2009).	The hypotheses were stated as there is an association between the respondent's level of the organization and perception of teambuilding success; there is an "association between the type of event and perception of teambuilding success", and there is a relationship between facilitator and liaison of perception team building success.
Biswas (2010)	Studied focused on relationship between psychological climate and turnover intentions and its impact on the organizational effectiveness with respect to manufacturing and service sector organizations.
Arrey O. (2014)	Team building in this study stated as "the process of helping a work group become more effective in accomplishing its tasks and in satisfying the need of the group members." A strategy for generating greater impact is to represent an organizational team for simultaneous training.

Source: Researcher compiled

Rao. T.V. (2008) stated in his case let that the vice chairman of a company experience that in spite of his recurrent efforts to build them as a team the various unit heads of his multinational are not working in one direction. It was felt that units with different cultures need to collaborate, work as a team, shared a common vision and align with each other. A climate survey was done to bring out similarities and differences among the various units and using it for conversation may result in the development of the effective team. The survey was collected from all employees and data were conducted surveying their perceptions of the organization climate. The data were presented to top management aiming to prepare a plan of action to improve the status. The mediation continued for six months. Numerous modifications were made to develop the efficiency and effectiveness of the team working and numerous other HR issues. The CEO used the investigation data to initiate several changes in the system. The second case on a construction company to bring process sensitivity to build problem-solving, teamwork and other capabilities, in this case, OD consultant Mr.T.V.Rao with his team conducted role analysis and clarity exercises, redesigned their appraisal system and made many other interventions which improved teams interpersonal sensitivity and internal problem-solving capabilities.

Ismail. I.A., H. Jalil, S. Krauss, A. Hassan (2008) It is fascinating to reveal that team building activities which are carried out in campus for impacting staff morale and team spirit. This study aims to estimate the impact of team building activities on faculty organizational culture. This paper discusses the activities, characteristics, and outcomes of a team building program organized by a faculty. It describes and analyses the planning, implementation and evaluation components of the whole team building activity. The findings of the study contribute to the knowledge on how team building activities can assist universities in developing a sustainable organizational culture in academia.

P. Olsen (2009) Team-Building Exercises for Tough Times, HBR (Harvard Business Review).

Raymond Bickson, chief executive of The Taj Hotels Resorts and Palaces stated that team-building exercises can help sort out unproductive conflicts within teams; they can also promote healing in more extreme circumstances. Bickson said that “It united us in a way that went deeper than the usual team-building programs,” In turbulent periods, Supervisors should be straightforward, recognize the anxiety representatives are feeling and approve their worries. For some organizations, Team building turns into a method

for reuniting staff after layoff happening. At the point when teams are figuring out how to work in another team and adjust with them, suitable conducive environment, team building exercise activities designed to foster collaborative problem solving can be especially profitable in this circumstances.

H.S. Kriek and P. Venter (2009) this study reports on whether participants perceive the relationship between respondent characteristics and the perception of "team building success." Hypotheses were stated in the positive relationship exists between the factors stated. Chi-square test was used to test the associations between variables. The hypotheses were accepted, "there is an association between the respondent's level of the organization and perception of teambuilding success; there is an association between the type of event and perception of teambuilding success, and there is a relationship between facilitator and liaison of perception team building success." The research focuses on team building success and level of organization. The focus of the study was only on team building aspect.

Biswas (2010) made an attempt to study the association between psychological climate and turnover intentions and its impact on the organizational effectiveness with respect to manufacturing and service sector organizations considering a sample of 357 participants which comprise of senior level, middle level, and junior level executives. The results recognized that psychological climate comprised of 6 factors, such as supportive management, role clarity, contribution, recognition, self-expression, and significant predictor of organizational effectiveness was observed and that job satisfaction and job involvement are also important mediators.

Arrey .O. (2014) the study focused on the need for team training to enhance the team building experience. The author defines team building as "the process of helping a work group become more effective in accomplishing its tasks and in satisfying the need of the group members." It is a strategy for creating larger impact is to represent an organizational team to simulate training. The people and problem are still there the same communication obstruction and addition to traditional values. This paper focuses on one of these families of organization development which is team building and its importance.

2.7. RESEARCH GAPS:

Overall there are only three empirical studies which used team climate inventory (TCI) in software development teams observed through literature review findings. They are Ganesh and Gupta (2006), Acuna, Gomez, and Juristo (2008) and Sudhakar, G.P (2012), (2016).

Ganesh and Gupta (2006) have investigated the effect of virtual-ness on team climate and the role of the extra-role performance of team members and moderating effects of task interdependence on this relationship. They have used team climate as the dependent variable. Acuna.T.S.et.al. (2008) examined the relationship between personality, team climate, product quality and satisfaction in software development teams. Sudhakar. G.P. (2012), (2016) focused on team climate construct on team innovation, team role, and team size. While one of the studies observed in the literature of Kumar.(2011) who observed the impact of team climate and work environment, the following factors are considered; open communication, commitment to common purpose and performance goals, shared responsibility, use of resources and talents, capacity for self-evaluation and participative leadership.

Overall there are many empirical studies which used team effectiveness but in industries, only a few studies have focused. Doolen, T. et.al. (2003) the impact of organizational context on work team effectiveness: a study of production team. The researcher studied twenty-one intact production work teams were the focus of the study. Using path analysis, significant direct relationships between six organizational context factors and three measures of team effectiveness were found. A second important issue is that a lot of the existing research examines the effect of the implementation of teamwork impact on performance, without taking into account the structural features of the teams, such as task design or the degree of autonomy and self-leadership.it was recommend that these 'independent variables' should be elaborated upon in future research and that a complete descriptions of the technology, task and products/services associated with the teams should be provided. Verma N. et.al (2012) authors depicted that the prime purpose of this study was to find out the difference in team effectiveness (TE) of Indian public and private sector Organizations. It also aimed and explored the differences between TE of small and large teams. Suggestions for better teamwork have been made on the basis of

preliminary scores and observable differences. For instance, public sector executives may increase their TE through enhanced autonomy and the private sector executives may also achieve higher TE through increasing cohesion, as interpreted from the findings.

Khurana, P. (2013) The study has set out to analyses the role of ethics in personal, team and organizational effectiveness. The objective is to propose a model of personal ethics in relation to personal, team and organizational effectiveness. The sample for the study consisted of executives at different levels working in three sectors (Information Technology, Banking, and Telecom) in and around Delhi.

This chapter explains review of literature related to team climate, team effectiveness , team climate relation with team effectiveness and the relation of team effectiveness with organisation development The research gaps in the literature useful for this current study have been explained that still not more studies have been done on team effectiveness and its impact on organisational development, as well as only one study Jia Yuan and Runtian Jing (2014), show relationship of team climate with team effectiveness but that too in Chinese university and not in manufacturing sector.

Thus, the present study tried to highlight areas of the team climate, team effectiveness, team climate relationship with team effectiveness and the relationship of team effectiveness with organization development.

The next chapter will focus on manufacturing setup of Gujarat and various industrial setting from Vadodara, Anand and Panchmahal districts from which data was collected for the study purpose.