

## **STUDY OF THE LEADERSHIP SKILL IN CONSTRUCTION PROJECT**

**Pandit Pradip<sup>1</sup> Patil Rishikesh<sup>2</sup> Rajput Bhagatsing<sup>3</sup>**

**Murkute Monika<sup>4</sup>**

*<sup>1,2,3</sup>B.E. CIVIL Scholar BVCOE & RI, Nashik(Pune University),*

*<sup>4</sup>Assistant Professor Civil Dept. BVCOE & RI ,Nashik*

### **ABSTRACT**

*The aim of this study is to identify the importance and key role of leadership in project management, particularly in the construction field. Projects are conceived and completed by people, who are involved in the whole process execution of project and completion. Project management not only requires an efficient project manager, but also a qualified leader who lead the team effectively. A leader is someone who sets direction in an effort and influences to people to follow that direction. It is most important to have skills in forming, leading and facilitating a project team. Therefore it is important to study and analyse the skill of leadership. This research paper present list of leadership skills retrieved from literature. The feedback of construction experts was obtained through interviews. Subsequently a questionnaire survey is prepared. The questionnaire survey is distributed to Project Manager. This analysis will provide a clearer understanding the concept of leadership in projects, discussing how and why it works, and the ways to make project teams more dynamic and effective. The result from the study are applied to these leadership concepts, an effort understood the role of effective leadership in reducing costs across the whole project process and increasing the project value.*

**Keywords** – *Leader, Leadership Skill , Project Management , Project Manager.*

### **LINTRODUCTION**

In recent day, remarkable transformations in technology have drastically changed the way project managers manage things. The more attributes the project manager has, the more likelihood there is of successful project completion. Although some of these attributes may not be required at times, it is important to use them in specific conditions and situations. The success in construction project is a result of the effective use and implementation of the important attributes that project managers have.

However, project managers have a wide- ranging variety of personal characteristics, from their personal values, professional ethics, technical knowledge, superior social skills to their management abilities. However, the success of a project is impossible to continue from a single attribute of project manager. Thus, the study will mainly focus on the assessing the most important leadership skill as personalities, skills and roles and responsibilities that project manager should have in order to have and successful development of construction project.

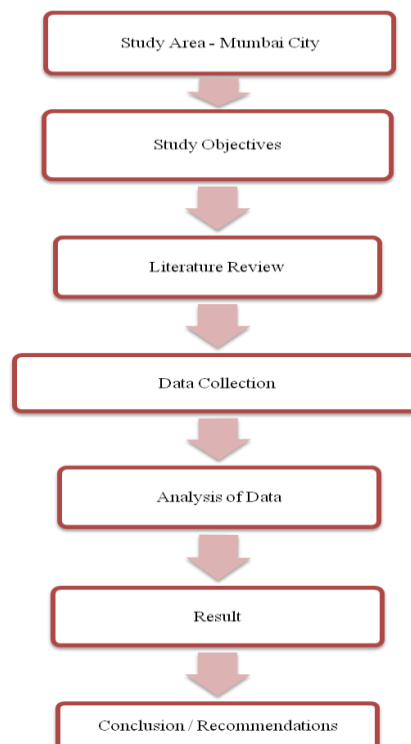
A leader is someone who sets direction in an effort people to follow that direction.However, a coherent theoretical foundation that explains how leadership engages people fully or partly and effectively is lacking.

The aim of this project is to investigate the manager's approach to leadership skills in construction project. This is done by focusing on the actual leadership styles of managers in the construction industry. Differences (if any) on the leadership behavior that may come with experience in the industry and length of service in the industry they are working with will also be investigated separately

## 1.1 OBJECTIVE OF STUDY

1. Study the concept of leadership in construction project management.
2. Determine the most important leadership skills that project manager should have.
3. Evaluate the leadership skills in current construction industry and analysis of collection data.
4. To give suggestion and recommendation to improve the leadership skill.

## II. METHODOLOGY



This study include three major step. The first step involves general information collection, including both first-hand and second-hand data, to identify major themes from the literature. Surveys and interviews are conducted, in which a list of important skills in successful leadership are identified. With these factors, expert interviews, conducted in the second step, are used to decide the significant factors among them. The last step is the conclusions and suggestions for researchers or practitioners

### 2.1 Research Steps

#### Step One: Literature Review

The literature review is the first step in this chapter. The intent is to collect enough

Evidence to validate a theory and apply the theory to the real world. Data evidence and Figures included in this research papers are from both direct and indirect resources. First-hand Data from survey and interviews of project manager and second-hand information from academic books and Journals are the two main sources for this chapter.

## Step Two: Interviews and Survey Results Analysis

During this process, a survey for leadership in construction project management is designed and sent via mails; telephone interviews are also conducted. After the response period are ended, the data and statistics are collected, reduced this data and analyzed them. For some of the surveys, several respondents did not answered less than half of the questions.

## Step Three : Conclusions and Suggestion

In the final step of this chapter, conclusions are drawn and suggestions are provided to assist practitioners who wish to become successful leaders in construction projects. However, given the uniqueness of individuals, some parts of this chapter may not be applicable and The main aim of this chapters to provide suggestions for general construction projects.

## III.ANALYSIS AND DATA

In this chapter, a detail analysis of data and result will be shown and elaborated by using Average Analysis and Frequency Analysis. Construction organizations were randomly selected as the targeted respondents to determine leadership skills through questionnaire survey. The organizations will include civil & structure /building consultant and project management consultant. Coverage of such organization was hoped to represent the local construction industry more comprehensively. For completing this study 50 respondents like project manager were targeted.

### Frequency Analysis

In the different variables in the questionnaires Frequency analysis will be using tabular form to represent result of data analysis of frequency of response that respondent give in analysis. The result was tabulated in the form of frequency number and percentages according to total respondents.

### Average Index Analysis

The result will be further summarized to obtain the overall evaluation and level of importance in local construction industry. The respondent were requested to evaluate and analyze project manager's roles and responsibilities based on five-points scale starting with 1 for not important, 2 for less important, 3 for average, 4 for important, 5 for very important. The average index analysis is calculated by using:

$$\text{Average Index} = \frac{\sum 1 X_1 + 2 X_2 + 3 X_3 + 4 X_4 + 5 X_5}{\sum X_1 + X_2 + X_3 + X_4 + X_5}$$

Where  $x_1$  = number of respondents for not important,  $x_2$  = number of respondents for less important,  $x_3$  = number of respondents for average,  $x_4$  = number of respondents for important,  $x_5$  = number of respondents for very

important. The overall evaluation and level of importance in local construction projects are summarized under such categories:

**Table-1. The level of importance and evaluation for Average Index Analysis**

| Average Index             | Level of Importance |
|---------------------------|---------------------|
| 0.00 < Average Index 1.50 | Not Important       |
| 1.50 < Average Index 2.50 | Less Important      |
| 2.50 < Average Index 3.50 | Average             |
| 3.50 < Average Index 4.50 | Important           |
| 4.50 < Average Index 5.00 | Very important      |

### Relative Index Analysis

In average index analysis, the result will be summarized to obtain the overall level of importance and evaluation in local construction industry. The respondent were requested to evaluate and analyze project manager's roles and responsibilities based on five-points scale starting with 1 for not important, 2 for less important, 3 for average, 4 for important, 5 for very important. The relative index analysis for each variable is calculated by using:

$$\text{Relative Index} = \frac{\sum 1 X_1 + 2 X_2 + 3 X_3 + 4 X_4 + 5 X_5}{5 \sum X_1 + X_2 + X_3 + X_4 + X_5}$$

Where  $x_1$  = number of respondents for not important,  $x_2$  = number of respondents for less important,  $x_3$  = number of respondents for average,  $x_4$  = number of respondents for important,  $x_5$  = number of respondents for very important.

### IV.RESULT

The following is the brief discussion of the different groups and skills as per level of importance and evaluation. Based on the relative important index and ranking in table 2 and table 3,Also the comparison between the level of importance and evaluation of the different groups and skills were shown in table 4 and table 5 for the top 15 most important leadership skills

**Table-2 The brief discussion of the different groups and skills for level of importance**

| Sub Group               | No | Skills                                | % of Frequency |   |    |    |    | Average Index | Relative Index | Rank |
|-------------------------|----|---------------------------------------|----------------|---|----|----|----|---------------|----------------|------|
|                         |    |                                       | 1              | 2 | 3  | 4  | 5  |               |                |      |
| Personal skill          | 1  | Communication skill                   | 0              | 0 | 4  | 26 | 70 | 4.660         | 0.932          | 1    |
|                         | 2  | Interpersonal skill                   | 0              | 2 | 4  | 54 | 40 | 4.320         | 0.864          | 13   |
|                         | 3  | Mentoring skill                       | 0              | 2 | 10 | 60 | 28 | 4.140         | 0.828          | 23   |
|                         | 4  | Persuasion skill                      | 0              | 2 | 8  | 70 | 20 | 4.080         | 0.816          | 25   |
|                         | 5  | Convincing skill                      | 0              | 0 | 8  | 40 | 52 | 4.440         | 0.888          | 8    |
|                         | 6  | Composure skill                       | 0              | 0 | 10 | 60 | 30 | 4.200         | 0.840          | 19   |
|                         | 7  | Cognitive skill                       | 0              | 2 | 4  | 68 | 26 | 4.180         | 0.836          | 20   |
|                         | 8  | Being a quick learner                 | 0              | 0 | 6  | 40 | 54 | 4.480         | 0.896          | 6    |
| Team building           | 1  | Controlling group performance         | 0              | 0 | 6  | 48 | 46 | 4.400         | 0.880          | 10   |
|                         | 2  | Setting an example                    | 0              | 2 | 8  | 54 | 36 | 4.240         | 0.848          | 17   |
|                         | 3  | Conflict management                   | 2              | 0 | 8  | 58 | 32 | 4.180         | 0.836          | 20   |
|                         | 4  | Listening skill                       | 0              | 0 | 6  | 40 | 54 | 4.480         | 0.896          | 6    |
|                         | 5  | Dealing with difficult people         | 0              | 0 | 8  | 48 | 44 | 4.360         | 0.872          | 11   |
|                         | 6  | Compassion                            | 0              | 0 | 16 | 68 | 16 | 4.000         | 0.800          | 28   |
|                         | 7  | Building & mending relationship       | 0              | 0 | 6  | 56 | 38 | 4.320         | 0.864          | 14   |
|                         | 8  | Confronting people                    | 0              | 0 | 8  | 48 | 44 | 4.360         | 0.872          | 11   |
| Vision & Strategy       | 1  | Decision making                       | 0              | 0 | 4  | 4  | 56 | 4.520         | 0.904          | 4    |
|                         | 2  | Planning skills                       | 0              | 0 | 4  | 46 | 50 | 4.460         | 0.892          | 7    |
|                         | 3  | Ability to give influential pep talks | 0              | 4 | 10 | 66 | 20 | 4.020         | 0.804          | 27   |
|                         | 4  | Motivational skills                   | 0              | 0 | 4  | 56 | 40 | 4.360         | 0.872          | 11   |
|                         | 5  | Sharing leadership                    | 0              | 0 | 10 | 66 | 24 | 4.140         | 0.828          | 23   |
|                         | 6  | Optimism                              | 0              | 0 | 6  | 64 | 30 | 4.240         | 0.848          | 17   |
|                         | 7  | Inspiring a shared vision             | 0              | 0 | 14 | 54 | 32 | 4.180         | 0.836          | 20   |
|                         | 8  | Doing whatever it takes               | 0              | 0 | 20 | 56 | 24 | 4.040         | 0.808          | 26   |
| Decision Making         | 1  | Knowledge                             | 0              | 0 | 0  | 40 | 60 | 4.600         | 0.920          | 2    |
|                         | 2  | Vision                                | 0              | 0 | 4  | 46 | 50 | 4.460         | 0.892          | 7    |
|                         | 3  | Problem solving                       | 0              | 0 | 2  | 36 | 62 | 4.600         | 0.920          | 2    |
|                         | 4  | Negotiation                           | 0              | 0 | 2  | 46 | 52 | 4.500         | 0.900          | 5    |
|                         | 5  | Courage                               | 0              | 0 | 10 | 44 | 46 | 4.360         | 0.872          | 11   |
|                         | 6  | Challenging the process               | 0              | 0 | 10 | 60 | 30 | 4.200         | 0.840          | 19   |
|                         | 7  | Culturally adaptable                  | 0              | 0 | 14 | 48 | 38 | 4.240         | 0.848          | 17   |
|                         | 8  | Decisiveness                          | 0              | 0 | 10 | 62 | 28 | 4.180         | 0.836          | 20   |
| Planning Skill          | 1  | Goal setting                          | 0              | 0 | 4  | 46 | 50 | 4.460         | 0.892          | 7    |
|                         | 2  | Crisis planning                       | 0              | 2 | 4  | 50 | 44 | 4.360         | 0.872          | 11   |
|                         | 3  | Prioritization                        | 0              | 4 | 4  | 52 | 40 | 4.280         | 0.856          | 16   |
|                         | 4  | Strategizing                          | 0              | 0 | 4  | 60 | 36 | 4.320         | 0.864          | 14   |
|                         | 5  | Confidence                            | 0              | 0 | 4  | 38 | 58 | 4.540         | 0.908          | 3    |
|                         | 6  | Strategic planning                    | 0              | 0 | 4  | 62 | 34 | 4.300         | 0.860          | 15   |
|                         | 7  | Networking skills                     | 0              | 0 | 4  | 42 | 54 | 4.500         | 0.900          | 5    |
|                         | 8  | Resource fullness                     | 0              | 0 | 4  | 52 | 44 | 4.400         | 0.880          | 10   |
| Relationship Mgmt Skill | 1  | Developing others                     | 0              | 0 | 10 | 60 | 30 | 4.200         | 0.840          | 16   |
|                         | 2  | Influence                             | 0              | 2 | 10 | 64 | 24 | 4.100         | 0.820          | 24   |
|                         | 3  | Communication                         | 0              | 0 | 6  | 46 | 48 | 4.420         | 0.884          | 9    |
|                         | 4  | Conflict Management                   | 0              | 0 | 16 | 38 | 46 | 4.300         | 0.860          | 15   |
|                         | 5  | Building bonds                        | 0              | 0 | 2  | 62 | 36 | 4.340         | 0.868          | 12   |
|                         | 6  | Team work & collaboration             | 0              | 0 | 4  | 52 | 44 | 4.400         | 0.880          | 10   |
|                         | 7  | Respecting individual differences     | 0              | 0 | 10 | 64 | 26 | 4.160         | 0.832          | 22   |
|                         | 8  | Change catalyst                       | 0              | 0 | 4  | 70 | 26 | 4.220         | 0.844          | 18   |
| Empathy                 | 1  | Understanding others                  | 0              | 2 | 8  | 44 | 26 | 4.175         | 0.835          | 21   |
|                         | 2  | Developing others                     | 0              | 2 | 2  | 62 | 34 | 4.280         | 0.856          | 16   |
|                         | 3  | Service orientation                   | 0              | 0 | 10 | 58 | 32 | 4.220         | 0.844          | 18   |

# International Conference On Emerging Trends in Engineering and Management Research

NGSPM's Brahma Valley College of Engineering & Research Institute, Anjaneri, Nashik(MS)

(ICETEMR-16)

23rd March 2016, www.conferenceworld.in

ISBN: 978-81-932074-7-5

|  |   |                             |   |   |    |    |    |       |       |    |
|--|---|-----------------------------|---|---|----|----|----|-------|-------|----|
|  | 4 | Leveraging diversity        | 0 | 0 | 22 | 58 | 20 | 3.980 | 0.796 | 29 |
|  | 5 | (Socio)-Political awareness | 0 | 2 | 36 | 48 | 14 | 3.740 | 0.748 | 30 |
|  | 6 | Sensitivity                 | 0 | 0 | 16 | 66 | 18 | 4.020 | 0.804 | 27 |
|  | 7 | Putting people at ease      | 0 | 0 | 6  | 72 | 22 | 4.160 | 0.832 | 22 |
|  | 8 | Encouraging the heart       | 0 | 0 | 10 | 48 | 42 | 4.320 | 0.864 | 14 |

**Table-3 The brief discussion of the different groups and skills for evaluation**

| Sub Group               | No | Skills                                | % of Frequency |    |    |    |    | Average Index | Relative Index | Rank |
|-------------------------|----|---------------------------------------|----------------|----|----|----|----|---------------|----------------|------|
|                         |    |                                       | 1              | 2  | 3  | 4  | 5  |               |                |      |
| Personal skill          | 1  | Communication skill                   | 0              | 2  | 30 | 50 | 18 | 3.840         | 0.768          | 4    |
|                         | 2  | Interpersonal skill                   | 0              | 4  | 38 | 42 | 16 | 3.700         | 0.740          | 8    |
|                         | 3  | Mentoring skill                       | 0              | 10 | 50 | 30 | 10 | 3.400         | 0.680          | 23   |
|                         | 4  | Persuasion skill                      | 2              | 8  | 54 | 28 | 8  | 3.320         | 0.664          | 27   |
|                         | 5  | Convincing skill                      | 0              | 4  | 54 | 32 | 10 | 3.480         | 0.696          | 19   |
|                         | 6  | Composure skill                       | 0              | 16 | 48 | 32 | 4  | 3.240         | 0.648          | 29   |
|                         | 7  | Cognitive skill                       | 0              | 12 | 52 | 24 | 12 | 3.360         | 0.672          | 25   |
|                         | 8  | Being a quick learner                 | 0              | 2  | 48 | 36 | 14 | 3.620         | 0.724          | 12   |
| Team building           | 1  | Controlling group performance         | 0              | 2  | 44 | 40 | 14 | 3.660         | 0.732          | 10   |
|                         | 2  | Setting an example                    | 0              | 6  | 52 | 30 | 12 | 3.480         | 0.696          | 19   |
|                         | 3  | Conflict management                   | 0              | 10 | 52 | 26 | 12 | 3.400         | 0.680          | 23   |
|                         | 4  | Listening skill                       | 0              | 10 | 42 | 36 | 12 | 3.500         | 0.700          | 18   |
|                         | 5  | Dealing with difficult people         | 0              | 12 | 44 | 32 | 12 | 3.440         | 0.688          | 21   |
|                         | 6  | Compassion                            | 0              | 4  | 54 | 34 | 8  | 3.460         | 0.692          | 20   |
|                         | 7  | Building & mending relationship       | 0              | 6  | 44 | 40 | 10 | 3.540         | 0.708          | 16   |
|                         | 8  | Confronting people                    | 0              | 0  | 48 | 40 | 12 | 3.640         | 0.728          | 11   |
| Vision & Strategy       | 1  | Decision making                       | 0              | 2  | 42 | 36 | 20 | 3.740         | 0.748          | 7    |
|                         | 2  | Planning skills                       | 0              | 2  | 40 | 44 | 14 | 3.700         | 0.740          | 8    |
|                         | 3  | Ability to give influential pep talks | 2              | 8  | 44 | 38 | 8  | 3.420         | 0.684          | 22   |
|                         | 4  | Motivational skills                   | 2              | 6  | 50 | 34 | 8  | 3.400         | 0.680          | 23   |
|                         | 5  | Sharing leadership                    | 2              | 20 | 36 | 30 | 12 | 3.300         | 0.660          | 28   |
|                         | 6  | Optimism                              | 2              | 12 | 46 | 34 | 6  | 3.300         | 0.660          | 28   |
|                         | 7  | Inspiring a shared vision             | 0              | 16 | 38 | 40 | 6  | 3.360         | 0.672          | 25   |
|                         | 8  | Doing whatever it takes               | 2              | 12 | 46 | 24 | 16 | 3.400         | 0.680          | 23   |
| Decision Making         | 1  | Knowledge                             | 2              | 0  | 22 | 52 | 24 | 3.960         | 0.792          | 1    |
|                         | 2  | Vision                                | 0              | 2  | 30 | 58 | 10 | 3.760         | 0.752          | 6    |
|                         | 3  | Problem solving                       | 0              | 2  | 46 | 40 | 12 | 3.620         | 0.724          | 12   |
|                         | 4  | Negotiation                           | 0              | 8  | 40 | 32 | 20 | 3.640         | 0.728          | 11   |
|                         | 5  | Courage                               | 0              | 10 | 36 | 44 | 10 | 3.540         | 0.708          | 16   |
|                         | 6  | Challenging the process               | 2              | 14 | 42 | 28 | 14 | 3.380         | 0.676          | 24   |
|                         | 7  | Culturally adaptable                  | 0              | 10 | 40 | 32 | 18 | 3.580         | 0.716          | 14   |
|                         | 8  | Decisiveness                          | 0              | 4  | 50 | 28 | 18 | 3.600         | 0.720          | 13   |
| Planning Skill          | 1  | Goal setting                          | 0              | 0  | 32 | 56 | 12 | 3.800         | 0.760          | 5    |
|                         | 2  | Crisis planning                       | 0              | 6  | 54 | 22 | 18 | 3.520         | 0.704          | 17   |
|                         | 3  | Prioritization                        | 0              | 8  | 52 | 24 | 16 | 3.480         | 0.696          | 19   |
|                         | 4  | Strategizing                          | 0              | 4  | 52 | 36 | 8  | 3.480         | 0.696          | 19   |
|                         | 5  | Confidence                            | 0              | 6  | 20 | 56 | 18 | 3.860         | 0.772          | 3    |
|                         | 6  | Strategic planning                    | 0              | 14 | 42 | 32 | 12 | 3.420         | 0.684          | 22   |
|                         | 7  | Networking skills                     | 0              | 12 | 40 | 36 | 12 | 3.480         | 0.696          | 19   |
|                         | 8  | Resource fullness                     | 0              | 6  | 50 | 34 | 10 | 3.480         | 0.696          | 19   |
| Relationship Mgmt Skill | 1  | Developing others                     | 2              | 4  | 58 | 22 | 14 | 3.420         | 0.684          | 22   |
|                         | 2  | Influence                             | 0              | 4  | 56 | 34 | 6  | 3.420         | 0.684          | 22   |
|                         | 3  | Communication                         | 0              | 2  | 26 | 48 | 24 | 3.940         | 0.788          | 2    |
|                         | 4  | Conflict Management                   | 0              | 6  | 54 | 38 | 2  | 3.360         | 0.672          | 25   |
|                         | 5  | Building bonds                        | 0              | 8  | 32 | 48 | 12 | 3.640         | 0.728          | 11   |
|                         | 6  | Team work & collaboration             | 0              | 8  | 36 | 40 | 16 | 3.640         | 0.728          | 11   |
|                         | 7  | Respecting individual differences     | 0              | 10 | 46 | 34 | 10 | 3.440         | 0.688          | 21   |
|                         | 8  | Change catalyst                       | 2              | 14 | 50 | 26 | 8  | 3.240         | 0.648          | 29   |
| Empathy                 | 1  | Understanding others                  | 0              | 8  | 34 | 52 | 6  | 3.560         | 0.712          | 15   |
|                         | 2  | Developing others                     | 2              | 8  | 46 | 30 | 14 | 3.460         | 0.692          | 20   |
|                         | 3  | Service orientation                   | 0              | 18 | 36 | 40 | 6  | 3.340         | 0.668          | 26   |

# International Conference On Emerging Trends in Engineering and Management Research

NGSPM's Brahma Valley College of Engineering & Research Institute, Anjaneri, Nashik(MS)

(ICETEMR-16)

23rd March 2016, www.conferenceworld.in

ISBN: 978-81-932074-7-5

|   |                             |   |    |    |    |    |       |       |    |
|---|-----------------------------|---|----|----|----|----|-------|-------|----|
| 4 | Leveraging diversity        | 2 | 10 | 54 | 30 | 4  | 3.240 | 0.648 | 29 |
| 5 | (Socio)-Political awareness | 0 | 30 | 26 | 40 | 4  | 3.180 | 0.636 | 30 |
| 6 | Sensitivity                 | 0 | 10 | 52 | 30 | 8  | 3.360 | 0.672 | 25 |
| 7 | Putting people at ease      | 0 | 2  | 42 | 48 | 8  | 3.620 | 0.724 | 12 |
| 8 | Encouraging the heart       | 0 | 2  | 44 | 38 | 16 | 3.680 | 0.736 | 9  |

**Table-4 Comparison between the level of importance and evaluation of the different groups and skills**

| Sub Group               | No | Skills                                | Level of Importance |          | Evaluation |          | Comparison |          |
|-------------------------|----|---------------------------------------|---------------------|----------|------------|----------|------------|----------|
|                         |    |                                       | Average             | Relative | Average    | Relative | Average    | Relative |
|                         |    |                                       | Index               | Index    | Index      | Index    | Index      | Index    |
| Personal skill          | 1  | Communication skill                   | 4.660               | 0.932    | 3.840      | 0.768    | -0.820     | -0.164   |
|                         | 2  | Interpersonal skill                   | 4.320               | 0.864    | 3.700      | 0.740    | -0.620     | -0.124   |
|                         | 3  | Mentoring skill                       | 4.140               | 0.828    | 3.400      | 0.680    | -0.740     | -0.148   |
|                         | 4  | Persuasion skill                      | 4.080               | 0.816    | 3.320      | 0.664    | -0.760     | -0.152   |
|                         | 5  | Convincing skill                      | 4.440               | 0.888    | 3.480      | 0.696    | -0.960     | -0.192   |
|                         | 6  | Composure skill                       | 4.200               | 0.840    | 3.240      | 0.648    | -0.960     | -0.192   |
|                         | 7  | Cognitive skill                       | 4.180               | 0.836    | 3.360      | 0.672    | -0.820     | -0.164   |
|                         | 8  | Being a quick learner                 | 4.480               | 0.896    | 3.620      | 0.724    | -0.860     | -0.172   |
| Team building           | 1  | Controlling group performance         | 4.400               | 0.880    | 3.660      | 0.732    | -0.740     | -0.148   |
|                         | 2  | Setting an example                    | 4.240               | 0.848    | 3.480      | 0.696    | -0.760     | -0.152   |
|                         | 3  | Conflict management                   | 4.180               | 0.836    | 3.400      | 0.680    | -0.780     | -0.156   |
|                         | 4  | Listening skill                       | 4.480               | 0.896    | 3.500      | 0.700    | -0.980     | -0.196   |
|                         | 5  | Dealing with difficult people         | 4.360               | 0.872    | 3.440      | 0.688    | -0.920     | -0.184   |
|                         | 6  | Compassion                            | 4.000               | 0.800    | 3.460      | 0.692    | -0.540     | -0.108   |
|                         | 7  | Building & mending relationship       | 4.320               | 0.864    | 3.540      | 0.708    | -0.780     | -0.156   |
|                         | 8  | Confronting people                    | 4.360               | 0.872    | 3.640      | 0.728    | -0.720     | -0.144   |
| Vision & Strategy       | 1  | Decision making                       | 4.520               | 0.904    | 3.740      | 0.748    | -0.780     | -0.156   |
|                         | 2  | Planning skills                       | 4.460               | 0.892    | 3.700      | 0.740    | -0.760     | -0.152   |
|                         | 3  | Ability to give influential pep talks | 4.020               | 0.804    | 3.420      | 0.684    | -0.600     | -0.120   |
|                         | 4  | Motivational skills                   | 4.360               | 0.872    | 3.400      | 0.680    | -0.960     | -0.192   |
|                         | 5  | Sharing leadership                    | 4.140               | 0.828    | 3.300      | 0.660    | -0.840     | -0.168   |
|                         | 6  | Optimism                              | 4.240               | 0.848    | 3.300      | 0.660    | -0.940     | -0.188   |
|                         | 7  | Inspiring a shared vision             | 4.180               | 0.836    | 3.360      | 0.672    | -0.820     | -0.164   |
|                         | 8  | Doing whatever it takes               | 4.040               | 0.808    | 3.400      | 0.680    | -0.640     | -0.128   |
| Decision Making         | 1  | Knowledge                             | 4.600               | 0.920    | 3.960      | 0.792    | -0.640     | -0.128   |
|                         | 2  | Vision                                | 4.460               | 0.892    | 3.760      | 0.752    | -0.700     | -0.140   |
|                         | 3  | Problem solving                       | 4.600               | 0.920    | 3.620      | 0.724    | -0.980     | -0.196   |
|                         | 4  | Negotiation                           | 4.500               | 0.900    | 3.640      | 0.728    | -0.860     | -0.172   |
|                         | 5  | Courage                               | 4.360               | 0.872    | 3.540      | 0.708    | -0.820     | -0.164   |
|                         | 6  | Challenging the process               | 4.200               | 0.840    | 3.380      | 0.676    | -0.820     | -0.164   |
|                         | 7  | Culturally adaptable                  | 4.240               | 0.848    | 3.580      | 0.716    | -0.660     | -0.132   |
|                         | 8  | Decisiveness                          | 4.180               | 0.836    | 3.600      | 0.720    | -0.580     | -0.116   |
| Planning Skill          | 1  | Goal setting                          | 4.460               | 0.892    | 3.800      | 0.760    | -0.660     | -0.132   |
|                         | 2  | Crisis planning                       | 4.360               | 0.872    | 3.520      | 0.704    | -0.840     | -0.168   |
|                         | 3  | Prioritization                        | 4.280               | 0.856    | 3.480      | 0.696    | -0.800     | -0.160   |
|                         | 4  | Strategizing                          | 4.320               | 0.864    | 3.480      | 0.696    | -0.840     | -0.168   |
|                         | 5  | Confidence                            | 4.540               | 0.908    | 3.860      | 0.772    | -0.680     | -0.136   |
|                         | 6  | Strategic planning                    | 4.300               | 0.860    | 3.420      | 0.684    | -0.880     | -0.176   |
|                         | 7  | Networking skills                     | 4.500               | 0.900    | 3.480      | 0.696    | -1.020     | -0.204   |
|                         | 8  | Resource fullness                     | 4.400               | 0.880    | 3.480      | 0.696    | -0.920     | -0.184   |
| Relationship Mgmt Skill | 1  | Developing others                     | 4.200               | 0.840    | 3.420      | 0.684    | -0.780     | -0.156   |
|                         | 2  | Influence                             | 4.100               | 0.820    | 3.420      | 0.684    | -0.680     | -0.136   |
|                         | 3  | Communication                         | 4.420               | 0.884    | 3.940      | 0.788    | -0.480     | -0.096   |
|                         | 4  | Conflict Management                   | 4.300               | 0.860    | 3.360      | 0.672    | -0.940     | -0.188   |
|                         | 5  | Building bonds                        | 4.340               | 0.868    | 3.640      | 0.728    | -0.700     | -0.140   |
|                         | 6  | Team work & collaboration             | 4.400               | 0.880    | 3.640      | 0.728    | -0.760     | -0.152   |
|                         | 7  | Respecting individual differences     | 4.160               | 0.832    | 3.440      | 0.688    | -0.720     | -0.144   |
|                         | 8  | Change catalyst                       | 4.220               | 0.844    | 3.240      | 0.648    | -0.980     | -0.196   |
| Empathy                 | 1  | Understanding others                  | 4.175               | 0.835    | 3.560      | 0.712    | -0.615     | -0.123   |
|                         | 2  | Developing others                     | 4.280               | 0.856    | 3.460      | 0.692    | -0.820     | -0.164   |

|   |                             |       |       |       |       |        |        |
|---|-----------------------------|-------|-------|-------|-------|--------|--------|
| 3 | Service orientation         | 4.220 | 0.844 | 3.340 | 0.668 | -0.880 | -0.176 |
| 4 | Leveraging diversity        | 3.980 | 0.796 | 3.240 | 0.648 | -0.740 | -0.148 |
| 5 | (Socio)-Political awareness | 3.740 | 0.748 | 3.180 | 0.636 | -0.560 | -0.112 |
| 6 | Sensitivity                 | 4.020 | 0.804 | 3.360 | 0.672 | -0.660 | -0.132 |
| 7 | Putting people at ease      | 4.160 | 0.832 | 3.620 | 0.724 | -0.540 | -0.108 |
| 8 | Encouraging the heart       | 4.320 | 0.864 | 3.680 | 0.736 | -0.640 | -0.128 |

**Table-5 The top 15 most important leadership skills**

| Sr No | Top 15 most Important Leadership skills | Group             | Sub group         | Relative Index | Rank |
|-------|-----------------------------------------|-------------------|-------------------|----------------|------|
| 1     | Communication skill                     | Leadership Skills | Personal Skill    | 0.932          | 1    |
| 2     | Knowledge                               |                   | Decision Making   | 0.920          | 2    |
| 3     | Problem solving                         |                   | Decision Making   | 0.920          | 2    |
| 4     | Confidence                              |                   | Personal Skill    | 0.908          | 3    |
| 5     | Decision making                         |                   | Vision & Strategy | 0.904          | 4    |
| 6     | Negotiation                             |                   | Decision Making   | 0.900          | 5    |
| 7     | Networking skills                       |                   | Planning Skill    | 0.900          | 5    |
| 8     | Being a quick learner                   |                   | Personal Skill    | 0.896          | 6    |
| 9     | Listening skill                         |                   | Team Building     | 0.896          | 6    |
| 10    | Planning skills                         |                   | Vision & Strategy | 0.892          | 7    |
| 11    | Vision                                  |                   | Decision Making   | 0.892          | 7    |
| 12    | Goal setting                            |                   | Planning Skill    | 0.892          | 7    |
| 13    | Convincing skill                        |                   | Personal Skill    | 0.888          | 8    |
| 14    | Communication                           |                   | Personal Skill    | 0.884          | 9    |
| 15    | Controlling group performance           |                   | Team Building     | 0.880          | 10   |

## V.CONCLUSION

Leadership is one of the most important and essential factors in good project management. Leadership is more than simply managing people or projects: it is the art of affecting other team members' behavior in order to achieve the goals and accomplish the tasks successfully

The importance of leadership skills has been achieved through questionnaire survey. Total 56 leadership skills under 7 sub groups as Personal Skill, Team Building, Vision & Strategy, Decision Making, Planning Skill, Relationship Management Skill, Empathy are studied. From The Analysis the top 15 important leadership skills are found from 56 leadership skills. and suggest to improve this skills from the comparison of level of importance and evaluation

### 1.1 Suggestion

The evaluation of Project Manager's leadership skills are generally satisfactory, but there are still a lot of space and areas that may need improvement



# International Conference On Emerging Trends in Engineering and Management Research

NGSPM's Brahma Valley College of Engineering & Research Institute, Anjaneri, Nashik(MS)

(ICETEMR-16)

23rd March 2016, [www.conferenceworld.in](http://www.conferenceworld.in)

ISBN: 978-81-932074-7-5

Communication is the process by which ideas are transmitted, received and understood by others for effecting desired result hence project manager improve the verbal communication, written order, reports by conducting seminars, meetings etc.

Planning is also most important skill, prior planning is essential for utilizing the available facilities and to improve these computer and software based on CPM and PERT such as MS-Project and primavera is used for better planning of construction project.

To improve these skill the workshop and seminar program should be arranged at proper intervals of time

## ACKNOWLEDGEMENTS

With all respect and gratitude, we would like to Special thanks to all Projects Manager's who have helped us and giving the information about leadership skill their importance in the construction project.

We express heartily gratitude towards our Guide **Prof. M.B.Murkute**, for guiding us to understand the work conceptually and also for constant encouragement to this Project work on **“STUDY THE LEADERSHIP SKILLS IN CONSTRUCTION PROJECT”**

We also express our thanks to **Prof. K.U.Saraf**, Head of department of Civil Engineering for providing necessary information and required resources.

## REFERENCES

- [1]. Abimbola Windapo, Rasaan Akintona “Establishing the relationship between construction project managers skills and project performance” 51st ASC Annual International Conference Proceedings,2015.
- [2]. Udhayakumar, Dr. P. Karthikeyan “Expected Leadership Qualities for a Project Manager to Manage Construction Projects” International Journal of Innovative Research & Development ,October 2014.
- [3]. Prof.P.P.Bhangale, Rajanikant Devalkar “Study the Importance of Leadership in Construction Projects” International Journal of Latest Trends in Engineering and Technology,3 May 2013.
- [4]. Mart-Mari Archer, Jacobs J.P. Verster & Benita G. Zulch “Leadership in Construction Project Management: Ignorance and Challenges” 5th Built Environment Conference Leadership in Construction Project Management Ignorance and Challenges,18-20 July 2010
- [5]. Kamallesh Panthi, Rizwan U. Farooqui, Syed M. Ahmed “An Investigation of the Leadership Style of Construction Managers in South Florida” 2009.
- [6]. Charles O.Skipper, M.ASCE; AND Lansford c. Bell, F.ASCE “influences impacting leadership development”22:68-74,2006.