

# Relative Index Analysis of Trust & Values Whereupon Major Factors Responsible For Team Effectiveness in Project Team

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*Abstract -- This paper investigates the team-working effectiveness in the construction sector; success relies not merely on the introduction and adoption of Information and Communication Technologies (ICTs), but also team effectiveness in project. Nowadays, the use of team in construction sector is growing and thus the organizations are always looking for effective ways to assess their own teams. It is been suggested that forming a very powerful project team will result in satisfactory project outcomes. Moreover, it is important for construction teams to know the contributing factors of team effectiveness in construction projects. The construction sector of an economy is often perceived as dangerous and having an adversarial relationship at all levels and as such construction projects are largely seen as unpredictable in terms of delivery, time, cost and quality. The purpose of this study is to assessing the factors of team effectiveness in construction project teams on the overall construction team. An organization's team effectiveness is a key juncture of development.*

## I. INTRODUCTION

Team effectiveness (also referred to as group effectiveness) is the capacity a team has to accomplish the goals or objectives administered by an authorized personnel or the organization. A team is a collection of individuals who are interdependent in their tasks, share responsibility for outcomes, and view themselves as a unit embedded in an institutional or organizational system which operates within the established boundaries of that system. Teams and groups have established a synonymous relationship within the confines of processes and research relating to their effectiveness. Team managers in the construction industry know little about the effective team working and the factors Responsible for effective and non-effective teams. It is observed that factors responsible for an effective team need to be known, as this will provide a basis

for evaluating such team. However, little attention is paid to factors affecting Teamwork either positively or otherwise. The effectiveness or dysfunction of a team are products of certain factors which may discourage team members from adopting a common set of goals and measurements in order to make collective decisions on a daily basis. Recent developments in teamwork and teams in organizations have heightened the need to determine better ways to utilize teams, especially in the construction sector. Teamwork is a characteristic of the construction industry where construction projects are delivered by various professionals as a team.

## II. EFFECTIVE TEAMS

The search for an improved, more inclusive perception of team effectiveness has continued for decades. Since the beginning of the 20th century, globalization, technology, and the intricacy of work have resulted in more organizations becoming aware of the importance of understanding team effectiveness within such environments. Once the concept of team and Teamwork are established, it is important for the team to know how to work together effectively. An effective team requires continuous monitoring of team conditions to ensure Team members can adjust their tasks with respect to one another and the intended goal.

### 2.1 Characteristics of Effective Teams:-

The idea behind team effectiveness is a group of people working together systematically can achieve more than if the individuals of the team are working on his/her own. A study Conducted by Henderson

and Walkinshaw proved effectiveness is relevant to the Achievement of the project’s goals, milestones, and objectives, as defined by the project’s Requirements outlined by the owner; whereas, performance is closely associated with how Sound the task work and teamwork are completed. Team performance is evaluated in terms Of inter-team productivity and intra-team productivity. Another study Performed by Kezsbom identified essential

elements that lead towards Successful team performance as:

- A mission or a reason for working together.
- A sense of ownership, commitment, and interdependence of each team member.
- Commitment to the benefits of group problem-solving and group decision-making.
- Accountability as a functioning unit.

2.2 Characteristics of an effective team in tabular form:-

Sr. No	Characteristic	Description
1	Clear purpose	The vision, mission, goal, or task of the team has been defined and is now accepted by everyone. There is an action plan.
2	Informality	The climate tends to be informal, comfortable and relaxed. There are no obvious tensions or signs of boredom.
3	Participation	There is much discussion and everyone is encouraged to participate.
4	Listening	The members use effective listening techniques, such as questioning, paraphrasing, and summarizing to discuss ideas.
5	Civilized Disagreement	There is a disagreement, but the team is comfortable with this and shows no sign of avoiding, smoothing over, or surprising conflict.
6	Consensus Decision	For important decisions, the goal is substantial but not necessarily unanimous agreement through open discussion of everyone’s ideas and avoidance of formal voting or easy compromises.
7	Open Communication and Trust	Team members feel free to express their opinions on the tasks as well as on the group’s operation, coupled with a high level of trust Communication also takes place outside of meetings.
8	Clear roles and work Assignments	There are clear expectations about the roles played by each team member. When the action is taken, clear assignments are made, accepted and carried out. Work is fairly distributed among team members.
9	Shared leadership	Although the team has a formal leader, leadership functions shift from time-to-time, depending upon the circumstances, the needs of the group, and the skills of the members. The formal leader models the appropriate behavior and helps establish positive norms.
10	External relations	The team spends time developing key outside relationships, mobilizing resources, and building credibility with important players in other parts of the organization.
11	Style Diversity	The team has a broad spectrum of team player types, including members, who emphasize attention to task, goal setting, focus on process, and questions about how the team functions.
12	Self-assessment	Periodically, the team stops to examine how well it is functioning and what may be interfering with its effectiveness.

III. FACTORS RESPONSIBLE FOR TEAM EFFECTIVENESS

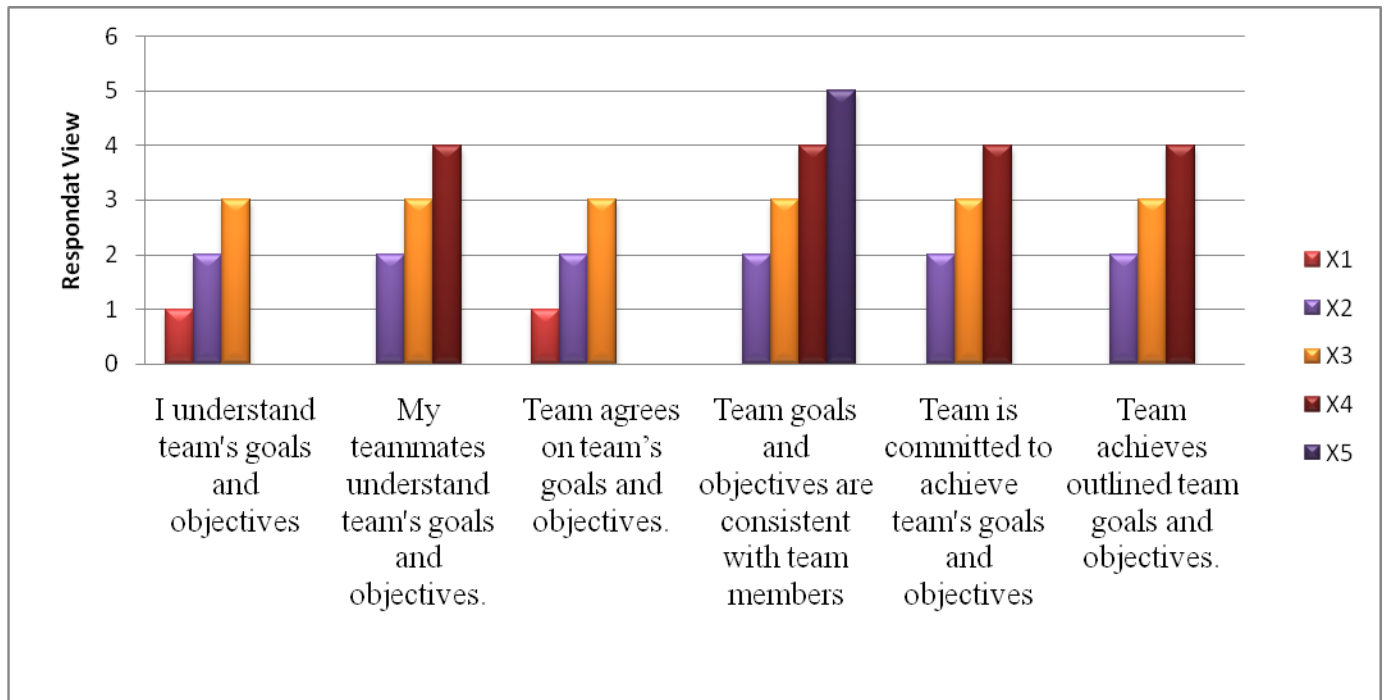
3.1 Project team goals and objectives:-

From the below table it is found that their one sub-factor responsible for team effectiveness. Team agrees on team’s goals and objectives having RI 0.66

and lowest RI is of team goals and objectives are consistent with team members is 0.47. And overall mean of project team goals and objective is 0.58.

Table Showing the Relative Index Analysis of Project Team Goals and Objectives:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.58	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
1	I understand team's goals and objectives.	10	02	01	07	02	01	03	00	00	00	00	0.63	2
2	My teammates understand team's goals and objectives.	10	00	00	06	02	02	03	02	04	00	00	0.57	4
3	Team agrees on team’s goals and objectives.	10	05	01	02	02	03	03	00	00	00	00	0.66	1
4	Team goals and objectives are consistent with team members	10	00	00	03	02	03	03	02	04	02	05	0.47	6
5	Team is committed to achieve team's goals and objectives.	10	00	00	06	02	03	03	01	04	00	00	0.55	5
6	Team achieves outlined team goals and objectives.	10	00	00	05	02	03	03	02	04	00	00	0.60	3



Inference from above graph:-

Above graph shows the comparison of factor project team goals and objectives. It can be observed that

high respond to strongly disagree with the team goals and objectives are consistent with team members.

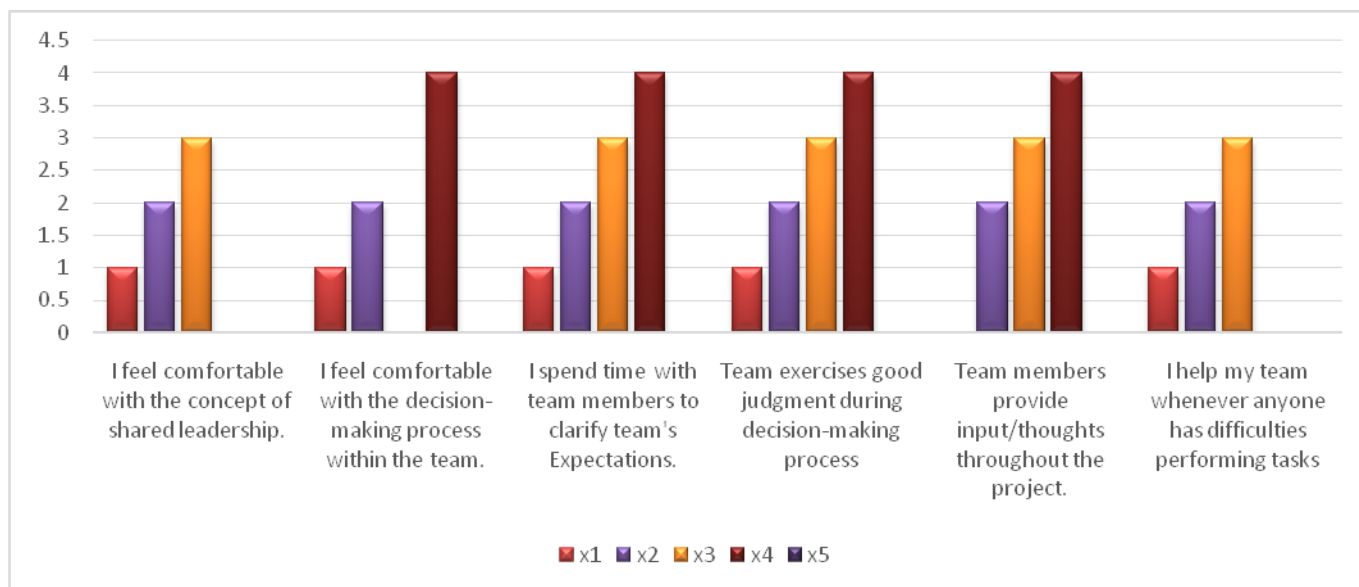
3.2 Project Team Leadership:-

From the table shown below, it is found that their one sub-factor responsible for team effectiveness. I feel comfortable with the concept of shared leadership

having RI 0.70 and lowest RI is of spend time with team members to clarify team's Expectations 0.42. And overall mean of project team leadership is 0.59.

Table Showing the Relative Index Analysis of Project Team Leadership:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.59	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
1	I feel comfortable with the concept of shared leadership.	10	03	01	03	02	04	03	00	00	00	00	0.70	1
2	I feel comfortable with the decision-making process within the team.	10	03	01	04	02	00	00	03	04	00	00	0.65	3
3	I spend time with team members to clarify team's Expectations.	10	03	01	04	02	02	03	01	04	00	00	0.42	6
4	Team exercises good judgment during decision-making process..	10	01	01	04	02	03	03	02	04	00	00	0.52	5
5	Team members provide input throughout the project.	10	00	00	06	02	01	03	03	04	00	00	0.6	4
6	I help my team whenever anyone has difficulties performing tasks.	10	02	01	06	02	02	03	00	00	00	00	0.66	2



Inference from above graph:-

Above graph shows the comparison of factor project team leadership. it can be observed d that high respond to disagree with the I feel comfortable with the decision-making process within the team, I spend time with team members to clarify team's expectations, team exercises good judgment during

decision-making process, team members provide input/thoughts throughout the project.

3.3 Project team roles and responsibility:-

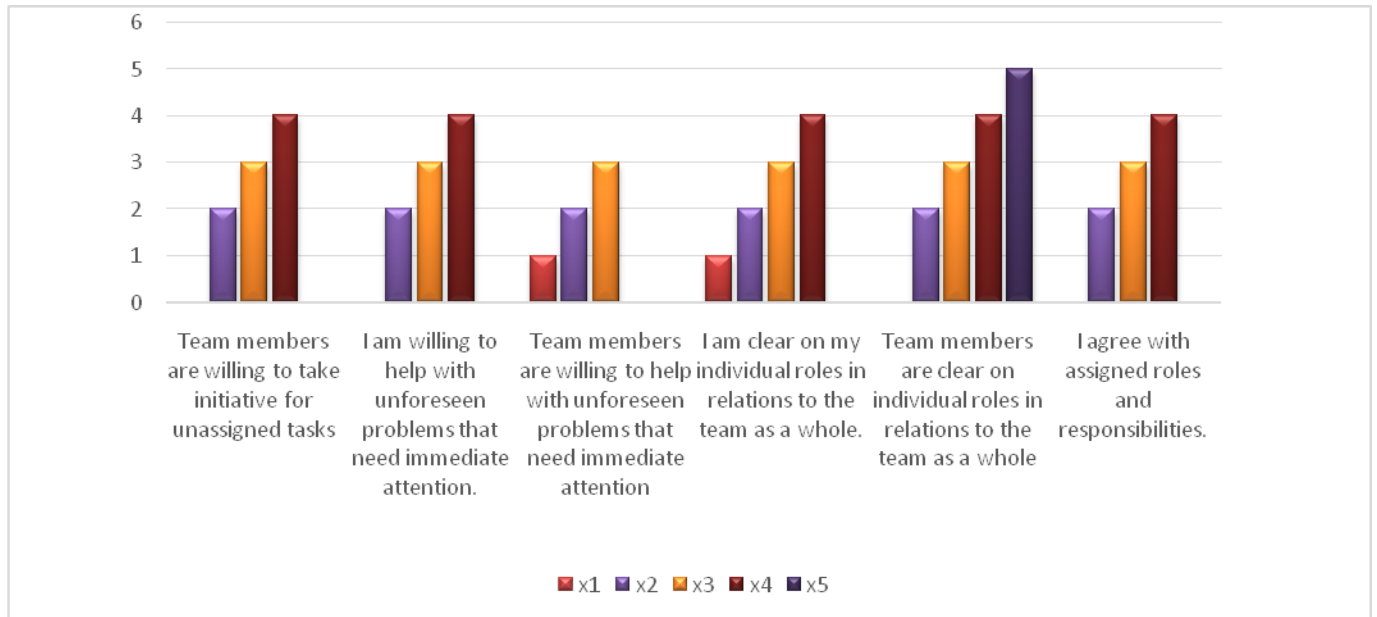
From table 7.7 we can found that their one sub-factor responsible for team effectiveness. Team members are willing to help with unforeseen problems that need immediate attention having RI 0.70 and lowest

RI is team members are clear on individual roles in relations to the team as a whole. 0.42. And overall

mean of project team roles and responsibility is 0.57.

Table showing the relative index analysis of Project team roles and responsibility:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.57	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
1	Team members are willing to take initiative for unassigned tasks.	10	00	00	04	02	02	03	04	04	00	00	0.66	2
2	I am willing to help with unforeseen problems that need immediate attention.	10	00	00	05	02	03	03	02	04	00	00	0.60	3
3	Team members are willing to help with unforeseen problems that need immediate attention.	10	02	01	05	02	03	03	00	00	00	00	0.70	1
4	I am clear on my individual roles in relations to the team as a whole.	10	01	01	04	02	03	03	01	04	00	00	0.44	5
5	Team members are clear on individual roles in relations to the team as a whole.	10	00	00	04	02	03	03	02	04	01	05	0.42	6
6	I agree with assigned roles and responsibilities.	10	00	00	06	02	02	03	02	04	00	00	0.57	4



**Inference from above graph:-**

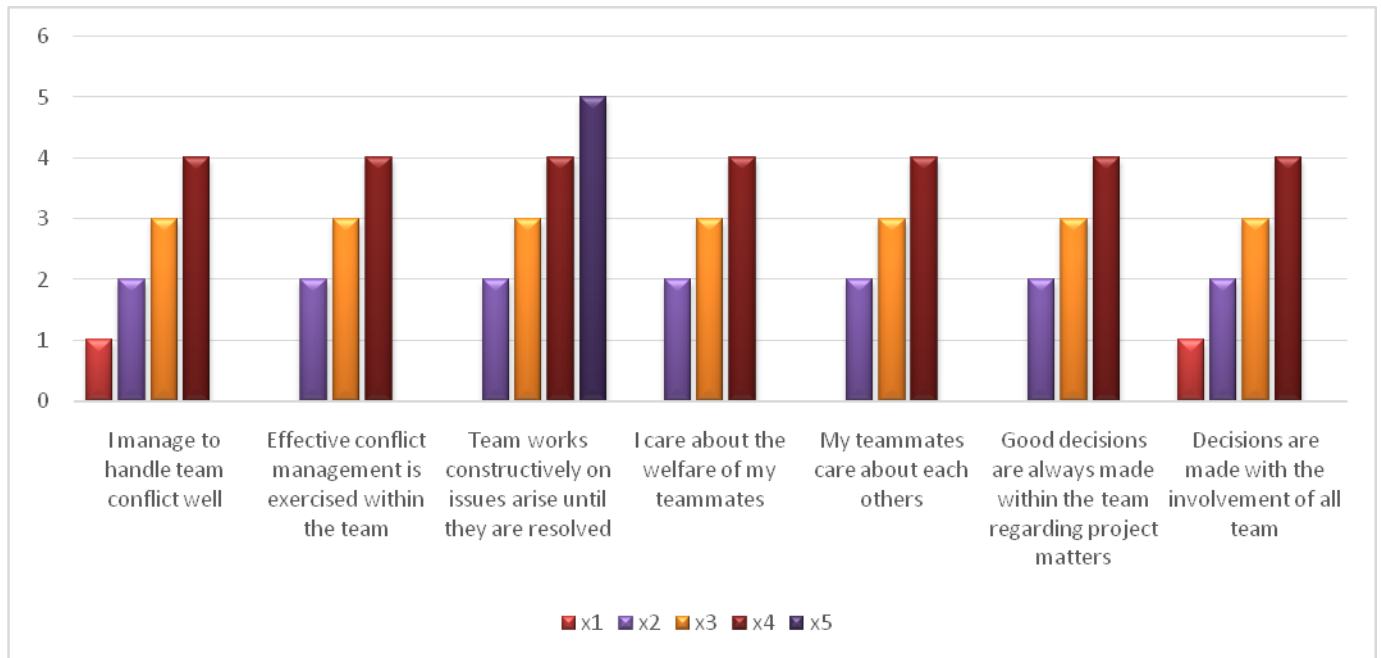
Above graph shows the comparison of factor, project team leadership. it can be observed d that one respond to strongly disagree with team members are clear on individual roles in relations to the team as a whole.

**3.4 Project Team Relationship:-**

From the above table, it is found that their one sub-factor responsible for team effectiveness. Good decisions are always made within the team regarding project matters having RI 0.60 and lowest RI is Team works constructively on issues arise until they are resolved 0.45. And overall mean of project team relationship. 0.52.

Table showing the relative index analysis of Project Team Relationship:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.52	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
1	I manage to handle team conflict well.	10	03	01	03	02	02	03	02	04	00	00	0.46	6
2	Effective conflict management is exercised within the team.	10	00	00	06	02	03	03	01	04	00	00	0.55	3
3	Team works constructively on issues arise until they are resolved.	10	00	00	05	02	01	03	02	04	02	05	0.45	7
4	I care about the welfare of my teammates.	10	00	00	05	02	04	03	01	04	00	00	0.57	2
5	My teammates care about each other's.	10	00	00	08	02	01	03	01	04	00	00	0.51	5
6	Good decisions are always made within the team regarding project matters.	10	00	00	05	02	03	03	02	04	00	00	0.60	1
7	Decisions are made with the involvement of all team Members.	10	01	01	04	02	02	03	03	04	00	00	0.54	4



Inference from above graph:-

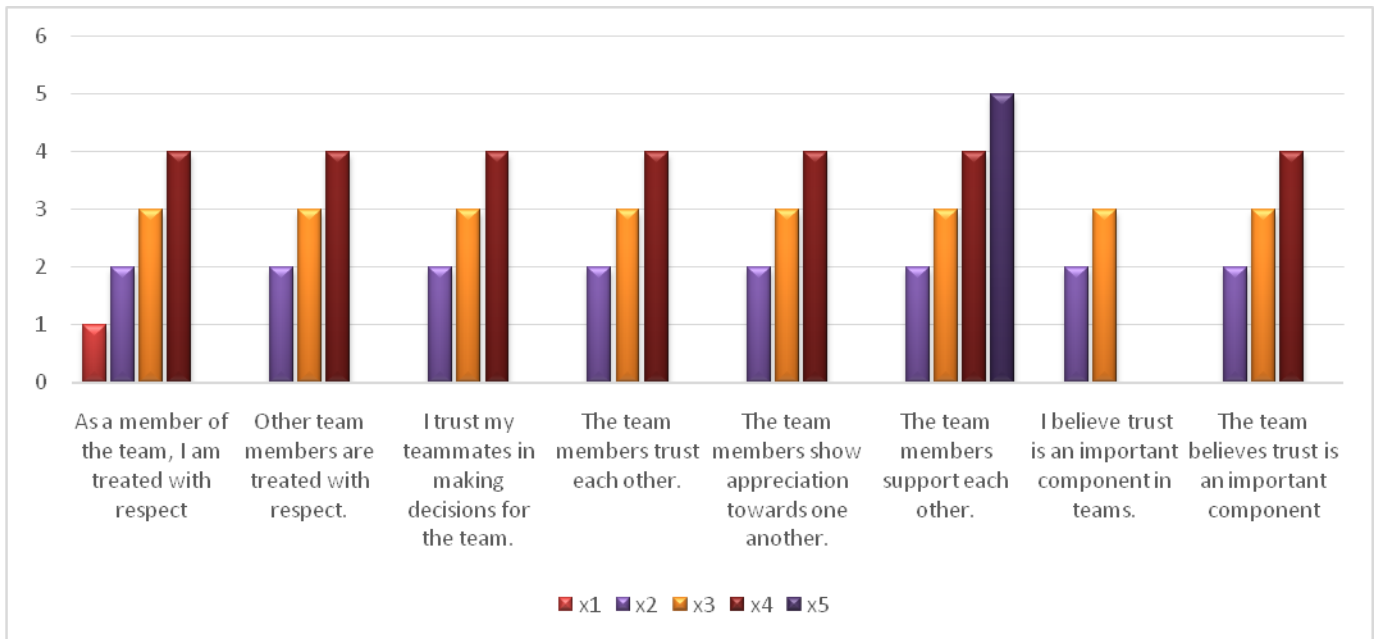
Graph shows the comparison of factor, project team leadership. It can be observed that one respond to Strongly Disagree with Team works constructively on issues arise until they are resolved.

3.5 Trust and Values within the Project Team:-

From the below table, we can found that their one sub-Factor responsible for team effectiveness. I believe trust is an important component in teams. Having RI 0.70 and lowest RI is as a member of the team, I am treated with respect. 0.40. And overall mean of and values within the project team are 0.54.

Table showing the relative index analysis of Trust and Values within the Project Team:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.54	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
A	As a member of the team, I am treated with respect.	10	04	01	03	02	02	03	01	04	00	00	0.40	8
B	Other team members are treated with respect.	10	00	00	06	02	03	03	01	04	00	00	0.55	5
C	I trust my teammates in making decisions for the team.	10	00	00	05	02	04	03	01	04	00	00	0.57	4
D	The team members trust each other.	10	00	00	04	02	05	03	01	04	00	00	0.60	02
E	The team members show appreciation towards one another.	10	00	00	06	02	02	03	02	04	00	00	0.58	3
F	The team members support each other.	10	00	00	05	02	02	03	02	04	01	05	0.41	7
G	I believe trust is an important component in teams.	10	01	01	07	02	02	03	00	00	00	00	0.7	1
H	The team believes trust is an important component.	10	00	00	08	02	01	03	01	04	00	00	0.51	6



Inference from above graph:-

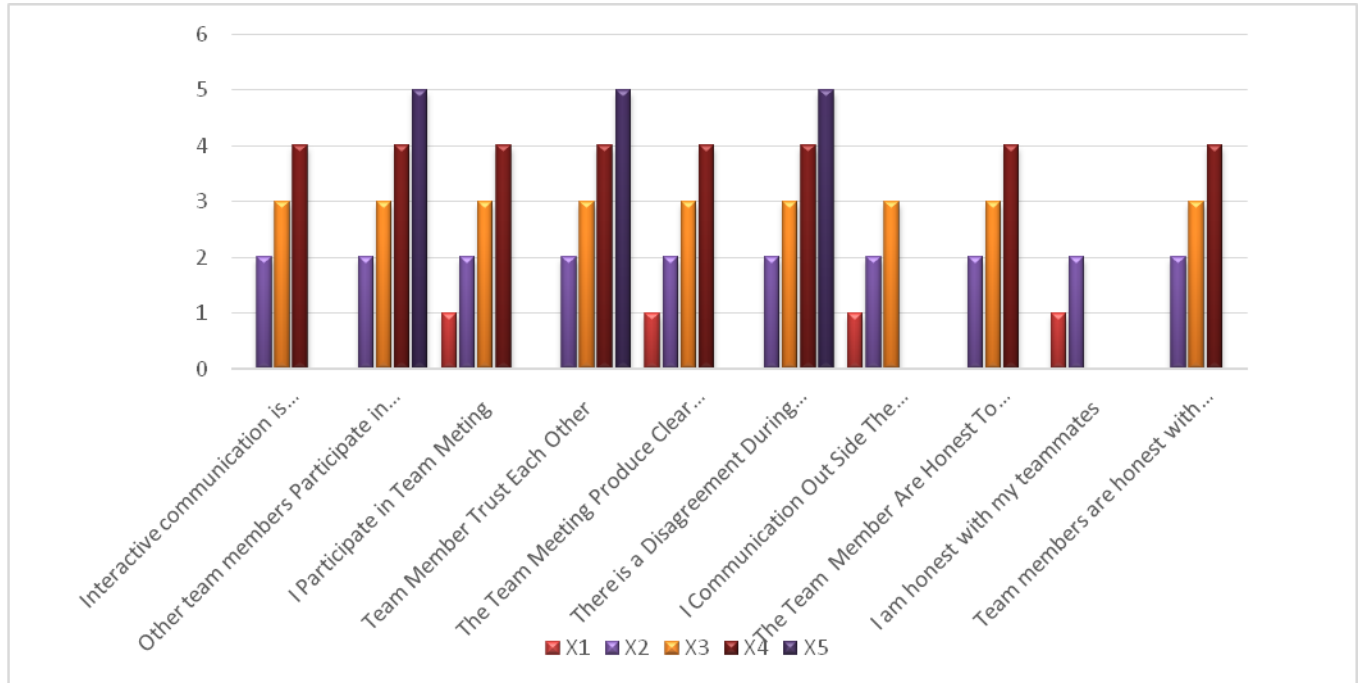
Graph shows the comparison of factor, trust and values within the project team. It can be observed that one respond to strongly disagree with the team member's support each other.

3.6 Project Team Communication:-

From table we can found that their one sub-Factor responsible for team effectiveness. I am honest with my teammates having RI 1.0 and lowest RI other team members participate in the team discussion 0.40. And overall mean of project team communication is 0.56.

Table showing the relative index analysis of Project Team Communication:-

Sr. No.	Factor causing delays	TR	X <sub>1</sub>		X <sub>2</sub>		X <sub>3</sub>		X <sub>4</sub>		X <sub>5</sub>		0.56	
			R	P	R	P	R	P	R	P	R	P	RI	Rank
A	Interactive communication is present within the team.	10	00	00	04	02	04	03	02	04	00	00	0.62	3
B	Other team members Participate in the Team Discussion	10	00	00	05	02	03	03	01	04	01	05	0.40	10
C	I Participate in Team Meting	10	03	01	03	02	02	03	02	04	00	000	0.47	6
D	Team Member Trust Each Other	10	00	00	04	02	04	03	01	04	01	05	0.41	9
E	The Team Meeting Produce Clear Outcomes	10	01	01	06	02	02	03	01	04	00	00	0.46	7
F	There is a Disagreement During The Meeting	10	00	00	04	02	02	03	03	04	01	05	0.44	8
G	I Communication Out Side The Meeting are Effective	10	01	01	07	02	02	03	00	00	00	00	0.84	2
H	The Team Member Are Honest To Each Other	10	00	00	08	02	01	03	01	04	00	00	0.52	4
I	I am honest with my teammates.	10	05	01	05	02	00	00	00	00	00	00	1	1
J	Team members are honest with each other.	10	00	00	08	02	01	03	01	04	00	00	0.51	5



Inference from above graph:-

Graph shows the Comparison of Factor, Project Team Communication. It can be observed that most respond to Strongly Disagree with Other team members Participate in the Team Discussion, Team

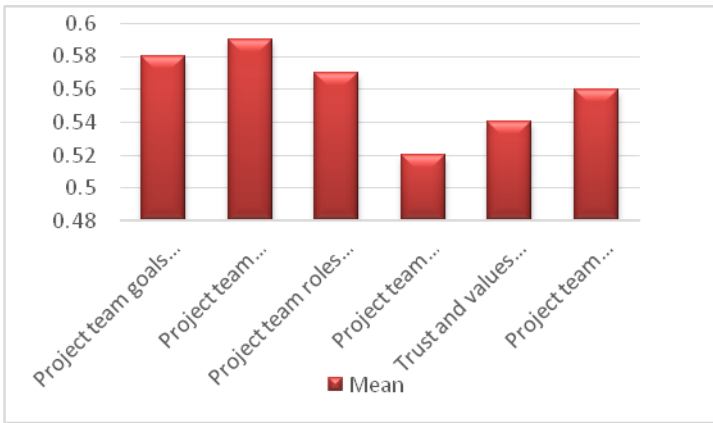
Member Trust Each Other, There is a disagreement during the meeting.



IV. OVERALL MEANS OF THE MAIN FACTOR RESPONSIBLE FOR TEAM EFFECTIVENESS

From the above tables & there inferences, the Overall means of the main factor responsible for team effectiveness are as follows

Factor	Mean
Project team goals and objectives.	0.58
Project team leadership	0.59
Project team roles and responsibility	0.57
Project team relationship	0.52
Trust and values within the project team.	0.54
Project team communication	0.56



V. CONCLUSION

Above chart shows an overall comparison of the main factor responsible for Team effectiveness. For this project on the basis of relative index analysis. Fig shows a high relative index for project teams leadership i.e. 0.59 Ranked at 1<sup>st</sup>. while project team Relationship having lowest Relative index of 0.52 ranked at 6<sup>th</sup>. and all remaining Factor are Ranked in sequential order. It shows that project team leadership has most influence the factor of team while Project team relationship has least effect.

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