# An Envisage on Superior-Subordinate in Construction Engineers Pertaining to Indian Context

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***Abstract:*** ***This paper examinees the concept of multiple intelligences within the organization of construction industry. This paper enhances the study of middle level management for their emotional intelligence. This study is to analyze the relationship between superior – subordinate in construction industry with leadership style, stress, team work, facing skills, time management, facing skills, communication, motivation, emotional intelligence, relationship. This paper brings out the strengths and weaknesses of middle level management in relation to developing industries. By using different methods the researchers identify various components of emotional intelligence which related to other factors at a convincing level of statistical significance. One of the major factors includes identification of interpersonal skills and empathy as key emotional intelligence which needs extra attention during the development of construction industry at middle level. SPSS is used for data analyzing.***

***Keywords: Construction Industry, Middle Level Management, Superior – Subordinate, Leadership Style, Stress, Team Work, Facing Skills, Time Management, Communication, Motivation, Emotional Intelligence, Relationship.***

## I. INTRODUCTION

Construction industry in India, said to be failing to make the best use of resources and highly resistant to change. Even though with increasing competition and difference in market, there is no clear change in methods and way of approach. In the highly fragmented construction industry there are many unorganized workers who works on contracting basis and the profitability of the construction projects varies across different segments. Real Estate construction, infrastructure building, industrial construction are the three main segments of construction industry. Few areas to which management as a discipline exists in India is known as little. The main achievement of this project is to investigate the Superior-Subordinate relationship of middle level management and the factors that affect Indian construction industry.

The Superior- subordinate relationship is the main working relationships in the industry of construction that directly force individual and project performance. More specifically, due to the complex and dynamic nature of construction work, construction workers depend more on their supervisors for task allocation and for ongoing guidance and support. This implies that worker's performance and behaviors are likely to be influenced by their supervisors and their working relationships. In practice, few project managers may not have required amount of skills and their personalities may not be equal with the demands of the work. The leadership style in dealing with subordinates may not be preferred. Mainly in the area of construction, teamwork is required in most of the task and projects, supervision done by superiors and constant communication among the superior and subordinates. Superior allots various tasks to subordinates and provides guidance to subordinates, good relationship among them may leads to better outcomes for the organizations. Still, even though communication doesn't play a major role among superiors to subordinates but it helps in shaping these relationships.

Desired greater work and production outcomes in subordinates are always useful, but they will not happen always. For appropriate types of leadership people will respond effectively. The proper style will lead them to work efficiently. The workplace relationship in construction industry is unique interpersonal relationship with significant involvement for the individuals in the relationship and the organization in which the relationship exists and develops. Many ways for understanding the nature of superior-subordinate relationships are available in the leadership literature one of them is the concept of relationship with a superior at the work place.

## II. METHODOLOGY

The study of literature is done in order to find the factors that affect the relationship between superior - subordinate. Factors are segregated from various literature and relative important index (RII) is used for ranking of factors and adoption of factors. This research is done using primary data. This method includes more accurate information with real time data directly from the respondents so it is also called as detective approach. In this method the data collection is done. When compared, primary data which takes a longer time to gather the data. The study is aimed to a specific area which is the relationship between superior – subordinate. A research work generally uses two types of designs namely descriptive and exploratory. The research studies about finding solutions and utilizing the approaches based on measurable and statistics which are a part of descriptive design.

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The problem which cannot be identified properly is addressed by utilizing exploratory design. In this study, both quantitative and qualitative aspects are identified from the data that is collected and then it is analyzed utilizing an exploratory design. By doing so, solution for the research question is measured.

Questionnaire was circulated among the employees of various construction industries in India. Participants in this current research focused on middle level management. The questionnaire was distributed to 200 samples in that there were 160 respondents that includes both superiors and subordinates. Response rate is 80%.

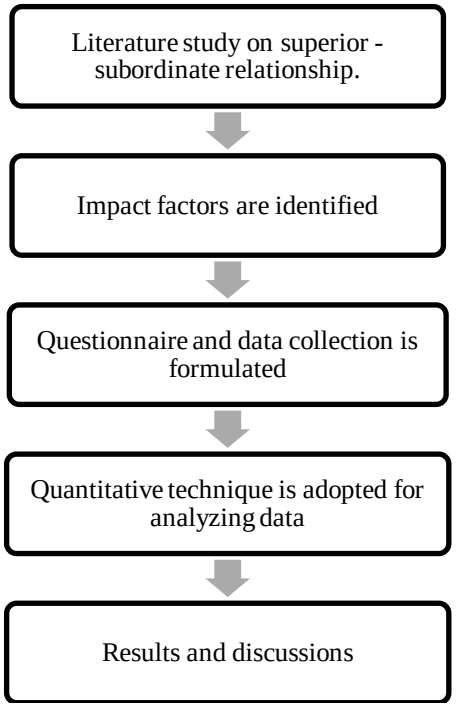


**Figure 1** Flowchart of Methodology

## III. EXPLANATION OF ANALYSIS METHOD

Descriptive statistics is that the discipline of quantitatively describing the most options of a group of knowledge, or the quantitative description itself. Samples are collected with 160 staff in middle level management are shown as a sample and apply some measures that may be used like are normally accustomed describe a knowledge set. There are totally different measures of central tendency and measures of variability and dispersion. Measures of central tendency embrace the mean, median and mode, whereas measures of variability embrace the quality deviation (or variance), the minimum and most values of the variables, kurtosis and skewness.

Reliability test refers to the extent to that a scale produces consistent results, if the measurements are continual variety of times. The analysis on dependableness is termed reliability analysis. Analysis is set by getting the proportion of systematic variation in a very scale, which might be done by determinant the association between the scores obtained from totally different administrations of the dimensions. Thus, if the association in dependableness analysis is high, the dimension yields consistent results and is so reliable.

Correlation may be a applied math technique which will show whether or not and the way powerfully pairs of variables are connected. The connection isn't good. Pearson's correlation determines the degree to that a relationship in linear place differently. It determines whether there's a linear part of association between 2 continuous variables. As such, dimensionality isn't really associate assumption of Pearson's corr1elation. However, you'd not usually wish to pursue a Pearson's correlation to see the strength and direction of a linear relationship once you already understand the connection between your 2 variables isn't linear.

## IV. DATA ANALYSIS

### A. Demographic Profile

Table 1 shows the demographic details of the respondents

**Table 1** Demographic Details

| S.No | PARTICULARS | FREQUENCY |
|---|---|---|
| 1 | **Gender** | |
| | Male | 108 |
| | Female | 52 |
| 2 | **Age (Years)** | |
| | 18 – 28 yrs | 100 |
| | 28-38 yrs | 60 |
| 3 | **Educational Qualification** | |
| | Diploma | 36 |
| | Under Graduate | 64 |
| | Post Graduate in Engineering | 52 |
| | Post Graduate in Management | 8 |
| 4 | **Salary (per month)** | |
| | Less than Rs. 10,0000 | 16 |
| | Rs.10000 - Rs.20000 | 36 |
| | Rs.20000 – Rs.30000 | 49 |
| | Rs.30000 – Rs.40000 | 39 |
| | Rs.40000 & above | 20 |
| 5 | **Department** | |
| | Site | 56 |
| | Planning | 28 |
| | MEP | 36 |
| | Design | 28 |
| | Consultant | 12 |

### B. Descriptive analysis

The study identified nine factors influencing Superior – Subordinate Relationship in construction industry namelyLeadership Style, Facing Skills, Team Work, Emotional Intelligence, Stress, Time Management, Communication, Motivation and Relationships.

In total 27 items were used to measure these nine factors. The items were measured using Likert scale rating scale with range of values from 1 to 5

It is very clear that from the Table 2 Communication was the top rated factor with mean value of 4.56, followed by Stress with a mean value of 4.4. Time Management was the third rated factor with mean rating of 4.37. The factor Leadership received a mean rating of 4.37 and Relationships scored 4.32. Motivation and Emotional Intelligence was the least rated factor with mean value of 3.99 each. Skewness value for all the factors lie with threshold limit of -1 to +1.

Similarly, Kurtosis value was also within the prescribed limit of -3 to +3 for all the factors governing Superior – Subordinate Relationship in construction industry. This indicates that the data is normal and suitable for further statistical analysis.

**Table2. Descriptive Statistic**

| Factor | Minimum | Maximum | Mean | Standard Deviation | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Leadership Style | 2.80 | 5.00 | 4.3721 | .54241 | -.687 | -.443 |
| Facing Skills | 2.60 | 5.00 | 4.0955 | .53137 | -.641 | .022 |
| Team Work | 2.60 | 4.67 | 4.0456 | .46768 | -.780 | -.128 |
| Emotional Intelligence | 2.80 | 5.00 | 3.9944 | .45716 | -.464 | .284 |
| Stress | 3.75 | 4.50 | 4.4000 | .21573 | -.917 | 1.798 |
| Time Management | 2.80 | 5.00 | 4.3756 | .42023 | -.914 | 1.778 |
| Communication | 3.00 | 5.00 | 4.5663 | .29351 | -.939 | 1.979 |
| Motivation | 2.80 | 4.67 | 3.9999 | .40074 | -.783 | .191 |
| Relationships | 3.00 | 5.00 | 4.3254 | .42087 | -.551 | .296 |

### C. Reliability Analysis

The reliability of the questionnaire used in the study was assessed using coefficient of reliability "Cronbach's Alpha'. The value of Cronbach's Alpha ranges from zero to one. The greater the value of Cronbach's alpha towards one, the better the reliability of the questionnaire (Nunnally 1975). A Cronbach Alpha value of above 0.7 is an indication about the reliability of the questionnaire. Table 3 shows that the Cronbach's alpha scores for the factors in the study. Hence, it is confirmed that the questionnaire survey in this current study is reliable and can be adoptable with the sample of respondents.

**Table3. Reliability Analysis**

| Variable | No. of Items | Cronbach's Alpha |
|---|---|---|
| Leadership Style | 4 | .711 |
| Facing Skills | 4 | .822 |
| Team Work | 2 | .774 |
| Emotional Intelligence | 2 | .862 |
| Stress | 3 | .731 |
| Time Management | 3 | .846 |
| Communication | 3 | .720 |
| Motivation | 3 | .784 |
| Relationships | 3 | .779 |

### D. Correlation Analysis

The purpose of Correlation Analysis is analyzing the existence of relationship among study variables consisting of Superior – Subordinate Relationship Factors in Construction Industry. From the table 4, it is evident that all the factors are significantly (positively) correlated with each other. The level of significance of correlation was 0.05 level.

**Table4. Correlation Analysis**

| | Leadership Style | Facing Skills | Team Work | Emotional Intelligence | Stress | Time Management | Communication | Motivation | Relationships |
|---|---|---|---|---|---|---|---|---|---|
| **Leadership Style** | 1 | | | | | | | | |
| **Facing Skills** | .630** | 1 | | | | | | | |
| **Team Work** | .283** | .330** | 1 | | | | | | |
| **Emotional Intelligence** | .203** | .305** | .636** | 1 | | | | | |
| **Stress** | .165* | .314** | .418** | .371** | 1 | | | | |
| **Time Management** | .299** | .109 | .213** | .373** | .241** | 1 | | | |
| **Communication** | .121 | .122 | .277** | .255** | .403** | .165* | 1 | | |
| **Motivation** | .220** | .267** | .350** | .395** | .301** | .365** | .299** | 1 | |
| **Relationships** | .361** | .304** | .183* | .311** | .211** | .387** | .324** | .369** | 1 |

## V. CONCLUSION

The aim of the project work was analyzing the Superior – Subordinate Relationship in Small Medium Enterprise (SME) construction industry. The study was conducted with selected construction companies. The study used descriptive research design and a survey instrument developed by the researcher was used to collect responses from the randomly selected 160 employees of construction companies.

The study collected data related to the demographic profile and general information of the respondents like gender, age, qualification, income and department. As an outcome of an in-depth review of literature, the study identified nine factors that are determined to be influencing the Superior – Subordinate Relationship in construction industry namely Leadership Style, Facing Skills, Team Work, Emotional Intelligence, Stress, Time Management, Communication, Motivation and Relationship.

The descriptive statistics of the Superior – Subordinate Relationship Factors show that the factors like Communication (M=4.56), Stress (M=4.4), Time Management (M=4.37), Leadership (M=4.37) and Relationships (M=4.32) were the top rated factors.The respondent of the study feel that better Superior – Subordinate Relationship requires two way and open Communication between Superior and Subordinates. The employees believed that Job related Stress significantly impacts the Superior – Subordinate Relationship. Good communication between superior – subordinate will improve healthy organizational climate & high productivity. It is also effective communication to his career further. With the help of proper communication we can help in Problem solving, conflict-resolution strategies & to know about construction employee behavior. To improve skills such as managerial skills, technical skills, personal skills, legal skills we need to have a good understanding with superior. Better understand similarities and differences in leader and manager attributes desired by project managers and superintendents.

The relationship of superior- subordinate leads towards the successful project and healthy organisation in Indian construction industry is discussed. From various superior –subordinate as studied by the research, it was revealed that there is no strong relationship significance is found out in Indian construction industry. Superior should hold the subordinate responsibility in the project completion. If organization has its own missions and goals it is superior people in the organization must appropriately make subordinate to follow the goals such that every employee in the company will be empowered to desired goals. Characteristically it was found in study that significantly superior –subordinate relationship is improved efficiency of the project is improved as well the profit for organization. However emotional intelligence is a factor that affects the superior – subordinate relationship with a high profile.

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